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October 12, 2022

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, PA 17120

VIA ELECTRONIC FILING

RE: Citizens' Electric Company of Lewisburg, PA – Supplement No. 152 to Tariff Electric – Pa. P.U.C. No. 14; Docket No. R-2022-3032369

Dear Secretary Chiavetta:

Attached please find for filing with the Pennsylvania Public Utility Commission the electronic versions of Citizens' Electric Company of Lewisburg, PA's ("Citizens"), Pre-Served Testimony in the above-referenced proceeding (as such Testimony has been accepted into the evidentiary record). The Testimony is as follows:

- Verification of Howard S. Gorman
- Verification of Dylan W. D'Ascendis
- Verification of Melissa Sullivan
- Verification of John Kelchner
- Verification of Kathy Stauder
- Verification of Nathan Johnson
- Direct Testimony of Howard S. Gorman (Citizens' Statement No. 1)
- Direct Testimony of Dylan W. D'Ascendis (Citizens' Statement No. 2)
- Direct Testimony of Melissa Sullivan (Citizens' Statement No. 3)
- Direct Testimony of John Kelchner (Citizens' Statement No. 4)
- Direct Testimony of Kathy Stauder (Citizens' Statement No. 5)
- Direct Testimony of Nathan Johnson (Citizens' Statement No. 6)
- Corrections and Updates Testimony of Howard S. Gorman (Citizens' Statement No. 1-CU)
- Rebuttal Testimony of Howard S. Gorman (Citizens' Statement No. 1-R)
- Rebuttal Testimony of Dylan W. D'Ascendis (Citizens' Statement No. 2-R)
- Rebuttal Testimony of Melissa Sullivan (Citizens' Statement No. 3-R)
- Rebuttal Testimony of John Kelchner (Citizens' Statement No. 4-R)
- Rebuttal Testimony of Kathy Stauder (Citizens' Statement No. 5-R)

Rosemary Chiavetta, Secretary
October 12, 2022
Page 2

As evidenced by the attached Certificate of Service, all parties to this proceeding are being duly served with a copy of this document. Thank you.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Adeolu A. Bakare', with a long horizontal flourish extending to the right.

Adeolu A. Bakare
MCNEES WALLACE & NURICK LLC

Counsel to Citizens' Electric Company of Lewisburg, PA

c: Administrative Law Judge Eranda Vero (via email)
Administrative Law Judge Charece Z. Collins (via email)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I am this day serving a true copy of the foregoing document upon the participants listed below in accordance with the requirements of Section 1.54 (relating to service by a participant).

VIA E-MAIL

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Adeolu A. Bakare

Counsel to Citizens' Electric Company of
Lewisburg, PA

Dated this 12th day of October, 2022, in Harrisburg, Pennsylvania.

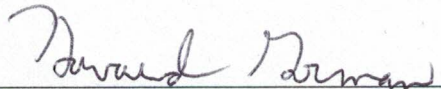
**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA and Valley Energy Company	:	
	:	

VERIFICATION

I, Howard S. Gorman, hereby state that the facts set forth in Citizens' Electric Company of Lewisburg, PA ("Citizens") Statement No. 1 (Direct Testimony), Citizens' Statement No. 1 (CU) (Corrections and Updates Testimony) and Citizens' Statement No. 1R (Rebuttal Testimony); and Valley Energy Inc. ("Valley") Statement No. 1 (Direct Testimony), Valley Statement No. 1 (CU) (Corrections and Updates Testimony) and Valley Statement No. 1R (Rebuttal Testimony); and various responses to discovery, are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 2022-09-07



Signature

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA and Valley Energy Company	:	
	:	

VERIFICATION

I, Dylan W. D'Ascendis, hereby state that the facts set forth in Citizens' Electric Company of Lewisburg, PA ("Citizens") Statement No. 2 (Direct Testimony) and Citizens' Statement No. 2R (Rebuttal Testimony); and Valley Energy Inc. ("Valley") Statement No. 2 (Direct Testimony) and Valley Statement No. 2R (Rebuttal Testimony); and various responses to discovery, are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: _____

9/7/2022



Signature

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA and Valley Energy Company	:	
	:	

VERIFICATION

I, Melissa Sullivan, hereby state that the facts set forth in Citizens' Electric Company of Lewisburg, PA ("Citizens") Statement No. 3 (Direct Testimony) and Citizens' Statement No. 3R (Rebuttal Testimony); and Valley Energy Inc. ("Valley") Statement No. 3 (Direct Testimony) and Valley Statement No. 3R (Rebuttal Testimony); and various responses to discovery, are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date: September 7, 2022

Melissa Sullivan
Signature

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**


Pennsylvania Public Utility Commission :
 :
 v. : **Docket Nos. R-2022-3032369**
 :
Citizens' Electric Company of Lewisburg, PA :

VERIFICATION

I, Nathan Johnson, hereby state that the facts set forth in Citizens' Electric Company of Lewisburg, PA ("Citizens") Statement No. 6 (Direct Testimony), and various responses to discovery, are true and correct to the best of my knowledge, information, and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date:

9/7/2022



Signature

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-_____
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**DIRECT TESTIMONY
AND EXHIBITS
OF
HOWARD S. GORMAN**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022

- To present the Company's proposed revenue allocation and the proposed Rates and Charges that produce the overall revenue requirement and the class revenue targets, and the proof of revenue and bill comparisons at the proposed rates.

The rates proposed in this filing are for the FPFTY; the FPFTY Revenue Requirement and Rate Base were determined for distribution only. Revenue and costs related to Citizens' Generation Supply Service Rate ("GSSR") were excluded from the analysis.

Q. What FPFTY, FTY and HTY were used?

A. The HTY is Citizens' actual results for calendar year 2021. The FTY is Citizens' forecast for 2022 and the FPFTY is Citizens' forecast for 2023. Citizens' uses a calendar year for financial reporting.

Q. Please summarize the results of your testimony regarding Citizens' revenue requirement.

A. Under its present rates, Citizens' is forecast to have Net operating income of \$321,776 in FPFTY 2023, representing a return on rate base of 2.31%. To produce the return of 7.76% that Company witness Mr. D'Ascendis recommends would require an increase in revenue of \$1,134,250, an increase of 22.1% in Distribution revenue.

In the interest of moderating the effect on customers, Citizens' is requesting an increase of just under \$1,000,000 (proposed rates would produce an increase of \$999,270), an increase of 19.5%, to produce a return on rate base of 7.11% in the FPFTY. See Exhibit__ (HSG-1), Schedule C1.

The revenue produced by the proposed rates in the FPFTY, \$6,129,090 (plus \$87,361 Other revenue, for total revenue of \$6,216,451) would recover the costs forecast to be incurred by Citizens' in the FPFTY, including a return on rate base of 7.11% (Schedule C1).

1 **Q. Please summarize the purpose and results of the allocated class cost of service study.**

2 A. The purpose of an allocated class cost of service study ("ACOS") is to assign, on a cost-
3 causation basis, the total distribution revenue requirement among the rate classes. The
4 results of Citizens' ACOS are presented on Schedule E-1. This schedule shows, for each
5 rate class, FPFTY net income at present rates (line 7), return on rate base at present rates
6 (line 11), the revenue requirement to produce a return of 7.11% (line 13) and the increase
7 or decrease in revenue to achieve the class revenue requirement (line 28). The Company
8 used the results of the ACOS to allocate the proposed increase among customer classes to
9 move the classes closer to the cost-to-serve as indicated in the ACOS.

10 **Q. Please summarize the proposed revenue allocation and rate design.**

11 A. The Company's proposed revenue target for each class is presented on Schedule B6-4, line
12 23, and the proposed increases are on line 35. This schedule also presents other information
13 about the increase, which I discuss later in this testimony.

14 The Company's proposed rates are presented on Schedule B6-3, lines 12-21, and also on
15 Schedule B7. Schedule B6-3 demonstrates that the proposed rates produce the class
16 revenue targets (compare lines 29 and 30; differences due to rounding).

17 **Q. Please describe the approach used to develop the revenue requirement and the
18 proposed rates.**

19 A. *First*, the FTY and FPFTY forecast of sales and distribution revenue was developed.
20 Information about HTY sales and revenue was obtained from Citizens' accounting and
21 financial records. Summary information on sales and revenues is presented in Schedule B.
22 Information for HTY 2021 is on Schedule B1, with computations on Schedule B1-1;
23 Schedule B4 presents a reconciliation of HTY 2021 revenue to Citizens' financial

1 statements. Sales and revenue information for FTY 2022 is on Schedule B2, with
2 supporting computations on Schedule B2-1. Sales and revenue information for FPFTY
3 2023 is on Schedule B3, with supporting computations on Schedule B3-1.

4 *Second*, costs were obtained for the HTY, and forecasted costs were obtained for the FTY
5 and FPFTY. These costs, detailed by account, are presented on Schedule C1-1.

6 *Third*, the Rate Base for the HTY, FTY and FPFTY was developed, using information for
7 the HTY, projected capital expenditures for the FTY and FPFTY and computing annual
8 depreciation expense. In addition, accumulated deferred income taxes, excess deferred
9 income taxes, cash working capital allowance and other rate base components were
10 computed. These computations are shown on Schedule C1-6.

11 *Fourth*, the required Net Utility Operating Income was developed using the FPFTY costs
12 and rate base, and the required rate of return developed by Mr. D'Ascendis, 7.76%. FPFTY
13 revenue of \$6,351,431 (including Other revenue) is needed to produce the 7.76% rate of
14 return. These results are presented in Schedule C1, which also shows the rate of return for
15 the HTY, FTY and FPFTY at present rates.

16 To mitigate the effect in customers, Citizens' is proposing rates that increase revenue by
17 just under \$1,000,000, to produce a return of 7.11%.

18 *Fifth*, the ACOS (presented in Schedule E) was performed to develop the share of the total
19 revenue requirement attributable to each rate class.

20 *Finally*, proposed rates were developed that produce the required FPFTY revenue. The
21 proposed rates are shown on Schedules B6-3 and B7. The amounts that typical ratepayers
22 can expect to pay under the proposed rates are compared to the amounts they would pay
23 under the present rates on Schedule B8 (including the present GSSR rate), Schedule B8-1

1 (excluding GSSR) and B8-2 (including the proposed GSSR rate effective June 1, 2022.).
 2 Schedule B6-3 demonstrates that the proposed rates produce the required revenue.

3 **Q. What are the reasons that Citizens' needs an increase in rates at this time?**

4 A. Schedule C5-1 presents the financial drivers for the requested rate increase by comparing
 5 the FPFTY to the final results of Citizens' prior rate case, Docket R-2019-3008212. The
 6 increase is driven primarily by increased operating costs and decreased revenues.

7 **Q. What service classifications does Citizens' use to report sales and revenue?**

8 A. Citizens' reports sales and revenue using the following service classifications:

Residential	<ul style="list-style-type: none"> • Schedule RS- Residential
Commercial and Industrial	<ul style="list-style-type: none"> • Schedule GLP1 – General Light and Power Service • Schedule GLP3 – General Light and Power Service • Schedule SH – Space Heating
Lighting	<ul style="list-style-type: none"> • Schedule MBL – Municipal Boulevard Lighting • Schedule OL – Outdoor Lighting

9

10 **Q. What types of charges are in the current Tariff?**

11 A. *Schedule RS* rates include a fixed monthly charge, a volumetric (kWh-based) distribution
 12 charge and the volumetric GSSR charge.

13 *Schedule SH* rates include a fixed monthly, a volumetric (kWh-based) distribution charge
 14 and the volumetric GSSR charge.

15 *Schedule GLP-1* rates include a fixed monthly, a volumetric (kWh-based) distribution
 16 charge, a demand (kW-based) charge and the volumetric GSSR charge. The demand
 17 charge is the greater of 1) actual demand for the month based on the highest 15-minute
 18 interval and 2) 50% of the maximum billed demand in the previous 11 months.

19 *Schedule GLP-3* rates include a fixed monthly, a demand charge, a volumetric distribution
 20 (kWh-based) charge, a demand (kW-based) charge and the volumetric GSSR charge. The

1 volumetric distribution charge has two blocks, with the first block comprised of 30 kWh
2 times the customer's billed demand for the month. The demand charge is the greater of 1)
3 actual demand for the month based on the highest 15-minute interval and 2) 50% of the
4 maximum billed demand in the previous 11 months. Some GLP-3 customers are also
5 subject to a reservation charges and / or a high voltage discount.

6 *Schedule MBL* rates include fixed monthly charges based on the number of meters
7 (installations) and the number of lamp posts, plus the volumetric GSSR charge.

8 *Schedule OL* rates are fixed monthly charges per lamp and the volumetric GSSR charge.

9 All customers are billed monthly.

10 **Q. Is the Company proposing any rate structure changes?**

11 A. No, the Company is not proposing any rate structure changes.

12 **HTY INFORMATION**

13 **Q. Please identify and describe the exhibits that show HTY sales and revenue.**

14 A. Schedule B shows total revenue by customer type for HTY 2021, and distribution-only
15 revenue for HTY 2021, FTY 2022 and FPFTY 2023. HTY total revenue is \$13,759,137
16 based on Citizens' financial records. The HTY distribution-only amounts equal the total
17 revenue amounts minus GSSR revenue. The HTY total revenue amounts are from
18 Schedule B1, which is supported by detailed computations on Schedule B1-1, using present
19 rates and HTY billing units. The billing units are sales in kWh, numbers of customer bills
20 and demand in kW.

21 **Q. Please describe the HTY information regarding costs.**

22 A. Schedule C1-1 shows the details of operating expenses for the HTY. This exhibit is
23 described in detail later in my testimony.

1 **Q. Please describe the HTY information regarding rate base and Rate of Return.**

2 A. Schedule C1-6 computes the rate base for the HTY. Schedule C1 shows the return on rate
3 base for the HTY 2021 was 4.49% for distribution-only.

4 **FTY AND FPFTY SALES AND REVENUE**

5 **Q. Please identify and describe the exhibits that show FTY 2022 and FPFTY 2023 sales**
6 **and revenue at present rates.**

7 A. Information on sales and revenue is presented in Schedule B. Various rates were in effect
8 during the HTY 2021, pursuant to the Commission's directive to implement rates that
9 reflected the lower Federal income rates of the Tax Cut and Job Act ("TCJA"). The
10 computation of revenue on these schedules reflects the rates in effect December 31, 2021.

11 In this testimony, "sales" measures kWh delivered.

12 Information for HTY 2021 is on Schedule B1, with computations on Schedule B1-1. Sales
13 were approximately 167 million kWh, with approximately 312,000 kW billed demand.

14 The FTY 2022 sales forecast, including number of customers, kWh and kW demand, was
15 developed separately for each rate class.

16 *Schedule RS Residential* reflects average sales per customer over 2019-2021, times average
17 number of customers in 2021, plus expected growth of 13 customers.

18 *Schedule SH Space Heating* reflects the class average over 2019-2021.

19 *Schedules GLP-1 and GLP-3* reflect the class averages over 2019-2021, plus expected
20 growth of 7 customers in GLP-1, and further adjusted for known and reasonably
21 measurable changes due to customer additions, customer losses and customer net usage.

1 **Q. Did you prepare a schedule comparing the OPEB included in rates to the OPEB**
2 **expense for years since 2010, as required for Citizens' 2016 case by the Stipulation of**
3 **Settlement in Docket 2010-2172665, Section III-16-b?**

4 A. Yes. The Company has presented this information even though the requirement applied
5 only to a prior rate case. This information is presented on Schedule C1-5.

6 **Q. How did you compute Depreciation expense for FTY 2022 and FPFTY 2023?**

7 A. Schedule C3, Pages 1-3 shows the asset values at original cost in PAPUC / FERC account
8 detail for year-end 2015 through the end of FPFTY 2023. Costs through December 31,
9 2021 are actual, and FTY and FPFTY reflect planned capital expenditures.

10 Schedule C3, Pages 4-6 shows the depreciation rate applicable to each account, and for
11 years 2015 through FPFTY 2023, shows depreciation expense and accumulated
12 depreciation. The annual depreciation expense for each asset account was computed by
13 multiplying X) the depreciation rate for the asset account times Y) original cost at prior
14 year end plus one-half of the additions for the year. The total FPFTY depreciation expense
15 is \$1,244,116; this amount is carried forward to Schedule C1.

16 Schedule C4 shows the Reserve for Depreciation at the ends of the HTY, FTY and FPFTY.

17 **Q. How did you compute Taxes other than income for FTY 2022 and FPFTY 2023?**

18 A. Schedule C1-3 shows the components of Taxes other than income.

19 The Pennsylvania Use Tax and the PUC Assessment are assumed to be the same in FTY
20 and FPFTY as in HTY. The Public Utility Realty Tax is assumed to change in relation to
21 Net plant. The Pennsylvania Gross Receipts Tax ("GRT") is computed by applying the tax

1 rate of 5.90% to the applicable revenue for each year.¹ The FTY and FPFTY totals are
2 carried forward to Schedule C1.

3 **Q. How did you compute Rate case expense amortization?**

4 A. Rate case expense amortization reflects normalized rate case expense. Expenses for the
5 pending rate case, if fully litigated, are estimated at \$384,500 and a three-year
6 normalization period was determined to be reasonable, starting January 1, 2023 (the start
7 of the FPFTY). The computation is shown on Schedule C1-3 and the result is carried
8 forward to Schedule C1-1, Account 928 (line 34), Regulatory Commission Expense.

9 **Q. Is the recovery of extraordinary costs associated with the Coronavirus pandemic also**
10 **included in Regulatory Commission Expense?**

11 A. Yes, this account also includes recovery of extraordinary costs associated with the
12 Coronavirus pandemic, pursuant to the Commission's Orders in Docket P-2020-3023523
13 and Docket No. M-2020-3019775. The computations are on Schedule C1-7, and carried
14 forward to Schedule C1-3, to be include in Regulatory Commission expense.

15 • Carrying costs on higher receivables- During 2020-2021, accounts receivable
16 balance averaged \$113,180 higher than during 2018-2019. The higher accounts
17 receivable balance, and the related carrying costs, are an extraordinary cost that
18 the Company incurred due to the pandemic. The carrying costs total \$19,958 as
19 of December 31, 2022 (Schedule C1-7, lines 1-2).

20 • Out of pocket costs- The Company identified \$9,838 of costs directly related to
21 the pandemic, mainly hand sanitizers, cleaning and masks. The Company also
22 waived \$19,019 of late fees, of which 35% are estimated to be applicable to

¹ The effective tax rate is calculated using the 59 mills GRT.

1 protected customers. The items, plus carrying costs through December 31,
2 2022, total \$17,774 (lines 3-4).

3 The Company incurred these extraordinary costs due solely to the pandemic, and now seeks
4 recovery of the costs. The Company proposes to recover the costs, plus carrying costs
5 through the recovery period, over three years; the annual amount of \$14,578 is in
6 Regulatory Commission Expense (line 7), carried to Schedule C1-3, line 20 and Schedule
7 C1-1, line 34).

8 **Q. How did you compute the FTY and FPFTY Income tax expense?**

9 A. Income tax expense for the FTY and FPFTY is computed on Schedule C1-4.

10 Net operating income before income taxes (line 1), is from Schedule C1, line 25.

11 Synchronized interest expense (lines 3-8) is computed by taking the rate base (Schedule
12 C1, line 30) excluding Construction Work in Progress (Schedule C1-6, line 5) and
13 multiplying by the weighted cost of debt (Schedule C1-2).

14 Taxable income before depreciation tax adjustments (line 9) is equal to Net operating
15 income before income taxes less Synchronized interest expense.

16 Regulatory Pennsylvania taxable income and Regulatory Pennsylvania tax expense are
17 computed using the Full flow through method; that is, tax depreciation is used in the
18 computation. The Pennsylvania depreciation adjustment (lines 11-14) reflects the
19 depreciation expense on Citizens' Pennsylvania tax return and is computed using the double
20 declining balance method applied to tax basis and tax life (just as on the tax return).

21 Regulatory Pennsylvania taxable income (line 15) is equal to Taxable income before
22 depreciation tax adjustments as adjusted by the Pennsylvania depreciation adjustment.

1 Regulatory Pennsylvania income tax expense (line 16) is equal to Regulatory Pennsylvania
2 taxable income times the statutory 9.99% rate.

3 Regulatory Federal taxable income and Regulatory Federal tax expense are computed using
4 a modified Full flow through method; that is, a modified tax depreciation amount is used
5 in the computation. The Federal depreciation adjustment (lines 19-21), reflects straight
6 line depreciation applied to tax basis and tax life. Federal taxable income (line 26) is equal
7 to Taxable income before depreciation tax adjustments as adjusted by the Federal
8 depreciation adjustment and less Regulatory Pennsylvania tax expense. Regulatory
9 Federal income tax (line 27) is equal to Regulatory Federal taxable income times the
10 statutory 21% rate.

11 Federal income tax expense in the revenue requirement is reduced by the EDIT accretion
12 (line 28), which is discussed below.

13 Regulatory Total income tax expense (line 29) is equal to Regulatory Pennsylvania income
14 tax expense plus Regulatory Federal income tax expense, and is carried forward to
15 Schedule C1, line 27.

16 **Q. Does the computation of income tax expense included in the revenue requirement**
17 **comply with Act No. 40 of 2016, which amends the Public Utility Code regarding the**
18 **treatment of income tax expense for ratemaking purposes?**

19 A. Yes. The computation of income tax expense for ratemaking purposes, presented on
20 Schedule C1-4 (i.e., in the revenue requirement), reflects a tax deduction for each item of
21 expense of investment (i.e., depreciation expense) in the revenue requirement. In addition,
22 there are no items that reduce the income tax expense for ratemaking purposes, or increase
23 the deferred tax liability, other than reflected in the revenue requirement.

1 **Q. Did you compute the Net Utility Operating Income and Return on Rate Base at**
2 **present rates?**

3 A. Yes. Schedule C1, line 28 and Schedule C5, line 14 show Net Utility Operating Income at
4 Present Rates for the HTY, FTY and FPFTY. Schedule C1, line 31 shows Return on Rate
5 Base for distribution-only at present rates of 4.49% for the HTY, 4.41% in FTY 2022 and
6 2.31% in FPFTY 2023.

7 **RATE BASE FOR THE FTY AND FPFTY**

8 **Q. How did you develop the Rate Base?**

9 A. The Rate Base at the end of the HTY, FTY and FPFTY is presented in Schedule C1-6.
10 Assets at original cost and accumulated depreciation are carried forward from Schedule
11 C3. Schedule C3 shows assets at original cost at the end of the HTY (December 31, 2021)
12 and adds forecast capital expenditures to compute assets at the end of the FTY (December
13 31, 2022) and the FPFTY (December 31, 2023). Annual depreciation expense is computed
14 as stated above. Accumulated depreciation at each year-end is computed by adding annual
15 depreciation expense, and subtracting retirements, to the previous year-end balance.

16 The adjustments to Rate Base for Construction Work in Progress, Customer Deposits and
17 Materials and Supplies, were taken from the Balance Sheets for the HTY, FTY and FPFTY
18 presented in Schedule C2. The HTY information is from Citizens' financial statements at
19 December 31, 2021. These items were estimated to be the same for the FTY and the
20 FPFTY as for the HTY.

21 The rate base includes a reduction for Accumulated Deferred Income Taxes ("ADIT"),
22 equal to the difference between Accumulated depreciation based on X) Depreciation used
23 to compute the Federal tax expense borne by ratepayers (i.e., using straight line method

1 discussed above) and Y) Depreciation used to compute Citizens' actual tax Federal tax
2 expense (i.e., based on double declining balance method), times the current Federal income
3 tax rate. The ADIT is computed on Schedule C1-6, lines 27-32 and carried up to line 6.

4 In addition, the rate base includes a reduction for Excess Deferred Income Taxes ("EDIT"),
5 equal to the ADIT at December 31, 2017, the initial effective date of Federal income tax
6 rates under the TCJA, times the reduction in Federal income rates due to the TCJA. The
7 EDIT reflects the benefit the Company received by taking depreciation expense when the
8 Federal tax rate was 34% and including in the revenue requirement the tax benefit
9 applicable at the current rate of 21%, based on the balances at December 31, 2017. The
10 EDIT is computed on Schedule C1-6, lines 34-39 and carried up to line 7.

11 Citizens' has been accreting the balance over the estimated remaining book life of the
12 assets, ten years 2018-2027, and the EDIT balance that is included in rate base declines
13 each year. Annual EDIT accretion (Schedule C1-6, line 40) is carried forward to reduce
14 Income tax expense (Schedule C1-4, line 28).

15 The rate base includes a reduction for Accrued Pension / OPEB liability, reflecting the
16 excess of amounts charged to expense over amounts paid in case (Schedule C1-6, lines 42-
17 46, carried up to line 9).

18 Cash Working Capital was determined by using the widely-accepted formula of 1/8 of non-
19 fuel cash operating costs (Schedule C1-6, lines 15-25, carried up to line 12).

20 The total Rate Base, Schedule C1-6, line 13, is carried forward to Schedule C1, line 30.

21 **NET UTILITY OPERATING INCOME**

22 **Q. What revenue is included in the distribution revenue requirement?**

23 A. The revenue requirement includes:

- 1 ▪ Electric operating revenue: Revenue from distribution of electricity, including
2 exchange with other utilities.
- 3 ▪ Other Revenue: Other revenue includes Forfeited Discounts (late payment charges),
4 Revenue from rental of electric property and Miscellaneous revenue.

5 The revenue requirement excludes Unbilled Revenue, because the FPFTY is fully
6 normalized, and GSSR Revenue, because this is a distribution-only rate case.

7 **Q. What is the distribution revenue requirement for the FPFTY?**

8 A. FPFTY forecast revenue at present rates (including Other revenue) is \$5,217,181. The
9 FPFTY revenue required to produce Mr. D'Ascendis' recommended rate of return of 7.76%
10 is \$6,351,431. Citizens' is requesting a revenue increase of just under \$1,000,000, or a total
11 of \$6,216,451. See Schedule C1, line 10.

12 **Q. What rate of return on rate base did Mr. D'Ascendis recommend?**

13 A. Mr. D'Ascendis recommended a return of rate base of 7.76%. The revenue required
14 (including Other income) to produce this return would be \$6,351,431.

15 **Q. What rate of return on rate base does the proposed revenue requirement produce?**

16 A. The proposed revenue requirement produces a rate of return of 7.11%, on the rate base of
17 \$13,926,648 (Schedule C1). The revenue required (including Other income) to produce
18 this return is \$6,216,451.

19 **ALLOCATED CLASS COST OF SERVICE STUDY**

20 **Q. Please briefly describe the purpose of an allocated class cost of service study.**

21 A. The purpose of an allocated class cost of service study ("ACOS") is to assign, on a cost-
22 causation basis, the total distribution revenue requirement of a utility among the rate classes
23 in its Tariff. In performing the ACOS, each of the utility's costs of providing service is

1 analyzed, in order to assign or allocate the costs among the rate classes, so that the utility
2 can establish rates that ensure, subject to assumptions such as delivery volumes and
3 customer counts, that it recovers its costs in full from each class.

4 **Q. What are the guiding principles in performing an ACOS?**

5 A. The essential element in performing an ACOS is the selection of allocators based on causal
6 relationships between customer demands, load profiles and usage characteristics on one
7 hand, and the costs incurred by the Company to meet those requirements on the other hand.

8 The primary goals in selecting allocators are:

- 9 1. recognition of **cost causality** as opposed to **value of service**;
- 10 2. **stability** of results over time;
- 11 3. logical **consistency** and **completeness**; and
- 12 4. ease of implementation.

13 **Q. What rate classes are included in Citizens' ACOS?**

14 A. The rate classes included in Citizens' ACOS are Schedule RS- Residential; Schedule GLP1
15 - General Light and Power Service; Schedule GLP3 - General Light and Power Service;
16 Schedule SH - Space Heating; Schedule MBL - Municipal Boulevard Lighting and
17 Schedule OL – Outdoor Lighting.

18 **Q. Please summarize the approach you followed in preparing Citizens' ACOS.**

19 A. The most critical task in performing an ACOS is establishing relationships between
20 customer demands, load profiles and usage characteristics on one hand, and the costs
21 incurred to meet those requirements on the other hand. This requires an understanding of
22 the utility system design and its relationship to the characteristics of the customers it is

1 designed to serve. Citizens', like most utilities, designs its electric distribution system to
2 meet three primary objectives:

- 3 1. To extend distribution services to all customers;
- 4 2. To deliver the aggregate peak demand for electricity of all firm delivery
5 customers; and
- 6 3. To deliver electricity to customers throughout the year.

7 The allocation of costs in a class cost of service study must recognize these *cost-causative*
8 characteristics of the utility's plant investments and operating expenses. A cost of service
9 study should objectively reflect cost-causation factors and should not be influenced by end-
10 results or other revenue allocation and rate design considerations.

11 Citizens' ACOS follows the traditional three-step process: 1) *functionalization* of rate base
12 and costs; 2) *classification* of functionalized costs as demand-related, commodity-related
13 or customer-related; and 3) *class allocation* of the functionalized, classified costs among
14 the rate classes.

15 **Q. Are there are changes from the methodology used in Citizens' last rate case, Docket**
16 **R-2019-3008212?**

17 A. No, the methodology is the same.

18 **Q. What functions are reflected in the ACOS?**

19 A. The Citizens' ACOS includes the following functions:

20 Primary Distribution - Designed to move power from the transmission system to the
21 Secondary Distribution system; includes substations as well as conductors operating
22 primarily at voltages of over 600V up to and including 12 kV, and related assets.

1 Secondary Distribution - Designed to move power from the Primary Distribution system
2 to customers' premises; includes services.

3 Billing - Includes meter as well as assets and activities related to enabling the distribution
4 of electricity to customers, and billing and collecting revenue.

5 Citizens' does not own any transmission-voltage facilities of over 12 kV.

6 **Q. Please describe the classification step of an ACOS.**

7 A. In the **classification** step, the previously functionalized assets and costs are separated
8 according to the system design or operating characteristics that cause those costs to be
9 incurred in the first instance. Each asset and cost is determined to be incurred to serve
10 **customers**, to deliver the electricity or **commodity** year-round or to meet peak **demand**
11 including coincident and non-coincident peaks ("NCPs").

12 **Customer** related costs are the costs incurred to attach a customer to the distribution
13 system, to meter usage and to maintain the customer's account. Customer costs are a
14 function of the number of customers served and continue to be incurred whether or not the
15 particular customer uses any electricity. They include capital costs associated with services
16 and meters, and operating costs such as customer service, field service, billing and
17 accounting expenses.

18 **Commodity** related costs are those costs that vary with the quantity of electricity delivered
19 throughput sold to, or transported for, customers. These costs include purchased electricity
20 costs and related costs.

21 **Demand**, or **capacity**, related costs are associated with plant that is designed, installed and
22 operated to meet peak usage. Distribution assets are designed to meet the peak loads of
23 the particular customers they serve.

1 **Q. Please describe the class allocation step of an ACOS.**

2 A. In the **class allocation** step, the functionalized, classified costs are allocated among the rate
3 classes, based on causal relationships with the utility's system design and operations, its
4 accounting records and its system and customer usage and load data. Based on the analyses
5 of cost relationships, each plant and cost item in the rate base and revenue requirement is
6 directly assigned to a rate class, or an allocator is selected to apportion the item.

7 **Q. Please explain the term "direct assignment."**

8 A. The term "direct assignment" means identifying plant investments or costs incurred
9 exclusively to serve a specific customer or group of customers. Direct assignments best
10 reflect the cost-causation of serving individual customers or groups of customers and
11 should be used whenever the data are available.

12 **Q. In a typical ACOS are most costs directly assigned, or are most costs allocated?**

13 A. Most costs must be allocated, because utility operations are characterized by common
14 facilities. In addition, direct assignments require detailed information which may be
15 unavailable or require a great deal of time to prepare. The assets and costs that cannot be
16 directly assigned are distributed among the rate classes using allocation factors.

17 **Q. Please explain how allocators are derived.**

18 A. Two types of allocators are typically used in performing an ACOS: external allocators and
19 internal allocators. *External allocators* are based on special studies derived from the
20 utility's accounting and other records. Examples of external allocators are number of
21 customers and NCPs. Schedule D lists the external allocators used in the ACOS, and
22 Schedules D1 through D6 show the development of the external allocators.

1 *Internal allocators* are based on some combination of external allocators, previously
2 directly assigned costs and other internal allocators. For example, the allocator for property
3 insurance costs is based on plant investment amounts assigned to components of the rate
4 base; as a result, it is necessary to compute the rate base before property insurance costs
5 can be allocated. Both external and internal allocators are used in functionalization,
6 classification and class allocation.

7 **Q. What is the rate base and how is it used in the ACOS?**

8 A. The rate base is the cost, net of accumulated depreciation, of Citizens' investment in plant
9 and other assets used to serve customers. The FPFTY rate base is \$13,926,648 (Schedule
10 C1 and Schedule C1-6). Citizens' is requesting an increase of just under \$1,000,000, which
11 will produce a return on rate base of 7.11%, as discussed above. The ACOS allocates the
12 rate base (and return of 7.11%) among rate classes.

13 **Q. What are the major components of Citizens' rate base?**

14 A. The major categories in Citizens' rate base are:

- 15 • Distribution plant
- 16 • Intangible plant
- 17 • General plant
- 18 • Depreciation reserve
- 19 • Other rate base items

20 **Q. How was distribution plant functionalized, classified and allocated among the rate**
21 **classes?**

22 A. Distribution plant comprises:

1 Land and Land Rights and Stations Equipment were functionalized to Primary
2 Distribution, classified as demand and allocated among the rate classes using the NCP-
3 Primary allocator.

4 Poles, Towers and Fixtures; Overhead Conductors and Devices; Underground Conduit;
5 Underground Conductors & Devices were functionalized between Primary and Secondary
6 based on circuit miles / lines miles (Schedule D1, lines 1-28).

7 The Primary portion was classified as demand-related and allocated among the rate classes
8 using the NCP- Primary allocator.

9 The Secondary portion was classified between customer-related and demand-related using
10 a zero-load analysis. The portion of total installation costs that are labor-related (i.e., all
11 costs except material) were classified as customer-related, and the balance as demand-
12 related (Schedule D1, lines 29-34, equal to the averages over the current and three prior
13 rate cases). The zero-load component of the Secondary system represents the cost of
14 extending service to all customers, without regard to peak or average load, and is therefore
15 customer-related. The assets and costs functionally classified to Secondary-customer were
16 allocated among the rate classes based on number of customers served at Secondary
17 voltages. The assets and costs functionally classified to Secondary-demand were allocated
18 using the NCP- Secondary allocator.

19 Line Transformers were functionalized to Secondary and classified between customer-
20 related and demand-related using a minimum size analysis (Schedule D3). The minimum
21 size was determined to be a 50 kVA transformer serving four customers, or one-fourth of
22 a 50 kVA transformer. The minimum size portion was classified as customer-related and
23 allocated among the rate classes based on number of customers served at Secondary

1 voltages. The balance of costs were classified as demand-related and allocated using the
2 NCP-LTr allocator, which is the NCP-Secondary allocator reduced by the load-carrying
3 capacity of the minimum size transformers (Schedule D2, lines 20-32).

4 Services connect individual customers to the system, and were functionalized to
5 Secondary, classified as customer-related and allocated based on total replacement cost for
6 each class (Schedule D4). Total replacement cost of Services for a class was computed as
7 X) estimated replacement cost of a typical service for the class times Y) number of
8 customer locations in the class.

9 Meters were functionalized to Billing, classified as customer-related and allocated based
10 on total replacement cost for each class (Schedule D5). Meter costs include CT (current
11 transformers) and PT (Potential transformers). Total replacement cost of Meters for a class
12 was computed as X) estimated replacement cost of meters for the class times Y) number
13 of customers in the class.

14 Street Lighting and Signal Systems were functionalized to Secondary Distribution,
15 classified as customer-related and directly assigned to Lighting.

16 **Q. What is the NCP-Primary allocator and how was it developed?**

17 A. The NCP-Primary allocator (or "NCP-Prim") is used in the ACOS to allocate, among the
18 rate classes, the assets and costs that are functionalized to Primary distribution. To
19 compute the NCP-Prim allocator, the NCP was determined for each class, for years 2015
20 and 2018-2021. In each year, each class' share of the sum of all class NCP's was computed.
21 The NCP-Prim allocator for each class is its average annual share.

1 To compute annual NCP, Citizens' provided hourly data for each class, for 2018-2021, and
2 the NCP's were determined for each year. Information for 2015 is from a prior rate case
3 (Docket R-2016-2531550). The average NCP shares are on Schedule D2, line 14.

4 In computing the NCP-Primary allocator, metered values were used.

5 **Q. What is the NCP-Secondary allocator and how was it developed?**

6 A. The NCP-Secondary allocator (or "NCP-Sec") is used in the ACOS to allocate, among the
7 rate classes, the assets and costs that are functionalized to Secondary distribution and
8 classified as demand-related, except for Line Transformers (and assets and costs that
9 include Line Transformers).

10 The NCP-Secondary allocator value for each rate class was computed by removing from
11 the NCP-Prim allocator, customers served at Primary voltages. The computations are
12 shown on Schedule D2, lines 17-18.

13 **Q. What is the NCP-Line-Transformer allocator and how was it developed?**

14 A. The NCP-Line-Transformer allocator (or "NCP-LTr") is used in the ACOS to allocate
15 among the rate classes the cost of Line Transformers that are functionalized to Secondary
16 distribution and classified as demand-related. It represents the demands on the Secondary
17 distribution system in excess of the minimum system and is equal to the NCP-Secondary
18 allocator values, minus the load-carrying capacity of the minimum size transformers
19 (Schedule D2, lines 20-32).

20 **Q. How was Intangible plant functionalized, classified and allocated among rate classes?**

21 A. Intangible plant is the Company's investment in EDI (Electronic Data Interchange)
22 software. The EDI software performs a variety of functions for customers that purchase
23 supply from an Electric Generation Supplier ("EGS") and those that want to shop for an

1 EGS. EDI enables customers that shop to receive a bill from their EGS for supply, if they
2 choose. The data to be transmitted via EDI includes customer identification; date of
3 service; kWh usage; and total monthly bill (distribution items). The EDI software will also
4 permit customers to switch suppliers on three business days' notice. In the ACOS, the costs
5 were allocated on a per-customer basis because the same data is made available for each
6 customer, regardless of the customer's rate class, usage, demand or shopping status.

7 **Q. How was General plant functionalized, classified and allocated among rate classes?**

8 A. General plant includes primarily Structures and improvements, Office furniture and
9 equipment, Computers and Communications equipment, as well as other assets. These
10 assets were functionalized, classified and allocated among rate classes based on direct labor
11 content of operating expenses, reflecting the nature of the assets and common cost of
12 service practice.

13 **Q. How was Accumulated Depreciation functionalized, classified and allocated among**
14 **rate classes?**

15 A. Each component of the Depreciation reserve was functionalized, classified and allocated
16 among rate classes in the same ratio as the related assets.

17 **Q. How were other Rate Base Items functionalized, classified and allocated among rate**
18 **classes?**

19 A. Other Rate Base Items were functionalized, classified and allocated as follows:
20 Cash Working Capital represents Citizens' need for cash to keep the business running until
21 revenues are collected to pay costs. This item was functionalized, classified and allocated
22 in proportion to operating expenses.

1 CWIP (Construction Work in Process) was functionalized, classified and allocated among
2 rate classes in proportion to plant in service.

3 Materials and Supplies was functionalized, classified and allocated in proportion to
4 operating expenses.

5 Customer Deposits were directly assigned between Residential and Non-residential, then
6 allocated based on revenues (Schedule D6).

7 ADIT and EDIT were functionalized, classified and allocated in proportion to plant in
8 service.

9 Accrued Pension/OPEB Liability was functionalized, classified and allocated in proportion
10 to labor content of O&M expense accounts.

11 **Q. What are the major categories of Citizens' costs?**

12 A. The major cost categories in Citizens' cost of service are:

- 13 • Distribution operating and maintenance expenses
- 14 • Customer accounts and service expenses
- 15 • Administrative and general expenses
- 16 • Depreciation expense
- 17 • Tax expense, other than on income
- 18 • Income tax expense

19 **Q. In determining how to treat these costs in the ACOS, was any other important**
20 **category of costs considered?**

21 A. Yes, labor costs affect most of the cost categories because many costs are assigned based
22 on the direct labor content of other costs. For example, Administrative & General Salaries,
23 Account 920, is allocated among rate classes based on the direct labor content of operating

1 expense accounts. To perform these allocations, the direct labor content of each cost
2 account was provided by Citizens', and appropriate allocators were developed.

3 **Q. What costs are included in distribution operating and maintenance costs and how**
4 **were they functionalized, classified and allocated among the rate classes?**

5 A. Citizens' distribution operating and maintenance costs includes operating and maintenance
6 costs for its distribution system including stations; poles, towers and fixtures; overhead and
7 underground conductors and related equipment; meters; line transformers; lighting; and
8 other assets. Each cost was analyzed to determine which assets it was incurred to operate
9 or maintain, and the cost was functionalized, classified and allocated among rate classes in
10 the same manner as those assets. For example, Miscellaneous distribution expenses,
11 Account 588, relates to the Overhead and Underground assets, and was functionalized,
12 classified and allocated in the same manner as Overhead Conductors and Devices, and
13 Underground Conduits and Conductors.

14 **Q. What costs are included in customer accounts and service expenses and how were**
15 **they functionalized, classified and allocated among the rate classes?**

16 A. Customer-accounts costs includes primarily meter-reading expenses, customer records and
17 collection expenses and uncollectible-accounts expense. These costs were functionalized
18 to Billing and classified as customer-related.

19 Meter Reading Expenses were allocated among the rate classes in proportion to Meter
20 costs.

21 Customer Records and Collection Expenses includes activities for billing, call center,
22 payment processing, recoveries and service initiation / termination, and were allocated
23 based on the number of customers.

1 Uncollectible Accounts Expense was directly assigned between Residential and Non-
2 residential based on Citizens' historic data, then allocated among the specific rate classes
3 based on revenues (Schedule D6).

4 **Q. How were Administrative and General expenses functionalized, classified and**
5 **allocated among rate classes?**

6 A. Administrative and General ("A&G") expenses comprises the following:

7 A&G salaries, Office supplies and expense, and Employee benefits were functionalized,
8 classified and allocated among rate classes based on labor content of the operating and
9 maintenance and customer accounting costs. Most Employee benefits costs are included
10 in the O&M and customer accounting accounts, and not in A&G costs.

11 Property Insurance, Injuries and Damages and Maintenance of General Property were
12 functionalized, classified and allocated based on plant costs.

13 Outside Services and Miscellaneous General Expenses were functionalized, classified and
14 allocated based on a 50/50 weighting of labor and plant costs.

15 Regulatory Commission Expenses were functionalized to Billing, classified as customer-
16 related and allocated among rate classes in proportion to rate base. As discussed above,
17 this account include amortization of rate case expense, and recovery of extraordinary costs
18 associated with the Coronavirus pandemic.

19 **Q. How was depreciation expense functionalized, classified and allocated among rate**
20 **classes?**

21 A. Depreciation expense was computed for each asset account (Schedule C3); each
22 component was functionalized, classified and allocated among rate classes in proportion to
23 the related assets.

1 **Q. How were taxes other than GRT and income taxes functionalized, classified, and**
2 **allocated among the rate classes?**

3 A. These taxes are PURTA and PA Use taxes, which were functionalized, classified and
4 allocated among rate classes in proportion to plant, and PUC Assessment which was
5 functionalized, classified and allocated among rate classes in proportion to rate base.

6 **Q. How was GRT functionalized, classified, and allocated among the rate classes?**

7 A. GRT is based on revenue, and GRT at present rates was computed for each function,
8 classification and rate class on that basis. In computing the revenue requirement, the GRT
9 expense for each class was computed based on class revenue requirements.

10 **Q. How was income tax expense functionalized, classified and allocated among rate**
11 **classes?**

12 A. Income tax expense in the FPFTY was functionalized, classified and allocated in
13 proportion to pretax income. For the FPFTY revenue requirement, Income tax expense for
14 each class equals pretax income, grossed up.

15 **Q. How was revenue at present rates computed for each rate class?**

16 A. Distribution Revenue at Present Rates is shown on Schedule B1. The total was
17 functionalized and classified based on pro forma revenue requirements and was assigned
18 to each rate class based on forecast revenue at present rates for each rate class.

19 Forfeited Discounts was functionalized to Billing and allocated based on historical
20 experience for write-offs.

21 Rent for Electric Property represents pole rental revenue and was functionalized, classified
22 and allocated in proportion to Poles, Towers and Fixtures.

23 Other Electric Revenue was allocated in proportion to Distribution revenue.

1 **Q. How was the revenue requirement for each rate class developed?**

2 A. The revenue requirements for each rate class are computed in the same manner as for the
3 total Company, as shown on Schedule C1. The revenue requirement for each rate class is
4 the sum of allocated operating expenses, depreciation expense, general taxes, return on rate
5 base and income tax expense. Return on rate base was computed by multiplying the class'
6 rate base by the proposed rate of return, 7.11%, which produces the requested increase of
7 just under \$1,000,000. Income tax expense for each class was computed by grossing up the
8 required return on rate base for the class at the income tax rate related to the overall revenue
9 requirement. GRT for each class was computed by grossing up the required revenue for the class
10 including income tax rate. Schedule E-1A, line 178 and Schedule E-1, line 13, show the total
11 rate class revenue requirements based on fully allocated distribution cost of service at the
12 proposed Rate of Return.

13 **Q. Please summarize the results of the ACOS.**

14 A. Schedule E-1, shows Net income at present rates for each rate class (line 7) and Return on
15 rate base at present rates (line 11). It also shows the revenue requirement for each class to
16 produce the proposed system return of 7.11% (line 13) and the increase or decrease this
17 represents over revenue at present rates (line 28).

18 **PROPOSED REVENUE ALLOCATION**

19 **Q. What were the considerations in the proposed revenue allocation for each class?**

20 A. The following objectives were established for the proposed revenue allocation:

- 21 • To move each class closer to cost of service, computed in the ACOS (Schedule E-1).
- 22 • To mitigate extreme rate impacts on rate classes and on customer subgroups.

1 **Q. Have you prepared a schedule that presents the proposed revenue allocation?**

2 A. Yes. Schedule B6-4 presents the proposed revenue allocation and related information.

3 Lines 1-8 present the results of the ACOS, including revenue, net income and return on
4 rate base at present rates. Lines 10-20 present the revenue requirement for each class to
5 provide a return of 7.11%, to produce an increase in revenue of just under \$1,000,000. This
6 information is from Schedule E-1.

7 Schedule B6-4 shows, for each rate class:

- 8 • Proposed revenue target for each class (line 23)
- 9 • Proposed increase in dollars (line 35), as a percent of present rate distribution
10 revenue (line 36) and present rate total bill (using the presently effective GSSR rate
11 of \$0.07399 per kWh) (line 37) and distribution increase relative to the average
12 increase of 19.5% (line 39).
- 13 • Return on rate base at the proposed revenue allocation (line 31) and relative to the
14 average of 7.11% (line 32) and progress toward unity (line 33) (how much of the
15 gap between x) relative return at present rates and y) relative return at proposed
16 revenue allocation, is closed based on the proposed revenue allocation; and
- 17 • Change in subsidy paid (received) (lines 41-44), where the subsidy is the difference
18 between xx) rate of return produced by the rate class and yy) average rate of return,
19 applied to the rate base allocated to the class.

20 **Q. Have you prepared a schedule that presents the proposed rates?**

21 Yes. The Company's proposed rates are presented on Schedule B6-3, lines 12-21, and also
22 on Schedule B7. Schedule B6-3 demonstrates that the proposed rates produce the class
23 revenue targets (compare lines 29 and 30; differences due to rounding).

1 **Q. Why do you believe the proposed revenue allocation presented at Schedule B6-4 is**
2 **fair and reasonable?**

3 A. The proposed revenue allocation is fair and reasonable because each rate class makes
4 significant progress toward the system average return, as indicated by Schedule B6-4, line
5 33, meeting the goal of moving each class closer to cost of service; and no class receives
6 an increase greater than 1.50X the average, meeting the goal of mitigating extreme impacts.
7 In addition, all classes except MBL and OL (lighting classes) have significant reductions
8 in the subsidy paid or received.

9 **PROPOSED RATES**

10 **Q. Please identify exhibits that show FPFTY sales and revenue at proposed rates.**

11 A. Schedule B6 shows the same information as Schedule B, with an additional column
12 showing distribution revenue at "PROPOSED Rates" for FPFTY 2023. The information
13 in this column is from Schedule B6-1, carried forward from Schedule B6-2. Schedule B6-
14 2 summarizes the computations of billing units times proposed rates, on Schedule B6-3.

15 **Q. Did you prepare a schedule that summarizes the present and proposed rates?**

16 A. Yes. Schedule B6-3 presents the proposed rates for each rate class. Schedule B7 presents
17 the present and proposed rates for each rate class in a table.

18 **Q. Did you compare the amounts that typical customers in each rate class would pay**
19 **under the present and proposed rates?**

20 A. Yes. Schedule B8 compares the amounts customers in each rate class, with a range of
21 usage levels, would pay in the FPFTY, at present rates and proposed rates, on a total bill
22 basis (including the present GSSR rate). Schedule B8-1 compares the amounts
23 distribution-only (excluding GSSR). Schedule B8-2 compares total bills, reflecting the

1 proposed GSSR rate that Citizens' filed in mid-April with a proposed effective date of June
2 1, 2022 for both 'the 'present rate' and 'proposed rate' calculations.

3 **Q. Did you prepare a schedule showing the number of customers whose bills would**
4 **increase under the proposed rates?**

5 A. Yes. Schedule B5 presents that information.

6 **Q. What were the goals for rate design?**

7 A. The goals of rate design for each class were to produce the target revenue, to align the rates
8 more closely with costs, to stabilize revenue for the utility and costs for customers and to
9 mitigate extreme impacts on most customers.

10 **Q. How did you compute the proposed rates for Residential?**

11 A. For Residential, the proposed monthly charge was increased from \$13.00 to \$14.00 . The
12 proposed charge is less than the customer-related costs historically included (\$14.56,
13 Schedule E1-C, line 27). The balance of the revenue target is proposed to be recovered in
14 the volumetric kWh charge.

15 **Q. How did you compute the proposed rates for Space Heating?**

16 A. For Space Heating, the proposed monthly charge was increased from \$18.57 to \$22.00.
17 The proposed charge is less than the customer-related costs historically included (\$27.14,
18 Schedule E1-C, line 27). The balance of the revenue target is proposed to be recovered in
19 the volumetric kWh charge.

20 **Q. How did you compute the proposed rates for GLP-1?**

21 A. For GLP-1, the proposed monthly charge was increased from \$15.00 to \$16.00. The
22 proposed charge is less than the customer-related costs historically included (\$16.63,
23 Schedule E1-C, line 27). The demand charge and the volumetric kWh-based rates were

1 each increased by approximately the same proportion (12.6%) to produce the balance of
2 the class revenue target.

3 **Q. How did you compute the proposed rates for GLP-3?**

4 A. For GLP-3, the proposed monthly charge was increased from \$51.00 to \$55.00. The
5 proposed charge is less than the customer-related costs historically included (\$85.31,
6 Schedule E1-C, line 27). Each other rate component (demand charge, reservation charge,
7 both blocks of the volumetric rate and the voltage discount) was increased by
8 approximately the same rate (11.5%) to produce the balance of the class revenue target.

9 **Q. How did you compute the proposed rates for MBL?**

10 A. The Post rate for MBL, which produces almost all of the revenue, was increased to produce
11 the class revenue target.

12 **Q. How did you compute the proposed rates for OL (Public Lighting)?**

13 A. The rates for each lamp OL were changed by the same percentage, 13.6%, to produce the
14 class revenue target.

15 **Q. Do the proposed rates produce the required revenue?**

16 A. Yes. Schedule B6-3, line 29, shows the proposed rates produce FPPTY total distribution
17 revenue of \$6,129,090 (excluding Other revenue), equal to Schedule C1, line 6. This
18 revenue is an increase of just under \$1,000,000, and would produce a return of 7.11%,

19 **Q. Does this conclude your Direct Testimony?**

20 A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-_____
	:	
Citizens' Electric Company of Lewisburg, PA	:	

EXHIBITS
OF
HOWARD S. GORMAN

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022

RESUME OF HOWARD S. GORMAN

SUMMARY

Mr. Gorman has more than 30 years of experience in the energy industry, including 25 years in rate and regulatory proceedings. His areas of expertise include embedded class cost of service studies, marginal cost studies, revenue allocation, rate design and revenue requirements, for both electric and gas utilities. He has testified as an expert witness before the Massachusetts Department of Public Utilities, New Jersey Board of Public Utilities, New Hampshire Public Utilities Commission, New York State Public Service Commission, Ontario Energy Board, Pennsylvania Public Utility Commission and Rhode Island Public Utilities Commission. Mr. Gorman also has experience in financial modeling, financial analysis and forecasting and treasury and financial management.

PROFESSIONAL EMPLOYMENT

- | | |
|----------------|---|
| 2010 - Present | HSG Group, Inc. <ul style="list-style-type: none">• <i>President</i> |
| 1997 - 2010 | Black & Veatch Corporation (R.J. Rudden Associates, Inc. before 2005) <ul style="list-style-type: none">• <i>Principal Consultant</i> |
| 1995 - 1997 | Independent Consultant |
| 1987 – 1995 | Trigen Energy Corporation <ul style="list-style-type: none">• 1987-1993- <i>Corporate Controller; Trigen was formed in 1987</i>• 1993-1995- <i>Treasurer; Trigen had IPO with NYSE listing in 1994</i> |
| 1982 - 1987 | Coleco Industries, Inc. <ul style="list-style-type: none">• <i>Director, Treasury</i> |
| 1976 - 1979 | Touche Ross & Co. <ul style="list-style-type: none">• <i>Staff Accountant</i> |

PROFESSIONAL EXPERIENCE

Utility Accounting and Costing

Mr. Gorman has performed numerous class cost of service studies, and has developed and supported revenue requirements, revenue allocation, rate designs and marginal cost studies, in rate cases before regulatory commissions in several jurisdictions, for electric and gas utilities. These assignments included development of test year data, forecasts for the rate year, establishment of cost causality, selection of allocation bases, development of allocators, and analysis of customer impacts and policy considerations.

Energy Project Analysis and Financing

Mr. Gorman has negotiated and completed transactions including construction and term loans, tax-exempt bonds, taxable bonds, subordinated debt and asset-backed (receivables and inventory) revolving credit facilities. He has worked successfully with lenders and borrowers to source and structure transactions, and was instrumental in negotiating loan documents and in designing power sale and supply procurement contracts to be financed. Mr. Gorman has performed financial analyses of energy-related assets, including electric and gas distribution companies, power plants and transmission operators. These analyses included development of cash flows and financial statements based on both regulatory and accounting presentations, and included review of assumptions, analysis of data, modeling and forecasting, sensitivity testing and stress testing.

Accounting and Financial Management

Mr. Gorman has extensive experience in financial accounting. As controller of Trigen Energy Corporation, he founded and built the finance and accounting function; developed reports, procedures and management tools; and managed subsidiary controllers across North America, including an IPO with NYSE listing. He managed the corporate insurance portfolios and the benefit plans for Trigen Energy Corporation and for Coleco Industries, and has bought and sold interest rate and currency forward contracts for the purpose of managing risk.

PUBLICATIONS AND PRESENTATIONS

What Wall Street Needs From FERC," published in R. J. Rudden Financial, LLC's *Energy Capital Markets Report*, September 2002

"A Balanced Look at Balance Sheets," published in R.J. Rudden Financial, LLC's *Energy Capital Markets Report*, June 2002

"From Wires To Riches: Shareholder Value Creation In The T&D Business," April 2002 (co-authored).

"Assessment of Retail Choice Programs," presented at the American Gas Association Rate and Strategic Issues Committee Conference, March 2002

"Value Creation With Transmission Assets," quoted in *Electrical World's Special Edition Quarter 1, 2002*, March 2002

"The Remarkable Story on Enron," published in Scudder's *Annual End of Year Issue*, 2001

EDUCATION

New York University, B.S., Accounting, 1976

Harvard Business School, MBA, 1981

Relevant Projects			
Jurisdiction	Docket	Client	Subject Matter
Pennsylvania 2021	R-2021-3024060	Vicinity Energy Philadelphia	Steam system revenue requirements; sales forecast (formerly Veolia)
Pennsylvania 2021	R-2021-3024750	Duquesne Light	Electric class cost of service; revenue allocation; rate design
New York 2020	20-G-0381	Niagara Mohawk (Gas)	Gas class cost of service; revenue allocation; rate design; marginal cost
New York 2020	20-E-0380	Niagara Mohawk (Electric)	Electric class cost of service; revenue allocation; rate design; marginal cost
Pennsylvania 2019	R-2019-3008212	Citizens' Electric of Lewisburg, PA	Electric revenue requirements, class cost of service, revenue allocation, rate design
Pennsylvania 2019	R-2019-3008208	Wellsboro Electric Company	Electric revenue requirements, class cost of service, revenue allocation, rate design
Pennsylvania 2019	R-2019-3008209	Valley Energy, Inc.	Gas revenue requirements, rate design
New York 2019	19-G-0309 /0310	Brooklyn Union Gas / KeySpan Gas East	Gas class cost of service; revenue allocation; rate design; marginal cost
Massachusetts 2018	DPU 18-150	Massachusetts / Nantucket Electric	Electric class cost of service; revenue allocation; rate design; marginal cost Monthly Minimum Reliability Contribution
Pennsylvania 2018	R-2018-30000124	Duquesne Light	Electric class cost of service; revenue allocation; rate design
Rhode Island 2017	RIPUC 4770	Narragansett Electric	Electric class cost of service; revenue allocation; rate design
Pennsylvania 2017	R-2017-2593142	Veolia Energy Philadelphia	Steam system revenue requirements; sales forecast
New York 2017	17-G-0239	Niagara Mohawk (Gas)	Gas class cost of service; revenue allocation; rate design; marginal cost
New York 2017	17-E-0238	Niagara Mohawk (Electric)	Electric class cost of service; revenue allocation; rate design; marginal cost
Pennsylvania 2016	R-2016-2531550	Citizens' Electric of Lewisburg, PA	Electric revenue requirements, class cost of service, revenue allocation, rate design
Pennsylvania 2016	R-2016-2531551	Wellsboro Electric Company	Electric revenue requirements, class cost of service, revenue allocation, rate design
New Hampshire 2016	DE 16-383	Granite State Electric	Electric revenue requirement
New York 2016	16-G-0058 /0059	Brooklyn Union Gas / KeySpan Gas East	Gas class cost of service; revenue allocation; rate design; marginal cost
Massachusetts 2015	DPU 15-155	Massachusetts / Nantucket Electric	Marginal cost
New York 2015	15-E-0184	Jamestown Board of Public Utilities	Electric revenue requirements
New Hampshire 2015	DE14-180	Energy North Natural Gas	Gas revenue requirements
New York 2014	14-E-0035	Village of Freeport	Electric revenue requirements; sales forecast; rate design

Relevant Projects			
Jurisdiction	Docket	Client	Subject Matter
Pennsylvania 2021	R-2021-3024060	Vicinity Energy Philadelphia	Steam system revenue requirements; sales forecast (formerly Veolia)
Pennsylvania 2014	R-2013-2386293	Veolia Energy Philadelphia	Steam system revenue requirements and sales forecast
Pennsylvania 2014	R-2013-2372129	Duquesne Light	Electric class cost of service; revenue allocation; rate design
New Hampshire 2013	DE13-063	Granite State Electric	Electric class cost of service (marginal cost); revenue allocation; rate design
Ontario 2005-2013	EB-2005-0378 et al	Hydro One Networks Inc.	Electric Transmission and Distribution cost allocation; OH capitalization rates (2013, 2012, 2010, 2009, 2008, 2006, 2005)
Ontario 2006-2013	EB-2007-0905 et al	Ontario Power Generation	Electric cost allocation methodology (2013, 2010, 2006)
New York 2012	12-E-0201	Niagara Mohawk (Electric)	Electric class cost of service; revenue allocation
Rhode Island 2012	RIPUC 4323	Narragansett Electric	Electric class cost of service
New York 2011	11-E-0590	Village of Rockville Centre	Electric revenue requirements; rate design; sales forecast
New York 2011	11-G-0142	Chautauqua Utilities, Inc.	Gas revenue requirements, rate design
Pennsylvania 2010	R-2010-2179103	Kellogg (intervenor)	Water class cost of service; revenue allocation
Pennsylvania 2010	R-2010-2179522	Duquesne Light	Electric class cost of service; revenue allocation; rate design
Pennsylvania 2010	R-2010-2172662	Wellsboro Electric	Electric revenue requirements, class cost of service, revenue allocation, rate design
Pennsylvania 2010	R-2010-2172665	Citizens' Electric of Lewisburg, PA	Electric revenue requirements, class cost of service, revenue allocation, rate design
Pennsylvania 2010	R-2010-2174470	Valley Energy, Inc.	Gas revenue requirements, rate design
Pennsylvania 2010	R-2010-2161592	PECO Energy (Gas)	Gas class cost of service; revenue allocation; rate design
Pennsylvania 2010	R-2010-2161575	PECO Energy (Electric)	Electric class cost of service; revenue allocation; rate design
New York 2010	10-E-0050	Niagara Mohawk (Electric)	Electric class cost of service
New York 2009	09-E-0862	Jamestown Board of Public Utilities	Electric revenue requirements
Pennsylvania 2001-2009	R-2139884 R-00061931 M-00021612 R- 00017034 R- 00006042	Philadelphia Gas Works	Gas class cost of service; revenue allocation; rate design; rate unbundling; recovery of fixed costs (2006, 2002, 2001)

Relevant Projects			
Jurisdiction	Docket	Client	Subject Matter
Pennsylvania 2021	R-2021-3024060	Vicinity Energy Philadelphia	Steam system revenue requirements; sales forecast (formerly Veolia)
Rhode Island 2009	RIPUC 4065	Narragansett Electric	Electric class cost of service; revenue allocation; rate design
Massachusetts 2009	DPU 09-39	Massachusetts / Nantucket Electric	Electric revenue requirements; adjustment mechanisms; class cost of service; revenue allocation; rate design
Pennsylvania 2008	R-2008-2028394	PECO Energy (Gas)	Gas class cost of service; revenue allocation; rate design
Pennsylvania 2007	R-00072350	Wellsboro Electric	Electric revenue requirements; rate design
Pennsylvania 2007	R-00072348	Citizens' Electric of Lewisburg, PA	Electric revenue requirements; rate design
Pennsylvania 2007	R-00072349	Valley Energy, Inc.	Gas revenue requirements; rate design
New York 2006	06-E-0911	Village of Freeport	Electric revenue requirements; rate design
Pennsylvania 2006	R-00061346	Duquesne Light	Electric class cost of service; revenue allocation; rate design
New York 2003	03-E-1568	Village of Rockville Centre	Electric revenue requirements; rate design; sales forecast
New Jersey 2002	ER02080506, ER02050303 et al	AmeriSteel aka Co-Steel (intervenor)	Electric cost allocation and rate design; industrial rates

A

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
INDEX TO SCHEDULES**

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1	A Index To Schedules	
2		
3	RATES AND REVENUE	
4	B Operating Revenues at Present Rates	12/31/2021, 12/31/2022 and 12/31/2023
5	B1 Summary Of Electric Sales, Customers And Revenue At Present Rates	Historic Year 2021
6	B1-1 Billing Units, Rates And Revenue At Present Rates	Historic Year 2021
7	B2 Summary Of Electric Sales, Customers And Revenue At Present Rates	Future Test Year 2022
8	B2-1 Billing Units, Rates And Revenue At Present Rates	Future Test Year 2022
9	B3 Summary Of Electric Sales, Customers And Revenue At Present Rates	Fully Projected Future Test Year 2023
10	B3-1 Billing Units, Rates And Revenue At Present Rates	Fully Projected Future Test Year 2023
11	B4 Distribution Revenue at Present Rates- Bill Analysis and Financial Statements	Historic Year 2021
12	B5 Number of Customers Served Whose Bills Will be Increased	12/31/2021, 12/31/2022 and 12/31/2023
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14	B6 Operating Revenue Under Present Rates and Proposed Rates	12/31/2021, 12/31/2022 and 12/31/2023
15	B6-1 Summary Of Proposed Increase to Distribution Revenue	Fully Projected Future Test Year 2023
16	B6-2 Summary Of Electric Sales, Customers And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
17	B6-3 Billing Units, Rates And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
18	B6-4 Proposed Revenue Allocation	FPPTY 2023
19		
20	TARIFF RATES	
21	B7 Summary Of Present And Proposed Rates	Fully Projected Future Test Year 2023
22	B8 Bill Comparisons (including GSSR present rate)	Fully Projected Future Test Year 2023
23	B8-1 Bill Comparisons (excluding GSSR)	Fully Projected Future Test Year 2023
24	B8-2 Bill Comparisons (including GSSR effective June 1, 2022)	Fully Projected Future Test Year 2023
25		

A

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
INDEX TO SCHEDULES**

Line	DESCRIPTION	PERIOD
26	NET OPERATING INCOME AND RATES OF RETURN	
27	C1 Net Operating Income And Rates of Return	HY 2021, FTY 2022 and FPFTY 2023
28	C1-1 Net Operating Income And Rates of Return- Support Sheet No. 1- Operating Expense and Going-Level Adjustments	HY 2021, FTY 2022 and FPFTY 2023
29	C1-2 Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure	12/31/2022 and 12/31/2023
30	C1-3 Net Operating Income And Rates of Return- Support Sheet No. 3- Taxes Other Than Income	HY 2021, FTY 2022 and FPFTY 2023
31	C1-4 Net Operating Income And Rates of Return- Support Sheet No. 4- Income Tax Calculations	HY 2021, FTY 2022 and FPFTY 2023
32	C1-5 Net Operating Income And Rates of Return- Support Sheet No. 5- Pension and OPEB	HY 2021, FTY 2022 and FPFTY 2023
33	C1-6 Net Operating Income And Rates of Return- Support Sheet No. 6- Computation of Rate Base	HY 2021, FTY 2022 and FPFTY 2023
34	C1-7 Extraordinary Coronavirus Pandemic Costs	
35		
36	C2 Balance Sheets	12/31/2021, 12/31/2022 and 12/31/2023
37	C3 Original Cost of Utility Plant in Service	12/31/2021, 12/31/2022 and 12/31/2023
38	C4 Reserve for Depreciation of Utility Plant	12/31/2021, 12/31/2022 and 12/31/2023
39		
40	C5 Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates	HY 2021, FTY 2022 and FPFTY 2023
41	C5-1 Comparison to Prior Rate Case	Prior Rate Case and FPFTY 2023
42		
43	DEVELOPMENT OF ALLOCATORS FOR CLASS COST OF SERVICE	
44	D Summary of Allocator Values	
45	D1 Distribution System Functionalization and Classification	
46	D2 NCP- Sum of Customers' Usage	
47	D3 Transformers Classification	
48	D4 Service Costs	
49	D5 Meter Costs	
50	D6 Customer Deposits and Advances; Uncollectible Accounts	
51		
52	CLASS COST OF SERVICE	
53	E Class Cost of Service Study	See separate index
54		
55	WORKPAPERS	
56	WP Workpapers	See separate index
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B

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Operating Revenues at Present Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[2]**

				<u>Present Rates</u>	<u>Present Rates</u>	
		HY 2021 Revenue Per Bill Analysis	HY 2021 GSSR and other eliminations	HY 2021 Distribution Only	FTY 2022 Distribution Only	FPFTY 2023 Distribution Only
1	<u>Customer Type</u>	<u>B1</u>	<u>B1</u>	<u>B2-1</u>	<u>B3-1</u>	
2	Residential	\$3,142,482		\$3,142,482	\$3,131,540	\$3,138,434
3	Commercial and Industrial	1,948,167		1,948,167	1,887,403	1,885,726
4	Lighting	105,660		105,660	105,660	105,660
5		5,196,309	0	5,196,309	5,124,603	5,129,820
6						
7	Forfeited Discounts	23,994		23,994	23,994	23,994
8	Rent from Electric Property	38,680		38,680	59,227	59,227
9	Other electric revenue	4,140		4,140	4,140	4,140
10	GSSR billed	8,277,817	(8,277,817)	0		
11	GSSR over/ under	219,998	(219,998)	0		
12	Unbilled revenue	(86,706)	86,706	0		
13	TCJA billed	85,787	(85,787)	0		
14	STAS billed	(596)	596	0		
15	Rounding	(285)	285	0		
16	Total Operating Revenues	\$13,759,137	(\$8,496,014)	\$5,263,123	\$5,211,964	\$5,217,181
17						
18	<u>kWh Delivered</u>					
19	Residential	87,771,999			87,259,977	87,452,069
20	Commercial and Industrial	78,419,521			70,731,429	70,401,072
21	Lighting	363,864			363,864	363,864
22		<u>166,555,384</u>			<u>158,355,270</u>	<u>158,217,004</u>

B1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Historic Year 2021**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution- Energy	Variable Distribution- Demand	
1	<u>Residential Customers</u>						
2	RS	87,771,999	5,892	\$919,217	\$2,223,265	\$0	\$3,142,482
3		87,771,999	5,892	919,217	2,223,265	0	3,142,482
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	27,656,853	1,111	199,920	245,869	547,655	993,445
7	GLP 3	50,226,631	40	24,429	85,390	823,531	933,351
8	SH	536,037	11	2,358	19,013	0	21,372
9		78,419,521	1,161	226,707	350,273	1,371,187	1,948,167
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	166,555,384	7,093	\$1,251,584	\$2,573,538	\$1,371,187	\$5,196,309

B1-1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Billing Units, Rates And Revenue At Present Rates
Historic Year 2021**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total
	BILLING UNITS						
1 kWh Sales	87,771,999	536,037	27,656,853	50,226,631	102,962	260,902	166,555,384
2							
3							
4 Number of Bills	70,709	127	13,328	479	144	324	85,111
5 Average Monthly Bills	5,892	11	1,111	40	12	27	7,093
6							
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021						
8 Rate 1				MBL- Meter	12		
9 Rate 2				MBL- Post	535		
10 Rate 3				Monthly revenue	1,710	7,095	
11 Rate 4							
12	RATES AND CHARGES						
13	Tariff Rates						
14 Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84		
15					\$3.11	<u>Average</u>	
16 Energy Block 1	\$0.025330	\$0.035470	\$0.008890	\$0.008697		\$15.00	
17 Energy Block 2				\$0.000947			
18 Reservation Chge				\$2.30		<u>Count</u>	
19 Voltage Discount				(\$0.214725)		473	
20 Block 1 kWh = Demand X				30			
21 Demand Block 1			\$3.45	\$4.92			
22							
23	COMPUTATION OF REVENUE						
24 Customer Charge Revenue	919,217	2,358	199,920	24,429	20,519	85,141	1,251,584
25							
26 Distribution kWh Revenue	2,223,265	19,013	245,869	85,390			2,573,538
27 Distribution Demand Revenue	0	0	547,655	823,531			1,371,187
28 <i>Total Distribution Revenue</i>	<u>2,223,265</u>	<u>19,013</u>	<u>793,525</u>	<u>908,922</u>	<u>0</u>	<u>0</u>	<u>3,944,724</u>
29 Total Distribution Revenue	\$3,142,482	\$21,372	\$993,445	\$933,351	\$20,519	\$85,141	\$5,196,309
30							
31	BILLING UNITS- DETAIL						
32 Block 1 kWh Sales	87,771,999	536,037	27,656,853	4,882,485	102,962	260,902	121,211,238
33 Block 2 kWh Sales				45,344,146			45,344,146
34							
35 Billed Demand kW			158,741	153,386			312,126
36 Reserved kW- per month				5,000			5,000
37 Reservation (CR-kW)- annual				(24,840)			
38 Voltage Discount kW				55,856			55,856
39 Block 1 kWh				3,500			3,500

B2

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Future Test Year 2022**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			
				Fixed Customer Charge	Variable Distribution- Energy	Variable Distribution- Demand	Distribution Total
1	<u>Residential Customers</u>						
2	RS	87,259,977	5,905	\$921,245	\$2,210,295	\$0	\$3,131,540
3		87,259,977	5,905	921,245	2,210,295	0	3,131,540
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,797,192	1,118	201,180	238,227	547,655	987,062
7	GLP 3	43,276,801	40	24,429	78,811	771,423	874,663
8	SH	657,436	11	2,358	23,319	0	25,678
9		70,731,429	1,168	227,967	340,357	1,319,078	1,887,403
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	158,355,270	7,113	\$1,254,872	\$2,550,653	\$1,319,078	\$5,124,603

B2-1

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Billing Units, Rates And Revenue At Present Rates
Future Test Year 2022

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
BILLING UNITS							
1 kWh Sales	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
2							
3							
4 Number of Bills	70,865	127	13,412	479	144	324	85,351
5 Average Monthly Bills	5,905	11	1,118	40	12	27	7,113
6							
Annual Billing Units- Public Lighting and Street Lighting HY 2021							
7							
8 Rate 1				MBL- Meter	12		
9 Rate 2				MBL- Post	535		
10 Rate 3				Monthly revenue	1,710	7,095	
11 Rate 4							
12							
RATES AND CHARGES							
Tariff Rates							
13							
14 Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84	Average	
15					\$3.11	\$15.00	
16 Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697		Count	
17 Energy Block 2				\$0.000947		473	
18 Reservation Chge				\$2.30			
19 Voltage Discount				(\$0.214725)			
20 Block 1 kWh = Demand X				30			
21 Demand Block 1			\$3.45	\$4.92			
22							
23							
COMPUTATION OF REVENUE							
24							
25 Customer Charge Revenue	921,245	2,358	201,180	24,429	20,519	85,141	1,254,872
26							
27 Distribution kWh Revenue	2,210,295	23,319	238,227	78,811			2,550,653
28 Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29 <i>Total Distribution Revenue</i>	2,210,295	23,319	785,882	850,234	0	0	3,869,730
30 Total Distribution Revenue	\$3,131,540	\$25,678	\$987,062	\$874,663	\$20,519	\$85,141	\$5,124,603
31 <i>HTY 2021 Actual</i>	3,142,482	21,372	993,445	933,351	20,519	85,141	5,196,309

B3

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$923,273	\$2,215,161	\$0	\$3,138,434
3		87,452,069	5,918	923,273	2,215,161	0	3,138,434
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	202,440	235,290	547,655	985,385
7	GLP 3	43,276,801	40	24,429	78,811	771,423	874,663
8	SH	657,436	11	2,358	23,319	0	25,678
9		70,401,072	1,175	229,227	337,420	1,319,078	1,885,726
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	158,217,004	7,133	\$1,258,160	\$2,552,581	\$1,319,078	\$5,129,820

B3-1

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
1	BILLING UNITS							
2	kWh Sales	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
3								
4	Number of Bills	71,021	127	13,496	479	144	324	85,591
5	Average Monthly Bills	5,918	11	1,125	40	12	27	7,133
6								
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021							
8	Rate 1			MBL- Meter		12		
9	Rate 2			MBL- Post		535		
10	Rate 3			Monthly revenue		1,710	7,095	
11	Rate 4							
12	RATES AND CHARGES							
13	Tariff Rates							
14	Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84		
15						\$3.11	Average	
16	Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697			\$15.00
17	Energy Block 2				\$0.000947			Count
18	Reservation Chge				\$2.30			473
19	Voltage Discount				(\$0.214725)			
20	Block 1 kWh = Demand X				30			
21	Demand Block 1			\$3.45	\$4.92			
22								
23								
24	COMPUTATION OF REVENUE							
25	Customer Charge Revenue	923,273	2,358	202,440	24,429	20,519	85,141	1,258,160
26								
27	Distribution kWh Revenue	2,215,161	23,319	235,290	78,811			2,552,581
28	Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29	<i>Total Distribution Revenue</i>	2,215,161	23,319	782,945	850,234	0	0	3,871,659
30	Total Distribution Revenue	\$3,138,434	\$25,678	\$985,385	\$874,663	\$20,519	\$85,141	\$5,129,820
31	<i>FTY 2022</i>	<i>3,131,540</i>	<i>25,678</i>	<i>987,062</i>	<i>874,663</i>	<i>20,519</i>	<i>85,141</i>	<i>5,124,603</i>

B3-1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
32	BILLING UNITS- DETAIL							
33	kWh Sales 2022	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
34	Block 1 kWh added (lost)	192,091		178,642				370,734
35	Block 2 kWh added (lost)			(509,000)				(509,000)
36		87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
37								
38	Block 1 kWh 2021			4,882,485				
39	Block 1 kWh added (lost)			0				
40	Block 1 kWh 2020			4,882,485				
41	Block 2 kWh 2020			38,394,316				
42								
43	Demand kW		158,741	142,794				301,535
44	Reservation kW- monthly			5,000				5,000
45	Reservation (CR-kW)- annual			(24,840)				
46	Voltage Discount- kW			55,856				55,856
47	Block 1 kWh			3,500				3,500

B4

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Distribution Revenue at Present Rates- Bill Analysis and Financial Statements
Historic Year 2021**

		<u>B1</u>				Per Financials 12/31/2021	
Customer Type		Bill Analysis Revenue	GSSR	TCJA and STAS in Revenue	Unbilled and GSSR Over/ Under)	Revenue per Financial Statements	Revenue
1	Residential	\$3,142,482	\$5,935,389	\$53,582	\$42,393	\$9,173,846	\$9,173,846
2	Commercial and Industrial	1,948,167	2,318,658	31,614	89,010	4,387,448	4,387,448
3	Lighting	105,660	23,770	(5)	1,395	130,820	130,820
4							
5	Forfeited Discounts					23,994	23,994
6	Rent from Electric Property					38,680	38,680
7	Other electric revenue					4,140	4,140
8	Rounding					209	209
9		<u>5,196,309</u>	<u>8,277,817</u>	<u>85,191</u>	<u>132,798</u>	<u>13,759,137</u>	<u>13,759,137</u>
10							

B5

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Number of Customers Served Whose Bills Will be Increased
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[3]**

	<u>Customer Type</u>	<u>Average Number of Customers During the Year Ended</u>		
		<u>12/31/2021</u>	<u>12/31/2022</u>	<u>12/31/2023</u>
1				
2	Residential	5,892	5,905	5,918
3	Commercial and Industrial (GLP-1, SH)	1,121	1,128	1,135
4	Commercial and Industrial (GLP-3)	40	40	40
5	Lighting	39	39	39
6	Total Customers Served	7,093	7,113	7,133
7				

B6

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Operating Revenue Under Present Rates and Proposed Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[4]**

Total	Distribution Only
--------------	--------------------------

Line	Description	HY 2021 Total Revenue	HY 2021	FTY 2022 PRESENT Rates	FPPTY 2023 PRESENT Rates	FPPTY 2023 PROPOSED Rates
1	Operating Revenues	<u>B</u>	<u>B</u>	<u>B</u>	<u>B</u>	<u>B6-1</u>
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434	\$3,902,075
3	Commercial and Industrial	1,948,167	1,948,167	1,887,403	1,885,726	2,103,783
4	Lighting	105,660	105,660	105,660	105,660	123,231
5	Subtotal	<u>5,196,309</u>	<u>5,196,309</u>	<u>5,124,603</u>	<u>5,129,820</u>	<u>6,129,090</u>
6						
7	Forfeited Discounts	23,994	23,994	23,994	23,994	23,994
8	Rent from Electric Property	38,680	38,680	59,227	59,227	59,227
9	Other electric revenue	4,140	4,140	4,140	4,140	4,140
10	GSSR billed	8,277,817				
11	GSSR over/ under	219,998				
12	Unbilled revenue	(86,706)				
13	TCJA/ STAS	85,191				
14	Rounding	(285)				
15	Total Operating Revenues	<u>\$13,759,137</u>	<u>\$5,263,123</u>	<u>\$5,211,964</u>	<u>\$5,217,181</u>	<u>\$6,216,451</u>
16						
17	<u>kWh</u>					
18	Residential	87,771,999		87,259,977	87,452,069	
19	Commercial and Industrial	78,419,521		70,731,429	70,401,072	
20	Lighting	363,864		363,864	363,864	
21		<u>166,555,384</u>		<u>158,355,270</u>	<u>158,217,004</u>	

B6-1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Proposed Increase to Distribution Revenue
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Distribution Total- Present Rates	Distribution - Proposed Increase	Distribution Total- Proposed Rates	% Increase Proposed
1	<u>Residential Customers</u>	<u>B3</u>	<u>B3</u>	<u>B3</u>		<u>B6-3</u>	
2	RS	87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
3		87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	985,385	112,720	1,098,105	11.4%
7	GLP 3	43,276,801	40	874,663	99,340	974,003	11.4%
8	SH	657,436	11	25,678	5,998	31,675	23.4%
9		70,401,072	1,175	1,885,726	218,058	2,103,783	11.6%
10							
11	MBL	102,962	12	20,519	5,971	26,490	29.1%
12	OL	260,902	27	85,141	11,601	96,742	13.6%
13	Lighting	363,864	39	105,660	17,572	123,231	16.6%
14							
15	TOTAL	158,217,004	7,133	\$5,129,820	\$999,270	\$6,129,090	19.48%

B6-2

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Electric Sales, Customers And Revenue At Proposed Rates
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Revenue - Proposed Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$994,294	\$2,907,781	\$0	\$3,902,075
3		87,452,069	5,918	994,294	2,907,781	0	3,902,075
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	215,936	264,668	617,501	1,098,105
7	GLP 3	43,276,801	40	26,345	87,082	860,576	974,003
8	SH	657,436	11	2,794	28,881	0	31,675
9		70,401,072	1,175	245,075	380,631	1,478,077	2,103,783
10							
11	MBL	102,962	12	26,490	0	0	26,490
12	OL	260,902	27	96,742	0	0	96,742
13	Lighting	363,864	39	123,231	0	0	123,231
14							
15	TOTAL	158,217,004	7,133	\$1,362,600	\$3,288,412	\$1,478,077	\$6,129,090

B6-3

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Billing Units, Rates And Revenue At Proposed Rates
Fully Projected Future Test Year 2023**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
	BILLING UNITS						
1 kWh Sales	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
2							
3							
4 Number of Bills	71,021	127	13,496	479	144	324	85,591
5 Average Monthly Bills	5,918	11	1,125	40	12	27	7,133
6							
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021						
8 Rate 1				MBL- Meter	12		
9 Rate 2				MBL- Post	535		
10 Rate 3				Monthly revenue	2,207	8,062	
11 Rate 4							
12	PROPOSED RATES AND CHARGES						
13	Tariff Rates						
14 Customer Charge	\$14.00	\$22.00	\$16.00	\$55.00	\$3.84		
15					\$4.04	<u>Average</u>	
16 Energy Block 1	\$0.03325	\$0.04393	\$0.01000	\$0.00950		<u>\$17.04</u>	
17 Energy Block 2				\$0.00106		<u>Count</u>	
18 Reservation Chge				\$2.56		473	
19 Voltage Discount				(\$0.23945)			
20 Block 1 kWh = Demand X				30			
21 Demand Block 1			\$3.89	\$5.49			
22							
23	COMPUTATION OF REVENUE						
24 Customer Charge Revenue	994,294	2,794	215,936	26,345	26,490	96,742	1,362,600
25							
26 Distribution kWh Revenue	2,907,781	28,881	264,668	87,082			3,288,412
27 Distribution Demand Revenue	0	0	617,501	860,576			1,478,077
28 <i>Total Distribution Revenue</i>	2,907,781	28,881	882,169	947,658	0	0	4,766,490
29 Total Distribution Revenue	\$3,902,075	\$31,675	\$1,098,105	\$974,003	\$26,490	\$96,742	\$6,129,090
30 Target Revenue Target	3,902,414	31,678	1,097,836	974,478	26,513	96,747	6,129,667
31	BILLING UNITS- DETAIL						
32 Block 1 kWh	87,452,069	657,436	26,466,835	4,882,485	102,962	260,902	119,822,688
33 Block 2 kWh				38,394,316			38,394,316
34							
35 Demand kW			158,741	142,794			301,535
36 Reservation kW- monthly				5,000			5,000
37 Reservation (CR-kW)- annual				(24,840)			
38 Voltage Discount- kW				55,856			55,856
39 Block 1 kWh				3,500			3,500

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Proposed Revenue Allocation
FPFTY 2023**

Line	Account	Balance	Residential	Space Heating	GLP-1	GLP-3	MBL	OL	
PRESENT RATES									
1	Distribution Revenue	5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141	
2	Forfeited Disc / Other Rev	87,361	54,938	514	14,512	16,626	168	602	
3	Total Revenue	5,217,181	3,193,372	26,192	999,898	891,289	20,687	85,742	
4	Expenses	4,895,405	3,199,614	25,914	820,981	742,597	37,202	69,096	
5	Net income	321,776	(6,242)	278	178,916	148,692	(16,514)	16,646	
6	Rate Base	13,926,649	9,036,385	74,385	2,109,314	1,932,572	303,029	470,965	
7	Return on Rate Base	2.31%	(0.07%)	0.37%	8.48%	7.69%	(5.45%)	3.53%	
8	Relative Return	1.00 x	(0.03) x	0.16 x	3.67 x	3.33 x	(2.36) x	1.53 x	
FULLY ALLOCATED COST OF SERVICE									
10	Distribution Revenue	6,128,810	4,086,795	33,045	957,737	870,401	69,640	111,192	
11	Forfeited Disc / Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
12	Revenue Requirement	6,216,171	4,141,733	33,560	972,250	887,027	69,808	111,794	
13									
14	Operating expenses	4,488,717	3,014,446	24,315	708,822	646,097	35,991	59,047	
15	GRT	361,659	241,083	1,949	56,566	51,402	4,099	6,559	
16	Income taxes	375,609	243,716	2,006	56,889	52,123	8,173	12,702	
17	Net income	990,185	642,487	5,289	149,972	137,406	21,545	33,486	
18	Return on Rate Base	7.11%	7.11%	7.11%	7.11%	7.11%	7.11%	7.11%	
19	Revenue Increase Required	998,990	948,361	7,368	(27,648)	(4,262)	49,121	26,051	
20	Revenue Increase %	19.47%	30.22%	28.69%	(2.81%)	(0.49%)	239.39%	30.60%	
21									
22	PROPOSED REVENUE ALLOCATION								
23	Distribution Revenue	6,129,667	3,902,414	31,678	1,097,836	974,478	26,513	96,747	
24	Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
25	Revenue Requirement	6,217,028	3,957,352	32,193	1,112,349	991,105	26,681	97,349	
26									
27	Operating expenses	4,488,717	3,014,446	24,315	708,822	646,097	35,991	59,047	
28	GRT	361,650	230,242	1,869	64,772	57,494	1,564	5,708	
29	Income taxes	375,848	195,991	1,652	93,161	79,070	(2,990)	8,964	
30	Net income	990,813	516,673	4,356	245,593	208,444	(7,884)	23,630	
31	Return on Rate Base	7.11%	5.72%	5.86%	11.64%	10.79%	(2.60%)	5.02%	
32	Relative Return	1.00 x	0.80 x	0.82 x	1.64 x	1.52 x	(0.37) x	0.71 x	
33	Progress toward unity		81%	79%	76%	78%	59%	156%	
34									
35	Proposed Distribution Increase	999,847	763,980	6,001	112,451	99,815	5,994	11,606	
36	Revenue Increase %	19.5%	24.3%	23.4%	11.4%	11.4%	29.2%	13.6%	
37	Total Bill Revenue Increase (a)	5.9%	8.0%	8.1%	3.8%	2.4%	21.3%	11.1%	
38									
39	Relative Increase	1.00 x	1.25 x	1.20 x	0.59 x	0.59 x	1.50 x	0.70 x	
40									
41	Subsidy given (received)								
42	Present rates	0	(215,028)	(1,441)	130,181	104,039	(23,516)	5,765	
43	Proposed revenue allocation	0	(126,222)	(936)	95,526	70,951	(29,443)	(9,877)	
44	Reduction in subsidy		41%	35%	27%	32%	(25%)	271%	

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Summary Of Present And Proposed Rates
Fully Projected Future Test Year 2023**

Line	Description	Present Rates (excl GSSR)	GSSR	Present Rates (incl GSSR)	Proposed Rates (excl GSSR)	GSSR	Proposed Rates (incl GSSR)	Proposed Increase (excl GSSR)	Proposed Increase (incl GSSR)
Schedule RS- Residential Service									
1									
2	Customer Charge per Bill	\$13.00		\$13.00	\$14.00		\$14.00	7.7%	
3									
4	Energy Charge, per kWh- All	\$0.02533	\$0.073990	\$0.09932	\$0.03325	\$0.073990	\$0.10724	31.3%	8.0%
5	Schedule SH- Space Heating								
6	Customer Charge per Bill	\$18.57		\$18.57	\$22.00		\$22.00	18.5%	
7	Energy Charge, per kWh- All	\$0.03547	\$0.07399	\$0.10946	\$0.04393	\$0.07399	\$0.11792	23.9%	7.7%
8	Schedule GLP-1								
9	Customer Charge per Bill	\$15.00		\$15.00	\$16.00		\$16.00	6.7%	
10									
11	Energy Charge, All kWh	\$0.008890	\$0.073990	\$0.08288	\$0.010000	\$0.073990	\$0.08399	12.5%	1.3%
12									
13	Demand Charge, per kW-Mth	\$3.45		\$3.45	\$3.89		\$3.89	12.8%	12.8%
14	Schedule GLP-3								
15	Customer Charge per Bill	\$51.00		\$51.00	\$55.00		\$55.00	7.8%	
16									
17	<u>Energy Charge, per kWh</u>								
18	First 30 kWh X Billed Demand kW	\$0.008697	\$0.073990	\$0.0827	\$0.009500	\$0.073990	\$0.08349	9.2%	1.0%
19	Additional kWh	\$0.000947	\$0.073990	\$0.0749	\$0.001060	\$0.073990	\$0.07505	12.0%	0.2%
20	Reservation Charge per kW-Mth	\$2.30		\$2.30	\$2.56		\$2.56	11.3%	11.3%
21	Voltage Discount per kWh	(\$0.214725)		(\$0.214725)	(\$0.239450)		(\$0.239450)	11.5%	11.5%
22	Demand Charge, per kW-Mth	\$4.92		\$4.92	\$5.49		\$5.49	11.6%	11.6%
23	Schedule MBL								
24	MBL- Meter	\$3.84			\$3.84				
25	MBL- Post	\$3.11			\$4.04				
26	Schedule OL								
27	OL 175W MV OH Open	\$17.31	37		\$19.67				
28	OL 175W MV UG	\$17.31	20		\$19.67				
29	OL 100W HPS OH	\$17.31	31		\$19.67				
30	OL 100W HPS UG	\$17.31	30		\$19.67				
31	OL 100W HPS Colonial	\$17.31	0		\$19.67				
32	OL 400W HPS OH	\$17.31	6		\$19.67				
33	LED 15K Lum OH Cobra	\$12.85	12		\$14.60				
34	LED 5K Lum OH Cobra	\$10.22	127		\$11.61				
35	LED 5K Lum UG Colonial	\$21.04	56		\$23.91				
36	LED 5K Lum UG Cobra	\$14.90	140		\$16.93				
37	LED 20K Lum OH Cobra	\$16.22	10		\$18.43				
38	LED 20K Lum UG Cobra	\$20.88	0		\$23.73				
39	LED 15K Lum UG Cobra	\$17.51	4		\$19.90				
40	Average	\$15.00	473		\$17.04				
	Monthly \$	\$85,141			\$96,742				

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023**

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Schedule GLP-1

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	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
7 kW	0	39.15		43.23		4.08	10.4%
Load factor 10%	511	81.50	0.15949	86.15	0.16859	4.65	5.7%
Load factor 20%	1,022	123.85	0.12119	129.07	0.12629	5.21	4.2%
Load factor 35%	1,789	187.38	0.10477	193.45	0.10816	6.07	3.2%
Load factor 50%	2,555	250.91	0.09820	257.82	0.10091	6.92	2.8%
Load factor 60%	3,066	293.26	0.09565	300.74	0.09809	7.48	2.6%
Load factor 75%	3,833	356.79	0.09310	365.12	0.09527	8.33	2.3%
10 kW Demand	0	49.50		54.90		5.40	10.9%
Load factor 10%	730	110.00	0.15069	116.21	0.15920	6.21	5.7%
Load factor 20%	1,460	170.50	0.11678	177.53	0.12159	7.02	4.1%
Load factor 35%	2,555	261.26	0.10225	269.49	0.10548	8.24	3.2%
Load factor 50%	3,650	352.01	0.09644	361.46	0.09903	9.45	2.7%
Load factor 60%	4,380	412.51	0.09418	422.78	0.09652	10.26	2.5%
Load factor 75%	5,475	503.27	0.09192	514.75	0.09402	11.48	2.3%
25 kW Demand	0	101.25		113.25		12.00	11.9%
Load factor 10%	1,825	252.51	0.13836	266.53	0.14604	14.03	5.6%
Load factor 20%	3,650	403.76	0.11062	419.81	0.11502	16.05	4.0%
Load factor 35%	6,388	630.65	0.09873	649.74	0.10172	19.09	3.0%
Load factor 50%	9,125	857.53	0.09398	879.66	0.09640	22.13	2.6%
Load factor 60%	10,950	1,008.79	0.09213	1,032.94	0.09433	24.15	2.4%
Load factor 75%	13,688	1,235.67	0.09028	1,262.86	0.09226	27.19	2.2%
40 kW Demand	0	153.00		171.60		\$18.60	12.2%
Load factor 10%	2,920	395.01	0.13528	416.85	0.14276	21.84	5.5%
Load factor 20%	5,840	637.02	0.10908	662.10	0.11337	25.08	3.9%
Load factor 35%	10,220	1,000.03	0.09785	1,029.98	0.10078	29.94	3.0%
Load factor 50%	14,600	1,363.05	0.09336	1,397.85	0.09574	34.81	2.6%
Load factor 60%	17,520	1,605.06	0.09161	1,643.10	0.09378	38.05	2.4%
Load factor 75%	21,900	1,968.07	0.08987	2,010.98	0.09183	42.91	2.2%

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023**

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Schedule GLP-3

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		Present Rates		Proposed Rates		Proposed Increase	
Sales (kWh)		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
Monthly Minimum		\$789.00		\$878.50		89.50	11.3%
150 kW Demand							
Load Factors	Minimum	\$789.00		\$878.50		89.50	11.3%
	30%	32,850	0.10002	3,381.87	0.10295	96.33	2.9%
	40%	43,800	0.09375	4,203.67	0.09597	97.57	2.4%
	50%	54,750	0.08998	5,025.47	0.09179	98.81	2.0%
	60%	65,700	0.08748	5,847.27	0.08900	100.05	1.7%
	75%	82,125	0.08497	7,079.96	0.08621	101.91	1.5%
400 kW Demand							
Load Factors	Minimum	\$2,019.00		\$2,251.00		232.00	11.5%
	30%	87,600	0.09905	8,926.66	0.10190	250.20	2.9%
	40%	116,800	0.09302	11,118.12	0.09519	253.51	2.3%
	50%	146,000	0.08940	13,309.58	0.09116	256.82	2.0%
	60%	175,200	0.08699	15,501.04	0.08848	260.13	1.7%
	75%	219,000	0.08458	18,788.23	0.08579	265.09	1.4%
750 kW Demand							
Load Factors	Minimum	\$3,741.00		\$4,172.50		431.50	11.5%
	30%	164,250	0.09877	16,689.36	0.10161	465.63	2.9%
	40%	219,000	0.09282	20,798.35	0.09497	471.83	2.3%
	50%	273,750	0.08924	24,907.34	0.09099	478.03	2.0%
	60%	328,500	0.08686	29,016.33	0.08833	484.24	1.7%
	75%	410,625	0.08447	35,179.81	0.08567	493.54	1.4%
1500 kW Demand							
Load Factors	Minimum	\$7,431.00		\$8,290.00		859.00	11.6%
	30%	328,500	0.09862	33,323.73	0.10144	927.25	2.9%
	40%	438,000	0.09270	41,541.70	0.09484	939.66	2.3%
	50%	547,500	0.08915	49,759.68	0.09089	952.07	2.0%
	60%	657,000	0.08678	57,977.65	0.08825	964.47	1.7%
	75%	821,250	0.08441	70,304.61	0.08561	983.08	1.4%

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Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
28							
29							
30							
31	7 kW	0	39.15	43.23		4.08	10.4%
32	Load factor 10%	511	43.69	48.34	0.09460	4.65	10.6%
33	Load factor 20%	1,022	48.24	53.45	0.05230	5.21	10.8%
34	Load factor 35%	1,789	55.05	61.12	0.03417	6.07	11.0%
35	Load factor 50%	2,555	61.86	68.78	0.02692	6.92	11.2%
36	Load factor 60%	3,066	66.41	73.89	0.02410	7.48	11.3%
37	Load factor 75%	3,833	73.22	81.56	0.02128	8.33	11.4%
38							
39	10 kW Demand	0	49.50	54.90		5.40	10.9%
40	Load factor 10%	730	55.99	62.20	0.08521	6.21	11.1%
41	Load factor 20%	1,460	62.48	69.50	0.04760	7.02	11.2%
42	Load factor 35%	2,555	72.21	80.45	0.03149	8.24	11.4%
43	Load factor 50%	3,650	81.95	91.40	0.02504	9.45	11.5%
44	Load factor 60%	4,380	88.44	98.70	0.02253	10.26	11.6%
45	Load factor 75%	5,475	98.17	109.65	0.02003	11.48	11.7%
46							
47	25 kW Demand	0	101.25	113.25		12.00	11.9%
48	Load factor 10%	1,825	117.47	131.50	0.07205	14.03	11.9%
49	Load factor 20%	3,650	133.70	149.75	0.04103	16.05	12.0%
50	Load factor 35%	6,388	158.03	177.13	0.02773	19.09	12.1%
51	Load factor 50%	9,125	182.37	204.50	0.02241	22.13	12.1%
52	Load factor 60%	10,950	198.60	222.75	0.02034	24.15	12.2%
53	Load factor 75%	13,688	222.93	250.13	0.01827	27.19	12.2%
54							
55	40 kW Demand	0	153.00	171.60		\$18.60	12.2%
56	Load factor 10%	2,920	178.96	200.80	0.06877	21.84	12.2%
57	Load factor 20%	5,840	204.92	230.00	0.03938	25.08	12.2%
58	Load factor 35%	10,220	243.86	273.80	0.02679	29.94	12.3%
59	Load factor 50%	14,600	282.79	317.60	0.02175	34.81	12.3%
60	Load factor 60%	17,520	308.75	346.80	0.01979	38.05	12.3%
61	Load factor 75%	21,900	347.69	390.60	0.01784	42.91	12.3%

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023**

Schedule GLP-3

		Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
62							
63							
64							
65	Sales (kWh)						
66	Monthly Minimum	\$789.00		\$878.50		89.50	11.3%
67	150 kW Demand						
68	Load Factors Minimum	\$789.00		\$878.50		89.50	11.3%
69	30%	32,850	854.98	0.02603	951.30	0.02896	96.33
70	40%	43,800	865.34	0.01976	962.91	0.02198	97.57
71	50%	54,750	875.71	0.01599	974.52	0.01780	98.81
72	60%	65,700	886.07	0.01349	986.12	0.01501	100.05
73	75%	82,125	901.62	0.01098	1,003.53	0.01222	101.91
74							
75	400 kW Demand						
76	Load Factors Minimum	\$2,019.00		\$2,251.00		232.00	11.5%
77	30%	87,600	2,194.93	0.02506	2,445.14	0.02791	250.20
78	40%	116,800	2,222.58	0.01903	2,476.09	0.02120	253.51
79	50%	146,000	2,250.22	0.01541	2,507.04	0.01717	256.82
80	60%	175,200	2,277.87	0.01300	2,537.99	0.01449	260.13
81	75%	219,000	2,319.33	0.01059	2,584.42	0.01180	265.09
82							
83	750 kW Demand						
84	Load Factors Minimum	\$3,741.00		\$4,172.50		431.50	11.5%
85	30%	164,250	4,070.88	0.02478	4,536.51	0.02762	465.63
86	40%	219,000	4,122.71	0.01883	4,594.54	0.02098	471.83
87	50%	273,750	4,174.54	0.01525	4,652.58	0.01700	478.03
88	60%	328,500	4,226.37	0.01287	4,710.61	0.01434	484.24
89	75%	410,625	4,304.12	0.01048	4,797.66	0.01168	493.54
90							
91	1500 kW Demand						
92	Load Factors Minimum	\$7,431.00		\$8,290.00		859.00	11.6%
93	30%	328,500	8,090.76	0.02463	9,018.01	0.02745	927.25
94	40%	438,000	8,194.42	0.01871	9,134.08	0.02085	939.66
95	50%	547,500	8,298.08	0.01516	9,250.15	0.01690	952.07
96	60%	657,000	8,401.75	0.01279	9,366.22	0.01426	964.47
97	75%	821,250	8,557.24	0.01042	9,540.33	0.01162	983.08

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023**

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
28							
29							
30							
31	7 kW	0	39.15	43.23		4.08	10.4%
32	Load factor 10%	511	91.55	96.20	0.18826	4.65	5.1%
33	Load factor 20%	1,022	143.96	149.17	0.14596	5.21	3.6%
34	Load factor 35%	1,789	222.56	228.63	0.12783	6.07	2.7%
35	Load factor 50%	2,555	301.17	308.08	0.12058	6.92	2.3%
36	Load factor 60%	3,066	353.57	361.05	0.11776	7.48	2.1%
37	Load factor 75%	3,833	432.17	440.51	0.11494	8.33	1.9%
38							
39	10 kW Demand	0	49.50	54.90		5.40	10.9%
40	Load factor 10%	730	124.36	130.57	0.17887	6.21	5.0%
41	Load factor 20%	1,460	199.22	206.24	0.14126	7.02	3.5%
42	Load factor 35%	2,555	311.52	319.75	0.12515	8.24	2.6%
43	Load factor 50%	3,650	423.81	433.26	0.11870	9.45	2.2%
44	Load factor 60%	4,380	498.67	508.93	0.11619	10.26	2.1%
45	Load factor 75%	5,475	610.96	622.44	0.11369	11.48	1.9%
46							
47	25 kW Demand	0	101.25	113.25		12.00	11.9%
48	Load factor 10%	1,825	288.40	302.43	0.16571	14.03	4.9%
49	Load factor 20%	3,650	475.56	491.61	0.13469	16.05	3.4%
50	Load factor 35%	6,388	756.29	775.38	0.12139	19.09	2.5%
51	Load factor 50%	9,125	1,037.02	1,059.15	0.11607	22.13	2.1%
52	Load factor 60%	10,950	1,224.17	1,248.33	0.11400	24.15	2.0%
53	Load factor 75%	13,688	1,504.90	1,532.10	0.11193	27.19	1.8%
54							
55	40 kW Demand	0	153.00	171.60		\$18.60	12.2%
56	Load factor 10%	2,920	452.45	474.29	0.16243	21.84	4.8%
57	Load factor 20%	5,840	751.89	776.97	0.13304	25.08	3.3%
58	Load factor 35%	10,220	1,201.06	1,231.01	0.12045	29.94	2.5%
59	Load factor 50%	14,600	1,650.23	1,685.04	0.11541	34.81	2.1%
60	Load factor 60%	17,520	1,949.68	1,987.72	0.11345	38.05	2.0%
61	Load factor 75%	21,900	2,398.85	2,441.75	0.11150	42.91	1.8%

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023**

Schedule GLP-3

		Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
62							
63							
64							
65	Sales (kWh)						
66	Monthly Minimum	\$789.00		\$878.50		89.50	11.3%
67	150 kW Demand						
68	Load Factors Minimum	\$789.00		\$878.50		89.50	11.3%
69	30%	32,850	3,931.71	0.11969	4,028.03	0.12262	96.33
70	40%	43,800	4,967.65	0.11342	5,065.22	0.11564	97.57
71	50%	54,750	6,003.59	0.10965	6,102.40	0.11146	98.81
72	60%	65,700	7,039.54	0.10715	7,139.58	0.10867	100.05
73	75%	82,125	8,593.45	0.10464	8,695.36	0.10588	101.91
74							
75	400 kW Demand						
76	Load Factors Minimum	\$2,019.00		\$2,251.00		232.00	11.5%
77	30%	87,600	10,399.55	0.11872	10,649.75	0.12157	250.20
78	40%	116,800	13,162.07	0.11269	13,415.58	0.11486	253.51
79	50%	146,000	15,924.58	0.10907	16,181.40	0.11083	256.82
80	60%	175,200	18,687.10	0.10666	18,947.22	0.10815	260.13
81	75%	219,000	22,830.87	0.10425	23,095.96	0.10546	265.09
82							
83	750 kW Demand						
84	Load Factors Minimum	\$3,741.00		\$4,172.50		431.50	11.5%
85	30%	164,250	19,454.53	0.11844	19,920.16	0.12128	465.63
86	40%	219,000	24,634.25	0.11249	25,106.08	0.11464	471.83
87	50%	273,750	29,813.97	0.10891	30,292.00	0.11066	478.03
88	60%	328,500	34,993.68	0.10653	35,477.92	0.10800	484.24
89	75%	410,625	42,763.26	0.10414	43,256.80	0.10534	493.54
90							
91	1500 kW Demand						
92	Load Factors Minimum	\$7,431.00		\$8,290.00		859.00	11.6%
93	30%	328,500	38,858.07	0.11829	39,785.32	0.12111	927.25
94	40%	438,000	49,217.50	0.11237	50,157.16	0.11451	939.66
95	50%	547,500	59,576.93	0.10882	60,529.00	0.11056	952.07
96	60%	657,000	69,936.37	0.10645	70,900.84	0.10792	964.47
97	75%	821,250	85,475.52	0.10408	86,458.60	0.10528	983.08

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]**

Line	Description	Present Rates HY 12/31/2021		Present Rates FTY 12/31/2022	Present Rates FPFTY 12/31/2023	Full Revenue Requirement FPFTY 12/31/2023	Proposed Rates FPFTY 12/31/2023
		Per Books	Distribution Only	Distribution Only	Distribution Only	Distribution Only	Distribution Only
1	REVENUE						
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434		\$3,902,075
3	Commercial and industrial	1,948,167	1,948,167	1,887,403	1,885,726		2,103,783
4	Lighting	105,660	105,660	105,660	105,660		123,231
5	Rounding	(5,196,309)					
6	Electric operating revenue	0	5,196,309	5,124,603	5,129,820	6,264,070	6,129,090
7	Other revenue, net	66,814	66,814	87,361	87,361	87,361	87,361
8	GSSR	8,277,817					
9	Other, net	5,414,506					
10	Total Revenue	13,759,137	5,263,123	5,211,964	5,217,181	6,351,431	6,216,451
11	Annual kWh	166,555,384	166,555,384	158,355,270	158,217,004	158,217,004	158,217,004
12	EXPENSES						
13	Purchased electricity	7,890,338					
14	Distribution	1,254,145	1,254,145	1,148,122	1,252,545	1,252,545	1,252,545
15	Customer accounting & collection expens	487,762	487,762	423,894	438,445	438,445	438,445
16	Administrative & general expenses	1,225,261	1,225,261	1,395,787	1,473,852	1,473,852	1,473,852
17	Total Operating expenses	10,857,506	2,967,168	2,967,803	3,164,842	3,164,842	3,164,842
18							
19	Depreciation expense	1,098,301	1,098,301	1,084,619	1,244,116	1,244,116	1,244,116
20							
21	Taxes other than income	900,903	383,431	380,788	382,419	449,340	441,410
22							
23	Total Expenses	12,856,710	4,448,901	4,433,211	4,791,377	4,858,298	4,850,368
24							
25	Net operating income before income tax	902,427	814,222	778,753	425,804	1,493,133	1,366,083
26							
27	Income tax expense	261,164	235,680	186,896	104,028	412,402	375,694
28	NET UTILITY OPERATING INCOME	\$641,262	\$578,542	\$591,856	\$321,776	\$1,080,732	\$990,389
29							
30	RATE BASE (B)	\$12,883,405	\$12,883,405	\$13,419,085	\$13,926,648	\$13,926,648	\$13,926,648
31	RATE OF RETURN ON RATE BASE (%)	4.98%	4.49%	4.41%	2.31%	7.76%	7.1100%

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1] - Support Sheet No. 1
Support Sheet No. 1- Operating Expense and Going-Level Adjustments**

Line	Acct.	Account Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021	Year 2022	Year 2023	
									to Year 2021	to Year 2022	to Year 2023	
21		<u>Customer Accounting & Collection Expenses:</u>										
22	902	Meter Reading Expense	15,904	16,278	24,086	3,495	474	13,633	(12,259)	1,374	147	1,521
23	903	Customer Records & Collection	420,058	420,738	426,023	456,244	445,656	442,188	(39,668)	402,520	13,804	416,324
24	904	Uncollectible Accounts	4,671	15,412	19,728	28,030	19,118	31,941	(11,941)	20,000	600	20,600
25		<i>Total Customer Accting & Coll</i>	<u>440,633</u>	<u>452,428</u>	<u>469,837</u>	<u>487,769</u>	<u>465,248</u>	<u>487,762</u>	<u>(63,868)</u>	<u>423,894</u>	<u>14,551</u>	<u>438,445</u>
26												
27		<u>Administrative & General Expenses:</u>										
28	920	Administrative & General Salaries	590,270	584,877	595,872	572,162	638,160	607,671	101,850	709,521	30,589	740,110
29	921	Office Supplies & Expenses	170,574	169,478	171,711	185,132	194,507	206,061	(5,514)	200,547	6,016	206,563
30	923	Outside Services Employed	53,612	52,217	91,750	57,287	107,143	5,525	69,475	75,000	2,250	77,250
31	924	Property Insurance	7,467	9,877	10,082	10,381	10,798	11,112	527	11,639	349	11,988
32	925	Injures & Damages	31,296	29,759	26,510	25,409	26,136	26,647	7,163	33,810	1,014	34,824
33	926	Employee Pensions & Benefits	8,302	9,987	29,513	453	(5,422)	1,756	21,244	23,000	690	23,690
34	928	Regulatory Commission	0	46,389	61,907	61,907	108,685	108,668	11,332	120,000	22,745	142,745
35	930	Miscellaneous General	81,453	85,875	91,647	91,414	89,661	94,585	(2,270)	92,315	2,769	95,084
36	932	Maintenance of General Property	122,305	121,835	149,126	137,967	146,298	163,236	(33,281)	129,955	11,642	141,597
37		<i>Total Administrative & General</i>	<u>1,065,279</u>	<u>1,110,294</u>	<u>1,228,117</u>	<u>1,142,112</u>	<u>1,315,966</u>	<u>1,225,261</u>	<u>170,526</u>	<u>1,395,787</u>	<u>78,064</u>	<u>1,473,852</u>
38												
39		Total O&M Expense	<u>\$2,621,253</u>	<u>\$2,743,199</u>	<u>\$2,858,158</u>	<u>\$2,688,126</u>	<u>\$2,921,792</u>	<u>\$2,967,168</u>	<u>\$635</u>	<u>\$2,967,803</u>	<u>\$197,039</u>	<u>\$3,164,842</u>
40												
41			Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021	Year 2022	Year 2023	
42		Labor	843,879	858,090	899,053	885,646	940,691	932,724	(17,254)	915,470	15,811	931,281
43		Overhead	987,766	1,008,331	1,024,793	967,783	999,472	1,133,563	(116,767)	1,016,796	30,262	1,047,058
44		Transportation	70,104	61,697	51,116	45,621	47,554	62,379	1,396	63,775	1,913	65,688
45		Materials	719,504	815,081	883,197	789,075	934,076	838,502	133,261	971,763	149,052	1,120,815
46			<u>2,621,253</u>	<u>2,743,199</u>	<u>2,858,158</u>	<u>2,688,126</u>	<u>2,921,792</u>	<u>2,967,168</u>	<u>635</u>	<u>2,967,803</u>	<u>197,039</u>	<u>3,164,842</u>

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure
12/31/2022 and 12/31/2023**

Line	Type of Capital	Ratios (1)	12/31/23		
			Cost Rate	Weighted Cost	
1	Long-Term Debt (B)	50.47%	4.090%	2.06%	
2	Preferred Stock				
3	Common Equity (A)	49.53%	11.50%	5.70%	
4	Total	100.00%		7.76%	
5			Using	7.76017%	
6					
7	(A) Recommended hypothetical capital structure ratios as discussed in direct testimony.				

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 3- Taxes Other Than Income**

Line	Description	HY 2021		Present Rates	Present Rates	Full Revenue	Proposed Rates
		Per Books	Distribution Only	FTY 12/31/2022	FPFTY 12/31/2023	Requirement FPFTY 12/31/2023	FPFTY 12/31/2023
1	<u>Taxes other than income:</u>						
2	Pennsylvania Use Tax	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145
3	PUC Assessment	48,804	48,804	48,804	48,804	48,804	48,804
4	Public Utility Realty Tax (including surcharge)	23,900	23,900	25,488	26,811	26,811	26,811
5	Pennsylvania Gross Receipts Tax	824,054	306,582	302,352	302,659	369,580	361,650
6		<u>\$900,903</u>	<u>\$383,431</u>	<u>\$380,788</u>	<u>\$382,419</u>	<u>\$449,340</u>	<u>\$441,410</u>
7							
8	<u>Gross Receipts Tax</u>						
9	Distribution revenue	\$5,196,309	\$5,196,309	\$5,124,603	\$5,129,820	\$6,264,070	\$6,129,667
10	GSSR, including over/under	8,497,815					
11	Gross Receipts Taxable	<u>\$13,694,123</u>	<u>\$5,196,309</u>	<u>\$5,124,603</u>	<u>\$5,129,820</u>	<u>\$6,264,070</u>	<u>\$6,129,667</u>
12	Gross Receipts Tax at Present Rate	5.90%	\$807,953	\$306,582	\$302,352	\$302,659	\$369,580
13	Rounding difference		16,101				
14	Gross Receipts Tax expense		<u>\$824,054</u>	<u>\$306,582</u>	<u>\$302,352</u>	<u>\$302,659</u>	<u>\$369,580</u>
15							
16	Normalized Rate case expense						
17	Estimated expenses				\$384,500		
18	Amortization period (years)				3.0		
19	Normalized Rate case expense				<u>128,167</u>		
20	Recovery of COVID extraordinary costs			Schedule C1-7	<u>14,578</u>		
21	Normalized Rate case expense				<u>142,745</u>	142,745	<u>\$142,745</u>

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 6- Computation of Rate Base**

Line	Description	Ref.	12/31/2017	HY 2021 Distribution Only	FTY 2022	FPFTY 2023
1	Utility Plant in Service					
2	Assets	Sch. C3, line 28		\$ 27,031,762	\$ 28,709,413	\$ 30,369,438
3	Less: Accumulated Depreciation	Sch. C3, line 28		(13,401,719)	(14,173,866)	(15,079,523)
4				<u>13,630,043</u>	<u>14,535,546</u>	<u>15,289,914</u>
5	Construction work in progress	Sch. C2, line 4		914	914	914
6	Less: Accumulated deferred income taxes (ADIT)	Line 32		(414,300)	(790,988)	(1,061,004)
7	Less: Excess deferred income taxes (EDIT)	Line 39		(52,440)	(46,613)	(40,787)
8	Less: Customer deposits	Sch. C2, line 52		(228,657)	(228,657)	(228,657)
9	Accrued Pension / OPEB Liability	Line 46		(621,869)	(621,869)	(621,869)
10	Materials & Supplies	Sch. C2, line 23		<u>202,480</u>	<u>202,480</u>	<u>202,480</u>
11				<u>12,516,171</u>	<u>13,050,813</u>	<u>13,540,992</u>
12	Cash Working Capital Allowance	Line 25		367,234	368,272	385,656
13	RATE BASE			<u>\$ 12,883,405</u>	<u>\$ 13,419,085</u>	<u>\$ 13,926,648</u>
14						
15	Cash Working Capital Allowance:					
16	Operating Expenses	Sch. C1, line 23		\$ 4,448,901	\$ 4,433,211	\$ 4,791,377
17						
18	Deductions:					
19	Taxes Other Than Income	Sch. C1-3, line 6		380,788	382,419	441,410
20	Uncollectible accounts	Sch. C1-1, line 24		31,941	20,000	20,600
21	Depreciation Expense	Sch. C1, line 19		<u>1,098,301</u>	<u>1,084,619</u>	<u>1,244,116</u>
22	Total Deductions			<u>1,511,031</u>	<u>1,487,038</u>	<u>1,706,126</u>
23	Cash Operating Expenses			<u>2,937,870</u>	<u>2,946,173</u>	<u>3,085,251</u>
24	Cash Operating Expenses Ratio			1/8	1/8	1/8
25	Cash Working Capital Allowance (A plus B)			<u>\$ 367,234</u>	<u>\$ 368,272</u>	<u>\$ 385,656</u>
26						
27	<u>Regulatory Accumulated deferred income tax:</u>					
28	Accumulated depreciation based on tax expense borne by ratepayers			19,527,118	20,074,397	20,624,803
29	Accumulated depreciation based on taxes paid by company			<u>21,499,973</u>	<u>23,841,008</u>	<u>25,677,201</u>
30	(Excess) depreciation taken by company			(1,972,855)	(3,766,611)	(5,052,398)
31	Federal tax rate			21.00%	21.00%	21.00%
32	Regulatory Accumulated deferred income tax (liability)			<u>(414,300)</u>	<u>(790,988)</u>	<u>(1,061,004)</u>
33						
34	<u>Excess deferred income tax:(EDIT)</u>					
35	Accumulated depreciation based on tax expense borne by ratepayers		18,162,547			
36	Accumulated depreciation based on taxes paid by company		<u>18,610,753</u>			
37	(Excess) depreciation taken by company		(448,206)			
38	Change in Federal tax rate		<u>13.00%</u>			
39	Excess deferred income tax:(EDIT)			<u>(52,440)</u>	<u>(46,613)</u>	<u>(40,787)</u>
40	Annual Accretion	10		(5,827)	(5,827)	(5,827)
41						
42	<u>Accrued Pension and OPEB Liability / OPEB asset, net</u>					
43	Accrued postretirement cost			(873,669)	(873,669)	(873,669)
44	Regulatory asset- OPEB			0	0	0
45	Deferred tax asset related to OPEB			<u>251,800</u>	<u>251,800</u>	<u>251,800</u>
46				<u>(621,869)</u>	<u>(621,869)</u>	<u>(621,869)</u>
47						
48	OPEB Expense (for future rate cases)			<u>2,213</u>	<u>14,820</u>	<u>14,820</u>

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

Extraordinary Coronavirus Pandemic Costs

Line	Description	Amount		
1	Carrying charge on Excess AR, 2021	7.231%	9,631	
2	Carrying charge on Excess AR, 2022	7.231%	10,327	
3	Extraordinary costs		16,494	
4	Carrying charge on costs		1,280	
5	Total Costs to 12/31/2022		<u>37,732</u>	
6	Carrying rate and Recovery period, years	7.760%	3.0	
7	Annual amount	To Schedule C1-3	14,578	
8				
9		<u>2022</u>	<u>2020-21</u>	<u>2019</u>
10	January	1,193,056	889,104	
11	February	1,439,942	1,031,241	
12	March		924,821	
13	April		1,040,156	
14	May		927,177	
15	June		824,591	
16	July		951,848	
17	August		992,371	
18	September		901,635	
19	October		744,136	
20	November		800,607	
21	December		1,052,163	
22	January		1,386,915	1,002,128
23	February		1,514,233	1,322,304
24	March		1,039,936	1,049,531
25	April		800,324	905,204
26	May		756,301	686,364
27	June		798,700	628,669
28	July		769,072	644,118
29	August		820,445	656,653
30	September		794,603	584,390
31	October		564,971	479,824
32	November		630,786	642,678
33	December		928,121	777,902
34	Next January		1,193,056	889,104
35				
36	Average		923,093	789,913
37	Excess AR		133,180	

C2

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023

Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
1				
	Assets and Other Debits			
2	<u>Utility Plant</u>			
3	Electric plant in service	\$27,031,762	\$28,709,413	\$30,369,438
4	Construction work in progress	914	914	914
5				
6	Accumulated depreciation	(13,401,719)	(14,173,866)	(15,079,523)
7	<i>Total utility plant</i>	<u>13,630,957</u>	<u>14,536,460</u>	<u>15,290,828</u>
8				
9	<u>Other Property and Investments:</u>			
10	Non-utility property, SV Life nsurance, other	265,674	265,674	265,674
11	Regulatory asset	211,675	211,675	211,675
12	Regulatory asset- RS Plan	88,277	88,277	88,277
13	Goodwill, net	3,978,203	3,978,203	3,978,203
14	<i>Total other property and investments</i>	<u>4,543,829</u>	<u>4,543,829</u>	<u>4,543,829</u>
15				
16	<u>Current Assets:</u>			
17	Cash	253,241	253,241	253,241
18	Customer accounts receivable	985,770	985,770	985,770
19	Provison for uncollectible accounts		0	0
20	Accrued utility revenues	826,569	826,569	826,569
21	Other accounts receivable	65,545	65,545	65,545
22	Advances to affiliates	90,700	90,700	90,700
23	Inventories	202,480	202,480	202,480
24	Prepayments	53,143	53,143	53,143
25	Under collected power costs	623,973	623,973	623,973
26	Deferred income taxes		0	0
27	<i>Total current assets</i>	<u>3,101,421</u>	<u>3,101,421</u>	<u>3,101,421</u>
28				
29	Total Assets and Other Debits	<u>\$21,276,207</u>	<u>\$22,181,710</u>	<u>\$22,936,078</u>
30				

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**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]**

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
31				
	Liabilities and Other Credits			
32	Proprietary Capital:			
33	Preferred stock		\$0	\$0
34	Common stock Issued	1,394,720	1,394,720	1,394,720
35	Retained earnings	11,130,367	11,722,223	11,164,666
36	Paid-in Capital, less Treasury Stock	859,338	859,338	859,338
37	<i>Total proprietary capital</i>	13,384,425	13,976,281	13,418,724
38				
39	Long-Term Debt:			
40	Long term debt	1,935,261	1,112,538	1,922,926
41	Capitalized Lease Obligations	256,832	89,194	0
42	<i>Total long-term debt</i>	2,192,093	1,201,732	1,922,926
43				
44	Current and Accrued Liabilities:			
45	Line of Credit	\$1,200,000	\$2,504,008	\$3,094,739
46	Current maturities of long-term debt	192,004	192,004	192,004
47	Current maturities of capitalized leases	58,678	58,678	58,678
48	Accounts payable	384,320	384,320	384,320
49	Due for purchased electricity	634,407	634,407	634,407
50	Accrued expenses	230,488	230,488	230,488
51	Accrued taxes	96,321	96,321	96,321
52	Customer deposits	228,657	228,657	228,657
53	<i>Total current and accrued liabilities</i>	3,024,875	4,328,883	4,919,614
54				
55	Deferred Credits and Other Liabilities:			
56	Deferred income taxes	1,742,800	1,742,800	1,742,800
57	Accrued postretirement cost	821,439	821,439	821,439
58	Other liabilities	110,575	110,575	110,575
59	<i>Total deferred credits</i>	2,674,814	2,674,814	2,674,814
60				
61	Total Liabilities and Other Credits	\$21,276,207	\$22,181,710	\$22,936,078

C3 Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost			
			Balance	Year 2018		Balance	Year 2019		Balance
			12/31/2017	Additions	Retire	12/31/2018	Additions	Retire	12/31/2019
1		Depreciable Plant:							
2		<i>Distribution Plant.</i>							
3	360	Land & Land Rights	14,115	176		14,291	512	14,804	
4	361	Structures and improvements	0		0			0	
5	362	Station Equipment	657,380			657,380		657,380	
6	362.01	Station Equipment- Fully depr.	134,900			134,900		134,900	
7	364	Poles, Tower & Fixtures	3,470,243	116,723	(12,699)	3,574,266	228,993	(21,606)	3,781,653
8	365	Overhead Conductors & Devices	5,892,060	554,611	(77,789)	6,368,882	415,538	(98,554)	6,685,866
9	366	Underground Conduit	2,758,775	188,372	(1,500)	2,945,647	92,202	(1,758)	3,036,091
10	368	Line Transformers	2,544,597	58,193	(15,059)	2,587,732	70,336	(35,660)	2,622,407
11	369	Services	3,085,416	158,071	(8,886)	3,234,601	285,031	(34,187)	3,485,444
12	370	Meters	1,451,761	74,402	(106,392)	1,419,771	179,438	(206,947)	1,392,262
13	373	Street Lighting & Signal Systems	554,687	50,593	(44,389)	560,891	45,400	(35,920)	570,372
14		Total Distribution Plant	20,563,934	1,201,141	(266,715)	21,498,360	1,317,450	(434,632)	22,381,179
15									
16		<i>General Plant</i>							
17	390.1	Structures & Improvements, office	576,375	27,595		603,970		(10,800)	593,170
18	391	Office Furniture & Equipment	206,628	55,847	(32,438)	230,036	40,730		270,767
19	390X	General- Fully depreciated	764,864			764,864			764,864
20	392	Transportation Equipment	587,924	56,709	(28,757)	615,876			615,876
21	394	Tools, Shop & Garage Equipment	29,409			29,409	20,417		49,826
22	395	Laboratory & Stores Equipment	65,669			65,669			65,669
23	397	Communication Equipment	272,313			272,313			272,313
24	398	Miscellaneous Equipment	10,631			10,631			10,631
25	301	Intangible plant, EDI	319,218			319,218			319,218
26		Total General Plant	2,833,031	140,150	(61,196)	2,911,986	61,147	(10,800)	2,962,333
27									
28		Total Plant in Service	\$23,396,965	\$1,341,292	(\$327,911)	\$24,410,346	\$1,378,597	(\$445,432)	\$25,343,511

C3 Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost		
			Year 2020		Balance	Year 2021		Balance
			Additions	Retire	12/31/2020	Additions	Retire	12/31/2021
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	394		15,197	573		15,770
4	361	Structures and improvements			0			0
5	362	Station Equipment			657,380			657,380
6	362.01	Station Equipment- Fully depr.			134,900			134,900
7	364	Poles, Tower & Fixtures	145,344	(9,050)	3,917,947	151,932	(15,282)	4,054,597
8	365	Overhead Conductors & Devices	405,855	(86,007)	7,005,714	386,527	(108,877)	7,283,364
9	366	Underground Conduit	105,205	(3,342)	3,137,954	83,664	(1,622)	3,219,995
10	368	Line Transformers	56,291	(25,739)	2,652,959	58,739	(29,117)	2,682,581
11	369	Services	131,487	(17,677)	3,599,254	219,141	(20,397)	3,797,998
12	370	Meters	148,815	(137,294)	1,403,783	152,823	(185,312)	1,371,294
13	373	Street Lighting & Signal Systems	39,810	(22,960)	587,222	60,297	(30,066)	617,452
14		Total Distribution Plant	1,033,201	(302,070)	23,112,309	1,113,696	(390,674)	23,835,332
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	37,209		630,379	6,784		637,162
18	391	Office Furniture & Equipment	23,493	(2,224)	292,036	15,103	0	307,139
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	57,756	(28,950)	644,682	238,777	(141,880)	741,579
21	394	Tools, Shop & Garage Equipment	8,292		58,118	11,314		69,432
22	395	Laboratory & Stores Equipment	5,300		70,969	0		70,969
23	397	Communication Equipment			272,313			272,313
24	398	Miscellaneous Equipment	7,479	(4,357)	13,754	0	0	13,754
25	301	Intangible plant, EDI			319,218			319,218
26		Total General Plant	139,531	(35,531)	3,066,333	271,977	(141,880)	3,196,431
27								
28		Total Plant in Service	\$1,172,732	(\$337,601)	\$26,178,642	\$1,385,673	(\$532,553)	\$27,031,762

C3 Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Original Cost of Utility Plant in Service
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost		
			FTY 2022		Balance	FPFTY 2023		Balance
			Additions	Retire	12/31/2022	Additions	Retire	12/31/2023
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	618		16,388	636		17,024
4	361	Structures and improvements			0			0
5	362	Station Equipment			657,380			657,380
6	362.01	Station Equipment- Fully depr.			134,900			134,900
7	364	Poles, Tower & Fixtures	232,162	(14,539)	4,272,220	239,127	(14,539)	4,496,808
8	365	Overhead Conductors & Devices	683,618	(87,965)	7,879,018	704,127	(87,965)	8,495,180
9	366	Underground Conduit	125,377	(4,327)	3,341,045	129,138	(4,327)	3,465,856
10	368	Line Transformers	98,445	(23,688)	2,757,338	101,398	(23,688)	2,835,049
11	369	Services	311,058	(20,013)	4,089,043	320,389	(20,013)	4,389,420
12	370	Meters	154,649	(128,394)	1,397,548	30,590	(128,394)	1,299,744
13	373	Street Lighting & Signal Systems	104,520	(26,789)	695,183	107,656	(26,789)	776,050
14		Total Distribution Plant	1,710,448	(305,716)	25,240,063	1,633,063	(305,716)	26,567,410
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	57,810	(10,800)	684,173	53,511	(10,800)	726,883
18	391	Office Furniture & Equipment	104,242	(15,422)	395,960	96,489	(15,422)	477,027
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	202,500	(75,421)	868,658	270,000	(75,421)	1,063,236
21	394	Tools, Shop & Garage Equipment	9,740		79,172	12,507		91,678
22	395	Laboratory & Stores Equipment	1,290	(662)	71,597	1,656		73,253
23	397	Communication Equipment			272,313			272,313
24	398	Miscellaneous Equipment	1,820	(2,178)	13,396	2,337	(2,178)	13,554
25	301	Intangible plant, EDI			319,218			319,218
26		Total General Plant	377,402	(104,484)	3,469,349	436,500	(103,822)	3,802,027
27								
28		Total Plant in Service	\$2,087,850	(\$410,200)	\$28,709,413	\$2,069,563	(\$409,538)	\$30,369,438

C3 **Citizens' Electric Company of Lewisburg**
Rate Case with Fully Projected Future Test Year 2023
Original Cost of Utility Plant in Service
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Depreciation Rate	Balance 12/31/2017	Accumulated Depreciation		Accumulated Depreciation		Balance 12/31/2019	
					Year 2018		Year 2019			
					Additions	Remove	Additions	Remove		
1		Depreciable Plant:								
2		<i>Distribution Plant.</i>								
3	360	Land & Land Rights	0.00%	0	0	0	0	0	0	
4	361	Structures and improvements	4.00%	0	0	0	0	0	0	
5	362	Station Equipment	4.00%	608,536	26,295	634,831	9,919	644,750		
6	362.01	Station Equipment- Fully depr.		134,900	0	134,900	0	134,900		
7	364	Poles, Tower & Fixtures	4.125%	2,378,349	145,293	(26,108)	2,497,534	151,716	(41,791)	2,607,460
8	365	Overhead Conductors & Devices	4.00%	1,454,473	245,219	(170,377)	1,529,314	261,095	(204,248)	1,586,161
9	366	Underground Conduit	4.00%	1,430,169	114,088	(3,030)	1,541,228	119,635	(3,722)	1,657,141
10	368	Line Transformers	4.00%	1,747,738	102,647	(15,059)	1,835,326	104,203	(35,660)	1,903,869
11	369	Services	4.00%	1,175,655	126,400	(18,569)	1,283,487	134,401	(64,211)	1,353,677
12	370	Meters	4.00%	445,801	57,431	(117,429)	385,803	56,241	(194,897)	247,147
13	373	Street Lighting & Signal Systems	4.00%	166,025	22,312	(75,224)	113,113	22,625	(74,477)	61,261
14		Total Distribution Plant		9,541,647	839,685	(425,796)	9,955,536	859,834	(619,005)	10,196,365
15										
16		<i>General Plant</i>								
17	390.1	Structures & Improvements, office	3.00%	532,594	17,705		550,299	17,957	(10,800)	557,456
18	391	Office Furniture & Equipment	8.00%	112,982	17,467	(32,438)	98,011	20,032		118,043
19	390X	General- Fully depreciated		764,864			764,864			764,864
20	392	Transportation Equipment	12.50%	373,690	52,322	(33,907)	392,105	76,984		469,089
21	394	Tools, Shop & Garage Equipment	10.00%	14,739	2,941		17,680	3,962		21,641
22	395	Laboratory & Stores Equipment	6.666%	14,688	4,377		19,065	4,377		23,443
23	397	Communication Equipment	6.666%	149,710	18,152		167,862	18,152		186,015
24	398	Miscellaneous Equipment	6.666%	4,973	709		5,682	709		6,391
25	301	Intangible plant, EDI	14.28%	65,701	45,584		111,285	45,584		156,869
26		Total General Plant		2,033,940	159,258	(66,346)	2,126,852	187,758	(10,800)	2,303,810
27										
28		Total Plant in Service		\$11,575,587	\$998,943	(\$492,141)	\$12,082,388	\$1,047,592	(\$629,805)	\$12,500,175

C3 Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Original Cost of Utility Plant in Service
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation			
			Year 2020		Balance	Year 2021		Balance	
			Additions	Remove	12/31/2020	Additions	Remove	12/31/2021	
1		Depreciable Plant:							
2		<i>Distribution Plant.</i>							
3	360	Land & Land Rights	0		0		0		0
4	361	Structures and improvements	0		0		0		0
5	362	Station Equipment	0		644,750		0		644,750
6	362.01	Station Equipment- Fully depr.	0		134,900		0		134,900
7	364	Poles, Tower & Fixtures	158,804	(28,894)	2,737,370	164,434	(37,967)	2,863,836	
8	365	Overhead Conductors & Devices	273,832	(195,914)	1,664,079	285,782	(239,923)	1,709,938	
9	366	Underground Conduit	123,481	(6,348)	1,774,273	127,159	(3,027)	1,898,405	
10	368	Line Transformers	105,507	(25,840)	1,983,537	106,711	(29,939)	2,060,308	
11	369	Services	141,694	(39,336)	1,456,035	147,945	(58,345)	1,545,635	
12	370	Meters	55,921	(138,426)	164,643	55,502	(189,477)	30,667	
13	373	Street Lighting & Signal Systems	33,216	(50,969)	43,507	37,821	(55,690)	25,639	
14		Total Distribution Plant	892,455	(485,727)	10,603,093	925,353	(614,368)	10,914,078	
15									
16		<i>General Plant</i>							
17	390.1	Structures & Improvements, office	18,353		575,809	19,013		594,822	
18	391	Office Furniture & Equipment	16,654	(2,224)	132,473	18,109		150,582	
19	390X	General- Fully depreciated			764,864			764,864	
20	392	Transportation Equipment	78,785	(33,307)	514,567	72,436	(141,880)	445,124	
21	394	Tools, Shop & Garage Equipment	5,397		27,039	6,377		33,416	
22	395	Laboratory & Stores Equipment	4,554		27,997	4,731		32,728	
23	397	Communication Equipment	18,152		204,167	5,780		209,947	
24	398	Miscellaneous Equipment	813		7,203	917		8,120	
25	301	Intangible plant, EDI	45,584		202,454	45,584		248,038	
26		Total General Plant	188,293	(35,531)	2,456,572	172,948	(141,880)	2,487,641	
27									
28		Total Plant in Service	\$1,080,748	(\$521,258)	\$13,059,665	\$1,098,301	(\$756,248)	\$13,401,719	

C3 Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Original Cost of Utility Plant in Service
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation		
			FTY 2022		Balance	FPFTY 2023		Balance
			Additions	Remove	12/31/2022	Additions	Remove	12/31/2023
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	0	0	0	0	0	0
4	361	Structures and improvements	0	0	0	0	0	0
5	362	Station Equipment	26,295	0	671,045	0	0	671,045
6	362.01	Station Equipment- Fully depr.	0	0	134,900	0	0	134,900
7	364	Poles, Tower & Fixtures	151,927	(14,539)	3,001,224	180,861	(14,539)	3,167,546
8	365	Overhead Conductors & Devices	266,668	(87,965)	1,888,641	327,484	(87,965)	2,128,160
9	366	Underground Conduit	120,247	(4,327)	2,014,325	136,138	(4,327)	2,146,136
10	368	Line Transformers	105,004	(23,688)	2,141,625	111,848	(23,688)	2,229,785
11	369	Services	135,205	(20,013)	1,660,827	169,569	(20,013)	1,810,384
12	370	Meters	57,316	(30,667)	57,316	53,946	(57,316)	53,946
13	373	Street Lighting & Signal Systems	23,990	(26,789)	22,840	29,425	(26,789)	25,475
14		Total Distribution Plant	886,653	(207,989)	11,592,743	1,009,271	(234,637)	12,367,376
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	18,824	(10,800)	602,846	21,166	(10,800)	613,212
18	391	Office Furniture & Equipment	21,956	(15,422)	157,116	34,919	(15,422)	176,613
19	390X	General- Fully depreciated	0	0	764,864	0	0	764,864
20	392	Transportation Equipment	84,927	(75,421)	454,629	120,743	(75,421)	499,951
21	394	Tools, Shop & Garage Equipment	3,428	0	36,844	8,542	0	45,386
22	395	Laboratory & Stores Equipment	4,398	(662)	36,464	4,828	0	41,292
23	397	Communication Equipment	18,152	0	228,100	18,152	0	246,252
24	398	Miscellaneous Equipment	697	(2,178)	6,639	898	(2,178)	5,358
25	301	Intangible plant, EDI	45,584	0	293,622	25,596	0	319,218
26		Total General Plant	197,967	(104,484)	2,581,124	234,845	(103,822)	2,712,147
27								
28		Total Plant in Service	\$1,084,619	(\$312,472)	\$14,173,866	\$1,244,116	(\$338,459)	\$15,079,523

C4

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Reserve for Depreciation of Utility Plant
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[4]**

	<u>Account Title</u>	<u>Per Books 12/31/2021</u>	<u>Pro Forma 12/31/2022</u>	<u>Pro Forma 12/31/2023</u>
1	Reserve for Depreciation	\$12,082,388	\$14,173,866	\$15,079,523

C5

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023

Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[5]

<u>Account Title</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>[Per Books]</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2022</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2023</u> <u>Distribution Only</u>
1 Operating revenue	\$13,759,137	\$5,263,123	\$5,211,964	\$5,217,181
2				
3 <u>Operating revenue deductions:</u>				
4 Operating expenses	10,857,506	2,967,168	2,967,803	3,164,842
5 Depreciation expense	1,098,301	1,098,301	1,084,619	1,244,116
6 Taxes other than income tax	900,903	383,431	380,788	382,419
7 Rate case expense amortization	0	0	0	0
8 Total Operating revenue deductions	12,856,710	4,448,901	4,433,211	4,791,377
9				
10 Net operating income before income taxes	902,427	814,222	778,753	425,804
11				
12 Income tax expense	261,164	235,680	186,896	104,028
13				
14 Net utility operating income	\$641,262	\$578,542	\$591,856	\$321,776

C5-1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023**

**Comparison to Prior Rate Case
Prior Rate Case and FPFTY 2023**

	<u>Description</u>	<u>FPFTY 2023</u>	<u>R-2019-3008212, Order</u>	<u>Difference- Needs Higher (Lower) Revenue</u>
1	Revenue	5,217,181	5,398,587	181,407
2				
3	<i>kWh</i>	<i>158,217,004</i>	<i>166,467,451</i>	
4				
5	O&M	3,164,842	2,613,736	551,106
6	Taxes other than income, Rate Case	382,419	497,242	(114,823)
7	Depreciation	1,244,116	1,029,328	214,788
8	Income tax	412,402	330,855	81,546
9				
10	Rate Base	\$13,926,648	12,825,060	
11	Required Return	7.76%	7.23%	
12	Target Return	1,080,732	927,252	153,480
13				
14	Income Tax Expense			
15	Subtotal			1,067,504
16	Gross-Up for GRT			1.0627
17				1,134,436
18	Rounding difference			(185)
19	Revenue Increase Required at Recommended Return			1,134,250
20	Per Schedule C1			1,134,250

D1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Distribution System Functionalization and Classification**

Primary / Secondary Split for OH ad UG Conductors
--

Line	Conductor Type	Circuit Miles	Line Miles (Circuit Miles X # of conductors)	Description
1	OH Primary (1 Ph)	87.89	175.79	1 phase wire, 1 neutral wire
2	OH Primary (2Ph)	5.02	15.07	2 phase wires, 1 neutral wire
3	OH Primary (3 Ph)	67.63	270.50	3 phase wires, 1 neutral wire
4	OH Secondary	82.38	82.38	1 triplexed conductor
5	UG Primary (1 Ph)	54.33	54.33	1 cable with concentric neutral
6	UG Primary (2 Ph)	0.49	0.98	2 cables with concentric neutral
7	UG Primary (3 Ph)	4.67	14.00	3 cables with concentric neutral
8	UG Secondary	66.25	66.25	1 multiplexed (UG SL, MBL)
9		368.66	679.30	
10				
11	Totals			
12	OH Primary	160.54	461.36	
13	OH Secondary	82.38	82.38	
14	OH Total	242.93	543.74	
15				
16	UG Primary	59.48	69.31	
17	UG Secondary	66.25	66.25	
18	UG Total	125.73	135.55	
19				
20	Totals			Average
21	OH Primary	66.09%	84.85%	75.47%
22	OH Secondary	33.91%	15.15%	24.53%
23	OH Total	100.00%	100.00%	100.00%
24				
25	UG Primary	47.31%	51.13%	49.22%
26	UG Secondary	52.69%	48.87%	50.78%
27	UG Total	100.00%	100.00%	100.00%
28				

D1

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Distribution System Functionalization and Classification**

29

Zero-Load Components for Secondary

30

Average %	Poles	Overhead Conductors	Underground Conductors
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31

Zero-Load Component	78.6%	76.8%	58.4%
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32

Material	21.4%	23.2%	41.6%
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33

Total Cost	100.0%	100.0%	100.0%
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34

	1,329,262	6,367,020	1,319,720
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35

36

2022 Rate Case	Poles	Overhead Conductors	Underground Conductors
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37

Labor	35.4%	34.0%	20.0%
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38

Overhead	38.4%	39.4%	21.6%
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39

Vehicle	17.1%	9.1%	4.0%
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40

Zero-Load Component	90.8%	82.5%	45.6%
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41

Material	9.2%	17.5%	54.4%
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42

Total Cost	100.0%	100.0%	100.0%
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43

44

2019 Rate Case	Poles	Overhead Conductors	Underground Conductors
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45

Labor	34.3%	30.6%	23.8%
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46

Overhead	38.5%	33.0%	24.6%
----------	-------	-------	-------

47

Vehicle	11.9%	10.3%	3.8%
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48

Zero-Load Component	84.7%	73.9%	52.2%
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49

Material	15.3%	26.1%	47.8%
----------	-------	-------	-------

50

Total Cost	100.0%	100.0%	100.0%
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51

52

2016 Rate Case	Poles	Overhead Conductors	Underground Conductors
----------------	-------	------------------------	------------------------

53

Labor	36.9%	24.6%	40.0%
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54

Overhead	14.9%	19.7%	5.3%
----------	-------	-------	------

55

Vehicle	10.5%	30.9%	22.6%
---------	-------	-------	-------

56

Zero-Load Component	62.3%	75.2%	67.9%
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57

Material	37.7%	24.8%	32.1%
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58

Total Cost	100.0%	100.0%	100.0%
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59

60

2010 Rate Case	Poles	Overhead Conductors	Underground Conductors
----------------	-------	------------------------	------------------------

61

Labor	27.7%	30.8%	25.3%
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62

Overhead	32.3%	32.3%	32.3%
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63

Vehicle	16.7%	12.4%	10.5%
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64

Zero-Load Component	76.7%	75.5%	68.1%
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65

Material	23.3%	24.5%	31.9%
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66

Total Cost	100.0%	100.0%	100.0%
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D3

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Transformers Classification**

Transformers Minimum Size Component						
Transformers	Minimum Size	Cost for Minimum Size	Number	Total Cost Minimum Size	Replacement Cost	Minimum Size Component
1 Line	TPD50 X 1/4	\$661	1,940	1,283,182	2,834,287	45.3%
2 Pad-Mount	TPD50 X 1/4	\$661	650	429,932	2,069,610	20.8%
3			2,590	1,713,114	4,903,898	34.9%

Transformers Unit Costs					
Part #	Description	Total Cost	Count	Extended	
7 TPM15	Transformer, 15KVA, Pole	\$1,109	738	\$818,547	
8 TPM25	Transformer, 25KVA, Pole	\$1,307	593	775,136	
9 TPM50	Transformer, 50KVA, Pole	\$1,752	493	863,806	
10 TPM100	Transformer, 100KVA, Pole	\$3,118	107	333,641	
11 TPM167/480	Transformer, 167KVA/480, Pole	\$4,795	9	43,156	
12			1,940	2,834,287	
14 TPD25	Transformer, 25KVA, Pad	\$2,276	235	534,798	
15 TPD50	Transformer, 50KVA, Pad	\$2,646	347	918,070	
16 TPD50 X 1/4	Transformer, 50KVA, Pad X 1/4	\$661			
17 TPD100	Transformer, 100KVA, Pad	\$3,944	32	126,200	
18 TPD150/208	Transformer, 150KVA/208, Pad	\$8,591	8	68,726	
19 TPD300	Transformer, 300KVA, Pad	\$12,699	11	139,686	
20 TPD500/480	Transformer, 500KVA/480, Pad	\$13,130	8	105,038	
21 TPD1000/480	Transformer, 1000KVA/480, Pad	\$19,040	8	152,318	
22 TPD1500/480	Transformer, 1500KVA/480, Pad	\$24,775	1	24,775	
23			650	2,069,610	
24			2,590	4,903,898	

Total	4,903,898
Average	\$1,893
Minimum Component	34.9%

D4

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023

Service Costs

Line	Rate Class	Type	Replacement Cost	Services	Services Cost
1	Residential Overhead	Sec-OH-1Ph	\$812	3,439	2,791,544
2	Residential Overhead	Sec-OH-3Ph	\$862	19	16,373
3	Residential Underground	Sec-UG-1Ph	\$987	2,366	2,334,750
4	Residential Underground	Sec-UG-3Ph	\$1,067	109	116,289
5	Residential Total			5,933	5,258,956
6	Residential in FPFTY	Average	\$886	5,918	5,246,029
7					
8	SH Overhead	Sec-OH-1Ph	\$812	2	1,623
9	SH Overhead	Sec-OH-3Ph	\$862	5	4,309
10	SH Underground	Sec-UG-1Ph	\$987	2	1,974
11	SH Underground	Sec-UG-3Ph	\$1,067	2	2,134
12	SH Total	Average		11	10,040
13	SH in FPFTY		\$913	11	9,659
14					
15	GLP1 Overhead	Sec-OH-1Ph	\$812	591	479,733
16	GLP1 Overhead	Sec-OH-3Ph	\$862	100	86,176
17	GLP1 Underground	Sec-UG-1Ph	\$987	284	280,249
18	GLP1 Underground	Sec-UG-3Ph	\$1,067	133	141,893
19	GLP1 Total	Average		1,108	988,052
20	GLP1 in FPFTY		\$892	1,125	1,002,914
21					
22	GLP3 Overhead	Sec-OH-1Ph	\$812	1	812
23	GLP3 Overhead	Sec-OH-3Ph	\$862	5	4,309
24	GLP3 Underground	Sec-UG-1Ph	\$987	0	0
25	GLP3 Underground	Sec-UG-3Ph	\$1,067	29	30,939
26	GLP3 Total	Average		35	36,060
27	GLP3 in FPFTY		\$1,030	40	41,125
28					
29	MBL Overhead	Sec-OH-1Ph	\$812	2	1,623
30	MBL Overhead	Sec-OH-3Ph	\$862	0	0
31	MBL Underground	Sec-UG-1Ph	\$987	10	9,868
32	MBL Underground	Sec-UG-3Ph	\$1,067	0	0
33	MBL Total	Average		12	11,491
34	MBL in FPFTY		\$958	12	11,491
35	Total Service Cost			7,106	6,311,219

D5

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Meter Costs**

Line	Meter Types	Description	Total Cost Per Meter	Number Installed						Material	Labor / OH	Truck
				RS	SH	GLP1	GLP3	MBL	Total			
1	M2S200T	Meter 2s, CI 200, 240V, 1 Ph	\$ 222.27	5,462	4	797		12	6,275	\$ 170.00	\$ 44.04	\$ 8.23
2	M2S200T-RD	Meter 2s, CI 200, 240V, 1 Ph	\$ 332.27	22		5			27	\$ 280.00	\$ 44.04	\$ 8.23
3	M2S320T	Meter 2s, CI 320, 240V, 1 Ph	\$ 312.27	292	1	68			361	\$ 260.00	\$ 44.04	\$ 8.23
4	M3S20T	Meter, 3S CI 20, 240V, 1 Ph	\$ 302.27	8	1	8			17	\$ 250.00	\$ 44.04	\$ 8.23
5	M4S20T	Meter, 4S CI 20, 240V, 1 Ph	\$ 302.27	8		18			26	\$ 250.00	\$ 44.04	\$ 8.23
6	M8/9S20T	Meter 8S/9S, CI 20, AXS4E	\$ 652.27	2	4	114	42		162	\$ 600.00	\$ 44.04	\$ 8.23
7	M12S200T	Meter, Form 12S Class 200	\$ 312.27	106		16			122	\$ 260.00	\$ 44.04	\$ 8.23
8	M15/16S20T	Meter, Form 15S/16S Class 200	\$ 652.27	1	3	99			103	\$ 600.00	\$ 44.04	\$ 8.23
9												
10	CT600/5	C.T., Ratio 600:5 (600V)	\$ 167.27	30		389	75		494	\$115.00	\$ 44.04	\$ 8.23
11	CT1200/5	C.T., Ratio 1200:5 (600V)	\$ 172.27				24		24	\$120.00	\$ 44.04	\$ 8.23
12	CT2000/5	C.T., Ratio 2000:5 (600V)	\$ 172.27				6		6	\$120.00	\$ 44.04	\$ 8.23
13	CTHV200/5	C.T., Ratio 200:5 (7200V)	\$ 802.27				18		18	\$750.00	\$ 44.04	\$ 8.23
14	CTHV1000/5	C.T., Ratio 1000:5 (7200V)	\$ 852.27				3		3	\$800.00	\$ 44.04	\$ 8.23
15												
16	PTHV	P.T., H.V. (7200), RATIO 60:1	\$ 986.77				21		21	\$934.50	\$ 44.04	\$ 8.23
17	PT2.4	P.T., L.V. (600), RATIO 2.4:1	\$ 217.27			63	54		117	\$165.00	\$ 44.04	\$ 8.23
18	PT2.5	P.T., L.V. (600), RATIO 2.5:1	\$ 217.27						0	\$165.00	\$ 44.04	\$ 8.23
19	VTPack2.4 1.1.1	VTPack 2.4 1.1.1	\$ 651.80						0	\$495.00	#####	\$ 24.68
20												
21	Total Cost		1,891,335	1,357,446	6,070	430,591	94,561	2,667		2022 Average Crew Rate:/ hc		
22	Customers above		7,093	5,901	13	1,125	42	12		With Adder For OH #####		
23	Average per Customer		266.65	230.04	466.89	382.75	2,251.46	222.27		2022 Truck Rate:/ hour		
24	Customers in Future Year 2023		7,106	5,918	11	1,125	40	12				
25	Meter Cost for Class			1,361,453	4,941	430,463	89,871	2,667	1,889,395			

D6

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Customer Deposits and Advances; Uncollectible Accounts

Line	Class	Revenue	Deposits	Net Write-offs		
1	Residential	3,142,482	15,966	58,237		
2	Space Heating	21,372	109	396		
3	GLP-1	993,445	29,241	3,401		
4	GLP-3	933,351	27,472	3,195		
5		<u>5,090,649</u>	<u>72,788</u>	<u>65,229</u>		
6						
7	Residential / Res plus SH)	99.3%				
8	GLP1 / GLP1 plus GLP3)	51.6%				
9						
10	<u>Net Write-Offs</u>		Total	2021	2020	2019
11	Residential- Net		58,633	16,138	25,496	16,999
12	CI- Net		6,596	2,291	(6,726)	11,032
13			<u>65,229</u>	<u>18,429</u>	<u>18,770</u>	<u>28,030</u>
14	Residential %		89.9%	87.6%	135.8%	60.6%
15						
16	Residential- Number		290	93	100	97
17	CI- Number		29	4	4	21
18			<u>319</u>	<u>97</u>	<u>104</u>	<u>118</u>
19	Residential %		90.9%	95.9%	96.2%	82.2%
20						
21	<u>Deposits</u>					
22	Residential		16,075			
23	Non-residential		56,713			
24			<u>72,788</u>			
25						

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Index to Class Cost of Service Study**

Line	SCHEDULE	DESCRIPTION
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4	E-1B	Revenue Requirement By Functional Classification
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6	E-2	Funtionalization
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8	E-4A	Class Allocation- Primary Demand
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12	E-5A	Allocator Assignments
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Sum
Summary of Results
Tot
E-1

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Summary of Results**

Line	Account	No.	Balance	RS	SH	GLP-1	GLP-3	MBL	OL
1	Distribution Revenue		5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141
2	Forfeited Discounts		23,994	14,680	120	4,609	4,091	96	398
3	Other Revenue	302	63,367	40,258	394	9,903	12,535	72	203
4	Total Revenue	303	<u>5,217,181</u>	<u>3,193,372</u>	<u>26,192</u>	<u>999,898</u>	<u>891,289</u>	<u>20,687</u>	<u>85,742</u>
5									
6	Expenses		4,895,405	3,199,614	25,914	820,981	742,597	37,202	69,096
7	Net income		<u>321,776</u>	<u>(6,242)</u>	<u>278</u>	<u>178,916</u>	<u>148,692</u>	<u>(16,514)</u>	<u>16,646</u>
8									
9	Rate Base		<u>13,926,648</u>	<u>9,036,384</u>	<u>74,385</u>	<u>2,109,314</u>	<u>1,932,572</u>	<u>303,029</u>	<u>470,965</u>
10									
11	Return on Rate Base		<u>2.31%</u>	<u>(0.07%)</u>	<u>0.37%</u>	<u>8.48%</u>	<u>7.69%</u>	<u>(5.45%)</u>	<u>3.53%</u>
12									
13	Revenue Requirement		6,216,256	4,141,788	33,560	972,262	887,039	69,810	111,797
14									
15	Operating expenses		3,095,438	2,114,980	15,646	486,361	426,571	19,355	32,525
16	Depreciation expense		1,244,116	803,800	7,843	198,787	197,326	14,062	22,297
17	Regulatory Commission Expenses		48,804	31,667	261	7,392	6,772	1,062	1,650
18	General taxes / Other		79,760	51,396	463	12,325	11,915	1,430	2,232
19	Uncollectibles expense		20,600	12,603	103	3,957	3,512	82	342
20	GRT		361,659	241,083	1,949	56,566	51,402	4,099	6,559
21			<u>4,850,377</u>	<u>3,255,529</u>	<u>26,265</u>	<u>765,388</u>	<u>697,499</u>	<u>40,090</u>	<u>65,606</u>
22	Pre-tax income		1,365,879	886,258	7,295	206,874	189,540	29,720	46,191
23	Income taxes		375,694	243,771	2,007	56,902	52,134	8,175	12,705
24	Net income		<u>990,185</u>	<u>642,487</u>	<u>5,289</u>	<u>149,972</u>	<u>137,406</u>	<u>21,545</u>	<u>33,486</u>
25									
26	Return on Rate Base		7.11%	7.11%	7.11%	7.11%	7.11%	7.11%	7.11%
27									
28	Revenue Increase Required		999,075	948,416	7,368	(27,635)	(4,250)	49,123	26,054
29	Revenue Increase %		19.48%	30.22%	28.69%	(2.80%)	(0.49%)	239.40%	30.60%

Total
Class Allocations- Total
Tot
E-1A

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL	
53	I. OPERATING AND MAINTENANCE EXPENSES										
54	B. TRANSMISSION EXPENSE										
55	Transmission Expense		0	.	0	0	0	0	0	0	
56	Total TRANSMISSION Expense		0	.	0	0	0	0	0	0	
57											
58	C. DISTRIBUTION OPER. & MAINT. EXP.										
59	Ops Supv & Engineering	580	123,139	.	79,965	703	19,821	20,176	935	1,541	
60	Station Expenses	582	8,606	.	5,034	64	1,302	2,183	7	16	
61	OH Line Expenses	583	161,359	.	102,667	1,023	24,827	32,326	151	366	
62	Street Lighting Expenses	585	5,530	.	0	0	0	0	2,171	3,359	
63	Meter Expenses	586	22,480	.	16,221	59	5,129	1,071	0	0	
64	Customer Installation Expenses	587	34,698	.	28,791	51	5,471	194	58	131	
65	Misc. Distribution Expenses	588	313,536	.	203,481	2,067	49,456	57,514	297	720	
66	Rents	589	505	.	347	3	80	72	1	1	
67	Maint Supv & Engineering	590	0	.	0	0	0	0	0	0	
68	Maint of Station Equip	592	7,265	.	4,250	54	1,099	1,843	5	14	
69	Maint of OH Lines	593	554,049	.	352,521	3,512	85,246	110,995	519	1,256	
70	Maint of UG Lines	594	4,964	.	3,360	29	785	773	5	12	
71	Maint of Line Transformers	595	8,937	.	3,350	192	1,813	3,505	22	55	
72	Maint of Lighting	596	7,142	.	0	0	0	0	2,804	4,338	
73	Maint of Misc. Plant	599	337	.	225	2	52	48	4	7	
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,252,545	.	800,212	7,757	195,081	230,698	6,980	11,817	
75	Distribution Expense		1,252,545	.	800,212	7,757	195,081	230,698	6,980	11,817	
76	D. CUSTOMER ACCOUNTS AND SERVICE										
77	Supervision	901	0	.	0	0	0	0	0	0	
78	Meter Reading Exp	902	1,521	.	1,097	4	347	72	0	0	
79	Customer Records & Coll	903	416,324	.	345,454	618	65,646	2,330	700	1,576	
80	Uncollectible Accounts	904	20,600	.	12,603	103	3,957	3,512	82	342	
81	Subtotal - Customer Accounts Exp.	901-905	438,445	.	359,155	725	69,950	5,915	783	1,918	
82	Total CUST. ACCT. & SERV. EXP.	901-919	438,445	.	359,155	725	69,950	5,915	783	1,918	
83											

Total
Class Allocations- Total
Tot
E-1A

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		7.1100%		7.1100%	7.1100%	7.1100%	7.1100%	7.1100%	7.1100%
162										
163	Rate Base		13,926,648	.	9,036,384	74,385	2,109,314	1,932,572	303,029	470,965
164										
165	Operating expenses		3,095,438	.	2,114,980	15,646	486,361	426,571	19,355	32,525
166	Uncollectibles expense		20,600	.	12,603	103	3,957	3,512	82	342
167	Depreciation expense		1,244,116	.	803,800	7,843	198,787	197,326	14,062	22,297
168	Regulatory Commission Expenses		48,804	.	31,667	261	7,392	6,772	1,062	1,650
169	General taxes / Other		79,760	.	51,396	463	12,325	11,915	1,430	2,232
170	Subtotal- Operating Costs to recover		4,488,717	.	3,014,446	24,315	708,822	646,097	35,991	59,047
171										
172	Target Return on Rate Base- After taxes		990,185		642,487	5,289	149,972	137,406	21,545	33,486
173										
174	Income taxes to recover		375,694	.	243,771	2,007	56,902	52,134	8,175	12,705
175										
176	Subtotal- Rev Req before GRT		5,854,596	.	3,900,705	31,611	915,696	835,637	65,711	105,237
177	GRT needed		361,659	.	241,083	1,949	56,566	51,402	4,099	6,559
178	TOTAL REVENUE REQUIREMENT		<u>6,216,256</u>	.	<u>4,141,788</u>	<u>33,560</u>	<u>972,262</u>	<u>887,039</u>	<u>69,810</u>	<u>111,797</u>
179										
180	Revenue at Present rates		5,217,181		3,193,372	26,192	999,898	891,289	20,687	85,742
181	Revenue Excess (Deficiency)		<u>(999,075)</u>		<u>(948,416)</u>	<u>(7,368)</u>	<u>27,635</u>	<u>4,250</u>	<u>(49,123)</u>	<u>(26,054)</u>

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023**

FuncClass
Revenue
Total
E-1B

Revenue Requirement By Functional Classification

Account Description	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1 Demand-related							
2 Primary	2,770,369	1,622,212	20,411	419,233	699,908	2,597	6,008
3 Secondary	602,406	339,778	8,006	111,443	139,841	980	2,359
4	<u>3,372,775</u>	<u>1,961,990</u>	<u>28,417</u>	<u>530,676</u>	<u>839,749</u>	<u>3,576</u>	<u>8,367</u>
5 NCP-Primary	1	1	0	0	0	0	0
6 Per kW / month-Demand	\$281,064.58	\$279,481.72	\$320,650.02	\$292,232.34	\$275,912.09	\$394,123.73	\$368,170.57
7							
8 kWh-Meter	158,217,004	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902
9 Per kWh-Meter	\$0.02132	\$0.02244	\$0.04322	\$0.02005	\$0.01940	\$0.03474	\$0.03207
10							
11 Customer-related							
12 Secondary	1,399,146	1,034,663	1,949	197,588	9,896	61,048	94,003
13 Billing	1,444,335	1,145,134	3,195	243,999	37,394	5,186	9,427
14	<u>2,843,481</u>	<u>2,179,797</u>	<u>5,143</u>	<u>441,587</u>	<u>47,290</u>	<u>66,234</u>	<u>103,430</u>
15 Number of Bills	85,591	71,021	127	13,496	479	144	324
16 Per bill	\$33.22	\$30.69	\$40.50	\$32.72	\$98.73	\$459.96	\$319.23
17							
18 Total revenue requirement	<u>6,216,256</u>	<u>4,141,788</u>	<u>33,560</u>	<u>972,262</u>	<u>887,039</u>	<u>69,810</u>	<u>111,797</u>
Secondary Per kW / month-Demand	\$50,200.54	\$48,400.75	\$90,334.13	\$61,369.15	\$45,946.85	\$107,986.53	\$103,808.08

Customer
Custor
Tot
E-1C

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPPTY Ending December 31, 2023**

Customer-Related Costs In Revenue Requirement

	Account Description	FERC	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1	Services, cost	Acct 369	4,389,420	3,648,586	6,718	697,521	28,602	7,992	0
2	Services, Acc Depr	Portion Acct 108	(1,810,384)	(1,504,832)	(2,771)	(287,688)	(11,797)	(3,296)	0
3	Meters, cost	Acct 370	1,299,744	937,888	3,404	296,541	61,911	0	0
4	Meters, Acc Depr	Portion Acct 108	(53,946)	(38,927)	(141)	(12,308)	(2,570)	0	0
5	Transformers, cost	Acct 368	2,835,049	1,062,559	60,831	575,259	1,111,765	7,030	17,605
6	Transformers, Acc Depr	Portion Acct 108	(2,229,785)	(835,709)	(47,844)	(452,445)	(874,411)	(5,529)	(13,847)
7	ADIT	Portion Acct 154	(237,962)	(192,422)	(405)	(41,181)	(3,643)	(311)	0
8	Service / Meter/ Trnsf Rate Base		4,192,136	3,077,142	19,792	775,700	309,858	5,885	3,759
9	Rate of return on rate base		7.11%	7.11%	7.11%	7.11%	7.11%	7.11%	7.11%
10	Return on Service / Meter rate base		298,061	218,785	1,407	55,152	22,031	418	267
11	Income tax gross-up		113,090	83,011	534	20,926	8,359	159	101
12	GRT gross-up		25,400	18,652	120	4,700	1,869	36	23
13	Customer-charge return component		436,551	320,448	2,061	80,778	32,259	613	392
14									
15	Meter expenses	Acct 586	22,480	16,221	59	5,129	1,071	0	0
16	Customer installatins expense	Acct 587	34,698	28,791	51	5,471	194	58	131
17	Meter reading expenses	Acct 902	1,521	1,097	4	347	72	0	0
18	Customer records and collection	Acct 903	416,324	345,454	618	65,646	2,330	700	1,576
19	Service / Meter / EDI depreciation exp	Portion Acct 403	249,111	201,115	439	43,290	3,818	352	97
20	Labor-related		146,989	121,066	211	23,714	1,028	304	666
21	Customer-charge expense component		871,123	713,746	1,382	143,597	8,513	1,415	2,470
22									
23	Customer-charge expense component		1,307,673	1,034,194	3,443	224,375	40,772	2,028	2,862
24									
25	Number of Bills		85,591	71,021	127	13,496	479	144	324
26									
27	Customer-charge Components		\$15.28	\$14.56	\$27.11	\$16.63	\$85.12	\$14.08	\$8.83
28									
29	Distribution Plant in Service- Cost		26,567,410	16,737,488	179,506	4,238,532	4,547,003	336,162	528,719
30	Services / Meters % of Distribution Plant		21.4%	27.4%	5.6%	23.5%	2.0%	2.4%	0.0%
31	ADIT		(1,101,790)	(702,207)	(7,184)	(175,588)	(183,027)	(13,095)	(20,690)
32									
33	Income tax gross-up		37.94%	37.94%	37.94%	37.94%	37.94%	37.94%	37.94%
34	GRT gross-up		6.18%	6.18%	6.17%	6.18%	6.15%	6.24%	6.23%

Functions
Funtionalization
Fnc
E-2

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPPTY Ending December 31, 2023
Funtionalization

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %
30	II. DEPRECIATION RESERVE								
31	Intangible Plant	108.3	319,218	IntanPt	0	0	319,218	-	
32	Transmission Plant	108.5	0	Tran	0	0	0	-	
33	Station Equipment	108.5	805,945	Prim	805,945	0	0	-	
34	Poles, Towers and Fixtures	108.6	3,167,546	OH_Cond	2,390,481	777,065	0	-	
35	OH Conductors and Devices	108.6	2,128,160	OH_Cond	1,606,078	522,082	0	-	
36	UG Conduits and Conductors	108.6	2,146,136	UG_Cond	1,056,308	1,089,828	0	-	
37	Line Transformers	108.6	2,229,785	Trans	0	2,229,785	0	-	
38	Services	108.6	1,810,384	Sec	0	1,810,384	0	-	
39	Meters	108.6	53,946	Bill	0	0	53,946	-	
40	Street Lighting	108.6	25,475	Sec	0	25,475	0	-	
41	General Plant	108.6	2,392,929	GenPtXL	1,044,950	473,331	874,648	-	
35	Total DEPRECIATION RESERVE	108	<u>15,079,523</u>		<u>6,903,761</u>	<u>6,927,950</u>	<u>1,247,812</u>	-	
42									
43	III. OTHER RATE BASE ITEMS								
44	Cash Working Capital	131	385,656	OpExp_Dist	170,835	84,494	130,326	-	
45	CWIP	131	914	Plant	421	415	78	-	
45	Materials & Supplies	255	202,480	OpExp_Dist	89,693	44,362	68,425	-	
46	Customer Deposits		(228,657)	Bill	0	0	(228,657)	-	
47	ADIT / EDIT	154	(1,101,790)	Plant	(507,474)	(499,987)	(94,330)	-	
48	Accrued Pension / OPEB	182	<u>(621,869)</u>	Labor	<u>(271,559)</u>	<u>(123,008)</u>	<u>(227,302)</u>	-	
49	Total OTHER RATE BASE ITEMS	131-283	<u>(1,363,266)</u>		<u>(518,083)</u>	<u>(493,724)</u>	<u>(351,459)</u>	-	
50									
51	TOTAL RATE BASE		<u><u>13,926,648</u></u>		<u><u>6,418,984</u></u>	<u><u>6,214,959</u></u>	<u><u>1,292,705</u></u>	-	
52			13,926,648						

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %	
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	Tran	0	0	0	-	0	
56	Total TRANSMISSION Expense		0		0	0	0			
57										
58	C. DISTRIBUTION OPER. & MAINT. EXPENSE									
59	Ops Supv & Engineering	580	123,139	D-Labor-Op	68,435	33,290	21,414	-	29,021	23.57%
60	Station Expenses	582	8,606	Prim	8,606	0	0	-	4,019	46.70%
61	OH Line Expenses	583	161,359	OH_Cond	121,774	39,585	0	-	83,103	51.50%
62	Street Lighting Expenses	585	5,530	Sec	0	5,530	0	-	2,431	43.96%
63	Meter Expenses	586	22,480	Bill	0	0	22,480	-	22,480	100.00%
64	Customer Installation Expenses	587	34,698	Bill	0	0	34,698	-	14,318	41.26%
65	Misc. Distribution Expenses	588	313,536	OH_UG	187,064	126,472	0	-	85,248	27.19%
66	Rents	589	505	DistPt	234	246	25	-	0	0.00%
67	Maint Supv & Engineering	590	0	None	0	0	0	-	0	0.00%
68	Maint of Station Equip	592	7,265	Prim	7,265	0	0	-	3,154	43.41%
69	Maint of OH Lines	593	554,049	OH_Cond	418,129	135,920	0	-	113,018	20.40%
70	Maint of UG Lines	594	4,964	UG_Cond	2,443	2,521	0	-	2,213	44.58%
71	Maint of Line Transformers	595	8,937	Trans	0	8,937	0	-	3,732	41.76%
72	Maint of Lighting	596	7,142	Sec	0	7,142	0	-	3,452	48.33%
73	Maint of Misc. Plant	599	337	DistPt	156	164	16	-	167	49.57%
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,252,545		814,106	359,807	78,633	-	366,356	
75	Distribution Expense		1,252,545		814,106	359,807	78,633	-		
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	None	0	0	0	-	0	0.00%
78	Meter Reading Exp	902	1,521	Bill	0	0	1,521	-	795	52.27%
79	Customer Records & Coll	903	416,324	Bill	0	0	416,324	-	144,292	34.66%
80	Uncollectible Accounts	904	20,600	Bill	0	0	20,600	-	0	0.00%
81	Subtotal - Customer Accounts Exp.	901-905	438,445		0	0	438,445	-	145,087	
82	Total CUST. ACCT. & SERV. EXP.	901-919	438,445		0	0	438,445	-	145,087	
83									511,442	

Classify
Classification
Cls
E-3

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
1	I. ELECTRIC PLANT IN SERVICE					
2	INTANGIBLE PLANT					
3	Organization	302	0	Sec-Pt	0	0
4	EDI Software	303	0	Customer	0	0
5	Total INTANGIBLE Plant		<u>0</u>		<u>0</u>	<u>0</u>
6						
7	C. TRANSMISSION PLANT					
8	Transmission Plant	361	0	None	0	0
9	Total TRANSMISSION Plant	350-359	<u>0</u>		<u>0</u>	<u>0</u>
10						
11	D. DISTRIBUTION PLANT					
12	Land and Land Rights	360	0	None	0	0
13	Station Equipment	362	0	None	0	0
14	Poles, Towers and Fixtures	364	1,103,161	PTF-Sec-Z	235,833	867,328
15	OH Conductors and Devices	365	2,084,045	OH-Sec-Z	484,230	1,599,816
16	UG Conduits and Conductors	366	1,759,995	UG-Sec-Z	731,596	1,028,398
17	Line Transformers	368	2,835,049	Demand	2,835,049	0
18	Services	369	4,389,420	Customer	0	4,389,420
19	Meters	370	0	None	0	0
20	Street Lighting	373	776,050	Customer	0	776,050
21	Total DISTRIBUTION Plant	360-373	<u>12,947,719</u>		<u>4,286,708</u>	<u>8,661,011</u>
22						
23	E. GENERAL PLANT					
24	General Plant	389	635,049	Sec-Lab	235,557	399,492
25	Communication Equip	398	53,865	Sec-Lab	19,980	33,885
26	Total GENERAL Plant	389-399	<u>688,914</u>		<u>255,537</u>	<u>433,376</u>
27						
28	TOTAL UTILITY PLANT		<u>13,636,633</u>		<u>4,542,245</u>	<u>9,094,388</u>
29						

Classify
Classification
Cls
E-3

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
30	II. DEPRECIATION RESERVE					
31	Intangible Plant	108.3	0	Sec-Pt	0	0
32	Transmission Plant	108.5	0	None	0	0
33	Station Equipment	108.5	0	None	0	0
34	Poles, Towers and Fixtures	108.6	777,065	PTF-Sec-Z	166,121	610,945
35	OH Conductors and Devices	108.6	522,082	OH-Sec-Z	121,306	400,776
36	UG Conduits and Conductors	108.6	1,089,828	UG-Sec-Z	453,021	636,807
37	Line Transformers	108.6	2,229,785	Demand	2,229,785	0
38	Services	108.6	1,810,384	Customer	0	1,810,384
39	Meters	108.6	0	None	0	0
40	Street Lighting	108.6	25,475	Customer	0	25,475
41	General Plant	108.6	473,331	Sec-GenPt	175,572	297,759
35	Total DEPRECIATION RESERVE	108	<u>6,927,950</u>		<u>3,145,804</u>	<u>3,782,146</u>
42						
43	III. OTHER RATE BASE ITEMS					
44	Cash Working Capital	131	84,494	Sec-OpExp	30,871	53,623
45	CWIP	131	415	Sec-Pt	138	277
45	Materials & Supplies	255	44,362	Sec-OpExp	16,208	28,154
46	Customer Deposits		0	None	0	0
47	ADIT / EDIT	154	(499,987)	Sec-Pt	(166,541)	(333,445)
48	Accrued Pension / OPEB	182	(123,008)	Sec-Lab	(45,627)	(77,381)
49	Total OTHER RATE BASE ITEMS	131-283	<u>(493,724)</u>		<u>(164,951)</u>	<u>(328,773)</u>
50						
51	TOTAL RATE BASE		<u><u>6,214,959</u></u>		<u><u>1,231,490</u></u>	<u><u>4,983,469</u></u>
52						
53	I. OPERATING AND MAINTENANCE EXPENSE					

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
54	B. TRANSMISSION EXPENSE					
55	Transmission Expense		0	None	0	0
56	Total TRANSMISSION Expense		0		0	0
57						
58	C. DISTRIBUTION OPER. & MAINT. EXP.					
59	Ops Supv & Engineering	580	33,290	Sec-Lab	12,348	20,942
60	Station Expenses	582	0	None	0	0
61	OH Line Expenses	583	39,585	OH-Sec-Z	9,198	30,387
62	Street Lighting Expenses	585	5,530	Customer	0	5,530
63	Meter Expenses	586	0	None	0	0
64	Customer Installation Expenses	587	0	None	0	0
65	Misc. Distribution Expenses	588	126,472	Sec-OH_UG	70,651	55,821
66	Rents	589	246	Sec-Pt	82	164
67	Maint Supv & Engineering	590	0	Sec-Lab	0	0
68	Maint of Station Equip	592	0	None	0	0
69	Maint of OH Lines	593	135,920	OH-Sec-Z	31,581	104,339
70	Maint of UG Lines	594	2,521	UG-Sec-Z	1,048	1,473
71	Maint of Line Transformers	595	8,937	Demand	8,937	0
72	Maint of Lighting	596	7,142	Customer	0	7,142
73	Maint of Misc. Plant	599	164	Sec-Pt	55	109
74	Total DISTR. OPER. & MAINT. EXP.	500-599	359,807		133,900	225,907
75	Distribution Expense		359,807		133,900	225,907
76	D. CUSTOMER ACCOUNTS AND SERVICE					
77	Supervision	901	0	None	0	0
78	Meter Reading Exp	902	0	None	0	0
79	Customer Records & Coll	903	0	None	0	0
80	Uncollectible Accounts	904	0	None	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0
83						

Classify
Classification
Cls
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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPPTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
84	E. ADMINISTRATIVE AND GENERAL					
85	Administrative & General Salaries	920	146,397	Sec-Lab	54,303	92,094
86	Office Supplies & Expenses	921	40,859	Sec-Lab	15,156	25,703
87	Outside Services Employed	923	25,168	Sec-LabPt	8,859	16,309
88	Property Insurance	924	5,440	Sec-Pt	1,812	3,628
89	Injuries and Damages	925	15,803	Sec-Pt	5,264	10,539
90	Employee Pensions & Benefits	926	4,686	Sec-Lab	1,738	2,948
91	Regulatory Commission Expense	928	0	Sec-Pt	0	0
92	Miscellaneous General Expense	930	30,978	Sec-LabPt	10,905	20,074
89	Maint General Property	932	64,256	Sec-Pt	21,403	42,853
93	Total A&G Expense	920-932	333,587		119,440	214,148
94						
95	TOTAL OPERATING EXPENSES		693,394		253,339	440,055
96						
97	II. DEPRECIATION EXPENSE					
98	Intangible Plant		0	None	0	0
99	Station Equipment	361/362	0	None	0	0
100	Poles, Towers and Fixtures	364	44,369	PTF-Sec-Z	9,485	34,884
101	OH Conductors and Devices	364	80,339	OH-Sec-Z	18,667	61,672
102	UG Conduits and Conductors	364	69,132	UG-Sec-Z	28,737	40,395
103	Line Transformers	364	111,848	Demand	111,848	0
104	Services	364	169,569	Customer	0	169,569
105	Meters	364	0	None	0	0
106	Street Lighting	364	29,425	Customer	0	29,425
107	General Plant	364	41,390	Sec-GenPt	15,353	26,038
101	Total DEPRECIATION Expense	403	546,072		184,089	361,982
108						
109	III. TAXES and OTHER					
110	A. GENERAL TAXES					
111	Payroll related	408	0	None	0	0
112	PURTA, Real estate	408.16	12,166	Sec-Pt	4,053	8,114
113	PUC Assessment		21,779	Sec-RB	4,316	17,464
114	PA Use Tax	408	1,881	Sec-Pt	627	1,254
115	Subtotal - General Taxes		35,827		8,995	26,832
116						
117	B. GROSS RECEIPTS TAX					
118	Gross Receipts tax		96,562	Sec-Rev	29,391	67,172
119	Subtotal- Gross Receipts tax		96,562		29,391	67,172
120						

Classify
Classification
Cls
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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPPTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
121	B. FEDERAL / STATE INCOME TAXES					
122	State Income Tax Expense		17,559	Sec-StaTax	1,716	15,843
123	Federal Income Tax Expense		43,318	Sec-FedTax	4,233	39,085
124	Subtotal - Federal / State Income Taxes	409-411	<u>60,877</u>		<u>5,949</u>	<u>54,928</u>
125	Total TAXES	408-411	<u>193,266</u>		<u>44,334</u>	<u>148,932</u>
126						
127	TOTAL EXPENSES		<u>1,432,732</u>		<u>481,763</u>	<u>950,969</u>
128						
129	IV. OPERATING REVENUES at Present Rates					
130	Distribution Revenue		1,644,303	Sec-RetRRPF	500,477	1,143,825
131	Forfeited Discounts		0	Sec-RetRRPF	0	0
132	Rent For Electric Property		14,530	PTF-Sec-Z	3,106	11,423
133	Other Electric Revenues		1,327	Sec-RetRRPF	404	923
134	Total REVENUES		<u>1,660,159</u>		<u>503,987</u>	<u>1,156,172</u>
135						
136	TOTAL EXPENSES		<u>1,432,732</u>		<u>481,763</u>	<u>950,969</u>
137	V. NET INCOME at Present Rates		<u>227,427</u>		<u>22,224</u>	<u>205,203</u>
138						
139	SUMMARY REPORT					
140	OPERATING REVENUES					
141	Utility Revenues	440-446	1,644,303		500,477	1,143,825
142	Other Operating Revenues	450-456	<u>15,857</u>		<u>3,510</u>	<u>12,347</u>
143	Total Operating Revenues		<u>1,660,159</u>		<u>503,987</u>	<u>1,156,172</u>
144						
145	OPERATING EXPENSES					
146	Distribution / Transmission	580-599	359,807		133,900	225,907
147	Customer Acctg & Service	901-919	0		0	0
148	Admin & General	920-932	<u>333,587</u>		<u>119,440</u>	<u>214,148</u>
149	Total Operating Expenses		<u>693,394</u>		<u>253,339</u>	<u>440,055</u>
150						
151	Depreciation Expense	403	546,072		184,089	361,982
152	Taxes Other Than Income Tax / Other	408	<u>132,389</u>		<u>38,385</u>	<u>94,004</u>
153	INCOME BEFORE INCOME TAXES		<u>288,304</u>		<u>28,173</u>	<u>260,131</u>
154	Income Taxes	409-411	<u>60,877</u>		<u>5,949</u>	<u>54,928</u>
155	NET INCOME		<u>227,427</u>		<u>22,224</u>	<u>205,203</u>
156						
157	RATE BASE		<u>6,214,959</u>		<u>1,231,490</u>	<u>4,983,469</u>
158	Return on Rate Base					

Classify
Classification
Cls
E-3

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
159						
160	REVENUE REQUIREMENTS					
161	Target Rate of Return		7.1100%		7.1100%	7.1100%
162						
163	Rate Base		6,214,959		1,231,490	4,983,469
164						
165	Operating expenses		671,615		249,024	422,591
166	Uncollectibles expense		0	None	0	0
167	Depreciation expense		546,072		184,089	361,982
168	Regulatory Commission Expenses		21,779	Sec-Pt	4,316	17,464
169	General taxes / Other		35,827		8,995	26,832
170	Subtotal- Operating Costs to recover		<u>1,275,293</u>		<u>446,424</u>	<u>828,869</u>
171						
172	Target Return on Rate Base- After taxes		441,884		87,559	354,325
173						
174	Income taxes to recover	37.94%	167,659		33,221	134,437
175						
176	Subtotal- Rev Req before GRT		1,884,835		567,204	1,317,631
177	GRT needed	6.24%	116,717		35,202	81,514
178	TOTAL REVENUE REQUIREMENT		<u><u>2,001,552</u></u>		<u><u>602,406</u></u>	<u><u>1,399,146</u></u>
179						

PrimDem
Class Allocation- Primary Demand
CAI
E-4A

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Class Allocation- Primary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		7.1100%		7.1100%	7.1100%	7.1100%	7.1100%	7.1100%	7.1100%
162										
163	Rate Base		6,418,984		3,755,160	47,406	971,373	1,628,035	4,854	12,156
164										
165	Operating expenses		1,379,447		805,552	10,234	208,746	352,450	571	1,894
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		542,019		317,086	4,003	82,023	137,471	410	1,026
168	Regulatory Commission Expenses		22,494	PriD-Pt	14,596	120	3,407	3,122	489	761
169	General taxes / Other		36,752		22,937	225	5,565	6,738	500	788
170	Subtotal- Operating Costs to recover		<u>1,980,712</u>		<u>1,160,170</u>	<u>14,582</u>	<u>299,740</u>	<u>499,781</u>	<u>1,970</u>	<u>4,469</u>
171										
172	Target Return on Rate Base- After taxes		456,390		266,992	3,371	69,065	115,753	345	864
173										
174	Income taxes to recover		173,163	37.94%	101,302	1,279	26,204	43,919	131	328
175										
176	Subtotal- Rev Req before GRT		2,610,265		1,528,463	19,231	395,009	659,453	2,446	5,661
177	GRT needed		160,104	6.24%	93,749	1,180	24,224	40,455	150	346
178	TOTAL REVENUE REQUIREMENT		<u><u>2,770,369</u></u>		<u><u>1,622,212</u></u>	<u><u>20,411</u></u>	<u><u>419,233</u></u>	<u><u>699,908</u></u>	<u><u>2,597</u></u>	<u><u>6,008</u></u>
179										
180	Revenue at Present rates		2,318,492		1,417,260	11,712	443,536	399,031	9,129	37,823
181	Revenue Excess (Deficiency)		<u>(451,876)</u>		<u>(204,951)</u>	<u>(8,700)</u>	<u>24,303</u>	<u>(300,877)</u>	<u>6,532</u>	<u>31,816</u>

SecnDem
Class Allocation- Secondary Demand
CAI
E-4B

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		7.1100%		7.1100%	7.1100%	7.1100%	7.1100%	7.1100%	7.1100%
162										
163	Rate Base		1,231,490		677,915	17,124	229,625	300,175	1,898	4,753
164										
165	Operating expenses		249,024		155,357	2,696	44,834	45,359	197	582
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		184,089		90,225	3,037	35,366	54,258	343	859
168	Regulatory Commission Expenses		4,316	SecD-Pt	2,800	23	654	599	94	146
169	General taxes / Other		8,995		5,074	101	1,554	1,994	103	168
170	Subtotal- Operating Costs to recover		446,424		253,457	5,857	82,408	102,210	736	1,755
171										
172	Target Return on Rate Base- After taxes		87,559		48,200	1,217	16,326	21,342	135	338
173										
174	Income taxes to recover		33,221	37.94%	18,288	462	6,195	8,098	51	128
175										
176	Subtotal- Rev Req before GRT		567,204		319,944	7,537	104,929	131,651	923	2,221
177	GRT needed		35,202	6.24%	19,834	469	6,514	8,190	57	138
178	TOTAL REVENUE REQUIREMENT		602,406		339,778	8,006	111,443	139,841	980	2,359
179										
180	Revenue at Present rates		503,987		308,538	2,534	96,757	85,832	2,006	8,320
181	Revenue Excess (Deficiency)		(98,419)		(31,240)	(5,472)	(14,686)	(54,009)	1,026	5,961

SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C

Citizens Electric Company of Lewisburg
 Embedded Cost of Service Study (ECOSS)
 FPFTY Ending December 31, 2023
 Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	None	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0		0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	20,942	SecC-Lab	15,634	28	2,971	105	856	1,347
60	Station Expenses	582	0	None	0	0	0	0	0	0
61	OH Line Expenses	583	30,387	Avg-Cust	25,214	45	4,791	170	51	115
62	Street Lighting Expenses	585	5,530	StLgt-Cost	0	0	0	0	2,171	3,359
63	Meter Expenses	586	0	None	0	0	0	0	0	0
64	Customer Installation Expenses	587	0	None	0	0	0	0	0	0
65	Misc. Distribution Expenses	588	55,821	Avg-Cust	46,318	83	8,802	312	94	211
66	Rents	589	164	Avg-Cust	136	0	26	1	0	1
67	Maint Supv & Engineering	590	0	SecC-Lab	0	0	0	0	0	0
68	Maint of Station Equip	592	0	None	0	0	0	0	0	0
69	Maint of OH Lines	593	104,339	Avg-Cust	86,577	155	16,452	584	176	395
70	Maint of UG Lines	594	1,473	Avg-Cust	1,222	2	232	8	2	6
71	Maint of Line Transformers	595	0	Avg-Cust-Sec	0	0	0	0	0	0
72	Maint of Lighting	596	7,142	StLgt-Cost	0	0	0	0	2,804	4,338
73	Maint of Misc. Plant	599	109	SecC-Pt	83	0	16	1	4	6
74	Total DISTR. OPER. & MAINT. EXP.	500-599	225,907		175,185	313	33,290	1,182	6,159	9,778
75	Distribution Expense		225,907		175,185	313	33,290	1,182	6,159	9,778
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	None	0	0	0	0	0	0
78	Meter Reading Exp	902	0	None	0	0	0	0	0	0
79	Customer Records & Coll	903	0	None	0	0	0	0	0	0
80	Uncollectible Accounts	904	0	None	0	0	0	0	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0	0	0	0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0	0	0	0	0
83										

SecnCus
Class Allocation- Secondary Customer
CAI
E-4C

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		7.1100%		7.1100%	7.1100%	7.1100%	7.1100%	7.1100%	7.1100%
162										
163	Rate Base		4,983,469		3,530,447	6,420	673,198	26,018	295,255	452,130
164										
165	Operating expenses		422,591		324,414	509	61,191	(126)	14,241	22,362
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		361,982		274,026	497	52,234	2,002	13,156	20,066
168	Regulatory Commission Expenses		17,464	SecC-Pt	11,332	93	2,645	2,423	380	591
169	General taxes / Other		26,832		18,411	106	3,995	2,475	726	1,119
170	Subtotal- Operating Costs to recover		828,869		628,183	1,206	120,065	6,775	28,503	44,138
171										
172	Target Return on Rate Base- After taxes		354,325		251,015	456	47,864	1,850	20,993	32,146
173										
174	Income taxes to recover		134,437	37.94%	95,240	173	18,161	702	7,965	12,197
175										
176	Subtotal- Rev Req before GRT		1,317,631		974,437	1,835	186,090	9,327	57,461	88,481
177	GRT needed		81,514	6.24%	60,226	113	11,498	569	3,587	5,522
178	TOTAL REVENUE REQUIREMENT		<u>1,399,146</u>		<u>1,034,663</u>	<u>1,949</u>	<u>197,588</u>	<u>9,896</u>	<u>61,048</u>	<u>94,003</u>
179										
180	Revenue at Present rates		1,156,172		709,838	5,747	221,696	195,250	4,598	19,043
181	Revenue Excess (Deficiency)		<u>(242,974)</u>		<u>(324,825)</u>	<u>3,799</u>	<u>24,108</u>	<u>185,354</u>	<u>(56,449)</u>	<u>(74,960)</u>

BillCus
 Class Allocation- Billing Customer
 CA1
 E-4D

Citizens Electric Company of Lewisburg
 Embedded Cost of Service Study (ECOSS)
 FPFTY Ending December 31, 2023
 Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		7.1100%		7.1100%	7.1100%	7.1100%	7.1100%	7.1100%	7.1100%
162										
163	Rate Base		1,292,705		1,072,862	3,435	235,118	(21,656)	1,021	1,925
164										
165	Operating expenses		1,044,377		829,658	2,208	171,590	28,887	4,346	7,687
166	Uncollectibles expense		20,600	Write-Offs	12,603	103	3,957	3,512	82	342
167	Depreciation expense		156,025		122,463	305	29,164	3,594	154	346
168	Regulatory Commission Expenses		4,530	Bill-Pt	2,939	24	686	629	99	153
169	General taxes / Other		7,180		4,974	30	1,211	708	100	157
170	Subtotal- Operating Costs to recover		<u>1,232,712</u>		<u>972,637</u>	<u>2,670</u>	<u>206,608</u>	<u>37,330</u>	<u>4,781</u>	<u>8,685</u>
171										
172	Target Return on Rate Base- After taxes		91,911		76,280	244	16,717	(1,540)	73	137
173										
174	Income taxes to recover		34,873	37.94%	28,942	93	6,343	(584)	28	52
175										
176	Subtotal- Rev Req before GRT		1,359,496		1,077,860	3,007	229,668	35,206	4,882	8,874
177	GRT needed		84,839	6.24%	67,274	187	14,331	2,188	305	553
178	TOTAL REVENUE REQUIREMENT		<u>1,444,335</u>		<u>1,145,134</u>	<u>3,195</u>	<u>243,999</u>	<u>37,394</u>	<u>5,186</u>	<u>9,427</u>
179										
180	Revenue at Present rates		1,238,529		757,735	6,200	237,909	211,176	4,954	20,556
181	Revenue Excess (Deficiency)		<u>(205,806)</u>		<u>(387,400)</u>	<u>3,005</u>	<u>(6,090)</u>	<u>173,782</u>	<u>(232)</u>	<u>11,129</u>

Class: **Citizens Electric Company of Lewisburg**
 Class: **Embedded Cost of Service Study (ECOSS)**
 Fac: **FPPTY Ending December 31, 2023**
 E-5C Classification Factors

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
1	None		0			
2		FALSE	0.00%	0.00%	0.00%	0.00%
3						
4	Demand		1	1		
5		TRUE	100.00%	100.00%	0.00%	0.00%
6						
7	Commodity		1		1	
8		TRUE	100.00%	0.00%	100.00%	0.00%
9						
10	Customer		1			1
11		TRUE	100.00%	0.00%	0.00%	100.00%
12						
13	PTF-Sec-Z		100.00%	21.38%	0.00%	78.62%
14		TRUE	100.00%	21.38%	0.00%	78.62%
15						
16	OH-Sec-Z		100.00%	23.24%	0.00%	76.76%
17		TRUE	100.00%	23.24%	0.00%	76.76%
18						
19	UG-Sec-Z		100.00%	41.57%	0.00%	58.43%
20		TRUE	100.00%	41.57%	0.00%	58.43%
21						
22	Trans-Min		100.00%	65.07%	0.00%	34.93%
23		TRUE	100.00%	65.07%	0.00%	34.93%
24						
25	Sec_RB		6,214,959	1,231,490	-	4,983,469
26		TRUE	100.00%	19.81%	0.00%	80.19%
27						
28	Sec-Pt		13,636,633	4,542,245	-	9,094,388
29		TRUE	100.00%	33.31%	0.00%	66.69%
30						
31	Sec-RB		6,214,959	1,231,490	-	4,983,469
32		TRUE	100.00%	19.81%	0.00%	80.19%
33						
34	Sec-OH_UG		20,605,030	11,510,643	-	9,094,388
35		TRUE	100.00%	55.86%	0.00%	44.14%
36						

Class: **Citizens Electric Company of Lewisburg**
 Class: **Embedded Cost of Service Study (ECOSS)**
 Fac: **FPPTY Ending December 31, 2023**
 E-5C Classification Factors

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
37	Sec-GenPt		688,914	255,537	-	433,376
38		TRUE	100.00%	37.09%	0.00%	62.91%
39						
40	Sec-OpExp		693,394	253,339	-	440,055
41		TRUE	100.00%	36.54%	0.00%	63.46%
42						
43	Sec-DiPt		12,947,719	4,286,708	-	8,661,011
44		TRUE	100.00%	33.11%	0.00%	66.89%
45						
46	Sec-Lab		101,165	37,525	-	63,640
47		TRUE	100.00%	37.09%	0.00%	62.91%
48						
49	Sec-Rev		1,644,303	500,477	-	1,143,825
50		TRUE	100.00%	30.44%	0.00%	69.56%
51						
52	Sec-LabPt		200.00%	70.40%	0.00%	129.60%
53		TRUE	100.00%	35.20%	0.00%	64.80%
54						
55	Sec-PreTax		288,304	28,173	-	260,131
56		TRUE	100.00%	9.77%	0.00%	90.23%
57						
55	Sec-StaTax		288,304	28,173	-	260,131
58		TRUE	100.00%	9.77%	0.00%	90.23%
59						
58	Sec-FedTax		270,745	26,457	-	244,288
60		TRUE	100.00%	9.77%	0.00%	90.23%
61						
58	Sec-RetRRPF		1,935,906	589,233	-	1,346,674
62		TRUE	100.00%	30.44%	0.00%	69.56%
63						

WP

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
INDEX TO WORKPAPERS

Line	WORKPAPER	DESCRIPTION	PERIOD
	INDEX TO WORKPAPERS		
1	Index To Workpapers		
2	Workpaper 1 to Schedule B	Sales Recap	Period Ending December 31, 2021
3	Workpaper 2 to Schedule B	Monthly Billing Units, Rates And Revenue	Period Ending December 31, 2021
4	Workpaper 3 to Schedule B	Monthly Customers	Period Ending December 31, 2021
5	Workpaper 1 to Schedule C	Historic O&M	Historic Periods
6	Workpaper 2 to Schedule C	Historic O&M- Details	Historic Periods
7	Workpaper 3 to Schedule C	Forecast O&M	Years 2018-2023
8	Workpaper 4 to Schedule C	Accumulated Deferred Income Taxes	Years 2017 through 2023
9	Workpaper 1 to Schedule D	Components of Capital Projects- Zero Load Analysis	HY 2021
10	Workpaper 2 to Schedule D	Transformer Costs and Replacements	HY 2021
11	Workpaper 3 to Schedule D	Services Costs	HY 2021

WP1_B Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Workpaper 1 to Schedule B
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	January	February	March	April	May	June	July
1	RS - KWH	440.10	KWH	RS	(93,495)	(97,446)	(80,932)	(68,417)	(59,130)	(68,875)	(81,071)
2	RS - Facility	440.20	Facility	RS	(40,773)	(40,822)	(40,804)	(40,884)	(40,865)	(40,849)	(40,869)
3	RS - STAS	440.40	STAS	RS	17	15	12	10	7	11	14
4	RS - KWHGEN	440.50	Gen	RS	(260,352)	(233,652)	(194,036)	(163,683)	(141,598)	(192,934)	(226,708)
5	RSH - KWH	441.10	KWH	RS	(170,035)	(185,218)	(143,308)	(101,120)	(79,200)	(78,747)	(83,301)
6	RSH - Facility	441.20	Facility	RS	(35,628)	(35,651)	(35,667)	(35,747)	(35,740)	(35,794)	(35,839)
7	RSH - STAS	441.40	STAS	RS	34	33	26	20	15	15	16
8	RSH - KWHGEN	441.50	Gen	RS	(475,940)	(444,384)	(344,112)	(242,565)	(190,003)	(220,481)	(233,237)
9	GLP1 - KWH2	442.10	KWH	GLP1	(69,013)	(71,306)	(68,409)	(63,022)	(60,429)	(63,336)	(65,145)
10	GLP1 - Facility	442.20	Facility	GLP1	(16,534)	(16,558)	(16,595)	(16,600)	(16,668)	(16,647)	(16,626)
11	GLP1 - KW2	442.30	KW	GLP1	(1,450)	(1,767)	(2,121)	(1,747)	(1,987)	(2,035)	2,034
12	GLP1 - STAS	442.40	STAS	GLP1	11	11	10	8	7	9	10
13	GLP1 - KWHGEN	442.50	Gen	GLP1	(153,860)	(150,817)	(132,971)	(112,984)	(99,704)	(126,170)	(145,559)
14	GLP3 - KWH3	443.10	KWH	GLP3	(2,742)	(2,877)	(2,710)	(2,566)	(2,025)	(1,928)	(2,176)
15	GLP3 - KW AND KW2	443.20	KW	GLP3	(28,136)	(28,779)	(28,856)	(27,572)	(27,695)	(27,162)	(27,269)
16	GLPP - KWH3	443.21	KWH	GLP3	(2,247)	(2,231)	(2,116)	(2,460)	(2,933)	(2,967)	(3,468)
17	GLPP - KWVD	443.22	KW	GLP3	676	653	658	778	819	863	983
18	GLPP - KW	443.23	KW	GLP3	(16,301)	(15,952)	(15,879)	(19,652)	(25,785)	(26,794)	(28,928)
19	GLPP - Facility	443.25	Facility	GLP3	(204)	(204)	(204)	(204)	(204)	(204)	(204)
20	GLPP - STAS	443.26	STAS	GLP3	1	1	1	1	1	1	2
21	GLP3 - KWHGEN	443.30	Gen	GLP3	(29,988)	(29,550)	(27,592)	(26,500)	(24,550)	(31,666)	(32,609)
22	GLP3 - Facility	443.40	Facility	GLP3	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)
23	GLP3 - STAS	443.50	STAS	GLP3	4	4	4	4	4	8	5
24	RS - KWH	440.10	TCJA	RS	(5,782)	(6,145)	(5,107)	(4,136)	(3,602)	(3,813)	(4,092)
25	GLP1 - KWH2	442.10	TCJA	GLP1	(1,546)	(1,599)	(1,531)	(1,405)	(1,347)	(1,389)	(1,458)
26	GLPP - KW	443.23	TCJA	GLP3	(315)	(310)	(304)	(372)	(479)	(498)	(550)
27	GLP3 - KWH3	443.10	TCJA	GLP3	(559)	(575)	(571)	(547)	(839)	(958)	(743)
28	GPL3 - RTP - KWH3	443.71	KWH	GLP3	(233)	(228)	(213)	(241)	(267)	(2,936)	(461)
29	GPL3 - RTP - KW KW	443.73	KW	GLP3	(1,391)	(1,311)	(1,327)	(1,759)	(19,996)	(24,910)	(14,514)
30	GPL3 - RTP - GEN	443.74	Gen	GLP3	(8,895)	(8,844)	(10,529)	(8,896)	(8,723)	(66,956)	(14,153)
31	GPL3 - RTP - Facility	443.75	Facility	GLP3	(102)	(102)	(102)	(102)	(102)	(102)	(102)
32	PubStHwy Base	444.10	Facility	OL	(3,055)	(2,974)	(2,888)	(2,859)	(2,882)	(2,470)	(2,795)
33	LED - KWH	444.11	Facility	OL	(4,453)	(4,549)	(4,658)	(4,728)	(4,867)	(4,979)	(5,063)
34	MBL - KWHGEN	444.22	Gen	MBL	(906)	(719)	(542)	(454)	(390)	(414)	(374)
35	MBL - Facility	444.23	Facility	MBL	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)
36	MBL - STAS	444.24	STAS	MBL	0	0	0	0	0	0	0
37	SL Only - STAS	444.40	STAS	OL	0	0	0	0	0	0	0
38	PubSt&Hwy Ltg-Gen	444.50	Gen	OL	(907)	(974)	(941)	(911)	(886)	(759)	(945)
39	LED - KWHGEN	444.51	Gen	OL	(548)	(484)	(494)	(499)	(513)	(564)	(572)
40	SH - KWH	445.10	KWH	SH	(3,126)	(3,453)	(3,114)	(1,791)	(959)	(610)	(762)
41	SH - KWHGEN	445.20	Gen	SH	(6,466)	(5,922)	(5,342)	(3,071)	(1,644)	(1,221)	(1,525)
42	SH - Facility	445.30	Facility	SH	(204)	(204)	(204)	(204)	(204)	(186)	(186)
43	SH - STAS	445.40	STAS	SH	0	0	0	0	0	0	0
44	Reservation Charge	449.00	BU	GLP3	(11,500)	(11,500)	(11,500)	(11,379)	(2,911)	(692)	(5,638)
45	Totals				(1,449,335)	(1,409,781)	(1,188,360)	(971,647)	(861,662)	(1,052,532)	(1,077,270)

WP1_B Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Workpaper 1 to Schedule B
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	January	February	March	April	May	June	July
46											
47	Distribution	kWH			340,890	362,758	300,802	239,616	204,942	219,400	236,385
48	Facility	Facility			104,346	104,458	104,515	104,721	104,925	104,624	105,076
49	Demand	kW			46,601	47,156	47,525	49,952	74,644	80,038	67,695
50	Reservation Charge	BU			11,500	11,500	11,500	11,379	2,911	692	5,638
51	Total Distribution				503,337	525,872	464,343	405,668	387,422	404,754	414,794
52	Generation	Gen			937,863	875,345	716,559	559,563	468,009	641,165	655,681
53	STAS	STAS			(67)	(65)	(54)	(44)	(36)	(44)	(47)
54	TCJA	TCJA			8,203	8,629	7,513	6,460	6,267	6,658	6,843
55					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270
56											
57	kWh Generation				January	February	March	April	May	June	July
58	RS				3,669,929	3,842,312	3,190,865	2,691,734	2,328,542	2,713,690	3,194,404
59	RSH				6,708,865	7,307,781	5,660,613	3,988,918	3,124,565	3,106,680	3,286,401
60	GLP1				2,168,825	2,480,130	2,186,673	1,857,980	1,636,424	1,777,783	2,030,795
61	GLP3				422,728	485,956	453,760	435,788	403,744	446,192	459,488
62	GLP3 - RTP				176,231	174,981	158,354	178,533	179,960	1,857,490	232,038
63	GLPP				-	-	-	-	-	-	-
64	PL/SL				30,866	25,570	24,720	20,485	18,541	15,908	17,148
65	MBL				12,731	11,829	8,916	7,443	6,382	5,838	5,270
66	SH				88,117	97,360	87,788	50,480	27,025	17,207	21,496
67	Totals				13,278,292	14,425,919	11,771,689	9,231,361	7,725,183	9,940,788	9,247,040
68											
69	RS/RSH				339,931	359,137	300,711	246,169	214,935	224,266	241,079
70	GLP1				86,997	89,631	87,125	81,369	79,084	82,018	79,738
71	GLP3				63,862	64,213	63,932	66,839	82,781	88,515	83,461
72	SH				3,330	3,658	3,318	1,995	1,163	796	948
73	MBL				1,710	1,710	1,710	1,710	1,710	1,710	1,710
74	OL				7,508	7,523	7,546	7,587	7,749	7,448	7,858
75					503,337	525,872	464,343	405,668	387,422	404,754	414,794
76	Generation				937,863	875,345	716,559	559,563	468,009	641,165	655,681
77	STAS				(67)	(65)	(54)	(44)	(36)	(44)	(47)
78	TCLA				8,203	8,629	7,513	6,460	6,267	6,658	6,843
79					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270
80											
81	Excess Demand GLP-	\$3.45			420	512	615	506	576	590	(589)
82											
83	RS				1,081,955	1,043,270	843,927	656,524	550,116	641,468	705,086
84	SH				9,796	9,579	8,659	5,066	2,806	2,017	2,473
85	GLP1				242,392	242,036	221,617	195,748	180,128	209,568	226,744
86	GLP3				103,614	103,487	102,924	103,148	117,366	188,584	131,510
87	MBL				2,616	2,429	2,252	2,164	2,099	2,124	2,084
88	OL				8,963	8,981	8,981	8,997	9,147	8,771	9,375
89					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270

WP1_B Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year
Workpaper 1 to Schedule B
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	August	September	October	November	December	Totals
1	RS - KWH	440.10	KWH	RS	(84,411)	(84,478)	(62,060)	(67,024)	(80,646)	(927,984)
2	RS - Facility	440.20	Facility	RS	(40,785)	(40,782)	(40,785)	(40,743)	(40,739)	(489,701)
3	RS - STAS	440.40	STAS	RS	15	15	9	10	15	151
4	RS - KWHGEN	440.50	Gen	RS	(236,031)	(236,185)	(172,869)	(187,385)	(241,201)	(2,486,633)
5	RSH - KWH	441.10	KWH	RS	(85,753)	(85,959)	(62,286)	(90,029)	(130,492)	(1,295,448)
6	RSH - Facility	441.20	Facility	RS	(35,936)	(35,857)	(35,838)	(35,938)	(35,916)	(429,551)
7	RSH - STAS	441.40	STAS	RS	16	17	11	18	28	248
8	RSH - KWHGEN	441.50	Gen	RS	(240,094)	(240,656)	(174,386)	(252,140)	(390,758)	(3,448,757)
9	GLP1 - KWH2	442.10	KWH	GLP1	(65,210)	(63,033)	(60,205)	(62,906)	(65,251)	(777,265)
10	GLP1 - Facility	442.20	Facility	GLP1	(16,687)	(16,667)	(16,692)	(16,699)	(16,691)	(199,662)
11	GLP1 - KW2	442.30	KW	GLP1	(1,788)	(1,618)	(1,738)	(1,002)	(937)	(16,156)
12	GLP1 - STAS	442.40	STAS	GLP1	10	9	8	9	11	113
13	GLP1 - KWHGEN	442.50	Gen	GLP1	(151,752)	(142,600)	(124,242)	(127,164)	(153,656)	(1,621,478)
14	GLP3 - KWH3	443.10	KWH	GLP3	(2,561)	(2,588)	(2,062)	(1,827)	(2,395)	(28,457)
15	GLP3 - KW AND KW2	443.20	KW	GLP3	(28,905)	(29,959)	(27,858)	(27,453)	(28,354)	(337,997)
16	GLPP - KWH3	443.21	KWH	GLP3	(3,553)	(3,608)	(3,184)	(3,017)	(2,702)	(34,487)
17	GLPP - KWVD	443.22	KW	GLP3	953	911	835	793	699	9,621
18	GLPP - KW	443.23	KW	GLP3	(28,227)	(27,348)	(25,778)	(24,834)	(22,874)	(278,352)
19	GLPP - Facility	443.25	Facility	GLP3	(204)	(204)	(204)	(204)	(204)	(2,448)
20	GLPP - STAS	443.26	STAS	GLP3	1	1	1	1	1	15
21	GLP3 - KWHGEN	443.30	Gen	GLP3	(39,591)	(40,156)	(35,237)	(34,085)	(46,776)	(398,301)
22	GLP3 - Facility	443.40	Facility	GLP3	(1,797)	(1,785)	(1,785)	(1,802)	(1,775)	(20,725)
23	GLP3 - STAS	443.50	STAS	GLP3	5	6	6	6	6	62
24	RS - KWH	440.10	TCJA	RS	(4,243)	(4,247)	(3,413)	(4,215)	(5,186)	(53,981)
25	GLP1 - KWH2	442.10	TCJA	GLP1	(1,448)	(1,450)	(1,378)	(1,498)	(1,558)	(17,606)
26	GLPP - KW	443.23	TCJA	GLP3	(543)	(531)	(490)	(496)	(460)	(5,348)
27	GLP3 - KWH3	443.10	TCJA	GLP3	(641)	(762)	(929)	(1,023)	(706)	(8,852)
28	GPL3 - RTP - KWH3	443.71	KWH	GLP3	(461)	(1,051)	(1,436)	(1,719)	(262)	(9,505)
29	GPL3 - RTP - KW KW	443.73	KW	GLP3	(7,288)	(12,207)	(22,865)	(25,992)	(8,289)	(141,850)
30	GPL3 - RTP - GEN	443.74	Gen	GLP3	(15,545)	(33,787)	(27,919)	(39,922)	(18,831)	(263,000)
31	GPL3 - RTP - Facility	443.75	Facility	GLP3	(102)	(102)	(102)	(102)	(102)	(1,224)
32	PubStHwy Base	444.10	Facility	OL	(2,727)	(2,157)	(2,576)	(2,505)	(2,387)	(32,274)
33	LED - KWH	444.11	Facility	OL	(5,129)	(5,181)	(5,256)	(5,316)	(5,430)	(59,609)
34	MBL - KWHGEN	444.22	Gen	MBL	(400)	(443)	(482)	(543)	(805)	(6,470)
35	MBL - Facility	444.23	Facility	MBL	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(20,519)
36	MBL - STAS	444.24	STAS	MBL	0	0	0	0	0	1
37	SL Only - STAS	444.40	STAS	OL	0	0	0	0	0	3
38	PubSt&Hwy Ltg-Gen	444.50	Gen	OL	(926)	(787)	(878)	(856)	(799)	(10,569)
39	LED - KWHGEN	444.51	Gen	OL	(578)	(588)	(595)	(600)	(696)	(6,731)
40	SH - KWH	445.10	KWH	SH	(856)	(949)	(554)	(758)	(2,082)	(19,013)
41	SH - KWHGEN	445.20	Gen	SH	(1,712)	(1,899)	(1,108)	(1,516)	(4,453)	(35,878)
42	SH - Facility	445.30	Facility	SH	(186)	(186)	(186)	(186)	(205)	(2,340)
43	SH - STAS	445.40	STAS	SH	0	0	0	0	0	3
44	Reservation Charge	449.00	BU	GLP3	(8,994)	(6,676)	(1,652)	(151)	(8,276)	(80,868)
45	Totals				(1,115,772)	(1,127,234)	(919,867)	(1,062,519)	(1,322,842)	(13,558,821)

WP1_B Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year
Workpaper 1 to Schedule B
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	August	September	October	November	December	Totals
46										
47	Distribution	kWH			242,804	241,666	191,786	227,279	283,830	3,092,159
48	Facility	Facility			105,262	104,631	105,134	105,204	105,157	1,258,052
49	Demand	kW			65,255	70,221	77,404	78,488	59,755	764,734
50	Reservation Charge	BU			8,994	6,676	1,652	151	8,276	80,868
51	Total Distribution				<u>422,316</u>	<u>423,193</u>	<u>375,976</u>	<u>411,122</u>	<u>457,018</u>	<u>5,195,813</u>
52	Generation	Gen			686,630	697,101	537,716	644,210	857,975	8,277,817
53	STAS	STAS			(48)	(49)	(36)	(45)	(61)	(596)
54	TCJA	TCJA			6,875	6,989	6,211	7,231	7,909	85,787
55					<u>1,115,772</u>	<u>1,127,234</u>	<u>919,867</u>	<u>1,062,519</u>	<u>1,322,842</u>	<u>13,558,821</u>
56										
57	kWh Generation				August	September	October	November	December	Totals
58	RS				3,325,778	3,327,954	2,435,796	2,640,335	3,178,280	36,539,619
59	RSH				3,383,037	3,390,957	2,457,179	3,552,764	5,149,000	51,116,760
60	GLP1				2,118,067	2,087,045	1,730,446	1,771,596	2,007,685	23,853,449
61	GLP3				557,860	565,800	496,504	480,280	616,344	5,824,444
62	GLP3 - RTP				241,066	500,887	374,944	517,946	179,329	4,771,759
63	GLPP				-	-	-	-	-	-
64	PL/SL				18,807	20,755	24,025	25,014	26,703	268,542
65	MBL				5,627	6,250	6,791	7,632	10,613	95,322
66	SH				24,122	26,762	15,620	21,365	58,695	536,037
67	Totals				<u>9,674,364</u>	<u>9,926,410</u>	<u>7,541,305</u>	<u>9,016,932</u>	<u>11,226,649</u>	<u>123,005,932</u>
68										
69	RS/RSH				246,885	247,076	200,969	233,734	287,793	3,142,684
70	GLP1				83,685	81,317	78,635	80,607	82,879	993,083
71	GLP3				81,139	84,617	86,090	86,307	74,534	926,290
72	SH				1,041	1,135	740	944	2,287	21,354
73	MBL				1,710	1,710	1,710	1,710	1,710	20,519
74	OL				7,856	7,338	7,832	7,820	7,817	91,883
75					<u>422,316</u>	<u>423,193</u>	<u>375,976</u>	<u>411,122</u>	<u>457,018</u>	<u>5,195,813</u>
76	Generation				686,630	697,101	537,716	644,210	857,975	8,277,817
77	STAS				(48)	(49)	(36)	(45)	(61)	(596)
78	TCLA				6,875	6,989	6,211	7,231	7,909	85,787
79					<u>1,115,772</u>	<u>1,127,234</u>	<u>919,867</u>	<u>1,062,519</u>	<u>1,322,842</u>	<u>13,558,821</u>
80										
81	Excess Demand GLP-	\$3.45			518	469	504	291	272	4,683
82										
83	RS				727,221	728,132	551,617	677,446	924,894	9,131,655
84	SH				2,753	3,034	1,848	2,459	6,740	57,229
85	GLP1				236,874	225,358	204,247	209,260	238,082	2,632,055
86	GLP3				137,453	159,845	150,659	161,825	141,300	1,601,715
87	MBL				2,109	2,153	2,192	2,252	2,514	26,988
88	OL				9,360	8,713	9,305	9,276	9,311	109,179
89					<u>1,115,772</u>	<u>1,127,234</u>	<u>919,867</u>	<u>1,062,519</u>	<u>1,322,842</u>	<u>13,558,821</u>

WP2_B Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 2 to Schedule B
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
33	Monthly Billing Units- Public Lighting and Street Lighting HY 2021						
34	Rate 1			MBL- Meter Coun	12		
35	Rate 2			MBL- Post Count	535		
36	Rate 3			Mth revenue	\$1,709.93	\$7,095.06	
37	RATES AND CHARGES						
38	Tariff Rates						
39	Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84	
40					MBL- Meter		
41							
42					MBL- Post	Average	
43	Energy Block 1	\$0.025330	\$0.035470	\$0.008890	\$0.008697	\$3.11	\$15.00
44							
45	Energy Block 2				\$0.000947	Count	
46						473	
47	Reservation Chge				\$2.30		
48							
49	Voltage Discount				(\$0.214725)		
50	Block 1 kWh				3,500		
51	Demand Block 1			\$3.45	\$4.92		
52							
53	Block 1 Energy = Demand X				30		
54	GSSR Rate	\$0.075850	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
55							
56	STAS Rate	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
57							

WP2_B Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 2 to Schedule B
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
89	Distribution Demand Revenue (Includes Voltage Discount and Reservation Chge)						
90 Jan-21			\$46,767	\$56,382			\$103,149
91 Feb-21			47,368	56,592			103,961
92 Mar-21			47,569	56,615			104,184
93 Apr-21			46,250	59,337			105,587
94 May-21			44,958	74,917			119,875
95 Jun-21			46,635	77,949			124,584
96 Jul-21			43,001	74,902			117,903
97 Aug-21			44,968	72,089			117,056
98 Sep-21			45,297	74,775			120,073
99 Oct-21			43,729	76,572			120,301
100 Nov-21			45,505	76,842			122,347
101 Dec-21			45,608	66,559			112,167
102	\$0	\$0	\$547,655	\$823,531	\$0	\$0	\$1,371,187
103							
104							
105	Total Revenue						
106 Jan-21	\$339,956	\$3,330	\$86,362	\$64,494	\$1,710	\$7,095	\$502,947
107 Feb-21	359,207	3,658	88,993	64,833	1,710	7,095	525,496
108 Mar-21	301,036	3,318	86,412	64,556	1,710	7,095	464,127
109 Apr-21	246,060	1,995	82,206	67,481	1,710	7,095	406,547
110 May-21	214,956	1,163	78,896	83,311	1,710	7,095	387,131
111 Jun-21	224,192	796	82,124	89,070	1,710	7,095	404,988
112 Jul-21	240,981	948	81,054	84,134	1,710	7,095	415,922
113 Aug-21	246,760	1,041	83,307	81,738	1,710	7,095	421,652
114 Sep-21	247,059	1,135	83,210	85,218	1,710	7,095	425,427
115 Oct-21	200,800	740	78,170	86,617	1,710	7,095	375,131
116 Nov-21	233,700	962	80,165	86,862	1,710	7,095	410,495
117 Dec-21	287,773	2,286	82,545	75,037	1,710	7,095	456,446
118	\$3,142,482	\$21,372	\$993,445	\$933,351	\$20,519	\$85,141	\$5,196,309
119							

WP2_B Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
Workpaper 2 to Schedule B
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
151	GLP-1 Month	GLP-1 Excess	GLP-1 Total	GLP-3			
152	Jan-21	13,136	420	13,556		9,265	36,376
153	Feb-21	13,218	512	13,730		9,304	36,764
154	Mar-21	13,173	615	13,788		9,308	36,885
155	Apr-21	12,900	506	13,406		9,920	36,732
156	May-21	12,455	576	13,031		14,861	40,923
157	Jun-21	12,927	590	13,517		15,936	42,971
158	Jul-21	13,053	(589)	12,464		14,333	39,261
159	Aug-21	12,516	518	13,034		13,074	39,142
160	Sep-21	12,661	469	13,130		14,082	40,341
161	Oct-21	12,171	504	12,675		15,452	40,802
162	Nov-21	12,899	291	13,190		15,803	42,183
163	Dec-21	12,948	272	13,220		12,047	38,486
164		154,057	4,684	158,741		153,386	470,867
165		154,057				153,386	
166							

WP2_B Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
Workpaper 2 to Schedule B
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
167	GLP3 kWh		GLP3 kW	GLP3 Volt Disc	GLP3 Res Chge	GLP3 Total	GLP3 kWVD
168							
169	Jan-21	3,829,943	45,583	(701)	11,500	56,382	3,263
170	Feb-21	3,956,857	45,777	(685)	11,500	56,592	3,188
171	Mar-21	3,638,362	45,796	(681)	11,500	56,615	3,173
172	Apr-21	3,715,029	48,808	(850)	11,379	59,337	3,959
173	May-21	3,659,964	73,116	(1,110)	2,911	74,917	5,168
174	Jun-21	5,381,634	78,407	(1,149)	692	77,949	5,353
175	Jul-21	4,212,174	70,518	(1,254)	5,638	74,902	5,840
176	Aug-21	4,554,618	64,322	(1,228)	8,994	72,089	5,717
177	Sep-21	5,019,687	69,283	(1,183)	6,676	74,775	5,512
178	Oct-21	4,261,724	76,024	(1,104)	1,652	76,572	5,143
179	Nov-21	4,219,114	77,752	(1,061)	151	76,842	4,940
180	Dec-21	3,777,525	59,270	(988)	8,276	66,559	4,599
181		50,226,631	754,657	(11,994)	80,868	823,531	55,856
182		50,226,631					55,856

In GLP-RTP

Line	GLP3 kWh	GLP3 - Customer kWh	GLP3 - EvH kWh	GLP3 - Customer kWh	Res Charge \$	Res CrkW kW	ResCedit \$
185							
186							
187	Jan-21	2,081,712	176,231	1,572,000	0	11,500	0
188	Feb-21	2,209,276	174,981	1,572,600	0	11,500	0
189	Mar-21	2,024,408	158,354	1,455,600	0	11,500	0
190	Apr-21	1,910,496	178,533	1,626,000	77	11,500	53
191	May-21	1,651,804	179,960	1,828,200	2,513	11,500	3,734
192	Jun-21	1,705,544	1,857,490	1,818,600	1,663,516	11,500	4,699
193	Jul-21	1,751,736	232,038	2,228,400	19,151	11,500	2,549
194	Aug-21	1,965,152	241,066	2,348,400	18,218	11,500	1,090
195	Sep-21	2,061,800	500,887	2,457,000	274,636	11,500	2,098
196	Oct-21	1,787,380	374,944	2,099,400	178,118	11,500	4,282
197	Nov-21	1,727,768	517,946	1,973,400	330,764	11,500	4,934
198	Dec-21	1,874,396	179,329	1,723,800	3,358	11,500	1,402
199		22,751,472	4,771,759	22,703,400	2,490,351	138,000	24,840
200		22,751,472	4,771,759	22,703,400	2,490,351		24,840
201							\$ (2.30)

202

WP2_B Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 2 to Schedule B
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total			
203										
204	MBL				kWh- POL	kWh- MBL	kWh- PL. SL, MBL			
205	Jan-21				27,333	16,264	43,597			
206	Feb-21				22,984	14,415	37,399			
207	Mar-21				22,984	10,652	33,636			
208	Apr-21				19,257	8,671	27,928			
209	May-21				17,704	7,219	24,923			
210	Jun-21				15,530	6,216	21,746			
211	Jul-21				17,083	5,335	22,418			
212	Aug-21				18,946	5,488	24,434			
213	Sep-21				20,810	6,195	27,005			
214	Oct-21				24,537	6,279	30,816			
215	Nov-21				25,780	6,866	32,646			
216	Dec-21				27,954	9,362	37,316			
217					260,902	102,962	363,864			
218										
219	Watts per Lamp				200	130	500	100	280	300.95
220	POL kWh				175 W MV	100 W HPS	400 W HPS	5K LED	15K LED	20K LED
		Hours			kWh/Month	kWh/Month	kWh/Month	kWh/Month	kWh/Month	kWh/Month
221	Jan-21	440	88	57	220	44	123	132		
222	Feb-21	370	74	48	185	37	104	111		
223	Mar-21	370	74	48	185	37	104	111		
224	Apr-21	310	62	40	155	31	87	93		
225	May-21	285	57	37	143	29	80	86		
226	Jun-21	250	50	33	125	25	70	75		
227	Jul-21	275	55	36	138	28	77	83		
228	Aug-21	305	61	40	153	31	85	92		
229	Sep-21	335	67	44	168	34	94	101		
230	Oct-21	395	79	51	198	40	111	119		
231	Nov-21	415	83	54	208	42	116	125		
232	Dec-21	450	90	59	225	45	126	135		
233		4,200	840	546	2,100	420	1,176	1,264		
234										
235	POL Lamps	473	57	61	6	323	16	10		

WP3_B **Citizens' Electric Company of Lewisburg**
Rate Case with Fully Projected Future Test Year 2023
Workpaper 3 to Schedule B
Monthly Customers
Period Ending December 31, 2021

Line		RS	RSH	RSD	RSHD	RS Total	GLP1	GLP1D	GLP1 Total	OL	MBL	SH
1	1/1/2021	3,135	3	2,739	2	5,879	1,067	36	1,103	27	12	11
2	2/1/2021	3,139	3	2,744	2	5,888	1,068	36	1,104	27	12	11
3	3/1/2021	3,140	3	2,749	2	5,894	1,070	36	1,106	27	12	11
4	4/1/2021	3,141	4	2,748	2	5,895	1,073	36	1,109	27	12	11
5	5/1/2021	3,140	4	2,750	2	5,896	1,075	36	1,111	27	12	11
6	6/1/2021	3,131	2	2,755	2	5,890	1,080	35	1,115	27	12	10
7	7/1/2021	3,132	2	2,757	2	5,893	1,076	35	1,111	27	12	10
8	8/1/2021	3,130	2	2,758	2	5,892	1,079	33	1,112	27	12	10
9	9/1/2021	3,133	2	2,757	2	5,894	1,082	33	1,115	27	12	10
10	10/1/2021	3,134	2	2,759	2	5,897	1,081	33	1,114	27	12	10
11	11/1/2021	3,130	2	2,762	2	5,896	1,081	33	1,114	27	12	11
12	12/1/2021	3,131	-	2,764	-	5,895	1,078	36	1,114	27	12	11
13	Total Bills	37,616	29	33,042	22	70,709	12,910	418	13,328	324	144	127

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	GLP3	GLP3D	GLP5D	GLPPD	G3B	G3D	GLP3 Total	Tot al
17	1/1/2021	11	21	1	4	1	39	7,071
18	2/1/2021	12	20	1	4	1	39	7,081
19	3/1/2021	12	20	1	4	1	39	7,089
20	4/1/2021	12	20	1	4	1	39	7,093
21	5/1/2021	12	20	1	4	1	39	7,096
22	6/1/2021	12	20	1	4	1	39	7,093
23	7/1/2021	13	20	1	4	1	40	7,093
24	8/1/2021	13	21	1	4	1	41	7,094
25	9/1/2021	14	20	1	4	1	41	7,099
26	10/1/2021	14	20	1	4	1	41	7,101
27	11/1/2021	17	17	1	4	1	41	7,101
28	12/1/2021	18	16	1	4	1	41	7,100
29	Total Bills	160	235	12	48	12	479	85,111

WP1_C Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Workpaper 1 to Schedule C
Historic O&M
Historic Periods

Line			2016	2017	2016	2017
1	555.00-Power Purchases		9,042,721	7,929,291	9,042,721	7,929,291
2	Total Power Purchased		9,042,721	7,929,291	9,042,721	7,929,291
3						
4	580.1-Oper.Superv. Eng-Labor	Labor	52,005	51,962		
5	580.2-Oper.Superv. Eng-OH	OH	61,732	60,741		
6	580.3-Oper.Superv. Eng-Transp	Trans			113,737	112,703
7	582.1-Station Exp-Labor	Labor	2,009	4,757		
8	582.2-Station Exp-OH	OH	2,379	5,495		
9	582.3-Station Exp-Transp	Trans	250			
10	582.4-Station Exp-Matl	Mat	53	2,096	4,691	12,348
11	583.1-OH Line Exp-Labor	Labor	93,242	70,659		
12	583.2-OH Line Exp-OH	OH	108,037	79,420		
13	583.3-OH Line Exp-Transp	Trans	22,188	12,421		
14	583.4-OH Line Exp-Matl	Mat	748	2,661		
15	583.97-OH Line Exp-Capitalized OH	Other	(33,721)	(16,884)	190,494	148,277
16	584.1-URD-Labor	Labor	18,603	27,653		
17	584.2-URD-OH	OH	21,635	32,070		
18	584.3-URD-Transp	Trans	3,041	3,625		
19	584.4-URD-Matl	Mat	4,149	1,564	47,428	64,912
20	585.1-Street/Signal Light-Labor	Labor	3,168	3,359		
21	585.2-Street/Signal Light-OH	OH	3,506	3,828		
22	585.3-Street/Signal Light-Transp	Trans	678	968		
23	585.4-Street/Signal Light-Matl	Mat	333	177	7,685	8,332
24	586.1-Meter Exp-Labor	Labor	31,018	29,885		
25	586.2-Meter Exp-OH	OH	35,278	34,712		
26	586.3-Meter Exp-Transp	Trans	2,374	1,902		
27	586.4-Meter Exp-Matl	Mat	1,143	3,306		
28	586.98-Meter Exp-Transferred to Plt	Other	(22,048)	(23,996)	47,765	45,809
29	587.1-Cust Install Exp-Labor	Labor	1,430	4,030		
30	587.2-Cust Install Exp-OH	OH	1,584	4,644		
31	587.3-Cust Install Exp-Transp	Trans	134	883		
32	587.4-Cust Install Exp-Matl	Mat			3,148	9,557

WP1_C Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 1 to Schedule C
 Historic O&M
 Historic Periods

Line			2016	2017	2016	2017
33	588.01-Misc Distribution Exp-Labor	Labor	50,967	61,375		
34	588.2-Misc Distribution Exp-OH	OH	60,063	73,714		
35	588.3-Misc Distribution Exp-Transp	Trans	2,895	2,868		
36	588.4-Misc Distribution Exp-Matl	Mat	13,593	12,720		
37	588.81-Misc Dist Exp-Mapping-Labor	Labor	11,820	11,227		
38	588.82-Misc Dist Exp-Mapping-OH	OH	14,347	13,191		
39	588.83-Misc Dist Exp-General Mtg-Transp	Trans	34			
40	588.84-Misc Dist Exp-Mapping Matl	Mat	12,561	10,916		
41	588.1-Misc Dist Exp-Retiree OH	Other	7,676	9,240		
42	588.6-Misc Dist Exp-Travel	Other	6,101	4,623		
43	588.71-Misc Dist Exp-Sft Mtg Train-Labor	Labor	18,830	10,418		
44	588.72-Misc Dist Exp-Sft Mtg Train-OH	OH	21,720	12,615		
45	588.73-Misc Dist Exp-Sft Mtg Train-Trans	Trans	-	-		
46	588.74-Misc Dist Exp-Sft/Train Matl	Other	40,981	23,373	261,588	246,280
47	589-Distribution rents	Other	452	461	452	461
48						
49	Total Ops		676,988	648,679	676,988	648,679
50						
51	590.1-Maint, Supv & Eng-Labor	Labor	-			
52	590.2-Maint, Supv & Eng-OH	OH	-			
53	590.3-Maint, Supv & Eng-Trans	Trans	-		-	-
54	591.1-Maint of Structures-Labor	Labor	-			
55	591.2-Maint of Structures-OH	OH	-			
56	591.3-Maint of Structures-Transp	Trans	-		-	-
57	592.1-Maint of Station Equip-Labor	Labor	2,910	5,927		
58	592.2-Maint of Station Equip-OH	OH	3,516	6,380		
59	592.3-Maint of Station Equip-Transp	Trans	767	416		
60	592.4-Maint of Station Equip-Matl	Mat	11,116	1,351	18,309	14,074

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Line			2016	2017	2016	2017
61	593.1-Maint of OH Lines-Labor	Labor	81,815	105,738		
62	593.2-Maint of OH Lines-OH	OH	94,271	126,859		
63	593.3-Maint of OH Lines-Transp	Trans	23,759	30,233		
64	593.4-Maint of OH Lines-Matl	Mat	13,070	9,207		
65	593.54-Maint O/H Line-Brush Contrs	Contr	149,615	174,962		
66	593.51-VEG MGMT-Labor	Labor	8,737	7,043		
67	593.52-VEG MGMT-OH	OH	10,422	8,982		
68	593.53-VEG MGMT-Transp	Trans	776	306		
69	593.61-OH Line Insp-In House-Labor	Labor	1,101	1,124		
70	593.62-OH Line Insp-In House-OH	OH	1,112	1,246		
71	593.63-OH Line Insp-In House-Transp	Trans	36	3,198		
72	593.64-OH Line Insp-In House-Contrs	Mat	19,158	29,944	403,872	498,842
73	594.1-Maint of UG Lines-Labor	Labor	864	714		
74	594.2-Maint of UG Lines-OH	OH	885	851		
75	594.3-Maint of UG Lines-Transp	Trans	182	64		
76	594.4-Maint of UG Lines-Matl	Mat	602	2,097	2,533	3,726
77	595.1-Maint of Line Transformers-Labor	Labor	4,875	3,902		
78	595.2-Maint of Line Transformers-OH	OH	5,261	4,093		
79	595.3-Maint of Line Transformers-Transp	Trans	558	1,181		
80	595.4-Maint Line Transformers-Matl	Mat	1,402	3,450	12,096	12,626
81	596.1-Maint of Street Lights-Labor	Labor	623	1,127		
82	596.2-Maint of Street Lights-OH	OH	687	1,065		
83	596.3-Maint of Street Lights-Transp	Trans	219	271		
84	596.4-Maint of Street Lights-Matl	Mat	14	34	1,543	2,497
85	597.1-Maint of Meters-Labor	Labor				
86	597.2-Maint of Meters-OH	OH				
87	597.3-Maint of Meters-Transp	Trans	-	33		
88	597.4-Maint of Meters-Matl	Mat			-	33
89						
90	Total Maint		438,353	531,798	438,353	531,798
91						
92	Total distribution Exp		1,115,341	1,180,477	1,115,341	1,180,477
93						

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Line			2016	2017	2016	2017
94	CustS ACCOUNTING & COLLECTING Exp					
95	901.0-Supv-General Accounting-Labor	Labor	-			
96	902.1-Meter Reading Exp-Labor	Labor	1,234	884		
97	902.2-Meter Reading Exp-OH	OH	1,420	1,063		
98	902.3-Meter Reading Exp-Transp	Trans	146	47		
99	902.4-Meter Reading Exp-Matl	Mat	13,104	14,284	15,904	16,278
100	903.1-Cust Records & Collect Exp-Labor	Labor	141,591	143,084		
101	903.2-Cust Records & Collect Exp-OH	OH	167,298	171,003		
102	903.3-Cust Records & Collect Exp-Transp	Trans	852	590		
103	903.4-Cust Records Exp-Matl	Mat	110,317	106,061	420,058	420,738
104	904.4-Uncollectable Accounts	Other	4,671	15,412	4,671	15,412
105						
106	Total Cust accounting & collecting		440,633	452,428	440,633	452,428
107						
108	SALES PROMOTION Exp					
109	908.0-Cust Exp-Misc	Other				
110	908.1-Cust Exp-Load Control	Other			-	-
111	909.1-Cust Service Info-Advertising	Other			-	-
112	913.0-Advertising Exp	Other				
113						
114	Total Sales Promotion Exp		-	-	-	-
115						
116	ADMINISTRATIVE & GENERAL Exp					
117	920.1-Administrative & General Salaries-L	Labor	270,891	268,800		
118	920.2-Administrative & General Salaries-COH		319,379	316,077	590,270	584,877
119	921.0-Office Supplies & Exp	Other	88,668	88,615		
120	921.1-Office Supplies & Exp-Travel	Other	7,927	12,905		
121	921.2-Office Exp-Communications Exp	Other	21,295	23,930		
122	921.3-Office Supplies & Exp-Call Center	Other	41,603	41,409		
123	921.4-Office Exp-Transp	Trans	11,081	2,619		
124	921.9-Office Exp-Working Capital Claim	Other	-	-	170,574	169,478
125	923.0-Outside Services Employed	Other	53,612	52,217	53,612	52,217
126	924.0-Property Insurance	Other	7,467	9,877	7,467	9,877
127	925.4-Injuries & Damages	Other	31,296	29,759	31,296	29,759
128	926.0-Employee Pensions & Benefits	Other	8,302	9,987		
129	926.01-Employee Pen Ben-CEO Life Insu	Other	2,447	(7,131)	10,749	2,856

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Line			2016	2017	2016	2017
130	928.0-Regulatory Commission Exp	Other	-	46,389	-	46,389
131	928.0-Rate Case Exp	Other	-	-	-	-
132	930.1-General Advertising	Other	240	240		
133	930.2-Miscellaneous Exps	Other	70,256	72,515		
134	930.3-Director Special/Committee Mtgs.	Other	10,957	13,120	81,453	85,875
135	931.0-Rents	Other				
136	932.1-Maint of General Property-Labor	Labor	46,146	44,422		
137	932.2-Maint of General Property-OH	OH	53,234	50,282		
138	932.3-Maint of General Property-Transp	Trans	134	72		
139	932.4-Maint of General Property-Matl	Mat	22,791	27,059	122,305	121,835
140						
141	Total Administrative & General Exp		<u>1,067,726</u>	<u>1,103,163</u>	<u>1,067,726</u>	<u>1,103,163</u>
142						
143	Total Operating Exp		<u>2,623,700</u>	<u>2,736,068</u>	<u>2,623,700</u>	<u>2,736,068</u>
144			<u>2,623,700</u>	<u>2,736,068</u>	<u>2,623,700</u>	<u>2,736,068</u>
145	Less: CEO Life Insurance	Other	(2,447)	7,131	(2,447)	7,131
146	Less: Rate case amortization				0	0
147	Exps in O^M		<u>2,621,253</u>	<u>2,743,199</u>	<u>2,621,253</u>	<u>2,743,199</u>
148						
149	From C1-1					
150	Difference					
151						
152			2016	2017		
153		Labor	843,879	858,090		
154		OH	987,766	1,008,331		
155		Trans	70,104	61,697		
156		Mat	224,154	226,927		
157		Other	345,735	413,192		
158		Contr	149,615	174,962		
159			<u>2,621,253</u>	<u>2,743,199</u>		
160			2,621,253	2,743,199		
161						

WP2_C Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023
Workpaper 2 to Schedule C
Historic O&M- Details
Historic Periods

Line	Acct.	Account Description	Year 2016	Year 2017	Year 2016	Year 2017	Year 2016	Year 2017	Year 2016	Year 2017
27		<u>Customer Accounting & Collection Expenses:</u>								
28	902	Meter Reading Exp	1,234	884	1,420	1,063	13,250	14,331		
29	903	Cust Records & Coll Exp	141,591	143,084	167,298	171,003	111,169	106,651		
30	904	Uncollectible Accounts							4,671	15,412
31		<i>Total Cust Acct & Coll Exp</i>	<u>142,825</u>	<u>143,968</u>	<u>168,718</u>	<u>172,066</u>	<u>124,419</u>	<u>120,982</u>	<u>4,671</u>	<u>15,412</u>
32										
33										
34	908-913	Safety and Communications							0	0
35										
36		<u>Administrative & General Expenses:</u>								
37	920	A&G Salaries	270,891	268,800	319,379	316,077				
38	921	Office Supplies & Exps					11,081	2,619	159,493	166,859
39	923	Outside Services							53,612	52,217
40	924	Property Insurance							7,467	9,877
41	925	Injuries and damage							31,296	29,759
42	926	Empl Pens&Benefits							8,302	9,987
43	928	Reg Comm Exp							0	46,389
44	930	Misc General Exp							81,453	85,875
45	931	Rents							0	0
46	932	Maint General plant	46,146	44,422	53,234	50,282	22,925	27,131		
47		<i>Total A&G Exps</i>	<u>317,037</u>	<u>313,222</u>	<u>372,613</u>	<u>366,359</u>	<u>34,006</u>	<u>29,750</u>	<u>341,623</u>	<u>400,963</u>
48										
49		Total Operating & Maint 1	<u>\$843,879</u>	<u>\$858,090</u>	<u>\$987,766</u>	<u>\$1,008,331</u>	<u>\$294,258</u>	<u>\$288,624</u>	<u>\$495,350</u>	<u>\$588,154</u>

Line	Account	Acct N	2018	2019	2020	2021	2022	2023
			Total	Total	Total	Total	Total	Total
1	Ops Exp Eng	580	166,699	116,120	118,988	131,110	171,605	123,139
1	Station Exp	582	7,340	9,650	5,349	13,239	7,836	8,606
2	OH. Line Exp	583	163,900	88,612	130,678	160,687	117,354	128,543
3	OH. Line Contra (to Plant)	583	(18,212)	(16,688)	(8,914)	(13,995)	(18,843)	(23,677)
4	URD Line Exp	584	54,276	65,357	52,376	60,830	51,554	56,493
5	Dusk to Dawn Lgts Exp	585	2,573	1,630	3,725	4,705	3,345	3,380
6	St Lgt & Signal Exp	585	1,769	1,923	744	3,019	1,964	2,150
7	Meter Exp	586	76,961	74,532	57,430	76,442	66,083	72,480
8	Meter Contra (to Plant)	586	(23,651)	(53,705)	(52,358)	(57,430)	(52,075)	(50,000)
9	Customer Inst Exp	587	22,588	50,305	20,848	60,744	32,238	34,698
10	Misc. Distribution Exp	588	147,046	142,011	234,065	159,381	122,132	137,059
11	Tools	588	0	0	0	0	9,316	9,596
12	Travel	588	0	0	0	0	25,000	25,750
13	Safety & Training	588	58,942	55,660	39,273	42,041	58,291	61,762
14	Mapping	588	47,350	66,989	38,617	92,059	42,336	44,887
15	Retiree Non Alloc BC+SERP	588	0	0	9,886	0	33,478	34,482
16	Rents	589	471	480	490	490	490	505
17	Total Opss		708,052	602,875	651,195	733,322	672,105	669,851
18								
19	Maint. Sub-Station Exp	592	10,099	271	13,430	5,435	7,734	7,265
20	Maint. OH. Line Exp	593	214,942	251,243	238,705	275,309	149,071	245,093
21	Veg Mgmt	593	153,585	143,368	173,498	175,634	256,441	265,152
22	Pole Insp Mgmt	593	32,947	33,566	37,261	30,970	42,537	43,803
23	Maint. URD Line Exp	594	16,522	3,312	2,873	4,246	4,689	4,964
24	Maint. Line Xfmr	595	10,769	14,888	14,149	18,983	8,750	8,937
25	Maint. Dusk to Dawn Lgts	596	1,234	2,663	7,473	3,244	2,036	2,246
26	Maint. St Lgt & Signal Exp	596	10,739	6,059	1,996	6,635	4,452	4,896
27	Maint. of Meter Exp	597	1,317	0	0	367	306	337
28	Total Maintenance		452,153	455,369	489,384	520,823	476,016	582,694
29								
30	Meter Reading Exp	902	24,086	3,495	474	13,633	1,374	1,521
31	Customer Records Exp	903	426,023	456,244	445,656	442,188	402,520	416,324
32	Uncollectibles	904	19,728	28,030	19,118	31,941	20,000	20,600
33	Total Customer Accounts		469,837	487,769	465,248	487,762	423,894	438,445

Line	Account	Acct N	2018	2019	2020	2021	2022	2023
			Labor	Labor	Labor	Labor	Labor	Labor
1	Ops Exp Eng	580	79,137	55,353	58,155	60,413	102,730	29,021
1	Station Exp	582	3,090	4,308	1,075	5,379	3,383	4,019
2	OH. Line Exp	583	69,798	36,545	50,112	62,340	48,495	57,618
3	OH. Line Contra (to Plant)	583					0	0
4	URD Line Exp	584	22,270	28,468	22,536	25,222	21,449	25,485
5	Dusk to Dawn Lgts Exp	585	1,062	692	1,227	1,952	1,242	1,475
6	St Lgt & Signal Exp	585	355	832	730	1,396	805	956
7	Meter Exp	586	35,371	34,857	25,394	32,739	27,919	33,171
8	Meter Contra (to Plant)	586					0	0
9	Customer Inst Exp	587	8,972	22,343	9,430	24,994	12,051	14,318
10	Misc. Distribution Exp	588	55,872	48,094	94,000	66,276	52,756	62,681
11	Tools	588					0	0
12	Travel	588					0	0
13	Safety & Training	588	10,512	8,333	8,525	8,944	10,889	12,938
14	Mapping	588	14,795	25,623	7,336	8,120	8,105	9,629
15	Retiree Non Alloc BC+SERP	588					0	0
16	Rents	589					0	0
17	Total Opss		301,235	265,446	278,519	297,775	289,824	251,311
18								
19	Maint. Sub-Station Exp	592	4,529	97	2,702	2,250	2,655	3,154
20	Maint. OH. Line Exp	593	85,028	104,419	106,489	114,614	88,365	104,990
21	Veg Mgmt	593	5,851	8,760	6,890	6,503	5,815	7,008
22	Pole Insp Mgmt	593	1,274	864	944	1,011	1,000	1,020
23	Maint. URD Line Exp	594	6,871	942	1,275	1,713	1,863	2,213
24	Maint. Line Xfmr	595	3,344	4,518	4,812	5,256	3,141	3,732
25	Maint. Dusk to Dawn Lgts	596	526	1,090	3,089	1,616	940	1,117
26	Maint. St Lgt & Signal Exp	596	4,799	2,756	777	2,733	1,965	2,335
27	Maint. of Meter Exp	597	586	0	0	184	141	167
28	Total Maintenance		112,807	123,445	126,977	135,880	105,885	125,736
29								
30	Meter Reading Exp	902	1,231	1,567	218	41	669	795
31	Customer Records Exp	903	150,677	166,392	165,926	153,897	138,411	144,292
32	Uncollectibles	904					0	0
33	Total Customer Accounts		151,908	167,959	166,144	153,938	139,080	145,087

Line	Account	Acct N	2018	2019	2020	2021	2022	2023
			OH	OH	OH	OH	OH	OH
1	Ops Exp Eng	580	87,563	60,767	60,833	70,697	91,376	94,118
1	Station Exp	582	3,525	4,766	1,108	6,890	3,853	3,969
2	OH. Line Exp	583	79,606	46,197	69,143	84,631	55,232	56,889
3	OH. Line Contra (to Plant)	583					0	0
4	URD Line Exp	584	25,573	30,622	24,491	29,988	24,429	25,162
5	Dusk to Dawn Lgts Exp	585	1,151	763	1,419	2,417	1,415	1,457
6	St Lgt & Signal Exp	585	416	818	0	1,431	917	944
7	Meter Exp	586	39,217	37,004	26,423	37,237	31,798	32,752
8	Meter Contra (to Plant)	586					0	0
9	Customer Inst Exp	587	9,450	24,410	9,850	29,853	13,560	13,725
10	Misc. Distribution Exp	588	64,005	49,256	88,450	72,919	60,085	61,888
11	Tools	588					0	0
12	Travel	588					0	0
13	Safety & Training	588	11,971	9,135	9,273	9,413	12,402	12,774
14	Mapping	588	16,739	28,185	7,955	49,226	9,231	9,508
15	Retiree Non Alloc BC+SERP	588					0	0
16	Rents	589					0	0
17	Total Opss		339,215	291,924	298,947	394,702	304,298	313,185
18								
19	Maint. Sub-Station Exp	592	5,136	108	9,723	2,601	3,024	3,115
20	Maint. OH. Line Exp	593	105,764	113,297	106,316	130,795	100,641	103,660
21	Veg Mgmt	593	6,920	9,170	6,454	7,140	6,623	6,822
22	Pole Insp Mgmt	593	1,301	916	1,070	1,235	1,139	1,173
23	Maint. URD Line Exp	594	7,569	1,057	1,420	1,980	2,122	2,185
24	Maint. Line Xfmr	595	2,943	5,427	5,049	6,069	3,577	3,685
25	Maint. Dusk to Dawn Lgts	596	653	1,370	3,412	1,563	1,071	1,103
26	Maint. St Lgt & Signal Exp	596	5,114	3,128	886	3,240	2,238	2,305
27	Maint. of Meter Exp	597	696	0	0	180	161	165
28	Total Maintenance		136,095	134,472	134,330	154,803	120,595	124,213
29								
30	Meter Reading Exp	902	1,311	1,753	246	47	696	717
31	Customer Records Exp	903	170,852	183,666	174,858	180,245	157,640	162,369
32	Uncollectibles	904					0	0
33	Total Customer Accounts		172,163	185,419	175,104	180,292	158,336	163,086

Line	Account	Acct N	2018 Transp	2019 Transp	2020 Transp	2021 Transp	2022 Transp	2023 Transp
1	Ops Exp Eng	580					0	0
1	Station Exp	582				0	0	0
2	OH. Line Exp	583	14,196	5,620	9,757	13,837	13,327	13,727
3	OH. Line Contra (to Plant)	583					0	0
4	URD Line Exp	584	4,789	3,355	2,946	3,093	3,630	3,739
5	Dusk to Dawn Lgts Exp	585				336	435	448
6	St Lgt & Signal Exp	585				183	242	250
7	Meter Exp	586	216	118	236	4,008	4,337	4,467
8	Meter Contra (to Plant)	586					0	0
9	Customer Inst Exp	587	144	58	42	5,897	6,461	6,655
10	Misc. Distribution Exp	588	2,432	2,542	2,424	7,104	6,608	6,806
11	Tools	588					0	0
12	Travel	588					0	0
13	Safety & Training	588	4,166	3,541	1,571	0	0	0
14	Mapping	588	3,607	1,543	3,759	173	0	0
15	Retiree Non Alloc BC+SERP	588					0	0
16	Rents	589					0	0
17	Total Opss		29,551	16,778	20,735	34,631	35,040	36,091
18								
19	Maint. Sub-Station Exp	592	332	32	1,004	40	54	56
20	Maint. OH. Line Exp	593	16,447	24,795	23,591	24,123	25,675	26,445
21	Veg Mgmt	593	568	816	372	693	705	726
22	Pole Insp Mgmt	593	53	51	22	60	80	82
23	Maint. URD Line Exp	594	2,010	104	83	348	205	211
24	Maint. Line Xfmr	595	378	1,218	78	67	30	31
25	Maint. Dusk to Dawn Lgts	596	55	202	776	65	25	26
26	Maint. St Lgt & Signal Exp	596	826	176	334	662	249	256
27	Maint. of Meter Exp	597	35	0	0	3	4	4
28	Total Maintenance		20,706	27,394	26,258	26,061	27,027	27,838
29								
30	Meter Reading Exp	902	135	175	10	7	9	9
31	Customer Records Exp	903	724	1,275	550	1,507	1,470	1,514
32	Uncollectibles	904					0	0
33	Total Customer Accounts		859	1,450	561	1,514	1,478	1,523

Line	Account	Acct N	2018 Material	2019 Material	2020 Material	2021 Material	2022 Material	2023 Material
1	Ops Exp Eng	580					(22,502)	0
1	Station Exp	582	724	576	3,166	970	600	618
2	OH. Line Exp	583	300	249	1,666	(121)	300	309
3	OH. Line Contra (to Plant)	583	(18,212)	(16,688)	(8,914)	(13,995)	(18,843)	(23,677)
4	URD Line Exp	584	1,643	2,912	2,402	2,527	2,046	2,108
5	Dusk to Dawn Lgts Exp	585	360	175	1,079	0	254	0
6	St Lgt & Signal Exp	585	998	272	14	9	0	0
7	Meter Exp	586	2,156	2,553	5,376	2,458	2,029	2,090
8	Meter Contra (to Plant)	586	(23,651)	(53,705)	(52,358)	(57,430)	(52,075)	(50,000)
9	Customer Inst Exp	587	4,022	3,494	1,525	0	166	0
10	Misc. Distribution Exp	588	24,737	42,119	49,191	13,082	2,684	5,684
11	Tools	588					9,316	9,596
12	Travel	588					25,000	25,750
13	Safety & Training	588	32,293	34,651	19,904	23,684	35,000	36,050
14	Mapping	588	12,209	11,639	19,567	34,540	25,000	25,750
15	Retiree Non Alloc BC+SERP	588			9,886		33,478	34,482
16	Rents	589	471	480	490	490	490	505
17	Total Opss		38,050	28,728	52,993	6,214	42,943	69,264
18								
19	Maint. Sub-Station Exp	592	102	35	0	544	2,001	941
20	Maint. OH. Line Exp	593	7,703	8,732	2,309	5,777	(65,610)	9,998
21	Veg Mgmt	593	140,245	124,622	159,782	161,298	243,298	250,597
22	Pole Insp Mgmt	593	30,319	31,735	35,225	28,664	40,318	41,528
23	Maint. URD Line Exp	594	73	1,209	95	205	499	354
24	Maint. Line Xfmr	595	4,104	3,725	4,210	7,591	2,002	1,489
25	Maint. Dusk to Dawn Lgts	596			197	0	0	0
26	Maint. St Lgt & Signal Exp	596				0	0	0
27	Maint. of Meter Exp	597				0	0	0
28	Total Maintenance		182,546	170,059	201,819	204,079	222,509	304,907
29								
30	Meter Reading Exp	902	21,408	0	0	13,538	0	0
31	Customer Records Exp	903	103,769	104,911	104,322	106,539	105,000	108,150
32	Uncollectibles	904	19,728	28,030	19,118	31,941	20,000	20,600
33	Total Customer Accounts		144,906	132,941	123,440	152,018	125,000	128,750

Line	Account	Acct N	2018 Total	2019 Total	2020 Total	2021 Total	2022 Total	2023 Total
34								
35	Administrative	920	595,872	572,162	638,160	607,671	709,521	740,110
36	Misc Admin	921	86,588	93,508	91,147	99,605	90,000	92,700
37	Misc Admin- Travel	921	16,575	9,249	5,468	10,663	11,000	11,330
38	Misc Admin- Comm	921	24,379	24,206	29,068	25,671	29,000	29,870
39	Misc Admin- Call Center	921	43,970	54,117	57,553	60,197	58,547	60,303
40	Misc Admin- Transp	921	199	4,052	11,271	9,925	12,000	12,360
41	Outside Services	923	91,750	57,287	107,143	5,525	75,000	77,250
42	Property Insurance	924	10,082	10,381	10,798	11,112	11,639	11,988
43	Injury & Damage Exp	925	26,510	25,409	26,136	26,647	33,810	34,824
44	CEO Insurance	926	19,014	(13,711)	(14,072)	(10,988)	10,000	10,300
45	Benefits	926	10,499	14,164	8,649	12,744	13,000	13,390
46	Reg Commission Exp	928	61,907	61,907	108,685	108,668	120,000	142,745
47	General Advertising	930	240	465	373	433	315	324
48	Misc. General Exp	930	76,892	77,464	76,753	81,221	80,000	82,400
49	Director's Committee	930	14,514	13,485	12,535	12,931	12,000	12,360
50	Misc. General Plant	932	149,126	137,967	146,298	163,236	129,955	141,597
51	Total General Labor		1,228,117	1,142,112	1,315,966	1,225,261	1,395,787	1,473,852
52								
53	Subtotal		2,858,158	2,688,126	2,921,792	2,967,168	2,967,803	3,164,842
54			0	0	0	0	0	0
55	Capital		402,754	0	0	0	2,017,139	2,112,922
56	Misc. A/R		0	0	0	0	0	0
57	Truck		5,188	0	0	0	0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp F		244,985	0	0	0	216,244	225,538
59								
60	Total		3,511,085	2,688,126	2,921,792	2,967,168	5,201,186	5,503,302

Line	Account	Acct N	2018 Labor	2019 Labor	2020 Labor	2021 Labor	2022 Labor	2023 Labor
34								
35	Administrative	920	279,278	273,874	309,026	279,642	331,718	350,973
36	Misc Admin	921					0	0
37	Misc Admin- Travel	921					0	0
38	Misc Admin- Comm	921					0	0
39	Misc Admin- Call Center	921					0	0
40	Misc Admin- Transp	921					0	0
41	Outside Services	923					0	0
42	Property Insurance	924					0	0
43	Injury & Damage Exp	925	0	0	0	0	0	0
44	CEO Insurance	926					0	0
45	Benefits	926					0	0
46	Reg Commission Exp	928					0	0
47	General Advertising	930					0	0
48	Misc. General Exp	930					0	0
49	Director's Committee	930					0	0
50	Misc. General Plant	932	53,824	54,922	60,025	65,489	48,962	58,174
51	Total General Labor		333,102	328,796	369,051	345,131	380,680	409,147
52								
53	Subtotal		899,053	885,646	940,691	932,724	915,470	931,281
54								
55	Capital		402,754	0	0	0	508,833	508,833
56	Misc. A/R		0	0	0	0	0	0
57	Truck		5,188	0	0	0	0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp F		244,985	0	0	0	216,244	225,538
59								
60	Total		1,551,980	885,646	940,691	932,724	1,640,547	1,665,652

Line	Account	Acct N	2018	2019	2020	2021	2022	2023
			OH	OH	OH	OH	OH	OH
34								
35	Administrative	920	316,594	298,288	329,134	328,029	377,803	389,137
36	Misc Admin	921					0	0
37	Misc Admin- Travel	921					0	0
38	Misc Admin- Comm	921					0	0
39	Misc Admin- Call Center	921					0	0
40	Misc Admin- Transp	921					0	0
41	Outside Services	923					0	0
42	Property Insurance	924					0	0
43	Injury & Damage Exp	925					0	0
44	CEO Insurance	926					0	0
45	Benefits	926					0	0
46	Reg Commission Exp	928					0	0
47	General Advertising	930					0	0
48	Misc. General Exp	930					0	0
49	Director's Committee	930					0	0
50	Misc. General Plant	932	60,725	57,681	61,957	75,737	55,764	57,437
51	Total General Labor		377,320	355,969	391,091	403,766	433,567	446,574
52								
53	Subtotal		1,024,793	967,783	999,472	1,133,563	1,016,796	1,047,058
54								
55	Capital						579,523	675,306
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp F						0	0
59								
60	Total		1,024,793	967,783	999,472	1,133,563	1,596,319	1,722,364

Line	Account	Acct N	2018 Transp	2019 Transp	2020 Transp	2021 Transp	2022 Transp	2023 Transp
34								
35	Administrative	920					0	0
36	Misc Admin	921					0	0
37	Misc Admin- Travel	921					0	0
38	Misc Admin- Comm	921					0	0
39	Misc Admin- Call Center	921					0	0
40	Misc Admin- Transp	921					0	0
41	Outside Services	923					0	0
42	Property Insurance	924					0	0
43	Injury & Damage Exp	925					0	0
44	CEO Insurance	926					0	0
45	Benefits	926					0	0
46	Reg Commission Exp	928					0	0
47	General Advertising	930					0	0
48	Misc. General Exp	930					0	0
49	Director's Committee	930					0	0
50	Misc. General Plant	932				173	229	236
51	Total General Labor		0	0	0	173	229	236
52								
53	Subtotal		51,116	45,621	47,554	62,379	63,775	65,688
54								
55	Capital						87,854	87,854
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp F						0	0
59								
60	Total		51,116	45,621	47,554	62,379	151,628	153,542

Line	Account	Acct N	2018 Material	2019 Material	2020 Material	2021 Material	2022 Material	2023 Material
34								
35	Administrative	920					0	0
36	Misc Admin	921	86,588	93,508	91,147	99,605	90,000	92,700
37	Misc Admin- Travel	921	16,575	9,249	5,468	10,663	11,000	11,330
38	Misc Admin- Comm	921	24,379	24,206	29,068	25,671	29,000	29,870
39	Misc Admin- Call Center	921	43,970	54,117	57,553	60,197	58,547	60,303
40	Misc Admin- Transp	921	199	4,052	11,271	9,925	12,000	12,360
41	Outside Services	923	91,750	57,287	107,143	5,525	75,000	77,250
42	Property Insurance	924	10,082	10,381	10,798	11,112	11,639	11,988
43	Injury & Damage Exp	925	26,510	25,409	26,136	26,647	33,810	34,824
44	CEO Insurance	926	19,014	(13,711)	(14,072)	(10,988)	10,000	10,300
45	Benefits	926	10,499	14,164	8,649	12,744	13,000	13,390
46	Reg Commission Exp	928	61,907	61,907	108,685	108,668	120,000	142,745
47	General Advertising	930	240	465	373	433	315	324
48	Misc. General Exp	930	76,892	77,464	76,753	81,221	80,000	82,400
49	Director's Committee	930	14,514	13,485	12,535	12,931	12,000	12,360
50	Misc. General Plant	932	34,576	25,365	24,317	21,837	25,000	25,750
51	Total General Labor		517,695	457,348	555,824	476,191	581,311	617,895
52								
53	Subtotal		883,197	789,075	934,076	838,502	971,763	1,120,815
54								
55	Capital						840,930	840,930
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp F						0	0
59								
60	Total		883,197	789,075	934,076	838,502	1,812,693	1,961,745

WPI_D Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 1 to Schedule D
 Components of Capital Projects- Zero Load Analysis
 HY 2021

Line	POLES			OVERHEAD CONDUCTORS			UNDERGROUND CONDUCTORS		
	Category	Amounts	% of Total	Category	Amounts	% of Total	Category	Amounts	% of Total
		Summary			Summary			Summary	
	Pole	Total \$	%	OH Conductor	Total \$	%	UG Conductor	Total \$	%
1	Labor	15,418.69	35.40%	Labor	67,085.33	33.98%	Labor	30,815.31	19.98%
2	Overheads	16,706.14	38.35%	Overheads	77,821.32	39.42%	Overheads	33,350.61	21.62%
3	Transportation	7,439.13	17.08%	Transportation	17,919.28	9.08%	Transportation	6,100.55	3.96%
4	Materials	3,996.44	9.17%	Materials	34,599.45	17.53%	Materials	83,957.54	54.44%
5	Totals	<u>43,560.40</u>	<u>100.00%</u>	Totals	<u>197,425.38</u>	<u>100.00%</u>	Totals	<u>154,224.01</u>	<u>100.00%</u>
6									
7	Work Order 202006-PR02- Pole			Work Order 20200102- OH Cond			Work Order 20210101- UG Cond		
8	CECO Replace R-74-1			Rt 15 Reconductor - Wyndham Hills OH			Linntown UG - 2021		
9	Labor	2,852.13	36.53%	Labor	41,542.49	35.71%	Labor	17,396.97	14.93%
10	Overheads	3,176.38	40.68%	Overheads	44,088.52	37.90%	Overheads	17,784.44	15.26%
11	Transportation	755.20	9.67%	Transportation	11,890.79	10.22%	Transportation	3,534.87	3.03%
12	Materials	1,024.80	13.12%	Materials	18,805.99	16.17%	Materials	77,798.20	66.77%
13	Totals	<u>7,808.51</u>	<u>100.00%</u>	Totals	<u>116,327.79</u>	<u>100.00%</u>	Totals	<u>116,514.48</u>	<u>100.00%</u>
14									
15	Work Order 20201201- Pole			Work Order 20210102- OH Cond			Work Order 20201001- UG Cond		
16	CECO Replace Pole			Wolfland Rd Relocation			Svc Upgrade K-35-FR		
17	Labor	1,407.81	19.56%	Labor	9,630.79	30.07%	Labor	3,163.69	37.64%
18	Overheads	1,114.70	15.49%	Overheads	15,325.83	47.86%	Overheads	3,169.10	37.71%
19	Transportation	3,889.27	54.04%	Transportation	1,333.26	4.16%	Transportation	404.76	4.82%
20	Materials	785.14	10.91%	Materials	5,733.13	17.90%	Materials	1,666.58	19.83%
21	Totals	<u>7,196.92</u>	<u>100.00%</u>	Totals	<u>32,023.01</u>	<u>100.00%</u>	Totals	<u>8,404.13</u>	<u>100.00%</u>
22									
23	Work Order 2021-RJP07- Pole			Work Order 20200401- OH Cond (3ph Ext)			Work Order 20210407- UG Cond		
24	CECO Replace T-19-14-14			3ph Ext from T-19-14-17-3-2			New Svc to 285 Sunnyside Dr		
25	Labor	1,629.13	35.74%	Labor	9,239.95	32.58%	Labor	839.56	33.79%
26	Overheads	1,989.91	43.66%	Overheads	10,295.25	36.31%	Overheads	1,019.93	41.05%
27	Transportation	366.08	8.03%	Transportation	3,197.41	11.28%	Transportation	103.54	4.17%
28	Materials	572.55	12.56%	Materials	5,624.67	19.84%	Materials	521.69	21.00%
29	Totals	<u>4,557.67</u>	<u>100.00%</u>	Totals	<u>28,357.28</u>	<u>100.00%</u>	Totals	<u>2,484.72</u>	<u>100.00%</u>

WP1_D Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 1 to Schedule D
 Components of Capital Projects- Zero Load Analysis
 HY 2021

Category	POLEs		OVERHEAD CONDUCTORS			UNDERGROUND CONDUCTORS		
	Amounts	% of Total	Category	Amounts	% of Total	Category	Amounts	% of Total
30								
31	Work Order 20210204- Pole		Work Order 20210509-OH Cond (1 Ph Ext)			Work Order 20200110- UG Cond (1ph Ext)		
32	Replace Burnt Pole U-92		Svc to Construction Trailer			Svc Ext from U-197		
33	Labor	7,155.07 41.53%	Labor	1,585.96 30.87%	Labor	5,635.60 32.83%		
34	Overheads	7,954.77 46.17%	Overheads	1,926.68 37.51%	Overheads	6,528.18 38.03%		
35	Transportation	1,308.17 7.59%	Transportation	271.39 5.28%	Transportation	1,669.10 9.72%		
36	Materials	811.07 4.71%	Materials	1,352.99 26.34%	Materials	3,331.80 19.41%		
37	Totals	<u>17,229.08 100.00%</u>	Totals	<u>5,137.02 100.00%</u>	Totals	<u>17,164.68 100.00%</u>		
38								
39	Work Order 20210501- Pole		Work Order 20210901- OH Cond			Work Order 20210409- UG Cond		
40	Pole Hit - Grove Road @ R-251-11-3-5-9		New pole & 3ph Svc			OH to UG Reloc 30 S 17th		
41	Labor	1,405.61 33.77%	Labor	4,626.24 32.55%	Labor	784.30 38.66%		
42	Overheads	1,489.95 35.80%	Overheads	5,627.49 39.60%	Overheads	1,042.90 51.41%		
43	Transportation	825.90 19.84%	Transportation	1,062.19 7.47%	Transportation	57.98 2.86%		
44	Materials	440.58 10.59%	Materials	2,895.63 20.38%	Materials	143.32 7.07%		
45	Totals	<u>4,162.04 100.00%</u>	Totals	<u>14,211.55 100.00%</u>	Totals	<u>2,028.50 100.00%</u>		
46								
47	Work Order 20220101- Pole		Work Order 20210503- OH Cond			Work Order 20211104- UG Cond		
48	New SL V-8-40-5 - 125 Paul L		New Svc to Garage 7028 Old Turnpike			Repl Failed UG Svc - 34 James Rd		
49	Labor	968.94 37.18%	Labor	459.90 33.60%	Labor	2,995.19 39.27%		
50	Overheads	980.43 37.62%	Overheads	557.55 40.73%	Overheads	3,806.06 49.90%		
51	Transportation	294.51 11.30%	Transportation	164.24 12.00%	Transportation	330.30 4.33%		
52	Materials	362.30 13.90%	Materials	187.04 13.67%	Materials	495.95 6.50%		
53	Totals	<u>2,606.18 100.00%</u>	Totals	<u>1,368.73 100.00%</u>	Totals	<u>7,627.50 100.00%</u>		

WP2_D Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 2 to Schedule D
 Transformer Costs and Replacements
 HY 2021

Line	Configure	kV Rating	Phase Code	Count	Replace-ment
1	OH 1Ph	5	1	5	TPM15
2	OH 1Ph	10	1	206	TPM15
3	OH 1Ph	15	1	527	TPM15
4	OH 1Ph	25	1	593	TPM25
5	OH 1Ph	37.5	1	75	TPM50
6	OH 1Ph	50	1	418	TPM50
7	OH 1Ph	75	1	27	TPM100
8	OH 1Ph	100	1	80	TPM100
9	OH 1Ph	167	1	9	TPM167
10					
11	UG 1Ph	15	4	10	TPD25
12	UG 1Ph	25	4	225	TPD25
13	UG 1Ph	50	4	347	TPD50
14	UG 1Ph	100	4	32	TPD100
15					
16	UG 3Ph	150	5	8	TPD150
17	UG 3Ph	300	5	11	TPD300
18	UG 3Ph	500	5	8	TPD500
19	UG 3Ph	1000	5	8	TPD1000
20	UG 3Ph	1500	5	1	TPD1500
21				<u>2,590</u>	
22	Check=			<u><u>2,590</u></u>	
23					

WP3_D Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023
 Workpaper 3 to Schedule D
 Services Costs
 HY 2021

Line	Volt	OHUG	Phase	RS	RSH	SH	GLP1	GLP1D	GLP3	MBL	Inactive	Total
1	SEC	OH	1	2,357	1,082	2	582	9	1	2	6	4,041
2	SEC	OH	3	13	6	5	93	7	5	-	-	129
3	SEC	UG	1	799	1,567	2	275	9	-	10	11	2,673
4	SEC	UG	3	3	106	2	125	8	29	-	2	275
5	PRI	OH	1	-	-	-	-	-	-	-	-	-
6	PRI	OH	3	-	-	-	-	-	4	-	-	4
7	PRI	UG	1	-	-	-	-	-	-	-	-	-
8	PRI	UG	3	-	-	-	-	-	2	-	-	2
9				3,172	2,761	11	1,075	33	41	12	19	7,124
10												7,124

11	Class	Volt	Volt	Phase	Count	Material/ Labor	Truck Hours	Truck	Total Cost	Total Cost
12	Res	SEC	OH	1	3,439	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 2,791,544
13	Res	SEC	OH	3	19	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 16,373
14	Res	SEC	UG	1	2,366	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 2,334,750
15	Res	SEC	UG	3	109	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 116,289
16	SH	SEC	OH	1	2	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 1,623
17	SH	SEC	OH	3	5	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 4,309
18	SH	SEC	UG	1	2	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 1,974
19	SH	SEC	UG	3	2	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 2,134
20	GLP1	SEC	OH	1	591	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 479,733
21	GLP1	SEC	UG	3	100	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 86,176
22	GLP1	SEC	OH	1	284	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 280,249
23	GLP1	SEC	UG	3	133	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 141,893
24	GLP3	SEC	UG	1	1	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 812
25	GLP3	SEC	OH	3	5	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 4,309
26	GLP3	SEC	OH	1	-	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ -
27	GLP3	SEC	UG	3	29	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 30,939
28	MBL	SEC	UG	1	2	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 1,623
29	MBL	SEC	OH	3	-	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ -
30	MBL	SEC	OH	1	10	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 9,868
31	MBL	SEC	UG	3	-	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ -
32				Active Secondary:	7,099				\$ 6,304,598	
33				Primary:	6					
34				Company/ Inactive/ Future:	19					
35					7,124					

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission

v.

**Citizens' Electric Company of Lewisburg, PA
and Valley Energy Company**

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:
:
:
:**

**Docket Nos. R-2022-_____
R-2022-_____**

**DIRECT TESTIMONY
AND EXHIBIT
OF
DYLAN W. D'ASCENDIS, CRRA, CVA**

ON BEHALF OF

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY, INC.**

APRIL 29, 2022

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1 **I. INTRODUCTION**

2 **A. Witness Identification**

3 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

4 A. My name is Dylan W. D'Ascendis. My business address is 3000 Atrium Way, Suite
5 241, Mount Laurel, NJ 08054.

6 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

7 A. I am a Partner at ScottMadden, Inc.

8 **B. Background and Qualifications**

9 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND**
10 **EDUCATIONAL BACKGROUND.**

11 A. I have offered expert testimony on behalf of investor-owned utilities in over 30 state
12 regulatory commissions in the United States, the Federal Energy Regulatory
13 Commission, the Alberta Utility Commission, one American Arbitration
14 Association panel, and the Superior Court of Rhode Island on issues including, but
15 not limited to, common equity cost rate, rate of return, valuation, capital structure,
16 class cost of service, and rate design.

17 On behalf of the American Gas Association ("AGA"), I calculate the AGA
18 Gas Index, which serves as the benchmark against which the performance of the
19 American Gas Index Fund ("AGIF") is measured on a monthly basis. The AGA
20 Gas Index and AGIF are a market capitalization weighted index and mutual fund,
21 respectively, comprised of the common stocks of the publicly traded corporate
22 members of the AGA.

1 I am a member of the Society of Utility and Regulatory Financial Analysts
2 ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate
3 of Return Analyst" by SURFA, which is based on education, experience, and the
4 successful completion of a comprehensive written examination.

5 I am also a member of the National Association of Certified Valuation
6 Analysts ("NACVA") and was awarded the professional designation "Certified
7 Valuation Analyst" by the NACVA in 2015.

8 I am a graduate of the University of Pennsylvania, where I received a
9 Bachelor of Arts degree in Economic History. I have also received a Master of
10 Business Administration with high honors and concentrations in Finance and
11 International Business from Rutgers University.

12 The details of my educational background and expert witness appearances
13 are included in Appendix A.

14 **II. PURPOSE OF TESTIMONY**

15 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
16 **PROCEEDING?**

17 A. The purpose of my testimony is to present evidence on behalf of Valley Energy, Inc.
18 ("Valley") and Citizens' Electric Company of Lewisburg, PA ("Citizens"),
19 (collectively, "the Companies") and recommend allowed weighted average costs of
20 capital ("WACC") for each company's jurisdictional rate base.

1 **Q. HAVE YOU PREPARED AN EXHIBIT IN SUPPORT OF YOUR**
2 **RECOMMENDATION?**

3 A. Yes. I have prepared Exhibit __ (DWD-1), which consists of Schedules DWD-1
4 through DWD-8.

5 **III. SUMMARY**

6 **Q. WHAT ARE YOUR RECOMMENDED WACCS FOR THE COMPANIES?**

7 A. I recommend that the Pennsylvania Public Utility Commission (the "Commission")
8 authorize Valley and Citizens' opportunities to earn WACCs of 7.97% and 7.76%,
9 respectively, on their jurisdictional rate bases. My recommended capital structure
10 for the Companies are based on the capital structure of their parent company, C&T
11 Enterprises, as will be discussed below. The recommended capital structure
12 consists of 50.47% long-term debt and 49.53% common equity. The costs of long-
13 term debt for the Companies are their actual costs of debt at December 31, 2021, as
14 provided to the Commission in their rate of return reports. The cost of common
15 equity for each of the Companies is 11.50%, as will be discussed in detail below.
16 The summary of the Companies' requested WACCs are shown on page 1 of
17 Schedule DWD-1, and on Tables 1 and 2, below.

1 **Table 1: Summary of Recommended Weighted Average Cost of Capital for**
2 **Valley**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.47%	4.49%	2.27%
Common Equity	<u>49.53%</u>	11.50%	<u>5.70%</u>
Total	<u>100.00%</u>		<u>7.97%</u>

3 **Table 2: Summary of Recommended Weighted Average Cost of Capital for**
4 **Citizens'**

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.47%	4.09%	2.06%
Common Equity	<u>49.53%</u>	11.50%	<u>5.70%</u>
Total	<u>100.00%</u>		<u>7.76%</u>

5 **Q. PLEASE SUMMARIZE YOUR RECOMMENDED COMMON EQUITY**
6 **COST RATES.**

7 A. My recommended common equity cost rates of 11.50% applicable to Valley and
8 Citizens' are summarized on page 2 of Schedule DWD-1. I have assessed the
9 market-based common equity cost rates of companies of relatively similar, but not
10 necessarily identical, risk to the Companies. Using companies of relatively
11 comparable risk as proxies is consistent with the principles of fair rate of return
12 established in the *Hope*¹ and *Bluefield*² decisions. No proxy group can be identical
13 in risk to any single company. Consequently, there must be an evaluation of relative

¹ *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

² *Bluefield Water Works Improvement Co. v. Public Serv. Comm'n*, 262 U.S. 679 (1922).

1 risk between the company and the proxy group to determine if it is appropriate to
2 adjust the proxy group's indicated rate of return.

3 My recommendation results from applying several cost of common equity
4 models, specifically the Discounted Cash Flow ("DCF") model, the Risk Premium
5 Model ("RPM"), and the Capital Asset Pricing Model ("CAPM"), to the market
6 data of the Gas Utility Proxy Group and Electric Utility Proxy Group whose
7 selection criteria will be discussed below. In addition, I applied the DCF model,
8 RPM, and CAPM to proxy groups of domestic, non-price regulated companies
9 comparable in total risk to the Gas and Electric Utility Proxy Groups ("Non-Price
10 Regulated Proxy Groups"). The results derived from each are as follows:

11 **Table 3: Summary of Common Equity Cost Rates**

	<u>Gas Proxy Group</u>	<u>Electric Proxy Group</u>
Discounted Cash Flow Model	9.76%	9.05%
Risk Premium Model	10.60%	10.84%
Capital Asset Pricing Model	11.75%	12.15%
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>12.04%</u>	<u>12.60%</u>
Indicated Range of Common Equity Cost Rates Before Adjustments	9.90% - 11.90%	9.85% - 11.85%
Size Adjustment	0.90%	1.00%
Performance Factor Adjustment	<u>0.05%</u>	<u>0.05%</u>
Indicated Range of Common Equity Cost Rates After Adjustments	<u>10.85% - 12.85%</u>	<u>10.90% - 12.90%</u>
Recommended Cost of Common Equity After Adjustments	<u>11.50%</u>	<u>11.50%</u>

1 The indicated ranges of common equity cost rates were 9.90% to 11.90%
2 and 9.85% to 11.85% for the Gas and Electric Utility Proxy Groups, respectively,
3 before any company-specific adjustments. I then adjusted the indicated ranges of
4 common equity cost rates upward by 0.90% to reflect Valley's smaller relative size,
5 as compared to the Gas Utility Proxy Group, and by 1.00% to reflect Citizens'
6 smaller relative size, as compared to the Electric Utility Proxy Group. I also
7 adjusted the Companies' indicated ranges of common equity cost rates upward by
8 0.05% to reflect a performance factor adjustment, based on guidance from Section
9 523 of the Pennsylvania Public Utility Code, 66 Pa.C.S. § 523, and the Commission
10 Order in the Companies' last rate case.³ These adjustments resulted in company-
11 specific ranges of common equity cost rates of 10.85% to 12.85% for Valley and
12 10.90% to 12.90% for Citizens'. Given the indicated ranges of common equity cost
13 rates for the Companies, I recommend the Commission to approve a common
14 equity cost rate of 11.50% for both Valley and Citizens'.

15 **IV. GENERAL PRINCIPLES**

16 **Q. WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN**
17 **ARRIVING AT YOUR RECOMMENDED COMMON EQUITY COST**
18 **RATES?**

19 A. In unregulated industries, marketplace competition is the principal determinant of
20 the price of products or services. For regulated public utilities, regulation must act
21 as a substitute for marketplace competition. Assuring that the utility can fulfill its
22 obligations to the public, while providing safe and reliable service at all times,

³ Docket No. R-2019-3008209 (Valley), at 118-120 and R-2019-3008212 (Citizens'), at 108-110.

1 requires a level of earnings sufficient to maintain the integrity of presently invested
2 capital. Sufficient earnings also permit the attraction of needed new capital at a
3 reasonable cost, for which the utility must compete with other firms of comparable
4 risk, consistent with the fair rate of return standards established by the U.S.
5 Supreme Court in the previously cited *Hope* and *Bluefield* cases. The U.S. Supreme
6 Court affirmed the fair rate of return standards in *Hope*, when it stated:

7 The rate-making process under the Act, *i.e.*, the fixing of 'just and
8 reasonable' rates, involves a balancing of the investor and the consumer
9 interests. Thus we stated in the *Natural Gas Pipeline Co.* case that
10 'regulation does not insure that the business shall produce net revenues.'
11 315 U.S. at page 590, 62 S.Ct. at page 745. But such considerations
12 aside, the investor interest has a legitimate concern with the financial
13 integrity of the company whose rates are being regulated. From the
14 investor or company point of view it is important that there be enough
15 revenue not only for operating expenses but also for the capital costs of
16 the business. These include service on the debt and dividends on the
17 stock. Cf. *Chicago & Grand Trunk R. Co. v. Wellman*, 143 U.S. 339,
18 345, 346 12 S.Ct. 400,402. By that standard the return to the equity
19 owner should be commensurate with returns on investments in other
20 enterprises having corresponding risks. That return, moreover, should
21 be sufficient to assure confidence in the financial integrity of the
22 enterprise, so as to maintain its credit and to attract capital.⁴

23 In summary, the U.S. Supreme Court has found a return that is adequate to
24 attract capital at reasonable terms enables the utility to provide service while
25 maintaining its financial integrity. As discussed above, and in keeping with
26 established regulatory standards, that return should be commensurate with the
27 returns expected elsewhere for investments of equivalent risk. Therefore, the
28 Commission's decision in this proceeding should provide the Company with the
29 opportunity to earn a return that is: (1) adequate to attract capital at reasonable cost

⁴ *Hope*, 320 U.S. 591 (1944), at 603.

1 and terms; (2) sufficient to ensure their financial integrity; and (3) commensurate
2 with returns on investments in enterprises having corresponding risks.

3 Lastly, the required return for a regulated public utility is established on a
4 stand-alone basis, *i.e.*, for the utility operating company at issue in a rate case.
5 Parent entities, like other investors, have capital constraints and must look at the
6 attractiveness of the expected risk-adjusted return of each investment alternative in
7 their capital budgeting process. That is, utility holding companies that own many
8 utility operating companies have choices as to where they will invest their capital
9 within the holding company family. Therefore, the opportunity cost concept applies
10 regardless of the source of the funding, whether it be public funding or corporate
11 funding.

12 When funding is provided by a parent entity, the return still must be
13 sufficient to provide an incentive to allocate equity capital to the subsidiary or
14 business unit rather than other internal or external investment opportunities. That
15 is, the regulated subsidiary must compete for capital with all the parent company's
16 affiliates, and with other, similarly situated companies. In that regard, investors
17 value corporate entities on a sum-of-the-parts basis and expect each division within
18 the parent company to provide an appropriate risk-adjusted return.

19 It therefore is important that the authorized ROE reflects the risks and
20 prospects of the utility's operations and supports the utility's financial integrity from
21 a stand-alone perspective, as measured by its combined business and financial risks.
22 Consequently, the ROE authorized in this proceeding should be sufficient to

1 support the operational (*i.e.*, business risk) and financing (*i.e.*, financial risk) of the
2 Companies on a stand-alone basis.

3 **Q. WITHIN THAT BROAD FRAMEWORK, HOW IS THE COST OF**
4 **CAPITAL ESTIMATED IN REGULATORY PROCEEDINGS?**

5 A. Regulated utilities primarily use common stock and long-term debt to finance their
6 permanent property, plant, and equipment (*i.e.*, rate base). The fair rate of return
7 for a regulated utility is based on its weighted average cost of capital, in which, as
8 noted earlier, the costs of the individual sources of capital are weighted by their
9 respective book values with appropriate adjustments.

10 The cost of capital is the return investors require to make an investment in
11 a firm. Investors will provide funds to a firm only if the return that they *expect* is
12 equal to, or greater than, the return that they *require* to accept the risk of providing
13 funds to the firm.

14 The cost of capital (that is, the combination of the costs of debt and equity)
15 is based on the economic principle of "opportunity costs." Investing in any asset
16 (whether debt or equity securities) represents a forgone opportunity to invest in
17 alternative assets. For any investment to be sensible, its expected return must be at
18 least equal to the return expected on alternative, comparable risk investment
19 opportunities. Because investments with like risks should offer similar returns, the
20 opportunity cost of an investment should equal the return available on an
21 investment of comparable risk.

22 Whereas the cost of debt is contractually defined and can be directly
23 observed as the interest rate or yield on debt securities, the cost of common equity

1 must be estimated based on market data and various financial models. Because the
2 cost of common equity is premised on opportunity costs, the models used to
3 determine it are typically applied to a group of "comparable" or "proxy" companies.
4 In the end, the estimated cost of capital should reflect the return that investors
5 require in light of the subject company's business and financial risks, and the returns
6 available on comparable investments.

7 **Q. IS THE AUTHORIZED RETURN SET IN REGULATORY PROCEEDINGS**
8 **GUARANTEED?**

9 A. No, it is not. Consistent with the *Hope* and *Bluefield* standards, the ratemaking
10 process should provide the utility a reasonable opportunity to recover its return of,
11 and return on, its reasonably incurred investments, but it does not guarantee that
12 return. While a utility may have control over some factors that affect the ability to
13 earn its authorized return (*e.g.*, management performance, operating and
14 maintenance expenses, *etc.*), there are several factors beyond a utility's control that
15 affect its ability to earn its authorized return. Those may include factors such as
16 weather, the economy, and the prevalence and magnitude of regulatory lag.

17 **A. Business Risk**

18 **Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS**
19 **IMPORTANT FOR DETERMINING A FAIR RATE OF RETURN.**

20 A. The investor-required return on common equity reflects investors' assessment of
21 the total investment risk of the subject firm. Total investment risk is often discussed
22 in the context of business and financial risk.

1 Business risk reflects the uncertainty associated with owning a company's
2 common stock without the company's use of debt and/or preferred stock financing.
3 One way of considering the distinction between business and financial risk is to
4 view the former as the uncertainty of the expected earned return on common equity,
5 assuming the firm is financed with no debt.

6 Examples of business risks generally faced by utilities include, but are not
7 limited to, the regulatory environment, mandatory environmental compliance
8 requirements, customer mix and concentration of customers, service territory
9 economic conditions, market demand, risks and uncertainties of supply, operations,
10 capital intensity, size, the degree of operating leverage, emerging technologies
11 including distributed energy resources, and the vagaries of weather.

12 Although analysts, including rating agencies, may categorize business risks
13 individually, as a practical matter, such risks are interrelated and not wholly distinct
14 from one another. When determining an appropriate return on common equity, the
15 relevant issue is where investors see the subject company in relation to other
16 similarly situated utility companies (*i.e.*, the Utility Proxy Group). To the extent
17 investors view a company as being exposed to higher risk, the required return will
18 increase, and vice versa.

19 For regulated utilities, business risks are both long-term and near-term in
20 nature. Whereas near-term business risks are reflected in year-to-year variability
21 in earnings and cash flow brought about by economic or regulatory factors, long-
22 term business risks reflect the prospect of an impaired ability of investors to obtain
23 both a fair rate of return on, and return of, their capital. Moreover, because utilities

1 accept the obligation to provide safe, adequate and reliable service at all times (in
2 exchange for the opportunity to earn a fair return on their investment), they
3 generally do not have the option to delay, defer, or reject capital investments.
4 Because those investments are capital-intensive, utilities generally do not have the
5 option to avoid raising external funds during periods of capital market distress, if
6 necessary.

7 Because utilities invest in long-lived assets, long-term business risks are of
8 paramount concern to equity investors. That is, the risk of not recovering the return
9 on their investment extends far into the future. The timing and nature of events that
10 may lead to losses, however, also are uncertain and, consequently, those risks and
11 their implications for the required return on equity tend to be difficult to quantify.
12 Regulatory commissions (like investors who commit their capital) must review a
13 variety of quantitative and qualitative data and apply their reasoned judgment to
14 determine how long-term risks weigh in their assessment of the market-required
15 return on common equity.

16 **B. Financial Risk**

17 **Q. PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS**
18 **IMPORTANT IN DETERMINING A FAIR RATE OF RETURN.**

19 A. Financial risk is the additional risk created by the introduction of debt and preferred
20 stock into the capital structure. The higher the proportion of debt and preferred
21 stock in the capital structure, the higher the financial risk to common equity owners
22 (*i.e.*, failure to receive dividends due to default or other covenants). Therefore,

1 consistent with the basic financial principle of risk and return, common equity
2 investors demand higher returns as compensation for bearing higher financial risk.

3 **Q. CAN BOND AND CREDIT RATINGS BE A PROXY FOR A FIRM'S**
4 **COMBINED BUSINESS AND FINANCIAL RISKS TO EQUITY OWNERS**
5 **(I.E., INVESTMENT RISK)?**

6 A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative of,
7 similar combined business and financial risks (*i.e.*, total risk) faced by bond
8 investors.⁵ Although specific business or financial risks may differ between
9 companies, the same bond/credit rating indicates that the combined risks are
10 roughly similar from a debtholder perspective. The caveat is that these debtholder
11 risk measures do not translate directly to risks for common equity.

12 **Q. DO RATING AGENCIES ACCOUNT FOR COMPANY SIZE IN THEIR**
13 **BOND RATINGS?**

14 A. No. Neither Standard & Poor's ("S&P") nor Moody's Investors Service
15 ("Moody's") have minimum company size requirements for any given rating level.
16 This means, all else equal, a relative size analysis must be conducted for equity
17 investments in companies with similar bond ratings.

18 **V. VALLEY, CITIZENS', AND THE UTILITY PROXY GROUPS**

19 **Q. PLEASE SUMMARIZE YOUR KNOWLEDGE OF THE COMPANIES.**

20 A. Valley is an investor-owned natural gas distribution utility that provides natural gas
21 service to customers in Sayre and surrounding communities in Bradford County,

⁵ Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, e.g., within the A category, an S&P rating can be at A+, A, or A-. Similarly, risk distinction for Moody's ratings are distinguished by numerical rating gradations, e.g., within the A category, a Moody's rating can be A1, A2 and A3.

1 which is in the northern tier of Pennsylvania and is predominantly rural. Valley's
2 Pennsylvania operations serve more than 7,300 customers.

3 Citizens' is a Pennsylvania corporation with its principal office located in
4 Lewisburg, Union County, Pennsylvania. Citizens' is an investor-owned, for-profit
5 electric distribution utility. Citizens' service territory is a 55-square-mile territory
6 in and around Lewisburg, Pennsylvania. As of December 31, 2021, Citizens'
7 served 7,093 customers, of which 5,892 were residential and 1,201 were
8 commercial, industrial or lighting.⁶

9 The Companies are wholly-owned by C&T Enterprises, Inc., and are not
10 publicly-traded.

11 **Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE GAS**
12 **UTILITY PROXY GROUP.**

- 13 A. The companies selected for the Gas Utility Proxy Group met the following criteria:
- 14 (i) They were included in the Natural Gas Utility Group of *Value Line's*
15 *Standard Edition* ("*Value Line*") (February 21, 2022);
 - 16 (ii) They have 60% or greater of fiscal year 2021 total operating income derived
17 from, and 60% or greater of fiscal year 2021 total assets attributable to,
18 regulated gas distribution operations;
 - 19 (iii) At the time of preparation of this testimony, they had not publicly
20 announced that they were involved in any major merger or acquisition
21 activity (*i.e.*, one publicly-traded utility merging with or acquiring another)
22 or any other major development;

⁶ Source: <https://citizenselectric.com/about-us/>

- 1 (iv) They have not cut or omitted their common dividends during the five years
2 ended 2021 or through the time of preparation of this testimony;
- 3 (v) They have *Value Line* and Bloomberg Professional Services ("Bloomberg")
4 adjusted beta coefficients ("beta");
- 5 (vi) They have positive *Value Line* five-year dividends per share ("DPS")
6 growth rate projections; and
- 7 (vii) They have *Value Line*, Reuters, Zacks, or Yahoo! Finance consensus five-
8 year earnings per share ("EPS") growth rate projections.

9 The following six companies met these criteria: Atmos Energy Corporation,
10 New Jersey Resources Corporation, NiSource Inc., Northwest Natural Holding
11 Company, ONE Gas, Inc., and Spire Inc.

12 **Q. PLEASE EXPLAIN HOW YOU CHOSE THE COMPANIES IN THE**
13 **ELECTRIC UTILITY PROXY GROUP.**

- 14 A. The companies selected for the Electric Utility Proxy Group met the following
15 criteria:
- 16 (i) They were included in the Eastern, Central, or Western Electric Utility
17 Group of *Value Line* (March 11, 2022, February 11, 2022, January 21,
18 2022);
- 19 (ii) They have 70% or greater of fiscal year 2021 total operating income derived
20 from, and 70% or greater of fiscal year 2021 total assets attributable to,
21 regulated electric distribution operations;
- 22 (iii) At the time of preparation of this testimony, they had not publicly
23 announced that they were involved in any major merger or acquisition

- 1 activity (*i.e.*, one publicly-traded utility merging with or acquiring another)
2 or any other major development;
- 3 (iv) They have not cut or omitted their common dividends during the five years
4 ended 2021 or through the time of preparation of this testimony;
- 5 (v) They have *Value Line* and Bloomberg adjusted betas;
- 6 (vi) They have positive *Value Line* five-year DPS growth rate projections; and
- 7 (vii) They have *Value Line*, Reuters, Zacks, or Yahoo! Finance consensus five-
8 year EPS growth rate projections.

9 The following 14 companies met these criteria: Alliant Energy Corporation,
10 Ameren Corporation, American Electric Power Company, Inc., Duke Energy
11 Corporation, Edison International, Entergy Corporation, Evergy, Inc., Eversource
12 Energy, IDACORP, Inc., NorthWestern Corporation, OGE Energy Corporation,
13 Portland General Electric Company, The Southern Company, and Xcel Energy Inc.

14 **Q. PLEASE DESCRIBE PAGES 1 AND 2 OF SCHEDULE DWD-2.**

15 A. Pages 1 and 2 of Schedule DWD-2 contain comparative capitalization and financial
16 statistics for the Gas and Electric Utility Proxy Groups identified above for the
17 years 2017 to 2021.

18 During the five-year period ending 2021, the historically achieved average
19 earnings rate on book common equity for the Gas and Electric Utility Proxy Groups
20 averaged 8.13% and 9.15%, respectively. Total debt to earnings before interest,
21 taxes, depreciation, and amortization for the years 2017 to 2021 ranged between
22 4.96 and 7.65, with an average of 5.94 for the Gas Utility Proxy Group, and ranged
23 between 4.55 and 6.07, with an average of 5.19 for the Electric Utility Proxy Group.

1 Funds from operations to total debt ranged from 8.50% to 24.21%, with an average
2 of 15.30% for the Gas Utility Proxy Group, and 9.76% to 17.91% with an average
3 of 13.91% for the Electric Utility Proxy Group.

4 **VI. CAPITAL STRUCTURE AND ASSOCIATED COST RATES**

5 **Q. WHAT CAPITAL STRUCTURE RATIOS DO YOU RECOMMEND BE**
6 **EMPLOYED IN DEVELOPING AN OVERALL FAIR RATE OF RETURN**
7 **APPROPRIATE FOR THE COMPANIES?**

8 A. For Valley and Citizens' I recommend the use of the capital structure maintained
9 by the Companies' parent organization, C&T Enterprises, which consists of 50.47%
10 long-term debt and 49.53% common equity.

11 **Q. WHY ARE YOU RECOMMENDING A HYPOTHETICAL CAPITAL**
12 **STRUCTURE IN THIS PROCEEDING?**

13 A. Valley's and Citizens' capital structures at December 31, 2021 contain 63.89% and
14 84.56% common equity, respectively⁷. Although these capital structures finance
15 the Companies' rate bases, equity ratios of 63.89% and 84.56% are inappropriate at
16 this time for ratemaking purposes because they contain a higher than necessary
17 common equity ratio that results in, all else equal, a higher revenue cost of capital,
18 which must be paid for by rate payers.

19 **Q. HOW DOES YOUR PROPOSED HYPOTHETICAL CAPITAL**
20 **STRUCTURE COMPARE WITH THE CAPITAL STRUCTURES**

⁷ Companies' December 31, 2021 Return on Equity Report to the Commission.

1 **MAINTAINED BY THE COMPANIES IN YOUR GAS AND ELECTRIC**
2 **UTILITY PROXY GROUPS?**

3 A. My proposed hypothetical capital structure is reasonable to use and is consistent
4 with the range of capital structures maintained by my Gas and Electric Utility Proxy
5 Groups, as shown on pages 3 through 5 of Schedule DWD-2.

6 **Q. WHAT ARE YOUR RECOMMENDED EMBEDDED LONG-TERM DEBT**
7 **COST RATES FOR THE COMPANIES?**

8 A. I recommend the actual embedded long-term debt cost rates of the Companies,
9 which are 4.49% (Valley) and 4.09% (Citizens').

10 **VII. COMMON EQUITY COST RATE MODELS**

11 **Q. IS IT IMPORTANT THAT COST OF COMMON EQUITY MODELS BE**
12 **MARKET-BASED?**

13 A. Yes. As discussed previously, regulated public utilities, like the Companies, must
14 compete for equity in capital markets along with all other companies with
15 commensurate risk, including non-utilities. The cost of common equity is thus
16 determined based on equity market expectations for the returns of those companies.
17 If an individual investor is choosing to invest their capital among companies with
18 comparable risk, they will choose the company providing a higher return over a
19 company providing a lower return.

20 **Q. ARE YOUR COST OF COMMON EQUITY MODELS MARKET-BASED?**

21 A. Yes. The DCF model is market-based in that market prices are used in developing
22 the dividend yield component of the model. The RPM and CAPM are also market-
23 based in that the bond/issuer ratings and expected bond yields/risk-free rate used in

1 the application of the RPM and CAPM reflect the market's assessment of
2 bond/credit risk. In addition, the use of beta to determine the equity risk premium
3 also reflects the market's assessment of market/systematic risk, as betas are derived
4 from regression analyses of market prices. Moreover, market prices are used in the
5 development of the monthly returns and equity risk premiums used in the Predictive
6 Risk Premium Model ("PRPM"), one of the specific methods used in the RPM
7 analysis. Selection criteria for the Non-Price Regulated Proxy Group are based on
8 regression analyses of market prices and reflect the market's assessment of total
9 risk.

10 **Q. WHAT ANALYTICAL APPROACHES DID YOU USE TO DETERMINE**
11 **THE COMPANIES' ROE?**

12 A. As discussed earlier, I have relied on the DCF model, the RPM, and the CAPM,
13 which I apply to the Utility Proxy Group described above. I also applied these same
14 models to a Non-Price Regulated Proxy Group described later in this section.

15 I rely on these models because reasonable investors use a variety of tools
16 and do not rely exclusively on a single source of information or single model.
17 Moreover, the models on which I rely focus on different aspects of return
18 requirements and provide different insights to investors' views of risk and return.
19 The DCF model, for example, estimates the investor-required return assuming a
20 constant expected dividend yield and growth rate in perpetuity, while risk premium-
21 based methods (*i.e.*, the RPM and CAPM approaches) provide the ability to reflect
22 investors' views of risk, future market returns, and the relationship between interest
23 rates and the cost of common equity. Just as the use of market data for the Utility

1 Proxy Group adds the reliability necessary to inform expert judgment in arriving at
2 a recommended common equity cost rate, the use of multiple generally accepted
3 common equity cost rate models also adds reliability and accuracy when arriving
4 at a recommended common equity cost rate.

5 The use of multiple models also makes intuitive sense when we consider
6 that market prices are set by the buying and selling behavior of multiple investors,
7 whose circumstances, objectives, and constraints vary over time and across market
8 conditions. We cannot assume a single method is the best measure of the factors
9 motivating those decisions for all investors at all times. Giving undue weight to a
10 single method runs the very real risk of ignoring important information provided
11 by other methods.

12 In other words, no single model is more reliable than all others under all
13 market conditions. Intuition suggests it is more appropriate to use as many methods
14 as we reasonably can and to reflect the many factors motivating investment
15 decisions as best we can. In this instance, intuition, financial theory,⁸ and financial
16 practice reach a common conclusion: we should apply and reasonably consider
17 multiple methods when estimating the ROE.

⁸ As Brigham explains: "Whereas debt and preferred stocks are contractual obligations which have easily determined costs, it is not at all easy to estimate [the ROE]. However, three methods can be used: (1) the Capital Asset Pricing Model (CAPM), (2) the discounted cash flow (DCF) model, and (3) the bond-yield-plus-risk-premium approach. These methods should not be regarded as mutually exclusive – no one dominates the others, and all are subject to error when used in practice. Therefore, when faced with the task of estimating a company's cost of equity, we generally use all three methods and then choose among them on the basis of our confidence in the data used for each in the specific case at hand." Eugene F. Brigham, Louis C. Gapenski, Financial Management, Theory and Practice, 7th ed., The Dryden Press, 1994, at 341.

1 **A. Discounted Cash Flow Model**

2 **Q. WHAT IS THE THEORETICAL BASIS OF THE DCF MODEL?**

3 A. The theory underlying the DCF model is that the present value of an expected future
4 stream of net cash flows during the investment holding period can be determined
5 by discounting those cash flows at the cost of capital, or the investors' capitalization
6 rate. DCF theory indicates that an investor buys a stock for an expected total return
7 rate, which is derived from the cash flows received from dividends and market price
8 appreciation. Mathematically, the dividend yield on market price plus a growth rate
9 equals the capitalization rate; *i.e.*, the total common equity return rate expected by
10 investors.

11 **Q. WHICH VERSION OF THE DCF MODEL DID YOU USE?**

12 A. I used the single-stage constant growth DCF model in my analyses.

13 **Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN APPLYING
14 THE CONSTANT GROWTH DCF MODEL.**

15 A. The unadjusted dividend yields are based on the proxy companies' dividends as of
16 March 18, 2022, divided by the average closing market price for the 60 trading days
17 ended March 18, 2022.⁹

18 **Q. PLEASE EXPLAIN YOUR ADJUSTMENT TO THE DIVIDEND YIELD.**

19 A. Because dividends are paid periodically (*e.g.* quarterly), as opposed to continuously
20 (daily), an adjustment must be made to the dividend yield. This is often referred to
21 as the discrete, or the "Gordon Periodic," version of the DCF model.

⁹ See, Column 1, page 1 of Schedule DWD-3.

1 DCF theory calls for using the full growth rate, or D_1 , in calculating the
2 model's dividend yield component. Because the companies in the Gas and Electric
3 Utility Proxy Groups increase their quarterly dividends at various times during the
4 year, a reasonable assumption is to reflect one-half the annual dividend growth rate
5 in the dividend yield component, or $D_{1/2}$. Because the dividend should be
6 representative of the next 12-month period, this adjustment is a conservative
7 approach that does not overstate the dividend yield. Therefore, the actual average
8 dividend yields in Column 1, page 1 of Schedule DWD-3 have been adjusted
9 upward to reflect one-half the average projected growth rate shown in Column 5.

10 **Q. PLEASE EXPLAIN THE BASIS FOR THE GROWTH RATES YOU**
11 **APPLIED TO THE UTILITY PROXY GROUPS IN YOUR CONSTANT**
12 **GROWTH DCF MODEL.**

13 A. Investors with more limited resources than institutional investors are likely to rely
14 on widely available financial information services, such as *Value Line*, Zacks, and
15 Yahoo! Finance. Investors realize that analysts have significant insight into the
16 dynamics of the industries and individual companies they analyze, as well as
17 companies' abilities to effectively manage the effects of changing laws and
18 regulations, and ever-changing economic and market conditions. For these reasons,
19 I used analysts' five-year forecasts of EPS growth in my DCF analysis.

20 Over the long run, there can be no growth in DPS without growth in EPS.
21 Security analysts' earnings expectations have a more significant influence on
22 market prices than dividend expectations. Thus, using earnings growth rates in a

1 DCF analysis provides a better match between investors' market price appreciation
2 expectations and the growth rate component of the DCF.

3 **Q. PLEASE SUMMARIZE THE CONSTANT GROWTH DCF MODEL**
4 **RESULTS.**

5 A. As shown on page 1 of Schedule DWD-3, for the Gas Utility Proxy Group, the
6 mean result of applying the single-stage DCF model is 9.62%, the median result is
7 9.89%, and the average of the two is 9.76%. For the Electric Utility Proxy Group,
8 the mean DCF result is 8.89%, the median result is 9.21%, and the average of the
9 two is 9.05%. In arriving at a conclusion for the constant growth DCF-indicated
10 common equity cost rate for the Gas and Electric Utility Proxy Groups, I relied on
11 an average of the mean and the median results of the DCF, or 9.76% (gas) and
12 9.05% (electric). This approach considers all the proxy utilities' results, while
13 mitigating the high and low outliers of those individual results.

14 **B. The Risk Premium Model**

15 **Q. PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.**

16 A. The RPM is based on the fundamental financial principle of risk and return; namely,
17 that investors require greater returns for bearing greater risk. The RPM recognizes
18 that common equity capital has greater investment risk than debt capital, as
19 common equity shareholders are behind debt holders in any claim on a company's
20 assets and earnings. As a result, investors require higher returns from common
21 stocks than from bonds to compensate them for bearing the additional risk.

22 While it is possible to directly observe bond returns and yields, investors'
23 required common equity returns cannot be directly determined or observed.

1 According to RPM theory, one can estimate a common equity risk premium over
2 bonds (either historically or prospectively) and use that premium to derive a cost
3 rate of common equity. The cost of common equity equals the expected cost rate
4 for long-term debt capital, plus a risk premium over that cost rate, to compensate
5 common shareholders for the added risk of being unsecured and last-in-line for any
6 claim on the corporation's assets and earnings upon liquidation.

7 **Q. PLEASE EXPLAIN HOW YOU DERIVED YOUR INDICATED COST OF**
8 **COMMON EQUITY BASED ON THE RPM.**

9 A. To derive my indicated cost of common equity under the RPM, I used two risk
10 premium methods. The first method was the PRPM and the second method was a
11 risk premium model using a total market approach. The PRPM estimates the risk-
12 return relationship directly, while the total market approach indirectly derives a risk
13 premium by using known metrics as a proxy for risk.

14 **Q. PLEASE EXPLAIN THE PRPM.**

15 A. The PRPM, published in the *Journal of Regulatory Economics*,¹⁰ was developed
16 from the work of Robert F. Engle, who shared the Nobel Prize in Economics in
17 2003 "for methods of analyzing economic time series with time-varying volatility
18 ("ARCH)".¹¹ Engle found that volatility changes over time and is related from
19 one period to the next, especially in financial markets. Engle discovered that
20 volatility of prices and returns clusters over time and is therefore highly predictable
21 and can be used to predict future levels of risk and risk premiums.

¹⁰ Autoregressive conditional heteroscedasticity. See "A New Approach for Estimating the Equity Risk Premium for Public Utilities", Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. *The Journal of Regulatory Economics* (December 2011), 40:261-278.

¹¹ www.nobelprize.org.

1 The PRPM estimates the risk-return relationship directly, as the predicted
2 equity risk premium is generated by predicting volatility or risk. The PRPM is not
3 based on an estimate of investor behavior, but rather on an evaluation of the results
4 of that behavior (*i.e.*, the variance of historical equity risk premiums).

5 The inputs to the model are the historical returns on the common shares of
6 each Gas and Electric Utility Proxy Group company minus the historical monthly
7 yield on long-term U.S. Treasury securities through February 2022. Using a
8 generalized form of ARCH, known as GARCH, I calculated each Utility Proxy
9 Group company's projected equity risk premium using Eviews[®] statistical software.
10 When the GARCH model is applied to the historical return data, it produces a
11 predicted GARCH variance series¹² and a GARCH coefficient¹³. Multiplying the
12 predicted monthly variance by the GARCH coefficient and then annualizing it¹⁴
13 produces the predicted annual equity risk premium. I then added the forecasted 30-
14 year U.S. Treasury bond yield of 2.89%¹⁵ to each company's PRPM-derived equity
15 risk premium to arrive at an indicated cost of common equity. The 30-year U.S.
16 Treasury bond yield is a consensus forecast derived from *Blue Chip Financial*
17 *Forecasts ("Blue Chip")*¹⁶.

¹² Illustrated on Columns 1 and 2, page 2 of Schedule DWD-4.

¹³ Illustrated on Column 4, page 2 of Schedule DWD-4.

¹⁴ Annualized Return = (1 + Monthly Return)¹² - 1.

¹⁵ See, Column 6, page 2 of Schedule DWD-4.

¹⁶ *Blue Chip Financial Forecasts*, December 1, 2021 at page 14 and March 1, 2022 at page 2.

1 **Q. WHAT ARE THE INDICATED RESULTS OF THE PRPM AS APPLIED**
2 **TO YOUR UTILITY PROXY GROUPS?**

3 A. The mean PRPM indicated common equity cost rate for the Gas Utility Proxy
4 Group is 11.10%, the median is 9.93%, and the average of the two is 10.52%. For
5 the Electric Utility Proxy Group, the mean PRPM result is 10.85%, the median is
6 10.69%, and the average of the two is 10.77%. Consistent with my reliance on the
7 average of the median and mean results of the DCF models, I relied on the average
8 of the mean and median results of the Gas and Electric Utility Proxy Group PRPM
9 to calculate cost of common equity rates of 10.52% and 10.77%, respectively.

10 **Q. PLEASE EXPLAIN THE TOTAL MARKET APPROACH RPM.**

11 A. The total market approach RPM adds a prospective public utility bond yield to an
12 average of: 1) an equity risk premium that is derived from a beta-adjusted total
13 market equity risk premium, 2) an equity risk premium based on the S&P Utilities
14 Index, and 3) an equity risk premium based on authorized ROEs for gas and electric
15 utilities, respectively.

16 **Q. PLEASE EXPLAIN THE BASIS OF THE EXPECTED BOND YIELD OF**
17 **4.44% APPLICABLE TO THE GAS UTILITY PROXY GROUP AND THE**
18 **4.53% EXPECTED BOND YIELD APPLICABLE TO THE ELECTRIC**
19 **UTILITY PROXY GROUP.**

20 A. The first step in the total market approach RPM analysis is to determine the
21 expected bond yield. Because both ratemaking and the cost of capital, including
22 common equity cost rate, are prospective in nature, a prospective yield on similarly-
23 rated long-term debt is essential. I relied on a consensus forecast of about 50

1 economists of the expected yield on Aaa-rated corporate bonds for the six calendar
2 quarters ending with the second calendar quarter of 2023, and *Blue Chip's* long-
3 term projections for 2023 to 2027, and 2028 to 2032. As shown on line 1, page 3
4 of Schedule DWD-4, the average expected yield on Moody's Aaa-rated corporate
5 bonds is 3.95%. To derive an expected yield on Moody's A2-rated public utility
6 bonds, I made an upward adjustment of 0.41%, which represents a recent spread
7 between Aaa-rated corporate bonds and A2-rated public utility bonds, in order to
8 adjust the expected Aaa-rated corporate bond yield to an equivalent A2-rated public
9 utility bond yield.¹⁷ Adding that recent 0.41% spread to the expected Aaa-rated
10 corporate bond yield of 3.95% results in an expected A2-rated public utility bond
11 yield of 4.36%. Since the Gas Utility Proxy Group's average Moody's long-term
12 issuer rating is A3, and the Electric Utility Proxy Group's average Moody's long-
13 term issuer rating is Baa1, additional adjustments to the expected Moody's A2
14 public utility bond yields are needed to reflect the difference in bond ratings for
15 each group. Upward adjustments of 0.08% and 0.17%, which are one-third and
16 two-thirds the recent spread between A2 and Baa2 public utility bond yields,
17 respectively, result in 4.44% and 4.53% expected bond yields for the Gas Utility
18 Proxy Group and Electric Utility Proxy Group, respectively.

¹⁷ As shown on line 2 and explained in note 2, page 3 of Schedule DWD-4.

1 **Q. HOW DID YOU DERIVE A MARKET EQUITY RISK PREMIUM BASED**
2 **ON LONG-TERM HISTORICAL DATA?**

3 A. To derive a historical market equity risk premium, I used the most recent holding
4 period returns for the large company common stocks from the Stocks, Bonds, Bills,
5 and Inflation ("SBBI") Yearbook 2021 ("SBBI - 2021")¹⁹ less the average historical
6 yield on Moody's Aaa/Aa-rated corporate bonds for the period 1928 to 2020. Using
7 holding period returns over a very long time is appropriate because it is consistent
8 with the long-term investment horizon presumed by investing in a going concern,
9 *i.e.*, a company expected to operate in perpetuity.

10 SBBI's long-term arithmetic mean monthly total return rate on large
11 company common stocks was 11.94% and the long-term arithmetic mean monthly
12 yield on Moody's Aaa/Aa-rated corporate bonds was 6.02%.²⁰ As shown on line 1,
13 page 8 of Schedule DWD-4, subtracting the mean monthly bond yield from the
14 total return on large company stocks results in a long-term historical equity risk
15 premium of 5.92%.

16 I used the arithmetic mean monthly total return rates for the large company
17 stocks and yields (income returns) for the Moody's Aaa/Aa-rated corporate bonds,
18 because they are appropriate for the purpose of estimating the cost of capital as
19 noted in SBBI - 2021.²¹ Using the arithmetic mean return rates and yields is
20 appropriate because historical total returns and equity risk premiums provide
21 insight into the variance and standard deviation of returns needed by investors in

¹⁹ SBBI Appendix A Tables: Morningstar Stocks, Bonds, Bills, & Inflation 1926-2020.

²⁰ As explained in note 1, page 9 of Schedule DWD-4.

²¹ SBBI - 2021, at page 10-22.

1 estimating future risk when making a current investment. If investors relied on the
2 geometric mean of historical equity risk premiums, they would have no insight into
3 the potential variance of future returns, because the geometric mean relates the
4 change over many periods to a constant rate of change, thereby obviating the year-
5 to-year fluctuations, or variance, which is critical to risk analysis.

6 **Q. PLEASE EXPLAIN THE DERIVATION OF THE REGRESSION-BASED**
7 **MARKET EQUITY RISK PREMIUM.**

8 A. To derive the regression-based market equity risk premium of 8.23% shown on line
9 2, page 8 of Schedule DWD-4, I used the same monthly annualized total returns on
10 large company common stocks relative to the monthly annualized yields on
11 Moody's Aaa/Aa-rated corporate bonds as mentioned above. I modeled the
12 relationship between interest rates and the market equity risk premium using the
13 observed monthly market equity risk premium as the dependent variable, and the
14 monthly yield on Moody's Aaa/Aa-rated corporate bonds as the independent
15 variable. I then used a linear Ordinary Least Squares ("OLS") regression, in which
16 the market equity risk premium is expressed as a function of the Moody's Aaa/Aa-
17 rated corporate bonds yield:

18
$$RP = \alpha + \beta (R_{Aaa/Aa})$$

19 **Q. PLEASE EXPLAIN THE DERIVATION OF THE PRPM EQUITY RISK**
20 **PREMIUM.**

21 A. I used the same PRPM approach described above to the PRPM equity risk premium.
22 The inputs to the model are the historical monthly returns on large company
23 common stocks minus the monthly yields on Moody's Aaa/Aa-rated corporate

1 bonds during the period from January 1928 through February 2022.²² Using the
2 previously discussed generalized form of ARCH, known as GARCH, the projected
3 equity risk premium is determined using Eviews[®] statistical software. The resulting
4 PRPM predicted a market equity risk premium of 8.07%.²³

5 **Q. PLEASE EXPLAIN THE DERIVATION OF A PROJECTED EQUITY RISK**
6 **PREMIUM BASED ON *VALUE LINE* DATA FOR YOUR RPM ANALYSIS.**

7 A. As noted above, because both ratemaking and the cost of capital are prospective, a
8 prospective market equity risk premium is needed. The derivation of the forecasted
9 or prospective market equity risk premium can be found in note 4, page 8 of
10 Schedule DWD-4. Consistent with my calculation of the dividend yield component
11 in my DCF analysis, this prospective market equity risk premium is derived from
12 an average of the three- to five-year median market price appreciation potential by
13 *Value Line* for the 13 weeks ended March 18, 2022, plus an average of the median
14 estimated dividend yield for the common stocks of the 1,700 firms covered in *Value*
15 *Line's* Standard Edition.²⁴

16 The average median expected price appreciation is 44%, which translates to
17 a 9.54% annual appreciation, and, when added to the average of *Value Line's*
18 median expected dividend yields of 1.85%, equates to a forecasted annual total
19 return rate on the market of 11.39%. The forecasted Moody's Aaa-rated corporate
20 bond yield of 3.95% is deducted from the total market return of 11.39%, resulting

²² Data from January 1926 to December 2020 is from SBBI - 2021. Data from December 2020 to February 2022 is from Bloomberg.

²³ Shown on line 3, page 8 of Schedule DWD-4.

²⁴ As explained in detail in note 1, page 2 of Schedule DWD-5.

1 in an equity risk premium of 7.44%, as shown on line 4, page 8 of Schedule DWD-
2 4.

3 **Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM**
4 **BASED ON THE S&P 500 COMPANIES.**

5 A. Using data from *Value Line*, I calculated an expected total return on the S&P 500
6 companies using expected dividend yields and long-term growth estimates as a
7 proxy for capital appreciation. The expected total return for the S&P 500 is 16.14%.
8 Subtracting the prospective yield on Moody's Aaa-rated corporate bonds of 3.95%
9 results in a 12.19% projected equity risk premium.

10 **Q. PLEASE EXPLAIN THE DERIVATION OF AN EQUITY RISK PREMIUM**
11 **BASED ON BLOOMBERG DATA.**

12 A. Using data from Bloomberg, I calculated an expected total return on the S&P 500
13 using expected dividend yields and long-term growth estimates as a proxy for
14 capital appreciation, identical to the method described above. The expected total
15 return for the S&P 500 is 14.60%. Subtracting the prospective yield on Moody's
16 Aaa-rated corporate bonds of 3.95% results in a 10.65% projected equity risk
17 premium.

18 **Q. WHAT WAS YOUR CONCLUSION OF A BETA-DERIVED EQUITY RISK**
19 **PREMIUM FOR USE IN YOUR RPM ANALYSIS?**

20 A. I gave equal weight to all six equity risk premiums based on each source - historical,
21 *Value Line*, and Bloomberg - in arriving at an 8.75% equity risk premium.

**Table 5: Summary of the Calculation of the Equity Risk Premium
Using Total Market Returns²⁵**

Historical Spread Between Total Returns of Large Stocks and Aaa and Aa2-Rated Corporate Bond Yields (1928 – 2020)	5.92%
Regression Analysis on Historical Data	8.23%
PRPM Analysis on Historical Data	8.07%
Prospective Equity Risk Premium using Total Market Returns from <i>Value Line</i> Summary & Index less Projected Aaa Corporate Bond Yields	7.44%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from <i>Value Line</i> for the S&P 500 less Projected Aaa Corporate Bond Yields	12.19%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P 500 less Projected Aaa Corporate Bond Yields	<u>10.65%</u>
Average	<u>8.75%</u>

After calculating the average market equity risk premium of 8.75%, I adjusted it by the beta to account for the risk of the Gas and Electric Utility Proxy Groups. As discussed below, the beta is a meaningful measure of prospective relative risk to the market as a whole, and is a logical way to allocate a company's, or proxy group's, share of the market's total equity risk premium relative to corporate bond yields. As shown on page 1 of Schedule DWD-5, the average of the mean and median betas for the Gas and Electric Utility Proxy Groups are 0.89 and 0.93, respectively. Multiplying the average betas for each group by the market equity risk premium of 8.75% results in beta-adjusted equity risk premiums for the Gas and Electric Utility Proxy Groups of 7.79% and 8.14%, respectively.

²⁵ As shown on page 8 of Schedule DWD-4.

1 **Q. HOW DID YOU DERIVE THE EQUITY RISK PREMIUM BASED ON THE**
2 **S&P UTILITY INDEX AND MOODY'S A-RATED PUBLIC UTILITY**
3 **BONDS?**

4 A. I estimated three equity risk premiums based on S&P Utility Index holding returns,
5 and two equity risk premiums based on the expected returns of the S&P Utilities
6 Index, using *Value Line* and Bloomberg data, respectively. Turning first to the S&P
7 Utility Index holding period returns, I derived a long-term monthly arithmetic mean
8 equity risk premium between the S&P Utility Index total returns of 10.65% and
9 monthly Moody's A-rated public utility bond yields of 6.49% from 1928 to 2020 to
10 arrive at an equity risk premium of 4.16%.²⁶ I then used the same historical data to
11 derive an equity risk premium of 6.04% based on a regression of the monthly equity
12 risk premiums. The final S&P Utility Index holding period equity risk premium
13 involved applying the PRPM using the historical monthly equity risk premiums
14 from January 1928 to February 2022 to arrive at a PRPM-derived equity risk
15 premium of 5.27% for the S&P Utility Index.

16 I then derived expected total returns on the S&P Utilities Index of 10.69%
17 and 9.78% using data from *Value Line* and Bloomberg, respectively, and subtracted
18 the prospective Moody's A2-rated public utility bond yield of 4.36%²⁷, which
19 resulted in equity risk premiums of 6.33% and 5.42%, respectively. As with the
20 market equity risk premiums, I averaged each risk premium based on each source
21 (*i.e.*, historical, *Value Line*, and Bloomberg) to arrive at my utility-specific equity
22 risk premium of 5.44%.

²⁶ As shown on line 1, page 10 of Schedule DWD-4.

²⁷ Derived on line 3, page 3 of Schedule DWD-4.

**Table 6: Summary of the Calculation of the Equity Risk Premium
Using S&P Utility Index Holding Returns²⁸**

Historical Spread Between Total Returns of the S&P Utilities Index and A2-Rated Utility Bond Yields (1928 – 2020)	4.16%
Regression Analysis on Historical Data	6.04%
PRPM Analysis on Historical Data	5.27%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from <i>Value Line</i> for the S&P Utilities Index less Projected A2 Utility Bond Yields	6.33%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns from Bloomberg Professional Services for the S&P Utilities Index less Projected A2 Utility Bond Yields	<u>5.42%</u>
Average	<u>5.44%</u>

Q. HOW DID YOU DERIVE AN EQUITY RISK PREMIUM OF 5.46% BASED ON AUTHORIZED ROES FOR GAS DISTRIBUTION UTILITIES?

A. The equity risk premium of 5.46% shown on line 3, page 7 of Schedule DWD-4 is the result of a regression analysis based on regulatory awarded gas distribution ROEs related to the yields on Moody's A-rated public utility bonds. That analysis is shown on page 13 of Schedule DWD-4. Page 13 of Schedule DWD-4 contains the graphical results of a regression analysis of 809 rate cases for gas distribution utilities which were fully litigated during the period from January 1, 1980 through March 18, 2022. It shows the implicit equity risk premium relative to the yields on A2-rated public utility bonds immediately prior to the issuance of each regulatory decision. It is readily discernible that there is an inverse relationship between the yield on A2-rated public utility bonds and equity risk premiums. In other words,

²⁸ As shown on page 12 of Schedule DWD-4.

1 as interest rates decline, the equity risk premium rises and vice versa, a result
2 consistent with financial literature on the subject.²⁹ I used the regression results to
3 estimate the equity risk premium applicable to the projected yield on Moody's A2-
4 rated public utility bonds of 4.36%. Given the expected A-rated utility bond yield
5 of 4.36%, it can be calculated that the indicated equity risk premium applicable to
6 that bond yield is 5.46%, which is shown on line 3, page 7 of Schedule DWD-4.

7 **Q. HOW DID YOU DERIVE AN EQUITY RISK PREMIUM OF 5.52% BASED**
8 **ON AUTHORIZED ROES FOR ELECTRIC UTILITIES?**

9 A. The equity risk premium of 5.52% shown on line 4, page 7 of Schedule DWD-4 is
10 the result of a regression analysis based on regulatory awarded electric utility ROEs
11 related to the yields on Moody's A-rated public utility bonds. That analysis is
12 shown on page 14 of Schedule DWD-4. Page 14 of Schedule DWD-4 contains the
13 graphical results of a regression analysis of 1,192 rate cases for electric utilities
14 which were fully litigated during the period from January 1, 1980 through
15 March 18, 2022. It shows the implicit equity risk premium relative to the yields on
16 A-rated public utility bonds immediately prior to the issuance of each regulatory
17 decision. Similar to the analysis using gas distribution utilities, it is readily
18 discernible that there is also an inverse relationship between the yield on A-rated
19 public utility bonds and equity risk premiums for electric utilities. I therefore used
20 the regression results to estimate the equity risk premium applicable to the projected
21 yield on Moody's A2-rated public utility bonds of 4.36%. Given the expected A-

²⁹ See, e.g., Robert S. Harris and Felicia C. Marston, *The Market Risk Premium: Expectational Estimates Using Analysts' Forecasts*, Journal of Applied Finance, Vol. 11, No. 1, 2001, at 11-12; Eugene F. Brigham, Dilip K. Shome, and Steve R. Vinson, *The Risk Premium Approach to Measuring a Utility's Cost of Equity*, Financial Management, Spring 1985, at pp. 33-45.

1 rated utility bond yield of 4.36%, it can be calculated that the indicated equity risk
2 premium applicable to that bond yield is 5.52%, which is shown on line 4, page 7
3 of Schedule DWD-4.

4 **Q. WHAT IS YOUR CONCLUSION OF AN EQUITY RISK PREMIUM FOR**
5 **USE IN YOUR TOTAL MARKET APPROACH RPM ANALYSIS?**

6 A. The equity risk premiums I applied to the Gas and Electric Utility Proxy Groups
7 were 6.23% and 6.37%, respectively, which gave equal weight to the beta-adjusted
8 equity risk premium for the Gas and Electric Utility Proxy Groups, the S&P
9 Utilities Index, and the authorized return utility equity risk premiums as shown on
10 page 7 of Schedule DWD-4.

11 **Table 7: Summary of Conclusions for the Equity Risk Premium for Use in**
12 **the Total Market Approach for the Utility Proxy Groups³⁰**

	Gas Proxy Group	Electric Proxy Group
Beta-Adjusted Equity Risk Premium	7.79%	8.14%
S&P Utilities Index Equity Risk Premium	5.44%	5.44%
Authorized ROE Equity Risk Premium	<u>5.46%</u>	<u>5.52%</u>
Average	<u>6.23%</u>	<u>6.37%</u>

13

14 **Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE**
15 **BASED ON THE TOTAL MARKET APPROACH?**

16 A. As shown on line 7, page 3 of Schedule DWD-4, I calculated common equity cost
17 rates of 10.67% and 10.90% for the Gas and Electric Utility Proxy Groups,
18 respectively, based on the total market approach RPM.

³⁰ As shown on page 7 of Schedule DWD-4.

1 **Table 8: Summary of the Total Market Return Risk Premium Model³¹**

	Gas Proxy Group	Electric Proxy Group
Prospective Moody's Utility Bond Yield Applicable to the Utility Proxy Group	4.44%	4.53%
Prospective Equity Risk Premium	<u>6.23%</u>	<u>6.37%</u>
Indicated Cost of Common Equity	<u>10.67%</u>	<u>10.90%</u>

2

3 **Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE PRPM**
4 **AND THE TOTAL MARKET APPROACH RPM?**

5 A. As shown on page 1 of Schedule DWD-4, the indicated RPM-derived common
6 equity cost rates for the Gas and Electric Utility Proxy Groups are 10.60% and
7 10.84%, respectively, which gives equal weight to the PRPM and the adjusted-
8 market approach results.

9 **C. The Capital Asset Pricing Model**

10 **Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.**

11 A. CAPM theory defines risk as the co-variability of a security's returns with the
12 market's returns as measured by the beta (β). A beta less than 1.0 indicates lower
13 variability than the market as a whole, while a beta greater than 1.0 indicates greater
14 variability than the market.

15 The CAPM assumes that all non-market or unsystematic risk can be
16 eliminated through diversification. The risk that cannot be eliminated through
17 diversification is called market, or systematic, risk. In addition, the CAPM
18 presumes that investors only require compensation for systematic risk, which is the
19 result of macroeconomic and other events that affect the returns on all assets. The

³¹ As shown on page 3 of Schedule DWD-4.

1 model is applied by adding a risk-free rate of return to a market risk premium, which
2 is adjusted proportionately to reflect the systematic risk of the individual security
3 relative to the total market as measured by beta. The traditional CAPM model is
4 expressed as:

$$5 \quad R_s = R_f + \beta (R_m - R_f)$$

6 Where: R_s = Return rate on the common stock

7 R_f = Risk-free rate of return

8 R_m = Return rate on the market as a whole

9 β = Adjusted beta (volatility of the
10 security relative to the market as a whole)

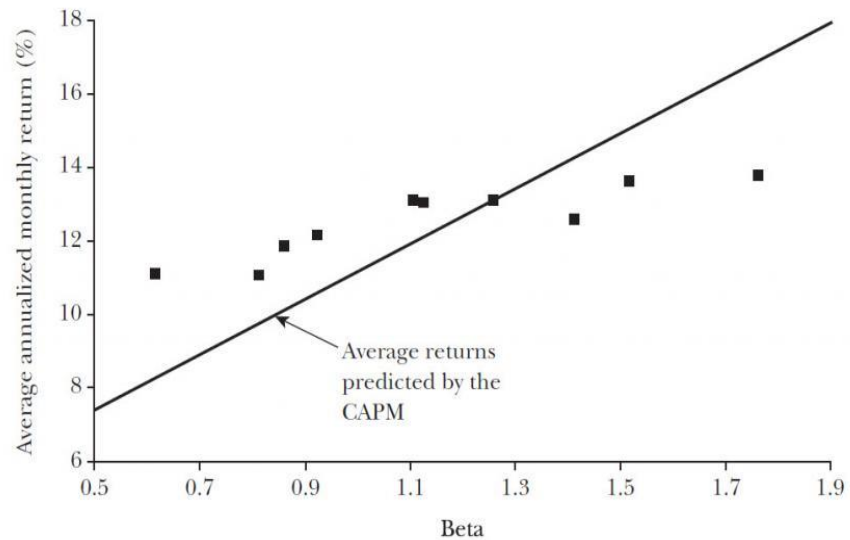
11 Numerous tests of the CAPM have measured the extent to which security
12 returns and beta are related as predicted by the CAPM, confirming its validity. The
13 empirical CAPM ("ECAPM") reflects the reality that while the results of these tests
14 support the notion that the beta is related to security returns, the empirical Security
15 Market Line ("SML") described by the CAPM formula is not as steeply sloped as
16 the predicted SML.³²

17 The ECAPM reflects this empirical reality. Fama and French clearly state
18 regarding their Figure 2, below, that "[t]he returns on the low beta portfolios are too
19 high, and the returns on the high beta portfolios are too low."³³

³² Roger A. Morin, Modern Regulatory Finance, at page 206 ("Morin").

³³ Eugene F. Fama and Kenneth R. French, *The Capital Asset Pricing Model: Theory and Evidence*, Journal of Economic Perspectives, Vol. 18, No. 3, Summer 2004 at p. 33 ("Fama & French").

Figure 2 <http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>
 Average Annualized Monthly Return versus Beta for Value Weight Portfolios
 Formed on Prior Beta, 1928–2003



1

2 Morin also states that:

2

3 With few exceptions, the empirical studies agree that ... low-beta
 4 securities earn returns somewhat higher than the CAPM would predict,
 5 and high-beta securities earn less than predicted.³⁴

3

4

5

* * *

6

7 Therefore, the empirical evidence suggests that the expected return on a
 8 security is related to its risk by the following approximation:

7

8

$$K = R_F + x (R_M - R_F) + (1-x) \beta(R_M - R_F)$$

9

10 where x is a fraction to be determined empirically. The value of x that
 11 best explains the observed relationship [is] $\text{Return} = 0.0829 + 0.0520 \beta$
 12 is between 0.25 and 0.30. If $x = 0.25$, the equation becomes:

10

11

12

$$K = R_F + 0.25(R_M - R_F) + 0.75 \beta(R_M - R_F)^{35}$$

13

14 Fama and French provide similar support for the ECAPM when they state:

14

15 The early tests firmly reject the Sharpe-Lintner version of the CAPM.
 16 There is a positive relation between beta and average return, but it is too
 17 "flat."... The regressions consistently find that the intercept is greater

15

16

17

³⁴ Morin, at p. 207.

³⁵ Morin, at p. 221.

1 than the average risk-free rate... and the coefficient on beta is less than
2 the average excess market return... This is true in the early tests... as
3 well as in more recent cross-section regressions tests, like Fama and
4 French (1992).³⁶

5 Finally, Fama and French further note:

6 Confirming earlier evidence, the relation between beta and average
7 return for the ten portfolios is much flatter than the Sharpe-Linter
8 CAPM predicts. The returns on low beta portfolios are too high, and
9 the returns on the high beta portfolios are too low. For example, the
10 predicted return on the portfolio with the lowest beta is 8.3 percent per
11 year; the actual return as 11.1 percent. The predicted return on the
12 portfolio with the t beta is 16.8 percent per year; the actual is 13.7
13 percent.³⁷

14 Clearly, the justification from Morin, and Fama and French, along with their
15 reviews of other academic research on the CAPM, validate the use of the ECAPM.
16 In view of theory and practical research, I have applied both the traditional CAPM
17 and the ECAPM to the companies in the Gas and Electric Utility Proxy Groups and
18 averaged the results.

19 **Q. WHAT BETA DID YOU USE IN YOUR CAPM ANALYSIS?**

20 A. For the beta in my CAPM analysis, I considered two sources: *Value Line* and
21 Bloomberg Professional Services. While both of those services adjust their
22 calculated (or "raw") betas to reflect the tendency of beta to regress to the market
23 mean of 1.00, *Value Line* calculates beta over a five-year period, while Bloomberg
24 calculates it over a two-year period.

³⁶ Fama & French, at 32.

³⁷ Fama & French, at 33.

1 **Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF**
2 **RETURN.**

3 A. As shown in Column 5, page 1 of Schedule DWD-5, the risk-free rate adopted for
4 both applications of the CAPM is 2.89%. This risk-free rate is based on the average
5 of the *Blue Chip* consensus forecast of the expected yields on 30-year U.S. Treasury
6 bonds for the six quarters ending with the second calendar quarter of 2023, and
7 long-term projections for the years 2023 to 2027 and 2028 to 2032.

8 **Q. WHY IS THE YIELD ON LONG-TERM U.S. TREASURY BONDS**
9 **APPROPRIATE FOR USE AS THE RISK-FREE RATE?**

10 A. The yield on long-term U.S. Treasury bonds is almost risk-free and its term is
11 consistent with the long-term cost of capital to public utilities measured by the
12 yields on Moody's A-rated public utility bonds; the long-term investment horizon
13 inherent in utilities' common stocks; and the long-term life of the jurisdictional rate
14 base to which the allowed fair rate of return (*i.e.*, cost of capital) will be applied.
15 In contrast, short-term U.S. Treasury yields are more volatile and largely a function
16 of Federal Reserve monetary policy.

17 **Q. PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED RISK**
18 **PREMIUM FOR THE MARKET USED IN YOUR CAPM ANALYSES.**

19 A. The basis of the market risk premium is explained in detail in note 1 on Schedule
20 DWD-5. As discussed above, the market risk premium is derived from an average
21 of three historical data-based market risk premiums, two *Value Line* data-based
22 market risk premiums, and one Bloomberg data-based market risk premium.

1 The long-term income return on U.S. Government securities of 5.05% was
2 deducted from the SBBI - 2021 monthly historical total market return of 12.20%,
3 which results in an historical market equity risk premium of 7.15%.³⁸ I applied a
4 linear OLS regression to the monthly annualized historical returns on the S&P 500
5 relative to historical yields on long-term U.S. Government securities from SBBI -
6 2021. That regression analysis yielded a market equity risk premium of 9.38%.
7 The PRPM market equity risk premium is 9.03% and is derived using the PRPM
8 relative to the yields on long-term U.S. Treasury securities from January 1926
9 through February 2022.

10 The *Value Line*-derived forecasted total market equity risk premium is
11 derived by deducting the forecasted risk-free rate of 2.89%, discussed above, from
12 the *Value Line* projected total annual market return of 11.39%, resulting in a
13 forecasted total market equity risk premium of 8.50%. The S&P 500 projected
14 market equity risk premium using *Value Line* data is derived by subtracting the
15 projected risk-free rate of 2.89% from the projected total return of the S&P 500 of
16 16.14%. The resulting market equity risk premium is 13.25%.

17 The S&P 500 projected market equity risk premium using Bloomberg data
18 is derived by subtracting the projected risk-free rate of 2.89% from the projected
19 total return of the S&P 500 of 14.60%. The resulting market equity risk premium
20 is 11.71%.

21 These six measures, when averaged, result in an average total market equity
22 risk premium of 9.84%.

³⁸ SBBI - 2021, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21).

1 Electric Utility Proxy Group using the CAPM/ECAPM are 11.75% and 12.15%,
2 respectively.

3 **D. Common Equity Cost Rates for Proxy Group of Domestic, Non-Price**
4 **Regulated Companies Based on the DCF, RPM, and CAPM**

5 **Q. WHY DID YOU ALSO CONSIDER PROXY GROUPS OF DOMESTIC,**
6 **NON-PRICE REGULATED COMPANIES?**

7 A. In the *Hope* and *Bluefield* cases, the U.S. Supreme Court did not specify that
8 comparable risk companies had to be utilities. Because the purpose of rate
9 regulation is to be a substitute for marketplace competition, non-price regulated
10 firms operating in the competitive marketplace make an excellent proxy if they are
11 comparable in total risk to the Gas and Electric Utility Proxy Groups being used to
12 estimate the cost of common equity. The selection of such domestic, non-price
13 regulated competitive firms theoretically and empirically results in a proxy group
14 that is comparable in total risk to the Gas and Electric Utility Proxy Groups, because
15 all of these companies compete for capital in the exact same markets.

16 **Q. HOW DID YOU SELECT NON-PRICE REGULATED COMPANIES THAT**
17 **ARE COMPARABLE IN TOTAL RISK TO THE REGULATED GAS AND**
18 **ELECTRIC UTILITY PROXY GROUPS?**

19 A. In order to select proxy groups of domestic, non-price regulated companies similar
20 in total risk to the Gas and Electric Utility Proxy Groups, I relied on beta and related
21 statistics derived from *Value Line* regression analyses of weekly market prices over
22 the most recent 260 weeks (*i.e.*, five years) for each group. These selection criteria
23 resulted in a proxy group of 38 domestic, non-price regulated firms comparable in
24 total risk to the Gas Utility Proxy Group and 48 non-price regulated firms

1 comparable in total risk to the Electric Utility Proxy Group. Total risk is the sum
2 of non-diversifiable market risk and diversifiable company-specific risk. The
3 criteria used in selecting the domestic, non-price regulated firms were:

- 4 (i) They must be covered by *Value Line Investment Survey* (Standard
5 Edition);
- 6 (ii) They must be domestic, non-price regulated companies, *i.e.*, not utilities;
- 7 (iii) Their betas must lie within plus or minus two standard deviations of the
8 average unadjusted betas of the Gas and Electric Utility Proxy Groups,
9 respectively; and
- 10 (iv) The residual standard errors of the *Value Line* regressions which gave rise
11 to the unadjusted betas must lie within plus or minus two standard
12 deviations of the average residual standard errors of the Gas and Electric
13 Utility Proxy Groups, respectively.

14 Betas measure market, or systematic, risk, which is not diversifiable. The
15 residual standard errors of the regressions measure each firm's company-specific,
16 diversifiable risk. Companies that have similar betas and similar residual standard
17 errors resulting from the same regression analyses have similar total investment
18 risk.

19 **Q. HAVE YOU PREPARED A SCHEDULE WHICH SHOWS THE DATA**
20 **FROM WHICH YOU SELECTED THE DOMESTIC, NON-PRICE**

1 **REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK**
2 **TO THE GAS AND ELECTRIC UTILITY PROXY GROUPS?**

3 A. Yes, the basis of my selection and both proxy groups' regression statistics are shown
4 in Schedule DWD-6.

5 **Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE**
6 **DCF MODEL, RPM, AND CAPM FOR THE NON-PRICE REGULATED**
7 **PROXY GROUPS?**

8 A. Yes. Because the DCF model, RPM, and CAPM have been applied in an identical
9 manner as described above, I will not repeat the details of the rationale and
10 application of each model. One exception is in the application of the RPM, where
11 I did not use public utility-specific equity risk premiums, nor did I apply the PRPM
12 to the individual non-price regulated companies.

13 Pages 2 and 3 of Schedule DWD-7 derives the constant growth DCF model
14 common equity cost rate. As shown, the indicated common equity cost rate, using
15 the constant growth DCF for the Non-Price Regulated Proxy Groups comparable
16 in total risk to the Gas and Electric Utility Proxy Group, are 12.22% and 12.70%,
17 respectively.

18 Pages 4 through 7 of Schedule DWD-7 contain the data and calculations
19 that support the 12.12% and 12.73% RPM common equity cost rates applicable to
20 the Non-Price Regulated Proxy Groups comparable in total risk to the Gas and
21 Electric Utility Proxy Groups, respectively. As shown on line 1, page 4 of Schedule
22 DWD-7, the consensus prospective yield on Moody's Baa-rated corporate bonds
23 for the six quarters ending in the second quarter of 2023, and for the years 2023 to

1 2027 and 2028 to 2032, is 4.71%.⁴⁰ Since the Non-Price Regulated Proxy Groups
2 relative to the Gas and Electric Utility Proxy Groups both have average Moody's
3 long-term issuer ratings of Baa1, a downward adjustment of 0.12% to the projected
4 Baa2-rated corporate bond yield is necessary to reflect the difference in ratings.⁴¹
5 This results in projected Baa1-rated corporate bond yields of 4.59% applicable to
6 both of the Non-Price Regulated Proxy Groups comparable in total risk to the Gas
7 and Electric Utility Proxy Groups.

8 When the beta-adjusted risk premiums of 7.53% and 8.14%⁴² relative to the
9 Non-Price Regulated Proxy Groups comparable in total risk to the Gas and Electric
10 Utility Proxy Groups, respectively, are added to the prospective Baa1-rated
11 corporate bond yields of 4.59%, the indicated RPM common equity cost rates are
12 12.12% and 12.73%, respectively.

13 Pages 8 and 9 of Schedule DWD-7 contains the inputs and calculations that
14 support my indicated CAPM/ECAPM common equity cost rates of 11.54% and
15 12.07% for the Non-Price Regulated Proxy Groups comparable in total risk to the
16 Gas and Electric Utility Proxy Groups, respectively.

⁴⁰ *Blue Chip Financial Forecasts*, December 1, 2021, at page 14 and March 1, 2022, at page 2.

⁴¹ As demonstrated in line 2 and described in note 2, page 4 of Schedule DWD-7.

⁴² Derived on page 7 of Schedule DWD-7.

1 **Q. WHAT IS THE COST RATE OF COMMON EQUITY BASED ON THE**
 2 **NON-PRICE REGULATED PROXY GROUPS COMPARABLE IN TOTAL**
 3 **RISK TO THE GAS AND ELECTRIC UTILITY PROXY GROUPS?**

4 A. As shown on page 1 of Schedule DWD-7, the results of the common equity models
 5 applied to the Non-Price Regulated Proxy Groups that are comparable in total risk
 6 to the Gas and Electric Utility Proxy Groups are as follows:

7 **Table 10: Summary of Common Equity Cost Rates for the Non-Price**
 8 **Regulated Proxy Groups**

	<u>Non-Utility Group</u> <u>Based on Gas Utility</u> <u>Group</u>	<u>Non-Utility Group</u> <u>Based on Electric</u> <u>Utility Group</u>
Discounted Cash Flow Model	12.22%	12.70%
Risk Premium Model	12.12%	12.73%
Capital Asset Pricing Model	<u>11.54%</u>	<u>12.07%</u>
Mean	<u>11.96%</u>	<u>12.50%</u>
Median	<u>12.12%</u>	<u>12.70%</u>
Average of Mean and Median	<u>12.04%</u>	<u>12.60%</u>

9

10 The average of the mean and median of these models for the Non-Price
 11 Regulated Proxy Groups comparable in total risk to the Gas and Electric Utility
 12 Proxy Groups are 12.04% and 12.60%, respectively, which I used as the indicated
 13 common equity cost rates for the Non-Price Regulated Proxy Groups.

1 **VIII. CONCLUSION OF COMMON EQUITY COST RATES BEFORE**
2 **ADJUSTMENTS**

3 **Q. WHAT ARE THE INDICATED COMMON EQUITY COST RATES FOR**
4 **THE GAS AND ELECTRIC UTILITY PROXY GROUPS BEFORE**
5 **ADJUSTMENTS?**

6 A. By applying multiple cost of common equity models to the Gas and Electric Utility
7 Proxy Groups and the Non-Price Regulated Proxy Group, the indicated cost of
8 common equity before any relative risk adjustments is 10.85% - 12.85% for the Gas
9 Proxy Group and 10.90% - 12.90% for the Electric Proxy Group. I used multiple
10 cost of common equity models as primary tools in arriving at my recommended
11 range of common equity cost rates, because no single model is so inherently precise
12 that it can be relied on to the exclusion of other theoretically sound models. Using
13 multiple models adds reliability to the estimated common equity cost rate, with the
14 prudence of using multiple cost of common equity models supported in both the
15 financial literature and regulatory precedent.

16 As will be discussed below, the Companies have greater risk than their
17 respective Utility Proxy Groups. Because of this, the indicated range of model
18 results based on the Utility Proxy Groups must be adjusted to reflect the Companies'
19 greater relative risk.

1 **IX. ADJUSTMENTS TO THE COMMON EQUITY COST RATES**

2 **A. Size Adjustment**

3 **Q. DOES THE COMPANIES' SMALLER SIZE RELATIVE TO THE GAS AND**
4 **ELECTRIC UTILITY PROXY GROUPS INCREASE THEIR BUSINESS**
5 **RISK?**

6 A. Yes. The Companies' smaller size relative to the Gas and Electric Utility Proxy
7 Groups indicates greater relative business risk for the Companies because, all else
8 being equal, size has a material bearing on risk.

9 Size affects business risk because smaller companies generally are less able
10 to cope with significant events that affect sales, revenues and earnings. For
11 example, smaller companies face more risk exposure to business cycles and
12 economic conditions, both nationally and locally. Additionally, the loss of revenues
13 from a few larger customers would have a greater effect on a small company than
14 on a bigger company with a larger, more diverse, customer base.

15 As further evidence that smaller firms are riskier, investors generally
16 demand greater returns from smaller firms to compensate for less marketability and
17 liquidity of their securities. Duff & Phelps 2020 Valuation Handbook Guide to Cost
18 of Capital ("D&P - 2020") discusses the nature of the small-size phenomenon,
19 providing an indication of the magnitude of the size premium based on several
20 measures of size. In discussing "Size as a Predictor of Equity Premiums," D&P -
21 2020 states:

22 The size effect is based on the empirical observation that companies
23 of smaller size are associated with greater risk and, therefore, have
24 greater cost of capital [sic]. The "size" of a company is one of the
25 most important risk elements to consider when developing cost of

1 equity capital estimates for use in valuing a business simply because
2 size has been shown to be a *predictor* of equity returns. In other
3 words, there is a significant (negative) relationship between size and
4 historical equity returns - as size *decreases*, returns tend to *increase*,
5 and vice versa. (footnote omitted) (emphasis in original)⁴³

6 Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence,"
7 Fama and French note size is indeed a risk factor which must be reflected when
8 estimating the cost of common equity. On page 14, they note:

9 . . . the higher average returns on small stocks and high book-to-
10 market stocks reflect unidentified state variables that produce
11 undiversifiable risks (covariances) in returns not captured in the
12 market return and are priced separately from market betas.⁴⁴

13 Based on this evidence, Fama and French proposed their three-factor model
14 which includes a size variable in recognition of the effect size has on the cost of
15 common equity.

16 Also, it is a basic financial principle that the use of funds invested, and not
17 the source of funds, is what gives rise to the risk of any investment.⁴⁵ Eugene
18 Brigham, a well-known authority, states:

19 A number of researchers have observed that portfolios of small-
20 firms (sic) have earned consistently higher average returns than
21 those of large-firm stocks; this is called the "small-firm effect." On
22 the surface, it would seem to be advantageous to the small firms to
23 provide average returns in a stock market that are higher than those
24 of larger firms. In reality, it is bad news for the small firm; **what the**
25 **small-firm effect means is that the capital market demands**
26 **higher returns on stocks of small firms than on otherwise similar**
27 **stocks of the large firms.** (emphasis added)⁴⁶

⁴³ Duff & Phelps Valuation Handbook – U.S. Guide to Cost of Capital, Wiley 2020, at 4-1.

⁴⁴ Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence," *Journal of Economic Perspectives*, Volume 18, Number 3, Summer 2004, at 25-43.

⁴⁵ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

⁴⁶ Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

1 Consistent with the financial principle of risk and return discussed above,
2 increased relative risk due to small size must be considered in the allowed rate of
3 return on common equity. Therefore, the Commission's authorization of a cost rate
4 of common equity in this proceeding must appropriately reflect the Companies'
5 unique risks, including their small size, which is justified and supported above by
6 evidence in the financial literature.

7 **Q. IS THERE A WAY TO QUANTIFY A RELATIVE RISK ADJUSTMENT DUE**
8 **TO THE COMPANIES' SMALL SIZE RELATIVE TO THE GAS AND**
9 **ELECTRIC UTILITY PROXY GROUPS?**

10 A. Yes. The Companies have greater relative risk than the average utility in the Gas
11 and Electric Utility Proxy Groups because of their smaller size compared with the
12 utilities in those groups, as measured by an estimated market capitalization of
13 common equity for the jurisdictional operations of each company.

1 2nd deciles, respectively, while Valley's and Citizens' estimated market
2 capitalizations of \$20.425 million and \$15.971 million, respectively, place them in
3 the 10th decile. The size premium spread between the 4th decile and the 10th decile
4 is 4.26% while the size premium between the 2nd decile and the 9th decile is 4.52%.

5 **Q. HAS THIS COMMISSION CONSIDERED SIZE IN DETERMINING THE**
6 **AUTHORIZED ROE?**

7 A. Yes, it has. In Docket No. R-2019-3008212, the Commission stated:

8 Based on the evidence of record, we agree with the recommendation
9 of the ALJs that the Company be awarded a DCF cost of common
10 equity which is one standard deviation about the average of the mean
11 and median proxy group ROE from the Company's DCF analysis.
12 In so doing, we recognize that the Company's size is a factor in
13 assessing its ability to attract capital. Accordingly, we shall reject
14 Citizens' Exception No. 10, I&E's Exception No. 4, and the OCA's
15 Exception No. 7, consistent with the following discussion.

16 We are not convinced by the arguments of I&E and the OCA that
17 the ALJs erred in awarding a size adjustment to Citizens'. Rather, we
18 are of the same position as the ALJs that the Company's witness Mr.
19 D'Ascendis offered persuasive record evidence that there is a
20 general inverse relationship between size and risk, such that smaller
21 utilities like Citizens' face greater risk.⁴⁷

22 **Q. WHAT WOULD BE THE ROE RESULT USING THE COMMISSION'S**
23 **METHOD IN THIS CASE?**

24 A. The average of the mean and median DCF model results are 9.76% and 9.05% for
25 the Gas and Electric Utility Proxy Groups, respectively, as shown on page 1 of
26 Schedule DWD-3. The standard deviation of those results is 0.93% and 1.00%,
27 respectively. In view of the indicated size premiums of 4.26% and 4.52% and DCF

⁴⁷ Pennsylvania Public Utility Commission, Docket No. R-2019-3008212, Opinion and Order, at 103.

1 model size premiums of 0.93% and 1.00%, I recommend size premiums of 0.90%
2 and 1.00% for Valley and Citizens', respectively.

3 **B. Performance Factor Adjustment**

4 **Q. HAVE YOU REFLECTED THE COMPANIES' REQUESTED RATE OF**
5 **RETURN PREMIUM BASED ON CODE 66 Pa.C.S. § 523 REGARDING**
6 **PERFORMANCE FACTOR?**

7 A. Yes. The adjustment is shown on line 7 of page 2 of Schedule DWD-1. The
8 testimonies for including the performance factor adjustment in the ROE for the
9 Companies are sponsored by Valley's Witness Mr. Rogers and Citizens' Witness Mr.
10 Kelchner. The rate of return premium associated with the performance factor is
11 0.05%.

12 **Q. HAS THE COMMISSION AWARDED THE COMPANIES A**
13 **PERFORMANCE FACTOR ADJUSTMENT?**

14 A. Yes, it has. In Docket Nos. R-2019-3008209 (Valley) and R-2019-3008212
15 (Citizens'), the Commission awarded the Companies performance factor
16 adjustments of 0.05%.⁴⁸ As discussed by Valley Witness Mr. Rogers and Citizens'
17 Witness Mr. Kelchner, it is their belief that the performance factor adjustment still
18 applies.

19 **Q. WHAT IS THE INDICATED COST OF COMMON EQUITY AFTER YOUR**
20 **COMPANY-SPECIFIC ADJUSTMENTS?**

21 A. Applying the 0.90% and 1.00% size adjustments, and the 0.05% performance factor
22 adjustment to the indicated costs of common equity of 9.90% - 11.90% and 9.85%

⁴⁸ Docket No. R-2019-3008209 (Valley), at 118-120, and Docket No. R-2019-3008212 (Citizens'), at 108-110.

1 - 11.85%, applicable to the Gas and Electric Utility Proxy Groups, respectively,
2 results in a range of common equity cost rates of 10.85% - 12.85% for Valley, and
3 10.90% - 12.90% for Citizens'. Based on those ranges, I recommend a cost of
4 common equity rate of 11.50% for the Companies, which is reasonable and
5 conservative.

6 **X. CONCLUSION**

7 **Q. WHAT ARE YOUR RECOMMENDED OVERALL WACCS FOR THE**
8 **COMPANIES?**

9 A. Given the Companies' ratemaking capital structures, actual embedded long-term
10 debt cost rates, as discussed above, in combination with my recommended cost of
11 common equity of 11.50% for Valley and Citizens', I recommend that WACCs of
12 7.97% and 7.76%, for Valley and Citizens', respectively, are allowed.

13 **Q. IN YOUR OPINION, ARE YOUR PROPOSED WACCS FAIR AND**
14 **REASONABLE TO THE COMPANIES AND THEIR CUSTOMERS?**

15 A. Yes, they are.

16 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

17 A. Yes, it does.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-_____
	:	R-2022-_____
Citizens' Electric Company of Lewisburg, PA	:	
and Valley Energy Company	:	

EXHIBIT
OF
DYLAN W. D'ASCENDIS, CRRA, CVA

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY COMPANY

APRIL 29, 2022

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA

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of Dylan W. D'Ascendis

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Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Recommended Capital Structure and Cost Rates
for Ratemaking Purposes

Valley Energy, Inc.			
<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.47%	4.49% (2)	2.27%
Common Equity	<u>49.53%</u>	11.50% (3)	<u>5.70%</u>
Total	<u><u>100.00%</u></u>		<u><u>7.97%</u></u>

Citizens' Electric Company of Lewisburg, PA			
<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.47%	4.09% (2)	2.06%
Common Equity	<u>49.53%</u>	11.50% (3)	<u>5.70%</u>
Total	<u><u>100.00%</u></u>		<u><u>7.76%</u></u>

Notes:

- (1) Capital structure based on 2021 capital structure maintained by the Companies' Parent, C&T Enterprises.
- (2) Company-provided.
- (3) From page 2 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Brief Summary of Common Equity Cost Rate

<u>Line No.</u>	<u>Principal Methods</u>	<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>Proxy Group of Fourteen Electric Companies</u>
1.	Discounted Cash Flow Model (DCF) (1)	9.76%	9.05%
2.	Risk Premium Model (RPM) (2)	10.60%	10.84%
3.	Capital Asset Pricing Model (CAPM) (3)	11.75%	12.15%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	<u>12.04%</u>	<u>12.60%</u>
5.	Indicated Range of Common Equity Cost Rates before Adjustment for Size Risk	9.90% - 11.90%	9.85% - 11.85%
6.	Size Adjustment (5)	0.90%	1.00%
7.	Performance Factor Adjustment (6)	<u>0.05%</u>	<u>0.05%</u>
8.	Recommended Range of Common Equity Cost Rates after Adjustment for Size Risk	<u>10.85% - 12.85%</u>	<u>10.90% - 12.90%</u>
9.	Recommended Cost of Common Equity Cost Rates after Adjustment for Size Risk	<u>11.50%</u>	<u>11.50%</u>

- Notes: (1) From page 1 of Schedule DWD-3.
(2) From page 1 of Schedule DWD-4.
(3) From page 1 of Schedule DWD-5.
(4) From page 1 of Schedule DWD-7.
(5) Adjustment to reflect the Valley Energy, Inc.'s and Citizens' Electric Company greater business risk due to their smaller sizes relative to the Utility Proxy Groups as detailed in Mr. D'Ascendis' Direct Testimony.
(6) Performance factor adjustment as explained in Mr. D'Ascendis' Direct Testimony.

Proxy Group of Six Natural Gas Distribution Companies
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2017 - 2021, Inclusive

	2021	2020	2019	2018	2017	
	(MILLIONS OF DOLLARS)					
<u>CAPITALIZATION STATISTICS</u>						
<u>AMOUNT OF CAPITAL EMPLOYED</u>						
TOTAL PERMANENT CAPITAL	\$8,159.717	\$6,855.835	\$6,012.401	\$5,411.345	\$5,040.640	
SHORT-TERM DEBT	\$415.467	\$333.183	\$612.061	\$629.275	\$468.027	
TOTAL CAPITAL EMPLOYED	<u>\$8,575.184</u>	<u>\$7,189.018</u>	<u>\$6,624.462</u>	<u>\$6,040.620</u>	<u>\$5,508.667</u>	
<u>INDICATED AVERAGE CAPITAL COST RATES (2)</u>						
TOTAL DEBT	2.74 %	3.29 %	3.63 %	3.57 %	3.77 %	
PREFERRED STOCK	5.33	6.19	4.60	2.64	NA	
<u>CAPITAL STRUCTURE RATIOS</u>						
<u>BASED ON TOTAL PERMANENT CAPITAL:</u>						
LONG-TERM DEBT	54.97 %	50.04 %	46.42 %	46.03 %	49.53 %	49.40 %
PREFERRED STOCK	2.30	1.78	1.92	1.14	-	1.43
COMMON EQUITY	42.73	48.18	51.66	52.83	50.47	49.17
TOTAL	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>BASED ON TOTAL CAPITAL:</u>						
TOTAL DEBT, INCLUDING SHORT-TERM	58.45 %	53.51 %	51.06 %	51.14 %	53.67 %	53.57 %
PREFERRED STOCK	2.18	1.66	1.68	0.99	-	1.30
COMMON EQUITY	39.37	44.83	47.26	47.87	46.33	45.13
TOTAL	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>FINANCIAL STATISTICS</u>						
<u>FINANCIAL RATIOS - MARKET BASED</u>						
EARNINGS / PRICE RATIO	5.25 %	3.45 %	3.84 %	4.32 %	2.74 %	3.92 %
MARKET / AVERAGE BOOK RATIO	176.32	191.60	224.79	213.85	213.58	204.03
DIVIDEND YIELD	3.44	3.10	2.61	2.78	2.71	2.93
DIVIDEND PAYOUT RATIO	60.27	83.22	69.25	54.00	51.64	63.67
<u>RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY</u>	9.85 %	6.75 %	8.68 %	9.55 %	5.82 %	8.13 %
<u>TOTAL DEBT / EBITDA (3)</u>	6.03 x	6.03 x	4.96 x	5.01 x	7.65 x	5.94 x
<u>FUNDS FROM OPERATIONS / TOTAL DEBT (4)</u>	8.50 %	12.46 %	14.99 %	24.21 %	16.35 %	15.30 %
<u>TOTAL DEBT / TOTAL CAPITAL</u>	58.45 %	53.51 %	51.06 %	51.14 %	53.67 %	53.57 %

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.
- (2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.
- (3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).
- (4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K

Proxy Group of Fourteen Electric Companies
CAPITALIZATION AND FINANCIAL STATISTICS (1)
2017 - 2021, Inclusive

	2021	2020	2019	2018	2017	
	(MILLIONS OF DOLLARS)					
CAPITALIZATION STATISTICS						
AMOUNT OF CAPITAL EMPLOYED						
TOTAL PERMANENT CAPITAL	\$34,183.780	\$31,746.146	\$29,472.393	\$27,131.517	\$25,522.450	
SHORT-TERM DEBT	\$1,152.131	\$954.222	\$985.672	\$1,070.510	\$977.275	
TOTAL CAPITAL EMPLOYED	<u>\$35,335.911</u>	<u>\$32,700.368</u>	<u>\$30,458.065</u>	<u>\$28,202.027</u>	<u>\$26,499.725</u>	
INDICATED AVERAGE CAPITAL COST RATES (2)						
TOTAL DEBT	3.67 %	4.08 %	4.29 %	4.42 %	4.36 %	
PREFERRED STOCK	4.60	5.47	5.17	5.26	4.67	
CAPITAL STRUCTURE RATIOS						
5 YEAR AVERAGE						
BASED ON TOTAL PERMANENT CAPITAL:						
LONG-TERM DEBT	56.51 %	55.26 %	53.49 %	52.83 %	52.68 %	54.15 %
PREFERRED STOCK	0.61	0.78	0.91	0.91	0.96	0.83
COMMON EQUITY	42.88	43.96	45.60	46.26	46.35	45.02
TOTAL	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>99.99 %</u>	<u>100.00 %</u>
BASED ON TOTAL CAPITAL:						
TOTAL DEBT, INCLUDING SHORT-TERM	57.78 %	56.42 %	54.62 %	54.17 %	54.42 %	55.48 %
PREFERRED STOCK	0.58	0.75	0.89	0.88	0.90	0.80
COMMON EQUITY	41.64	42.84	44.49	44.95	44.69	43.72
TOTAL	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
FINANCIAL STATISTICS						
FINANCIAL RATIOS - MARKET BASED						
EARNINGS / PRICE RATIO	5.38 %	4.15 %	5.43 %	4.84 %	4.62 %	4.88 %
MARKET / AVERAGE BOOK RATIO	190.71	186.80	196.49	191.32	199.93	193.05
DIVIDEND YIELD	3.59	3.65	3.42	3.71	3.48	3.57
DIVIDEND PAYOUT RATIO	71.08	84.32	63.09	69.23	89.30	75.40
RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY	10.05 %	7.87 %	10.46 %	8.70 %	8.66 %	9.15 %
TOTAL DEBT / EBITDA (3)	5.35 x	6.07 x	4.63 x	5.37 x	4.55 x	5.19 x
FUNDS FROM OPERATIONS / TOTAL DEBT (4)	9.76 %	11.65 %	13.05 %	17.91 %	17.17 %	13.91 %
TOTAL DEBT / TOTAL CAPITAL	57.78 %	56.42 %	54.62 %	54.17 %	54.42 %	55.48 %

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.
- (2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.
- (3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).
- (4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Six Natural Gas Distribution Companies
2017 - 2021, Inclusive

	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>5 YEAR AVERAGE</u>
<u>Atmos Energy Corporation</u>						
Long-Term Debt	48.11 %	40.03 %	38.03 %	39.15 %	44.03 %	41.87 %
Preferred Stock	-	-	-	-	-	-
Common Equity	51.89	59.98	61.97	60.85	55.97	58.13
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>New Jersey Resources Corporation</u>						
Long-Term Debt	57.81 %	55.35 %	50.11 %	47.89 %	48.45 %	51.92 %
Preferred Stock	-	-	-	-	-	-
Common Equity	42.19	44.65	49.89	52.11	51.55	48.08
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>NiSource Inc.</u>						
Long-Term Debt	57.09 %	61.64 %	56.79 %	55.44 %	64.35 %	59.06 %
Preferred Stock	9.55	5.87	6.35	6.82	-	5.72
Common Equity	33.36	32.49	36.86	37.74	35.65	35.22
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Northwest Natural Holding Company</u>						
Long-Term Debt	52.77 %	51.81 %	50.43 %	49.12 %	51.22 %	51.07 %
Preferred Stock	-	-	-	-	-	-
Common Equity	47.23	48.19	49.57	50.88	48.78	48.93
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>ONE Gas, Inc.</u>						
Long-Term Debt	61.05 %	41.76 %	37.65 %	38.62 %	37.84 %	43.38 %
Preferred Stock	-	-	-	-	-	-
Common Equity	38.95	58.24	62.35	61.38	62.16	56.62
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Spire Inc.</u>						
Long-Term Debt	52.98 %	49.62 %	45.49 %	45.95 %	51.27 %	49.06 %
Preferred Stock	4.28	4.83	5.19	-	-	2.86
Common Equity	42.74	45.55	49.32	54.05	48.73	48.08
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Proxy Group of Six Natural Gas Distribution Companies</u>						
Long-Term Debt	54.97 %	50.04 %	46.42 %	46.03 %	49.53 %	49.39 %
Preferred Stock	2.30	1.78	1.92	1.14	-	1.43
Common Equity	42.73	48.18	51.66	52.83	50.47	49.18
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>

Source of Information:
Annual Forms 10-K.

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Fourteen Electric Companies
2017 - 2021, Inclusive

	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>5 YEAR AVERAGE</u>
<u>IDACORP, Inc.</u>						
Long-Term Debt	42.85 %	43.86 %	42.70 %	43.63 %	43.68 %	43.34 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	57.15	56.14	57.30	56.37	56.32	56.66
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>NorthWestern Corporation</u>						
Long-Term Debt	52.09 %	52.72 %	52.27 %	51.98 %	50.26 %	51.86 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	47.91	47.28	47.73	48.02	49.74	48.14
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>OGE Energy Corporation</u>						
Long-Term Debt	52.57 %	49.04 %	43.56 %	44.00 %	43.78 %	46.59 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	47.43	50.96	56.44	56.00	56.22	53.41
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Portland General Electric Company</u>						
Long-Term Debt	54.82 %	53.83 %	50.06 %	49.72 %	50.10 %	51.71 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	45.18	46.17	49.94	50.28	49.90	48.29
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>The Southern Company</u>						
Long-Term Debt	64.99 %	63.22 %	61.71 %	63.72 %	66.38 %	64.00 %
Preferred Stock	0.36	0.38	0.40	0.42	0.44	0.40
Common Equity	34.65	36.40	37.89	35.86	33.18	35.60
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Xcel Energy Inc.</u>						
Long-Term Debt	58.91 %	57.93 %	57.77 %	57.01 %	56.66 %	57.66 %
Preferred Stock	-	-	-	-	-	0.00
Common Equity	41.09	42.07	42.23	42.99	43.34	42.34
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Proxy Group of Fourteen Electric Companies</u>						
Long-Term Debt	56.51 %	55.26 %	53.49 %	52.83 %	52.69 %	54.15 %
Preferred Stock	0.61	0.78	0.91	0.91	0.96	0.84
Common Equity	42.88	43.96	45.60	46.26	46.35	45.01
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>

Source of Information
Annual Forms 10-K

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Natural Gas Distribution Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
Atmos Energy Corporation	2.53 %	7.50 %	7.30 %	7.60 %	7.47 %	2.62 %	10.09 %
New Jersey Resources Corporation	3.54	4.50	6.00	6.00	5.50	3.64	9.14
NiSource Inc.	3.29	10.50	7.20	3.52	7.07	3.41	10.48
Northwest Natural Holding Company	3.90	6.00	5.10	5.90	5.67	4.01	9.68
ONE Gas, Inc.	3.13	6.00	5.00	2.90	4.63	3.20	7.83
Spire Inc.	4.17	9.00	5.30	4.30	6.20	4.30	10.50
						Average	<u>9.62 %</u>
						Median	<u>9.89 %</u>
						Average of Mean and Median	<u>9.76 %</u>

NA = Not Available
NMF = Non-Meaningful Figure

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Fourteen Electric Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
Alliant Energy Corporation	2.88 %	4.50 %	6.10 %	6.10 %	5.57 %	2.96 %	8.53 %
Ameren Corporation	2.71	6.50	7.50	7.40	7.13	2.81	9.94
American Electric Power Company, Inc.	3.46	6.50	5.80	6.10	6.13	3.57	9.70
Duke Energy Corporation	3.82	7.00	6.10	5.85	6.32	3.94	10.26
Edison International	4.39	NMF	4.00	5.35	4.68	4.49	9.17
Entergy Corporation	3.70	3.00	1.00	6.00	3.33	3.76	7.09
Eversource Energy	2.97	5.50	6.20	7.10	6.27	3.06	9.33
IDACORP, Inc.	2.76	4.00	4.30	4.40	4.23	2.82	7.05
NorthWestern Corporation	4.33	2.00	3.10	4.50	3.20	4.40	7.60
OGE Energy Corporation	4.36	6.50	3.50	1.90	3.97	4.45	8.42
Portland General Electric Company	3.29	7.00	4.60	4.60	5.40	3.38	8.78
The Southern Company	3.92	5.50	4.00	6.20	5.23	4.02	9.25
Xcel Energy Inc.	2.86	6.00	6.40	6.90	6.43	2.95	9.38
						Average	<u>8.89 %</u>
						Median	<u>9.21 %</u>
						Average of Mean and Median	<u>9.05 %</u>

NA = Not Available
NMF = Non-Meaningful Figure

- (1) Indicated dividend at 03/18/2022 divided by the average closing price of the last 60 trading days ending 03/18/2022 for each company.
- (2) From pages 2 through 21 of this Schedule.
- (3) Average of columns 2 through 4 excluding negative growth rates.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 5) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for Atmos Energy Corporation, $2.53\% \times (1 + (1/2 \times 7.47\%)) = 2.62\%$.
- (5) Column 5 + Column 6.

Source of Information:

Value Line Investment Survey.
www.zacks.com Downloaded on 03/18/2022.
www.yahoo.com Downloaded on 03/18/2022.

NISOURCE INC. NYSE-NI				RECENT PRICE	P/E RATIO	TRAILING (21.0)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE												
				28.41	19.5	(Trailing: 21.0) (Median: 21.0)	1.10	3.3%													
TIMELINESS 5 Lowered 12/17/21	High: 24.0	26.2	33.5	44.9	49.2	26.9	27.8	28.1	30.7	30.5	27.8	30.2	Target Price Range								
SAFETY 3 Lowered 3/19/21	Low: 17.7	22.3	24.8	32.1	16.0	19.0	21.7	22.4	24.7	19.6	21.1	26.4	2025	2026	2027						
TECHNICAL 3 Raised 2/4/22	LEGENDS 0.50 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																				
BETA .85 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$20-\$31 \$26 (-10%)																				
2025-27 PROJECTIONS High Price 55 (+95%) Low Price 35 (+25%) Ann'l Total Return 21% 9%																					
Institutional Decisions 10/2021 20/2021 30/2021 to Buy 252 256 230 to Sell 188 197 208 Hld's(000) 361696 367884 376481 Percent shares traded 30 20 10																					
										% TOT. RETURN 1/22 THIS STOCK INDEX 1 yr. 36.6 15.7 3 yr. 17.1 56.8 5 yr. 51.6 75.5											
										© VALUE LINE PUB. LLC 25-27											
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Revenues per sh	17.05		
27.37	28.96	32.36	24.02	22.99	21.33	16.31	18.04	20.47	14.58	13.90	14.46	13.74	13.63	11.95	12.65	13.50	14.30	"Cash Flow" per sh	4.45		
3.18	3.20	3.32	2.96	3.19	2.98	3.13	3.41	3.60	2.27	2.71	2.07	2.86	3.17	3.15	3.10	3.30	3.55	Earnings per sh ^A	2.40		
1.14	1.14	1.34	.84	1.06	1.05	1.37	1.57	1.67	.63	1.00	.39	1.30	1.31	1.32	1.35	1.50	1.65	Div'd Decl'd per sh ^B	1.08		
.92	.92	.92	.92	.92	.92	.94	.98	1.02	.83	.64	.70	.78	.80	.84	.88	.94	.98	Cap'l Spending per sh	4.35		
2.33	2.88	3.54	2.81	2.88	3.99	4.83	5.99	6.42	4.26	4.57	5.03	4.88	4.72	4.24	4.55	4.50	4.45	Book Value per sh ^C	17.70		
18.32	18.52	17.24	17.54	17.63	17.71	17.90	18.77	19.54	12.04	12.60	12.82	13.08	13.36	12.66	13.15	13.80	14.50	Common Shs Outst'g ^D	415.00		
273.65	274.18	274.26	276.79	279.30	282.18	310.28	313.68	316.04	319.11	323.16	337.02	372.36	382.14	391.76	395.00	400.00	405.00				
19.2	18.8	12.1	14.3	15.3	19.4	17.9	18.9	22.7	37.3	23.2	64.4	19.3	21.3	18.7	18.2	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	19.0		
1.04	1.00	.73	.95	.97	1.22	1.14	1.06	1.19	1.88	1.22	3.24	1.04	1.13	.96	.95			Relative P/E Ratio	1.05		
4.2%	4.3%	5.7%	7.6%	5.7%	4.5%	3.8%	3.3%	2.7%	3.5%	2.8%	2.8%	3.1%	2.9%	3.4%	3.6%			Avg Ann'l Div'd Yield	2.5%		
CAPITAL STRUCTURE as of 9/30/21 Total Debt \$9623.9 mill. Due in 5 Yrs \$2651 mill. LT Debt \$9188.2 mill. LT Interest \$379 mill. (Interest cov. earned: 2.2x) (58% of Cap'l)				5061.2	5657.3	6470.6	4651.8	4492.5	4874.6	5114.5	5208.9	4681.7	5000	5400	5780	Revenues (\$mill)	7080				
Leases, Uncapitalized Annual rentals \$32.7 mill. Pension Assets-12/20 \$2.1 bill. Oblig. \$2.1 bill.				410.6	490.9	530.7	198.6	328.1	128.6	478.3	549.8	562.6	525	595	660	Net Profit (\$mill)	990				
Pfd Stock \$880 mill. Pfd Div'd \$28.5 mill.				34.4%	34.8%	36.9%	41.6%	35.7%	71.0%	19.7%	17.0%	19.0%	19.0%	19.0%	Income Tax Rate	19.0%					
				--	--	--	--	--	--	--	--	2.9%	2.0%	2.0%	2.0%	AFUDC % to Net Profit	2.0%				
				55.1%	56.3%	56.9%	60.7%	59.8%	63.5%	55.3%	56.8%	61.2%	60.5%	59.5%	58.0%	Long-Term Debt Ratio	53.5%				
				44.9%	43.7%	43.1%	39.3%	40.2%	36.5%	37.9%	36.9%	32.9%	34.0%	35.0%	36.0%	Common Equity Ratio	41.5%				
				12373	13480	14331	9792.0	10129	11832	12856	13843	15058	15315	15680	16085	Total Capital (\$mill)	17680				
				12916	14365	16017	12112	13068	14360	15543	16912	16620	16750	17000	18000	Net Plant (\$mill)	20000				
				5.0%	5.2%	5.3%	4.0%	5.0%	2.6%	5.1%	5.3%	5.0%	3.5%	4.0%	4.0%	Return on Total Cap'l	5.5%				
				7.4%	8.3%	8.6%	5.2%	8.1%	3.0%	8.3%	9.2%	9.6%	8.5%	9.5%	10.0%	Return on Shr. Equity	12.0%				
				7.4%	8.3%	8.6%	5.2%	8.1%	3.0%	9.6%	9.7%	10.2%	8.5%	9.5%	10.0%	Return on Com Equity	12.0%				
				2.5%	3.1%	3.4%	NMF	3.0%	NMF	4.0%	3.8%	3.7%	2.5%	3.0%	3.5%	Retained to Com Eq	6.5%				
				67%	62%	61%	NMF	63%	NMF	60%	64%	67%	71%	68%	65%	All Div'ds to Net Prof	48%				
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '18-'20 to '25-'27 of change (per sh) 10 Yrs. 5 Yrs. to '25-'27 Revenues -7.0% -6.0% 5.0% "Cash Flow" -0.5% -- 6.0% Earnings 2.0% 0.5% 10.5% Dividends -1.5% -3.0% 4.5% Book Value -3.0% -5.0% 5.0%				BUSINESS: NiSource Inc. is a holding company for Northern Indiana Public Service Company (NIPSCO), which supplies electricity and gas to the northern third of Indiana. Customers: 479,185 electric in Indiana, 3,200,000 million gas in Indiana, Ohio, Pennsylvania, Kentucky, Virginia, Maryland, through its Columbia subsidiaries. Revenue breakdown, 2020: electrical, 31%; gas, 69%; other, less than 1%. Generating sources, coal, 69.4%; purchased & other, 30.6%. 2020 reported depreciation rates: 2.9% electric, 2.2% gas. Has 7,304 employees. Chairman: Richard L. Thompson. President & Chief Executive Officer: Lloyd Yates. Incorporated: Indiana. Address: 801 East 86th Avenue, Merrillville, Indiana 46410. Telephone: 877-647-5990. Internet: www.nisource.com.																	
CURRENT POSITION 2019 2020 9/30/21 (\$MILL.) Cash Assets 139.3 116.5 38.5 Other 1714.6 1542.9 1432.9 Current Assets 1853.9 1659.4 1471.4 Accts Payable 666.0 589.0 487.2 Debt Due 1783.6 526.3 435.7 Other 1296.2 1164.1 1323.7 Current Liab. 3745.8 2279.4 2246.6 Fix. Chg. Cov. 250% 250% 255%				Since our November review, NiSource stock has climbed higher. In fact, over that time frame, the equity's price has advanced more than 11%. Meanwhile, the company likely registered modest gains last year. (Note: The utility provider was expected to issue its annual financials shortly after this report went to press.) Revenues probably advanced nearly 7%, to \$5.0 billion, reflecting continually increasing contributions from the Electricity and Gas Distribution divisions. The Northern Indiana Public Service Company (NIPSCO) electric utility has been performing well over the past 12 months, and logging steady volume gains. However, we think there was some margin compression last year, as the company continued to operate in a challenging business environment. On balance, these factors ought to have translated to a modest bottom-line advance of about 2.5%, to \$1.35 per share.																	
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '18-'20 to '25-'27 of change (per sh) 10 Yrs. 5 Yrs. to '25-'27 Revenues -7.0% -6.0% 5.0% "Cash Flow" -0.5% -- 6.0% Earnings 2.0% 0.5% 10.5% Dividends -1.5% -3.0% 4.5% Book Value -3.0% -5.0% 5.0%				Some changes have been made in the C-suite. Joe Hamrock has decided to retire after an accomplished 10-year career with NiSource. The succession plan, which had been in place for some time,																	
Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year																
	Mar.31	Jun.30	Sep.30	Dec.31																	
2019	1869.8	1010.4	931.5	1397.2	5208.9																
2020	1605.5	962.7	902.5	1211.0	4681.7																
2021	1545.6	986.0	959.4	1509	5000																
2022	1645	1085	1060	1610	5400																
2023	1740	1180	1155	1705	5780																
Cal-endar	EARNINGS PER SHARE ^A				Full Year																
	Mar.31	Jun.30	Sep.30	Dec.31																	
2019	.82	.05	--	.45	1.31																
2020	.76	.13	.09	.34	1.32																
2021	.77	.13	.11	.34	1.35																
2022	.80	.17	.15	.38	1.50																
2023	.84	.21	.19	.41	1.65																
Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year																
	Mar.31	Jun.30	Sep.30	Dec.31																	
2018	.195	.195	.195	.195	.78																
2019	.200	.200	.200	.200	.80																
2020	.21	.21	.21	.21	.84																
2021	.22	.22	.22	.22	.88																
2022	.235																				

(A) Dil. EPS. Excl. nonrec. gains (losses): '05, (4c); gains (losses) on disc. ops.: '05, 10c; '06, (11c); '07, 3c; '08, (\$1.14); '15, (30c); '18, (\$1.48). Next egs. report due late April. Qtr'y egs. may not sum to total due to rounding. (B) Div'ds historically paid in mid-Feb., May, Aug., Nov. ■ Div'd reinv. avail. (C) Incl. intang in '20: \$1485.9 million, \$3.79/sh. (D) In mill. (E) Spun off Columbia Pipeline Group (7/15)

Company's Financial Strength B+
 Stock's Price Stability 100
 Price Growth Persistence 20
 Earnings Predictability 45

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ONE GAS, INC. NYSE-OGS		RECENT PRICE	74.98	P/E RATIO	18.6	(Trailing: 19.6 Median: NMF)	RELATIVE P/E RATIO	1.05	DIV/D YLD	3.4%	VALUE LINE
TIMELINESS 4 Lowered 6/11/21		High: 44.3	51.8	67.4	79.5	87.8	96.7	97.0	81.9	81.6	Target Price Range 2025 2026 2027
SAFETY 2 New 6/2/17		Low: 31.9	38.9	48.0	61.4	62.2	75.8	63.7	62.5	73.4	
TECHNICAL 3 Raised 2/25/22		LEGENDS 0.50 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession									
BETA .80 (1.00 = Market)		18-Month Target Price Range Low-High Midpoint (% to Mid) \$66-\$107 \$87 (15%)									
2025-27 PROJECTIONS Ann'l Total High Price 145 (+95%) Low Price 105 (+40%) Gain Return 20% 12%											
Institutional Decisions 1Q2021 2Q2021 3Q2021 to Buy 127 111 135 to Sell 144 140 122 Hid's(000) 42395 43179 42681 Percent 21 shares 14 traded 7											
The shares of ONE Gas, Inc. began trading "regular-way" on the New York Stock Exchange on February 3, 2014. That happened as a result of the separation of ONEOK's natural gas distribution operation. Regarding the details of the spinoff, on January 31, 2014, ONEOK distributed one share of OGS common stock for every four shares of ONEOK common stock held by ONEOK shareholders of record as of the close of business on January 21. It should be mentioned that ONEOK did not retain any ownership interest in the new company.											
CAPITAL STRUCTURE as of 9/30/21 Total Debt \$4019.1 mill. Due in 5 Yrs \$1020.0 mill. LT Debt \$3683.1 mill. LT Interest \$150.0 mill. (LT interest earned: 4.8x; total interest coverage: 4.8x) Leases, Uncapitalized Annual rentals \$7.9 mill. Pfd Stock None Pension Assets-12/20 \$987.6 mill. Oblig. \$1077.6 mill. Common Stock 53,587,508 shs. as of 10/25/21 MARKET CAP: \$4.0 billion (Mid Cap)											
CURRENT POSITION 2019 2020 9/30/21 (\$MILL) Cash Assets 17.9 8.0 6.5 Other 488.3 531.9 746.4 Current Assets 506.2 539.9 752.9 Accts Payable 120.5 152.3 127.5 Debt Due 516.5 418.2 336.0 Other 235.7 226.6 256.6 Current Liab. 872.7 797.1 720.1 Fix. Chg. Cov. 567% 587% 600%											
ANNUAL RATES Past Past Est'd '18-'20 of change (per sh) 10 Yrs. 5 Yrs. to '25-'20 Revenues -- -1.0% 6.0% "Cash Flow" -- 8.0% 6.5% Earnings -- 10.0% 6.0% Dividends -- 14.5% 6.5% Book Value -- 3.0% 8.5%											
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 661.0 290.6 248.6 452.5 1652.7 2020 528.2 273.3 244.6 484.2 1530.3 2021 625.3 315.6 273.9 500.2 1715 2022 650 355 310 515 1830 2023 680 385 340 545 1950											
EARNINGS PER SHARE A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 1.76 .46 .33 .96 3.51 2020 1.72 .48 .39 1.09 3.68 2021 1.79 .56 .38 1.12 3.85 2022 1.85 .62 .45 1.13 4.05 2023 1.90 .67 .50 1.18 4.25											
QUARTERLY DIVIDENDS PAID B Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .46 .46 .46 .46 1.84 2019 .50 .50 .50 .50 2.00 2020 .54 .54 .54 .54 2.16 2021 .58 .58 .58 .58 2.32 2022 .62											
BUSINESS: ONE Gas, Inc. provides natural gas distribution services to more than two million customers. There are three divisions: Oklahoma Natural Gas, Kansas Gas Service, and Texas Gas Service. The company purchased 153 Bcf of natural gas supply in 2020, compared to 174 Bcf in 2019. Total volumes delivered by customer (fiscal 2020): transportation, 58.3%; residential, 31.7%; commercial & industrial, 9.4%; other, .6%. ONE Gas has around 3,600 employees. BlackRock owns 11.9% of common stock; The Vanguard Group, 9.7%; American Century Investment, 7.6%; officers and directors, 1.9% (4/21 Proxy). CEO: Robert S. McAnnally. Incorporated: Oklahoma. Address: 15 East Fifth Street, Tulsa, Oklahoma 74103. Tel.: 918-947-7000. Internet: www.onegas.com.											
ONE Gas stands to generate increased profits, once again, in 2022. (Last year's fourth-quarter figures were expected to be available shortly after this report went to press.) That improvement should be made possible partly by benefits from new rates. Another plus is a growing customer base, especially in Texas and Oklahoma. Operating expenses ought to continue to rise, but that's to be expected as the company expands. If there are no significant pandemic-related disruptions, full-year share net may advance around 5%, to \$4.05, relative to our 2021 target of \$3.85. Concerning next year, the bottom line ought to increase at a similar percentage rate, to \$4.25 a share, as operating margins widen further. This year's capital spending budget, including asset removal costs, is anticipated to be around \$650 million. (That would be about 20% higher than the 2021 estimate of \$540 million.) More than 65% of the funds are being deployed to system integrity and pipeline replacement projects. It's worth mentioning that the energy firm projects total expenditures to be some \$3.5 billion (\$650 million—\$750 million annually) between 2022 and 2026, with roughly the same percentage of capital allocated to where it is currently. These goals appear achievable assuming, of course, that corporate finances remain adequate. The quarterly dividend was just increased several pennies, to \$0.62 a share. That was brought about, of course, by ONE Gas' solid capital position. What's more, our 3- to 5-year projections indicate that additional steady hikes in the distribution will take place. The payout ratio during that period ought to be in the neighborhood of 60%, which is manageable. Even so, the yield does not stand out from the average yield in our Natural Gas Utility group. These good-quality shares have rallied around 10% in price since our last full-page review in November. We think that movement stems, to a certain degree, from the company's favorable business prospects this year. Too, capital gains potential over the 2025-2027 span looks solid, versus the Value Line median. But the stock is untimely. <i>Frederick L. Harris, III February 25, 2022</i>											
© VALUE LINE PUB. LLC 25-27 Revenues per sh 45.60 "Cash Flow" per sh 10.55 Earnings per sh A 5.30 Div'ds Decl'd per sh B 3.12 Cap'l Spending per sh 9.80 Book Value per sh 71.60 Common Shs Outst'g C 57.00 Avg Ann'l P/E Ratio 23.5 Relative P/E Ratio 1.30 Avg Ann'l Div'd Yield 2.5% Revenues (\$mill) 2600 Net Profit (\$mill) 300 Income Tax Rate 22.0% Net Profit Margin 11.5% Long-Term Debt Ratio 52.0% Common Equity Ratio 48.0% Total Capital (\$mill) 8500 Net Plant (\$mill) 6300 Return on Total Cap'l 5.0% Return on Shr. Equity 7.5% Return on Com Equity 7.5% Retained to Com Eq 3.0% All Div's to Net Prof 59%											
% TOT. RETURN 1/22 THIS STOCK VL ARITH. INDEX 1 yr. 10.0 15.7 3 yr. 2.3 56.8 5 yr. 36.6 75.5											

(A) Diluted EPS. Excludes nonrecurring gain: 2017, \$0.06. Next earnings report due early May. Quarterly EPS for 2018 don't add up due to rounding.

(B) Dividends historically paid in early March, June, Sept., and Dec. ■ Dividend reinvestment plan. Direct stock purchase plan.
(C) In millions.

Company's Financial Strength	B++
Stock's Price Stability	95
Price Growth Persistence	60
Earnings Predictability	100

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SPIRE INC. NYSE-SR				RECENT PRICE	P/E RATIO	TRAILING (14.9)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE								
TIMELINESS 4 Lowered 8/20/21 SAFETY 2 Raised 6/20/03 TECHNICAL 4 Raised 2/25/22 BETA .85 (1.00 = Market)				High: 42.8 Low: 32.9	44.0	48.5	55.2	61.0	71.2	82.9	81.1	88.0	88.0	77.9	67.1	61.9	Target Price Range 2025 2026 2027
18-Month Target Price Range Low-High Midpoint (% to Mid) \$47-\$75 \$61 (-5%)																	
2025-27 PROJECTIONS High Price 130 (+100%) Low Price 95 (+45%) Ann'l Total Return 22% 13%																	
Institutional Decisions 10/2021 20/2021 30/2021 to Buy 124 112 125 to Sell 139 126 113 Hid's(000) 42475 42992 42729				Percent shares traded: 18, 12, 6													
2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023				© VALUE LINE PUB. LLC 25-27													
93.51 93.40 100.44 85.49 77.83 71.48 49.90 31.10 37.68 45.59 33.68 36.07 38.78 38.30 35.96 43.24 38.95 40.75				Revenues per sh^A 63.65													
3.81 3.87 4.22 4.56 4.11 4.62 4.58 3.12 3.87 6.15 6.16 6.54 7.55 7.12 5.25 9.09 7.75 8.55				"Cash Flow" per sh 10.90													
2.37 2.31 2.64 2.92 2.43 2.86 2.79 2.02 2.35 3.16 3.24 3.43 4.33 3.52 1.44 4.96 3.40 3.90				Earnings per sh^{A,B} 5.50													
1.40 1.45 1.49 1.53 1.57 1.61 1.66 1.70 1.76 1.84 1.96 2.10 2.25 2.37 2.49 2.60 2.74 2.86				Div'ds Decl'd per sh^C 3.30													
2.97 2.72 2.57 2.36 2.56 3.02 4.83 4.00 3.96 6.68 6.42 9.08 9.86 16.15 12.37 12.09 10.95 11.15				Cap'l Spending per sh 11.50													
18.85 19.79 22.12 23.32 24.02 25.56 26.67 32.00 34.93 36.30 38.73 41.26 44.51 45.14 44.19 46.74 51.25 56.10				Book Value per sh^D 67.10													
21.36 21.65 21.99 22.17 22.29 22.43 22.55 32.70 43.18 43.36 45.65 48.26 50.67 50.97 51.60 51.70 52.00 52.50				Common Shs Outst'g^E 55.00													
13.6 14.2 14.3 13.4 13.7 13.0 14.5 21.3 19.8 16.5 19.6 19.8 16.7 22.8 NMF 13.6				Avg Ann'l P/E Ratio 20.5													
.73 .75 .86 .89 .87 .82 .92 1.20 1.04 .83 1.03 1.00 .90 1.21 NMF .73				Relative P/E Ratio 1.15													
4.3% 4.4% 3.9% 3.9% 4.7% 4.3% 4.1% 4.0% 3.8% 3.5% 3.1% 3.1% 3.1% 3.0% 3.4% 3.8%				Avg Ann'l Div'd Yield 3.0%													
CAPITAL STRUCTURE as of 12/31/21 Total Debt \$4084.0 mill. Due in 5 Yrs \$1520.0 mill. LT Debt \$3206.8 mill. LT Interest \$145.0 mill. (Total interest coverage: 4.2x)				Revenues (\$mill)^A 3500													
Leases, Uncapitalized Annual rentals \$8.8 mill. Pension Assets-9/21 \$945.7 mill.				Net Profit (\$mill) 300													
Pfd Stock \$242.0 mill. Obliq. \$1318.0 mill. Common Stock 51,750,217 shs. Pfd Div'd \$14.8 mill. as of 1/28/22				Income Tax Rate 25.0%													
MARKET CAP: \$3.3 billion (Mid Cap)				Net Profit Margin 8.6%													
CURRENT POSITION 2020 2021 12/31/21 (\$MILL.)				Long-Term Debt Ratio 51.0%													
Cash Assets 4.1 4.3 8.2 Other 586.5 1312.2 1427.1 Current Assets 590.6 1316.5 1435.3				Common Equity Ratio 45.0%													
Accts Payable 243.3 409.9 427.5 Debt Due 708.4 727.8 877.2 Other 497.5 470.6 416.0 Current Liab. 1449.2 1608.3 1720.7 Fix. Chg. Cov. 373% 448% 430%				Total Capital (\$mill) 8200													
ANNUAL RATES Past Past Est'd '19-'21 of change (per sh) 10 Yrs. 5 Yrs. to '25-'27				Net Plant (\$mill) 7100													
Revenues -6.5% - - 8.5% "Cash Flow" 5.0% 6.0% 7.5% Earnings 2.0% 2.5% 9.0% Dividends 4.5% 6.0% 5.0% Book Value 6.5% 4.5% 7.0%				Return on Total Cap'l 5.0%													
Fiscal Year Ends QUARTERLY REVENUES (\$ mill.) ^A Full Fiscal Year				Return on Shr. Equity 8.0%													
Dec.31 Mar.31 Jun.30 Sep.30				Return on Com Equity 8.0%													
2019 602.0 803.5 321.3 225.6 1952.4 2020 566.9 715.5 321.1 251.9 1855.4 2021 512.6 1104.9 327.8 290.2 2235.5 2022 555.4 892 325 252.6 2025 2023 570 942 340 288 2140				Retained to Com Eq 3.0%													
Fiscal Year Ends EARNINGS PER SHARE ^{A,B,F} Full Fiscal Year				All Div'ds to Net Prof 65%													
Dec.31 Mar.31 Jun.30 Sep.30				Business: Spire Inc., formerly known as the Laclede Group, Inc., is a holding company for natural gas utilities, which distributes natural gas across Missouri, including the cities of St. Louis and Kansas City, Alabama, and Mississippi. Has roughly 1.7 million customers. Acquired Missouri Gas 9/13, Alabama Gas Co 9/14. Utility terms sold and transported in fiscal 2021: 3.3 bill. Revenue mix for regulated operations: residential, 58%; commercial and industrial, 28%; transportation, 6%; other, 8%. Has about 3,710 employees. Officers and directors own 3.0% of common shares; BlackRock, 11.5% (1/22 proxy). Chairman: Edward Glotzbach; CEO: Suzanne Sitherwood, Inc.: Missouri. Address: 700 Market Street, St. Louis, Missouri 63101. Tel.: 314-342-0500. Internet: www.spireenergy.com.													
2019 1.32 3.04 d.09 d.74 3.52 2020 1.24 2.54 d1.87 d.45 1.44 2021 1.65 3.55 .03 d.26 4.96 2022 1.01 2.78 .05 d.44 3.40 2023 1.49 2.85 .04 d.48 3.90				Spire Inc. began fiscal 2022 (which concludes September 30th) on a sour note. Indeed, first-quarter share net of \$1.01 plunged nearly 40%, relative to the previous-year total of \$1.65. That was attributable primarily to the Gas Utility segment, squeezed by unseasonably warm temperatures across the service territories plus heightened depreciation & amortization expenses. To make matters worse, the performance of the Gas Marketing division was hurt by less favorable market conditions and diminished storage margins. It appears that profits will fall substantially for the year as a whole. There ought to be a challenging second-quarter share-net matchup. Moreover, the company was disappointed with a Missouri rate proceeding, particularly regarding recovery of overhead costs. So, the annual pre-tax impact on results is estimated to range between \$20 million and \$30 million. At the time of this report, there were plans to file a new rate case in that state that will, hopefully, remedy the situation. Lastly, the company is authorized by the Federal Energy Regulatory Commission to operate the important													
Cal-endar QUARTERLY DIVIDENDS PAID ^C Full Year				Spire STL Pipeline, temporarily, while it reviews whether permanent approval should be granted. (Management expects the process to continue into calendar 2023.) All told, full-year earnings may plummet over 30%, to \$3.40 a share, relative to fiscal 2021's \$4.96 tally. Please be aware that our fiscal 2023 target of \$3.90 a share is tentative, given the aforesaid uncertainties.													
Mar.31 Jun.30 Sep.30 Dec.31				This year's capital spending budget is anticipated to be roughly \$570 million. (That is about 9% lower than the fiscal 2021 figure of \$624.8 million.) Investments are being deployed to such segments as infrastructure upgrades at the utilities and new business development initiatives. Leadership adds that it expects total expenditures from fiscal 2022 through fiscal 2026 to be in the neighborhood of \$3 billion. If finances stay in good shape, Spire should have little trouble achieving those objectives.													
2018 .5625 .5625 .5625 .5625 2.25 2019 .5925 .5925 .5925 .5925 2.37 2020 .6225 .6225 .6225 .6225 2.49 2021 .65 .65 .65 .65 2.60 2022 .685				These shares, though unfavorably ranked for Timeliness, ought to draw the attention of total return-oriented investors with a long-term bent. Frederick L. Harris, III February 25, 2022													

(A) Fiscal year ends Sept. 30th. (B) Based on diluted shares outstanding. Excludes nonrecurring loss: '06, 7c. Excludes gain from discontinued operations: '08, 94c. Next earnings report due late April. (C) Dividends paid in early January, April, July, and October. (D) Dividend reinvestment plan available. (E) Incl. deferred charges. In '21: \$1,171.6 mill., \$22.66/sh. (F) In millions. (G) Qly. egs. may not sum due to rounding or change in shares outstanding.

Company's Financial Strength B++
 Stock's Price Stability 95
 Price Growth Persistence 50
 Earnings Predictability 45

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AMEREN NYSE-AEE		RECENT PRICE	85.95	P/E RATIO	21.1 (Trailing: 22.4 Median: 19.0)	RELATIVE P/E RATIO	1.18	DIV'D YLD	2.8%	VALUE LINE														
TIMELINESS 4 Lowered 12/10/21	High: 34.1 35.3 37.3 48.1 46.8 54.1 64.9 70.9 80.9	Low: 25.5 28.4 30.6 35.2 37.3 41.5 51.4 51.9 63.1	87.7 90.8 89.5	58.7 69.8 81.8					Target Price Range 2025 2026 2027															
SAFETY 1 Raised 9/10/21	LEGENDS 0.64 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																							
TECHNICAL 2 Lowered 3/11/22											160 120 100 80 60 50 40 30 20 15													
BETA .80 (1.00 = Market)											% TOT. RETURN 2/22 THIS STOCK INDEX VL ARITH.* 1 yr. 25.4 15.1 3 yr. 29.4 61.1 5 yr. 79.1 84.2													
18-Month Target Price Range Low-High Midpoint (% to Mid) \$75-\$107 \$91 (5%)																								
2025-27 PROJECTIONS																								
High Price 100	Gain (+15%)	Ann'l Total Return 7%																						
Low 80	(-5%)	2%																						
Institutional Decisions																								
202021 302021 402021	Percent	30																						
to Buy 273 248 308	shares	traded 10																						
to Sell 226 246 227																								
Hld's(000) 194886 199566 198495																								
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27					
33.30	36.23	36.92	29.87	31.77	31.04	28.14	24.06	24.95	25.13	25.04	25.46	25.73	24.00	22.87	24.81	25.35	25.85	Revenues per sh	27.75					
6.02	6.76	6.44	6.06	6.33	5.87	5.87	5.25	5.77	6.08	6.59	6.80	7.64	7.83	8.08	8.89	9.35	9.90	"Cash Flow" per sh	11.75					
2.66	2.98	2.88	2.78	2.77	2.47	2.41	2.10	2.40	2.38	2.68	2.77	3.32	3.35	3.50	3.84	4.10	4.35	Earnings per sh ^A	5.25					
2.54	2.54	2.54	1.54	1.54	1.56	1.60	1.60	1.61	1.66	1.72	1.78	1.85	1.92	2.00	2.20	2.36	2.52	Div'd Decl'd per sh ^B	3.10					
4.99	6.96	9.75	7.51	4.66	4.50	5.49	5.87	7.66	8.12	8.05	9.56	9.92	13.02	13.67	12.90	12.55	Cap'l Spending per sh	13.00						
31.86	32.41	32.80	33.08	32.15	32.64	27.27	26.97	27.67	28.63	29.27	29.61	31.21	32.73	35.29	37.64	40.25	42.90	Book Value per sh ^C	51.50					
206.60	208.30	212.30	237.40	240.40	242.60	242.63	242.63	242.63	242.63	242.63	244.50	246.20	253.30	257.70	262.50	267.00	Common Shs Outst'g ^D	280.00						
19.4	17.4	14.2	9.3	9.7	11.9	13.4	16.5	16.7	17.5	18.3	20.6	18.3	22.1	22.2	21.4	21.4	21.4	Avg Ann'l P/E Ratio	17.5					
1.05	.92	.85	.62	.62	.75	.85	.93	.88	.88	.96	1.04	.99	1.18	1.14	1.14	1.14	1.14	Relative P/E Ratio	.95					
4.9%	4.9%	6.2%	6.0%	5.8%	5.3%	5.0%	4.6%	4.0%	4.0%	3.5%	3.1%	3.0%	2.6%	2.6%	2.7%	2.7%	2.7%	Avg Ann'l Div'd Yield	3.4%					
CAPITAL STRUCTURE as of 12/31/21											6828.0	5838.0	6053.0	6098.0	6076.0	6177.0	6291.0	5910.0	5794.0	6394.0	6650	6900	Revenues (\$mill)	7800
Total Debt \$13612 mill. Due in 5 Yrs \$2890 mill.											589.0	518.0	593.0	585.0	659.0	683.0	821.0	834.0	877.0	995.0	1080	1165	Net Profit (\$mill)	1500
LT Debt \$12562 mill. LT Interest \$436 mill.											36.9%	37.5%	38.9%	38.3%	36.7%	38.2%	22.4%	17.9%	15.0%	13.6%	12.0%	12.0%	Income Tax Rate	12.0%
(LT interest earned: 3.8x)											6.1%	7.1%	5.7%	5.1%	4.1%	5.6%	6.9%	5.8%	5.5%	6.0%	5.0%	5.0%	AFUDC % to Net Profit	4.0%
Pension Assets-12/21 \$5745 mill.											49.5%	45.2%	47.2%	49.3%	47.7%	49.2%	50.3%	52.1%	55.0%	56.1%	55.5%	53.5%	Long-Term Debt Ratio	51.0%
Oblig \$5457 mill.											49.4%	53.7%	51.7%	49.7%	51.3%	49.8%	48.8%	47.1%	44.3%	43.3%	44.0%	46.0%	Common Equity Ratio	48.5%
Pfd Stock \$129 mill. Pfd Div'd \$5 mill.											13384	12190	12975	13968	13840	14420	15632	17116	20158	22391	23900	24950	Total Capital (\$mill)	29600
807,595 sh. \$3.50 to \$5.50 cum. (no par), \$100 stated val., redeem. \$102.176-\$110/sh.; 487,508 sh. 4.00% to 5.16%, \$100 par, redeem. \$100-\$104.30/sh.											16096	16205	17424	18799	20113	21466	22810	24376	26807	29261	31250	33125	Net Plant (\$mill)	38800
Common Stock 257,724,783 shs. as of 1/31/22											6.0%	5.6%	5.8%	5.3%	6.0%	6.0%	6.4%	6.0%	5.3%	5.3%	5.5%	5.5%	Return on Total Cap'l	6.0%
MARKET CAP: \$22 billion (Large Cap)											8.7%	7.7%	8.7%	8.3%	9.1%	9.3%	10.6%	10.2%	9.7%	10.1%	10.0%	10.0%	Return on Shr. Equity	10.5%
ELECTRIC OPERATING STATISTICS											8.8%	7.8%	8.7%	8.3%	9.2%	9.4%	10.7%	10.3%	9.7%	10.2%	10.0%	10.0%	Return on Com Equity ^E	10.5%
											3.0%	1.9%	2.9%	2.5%	3.3%	3.4%	4.8%	4.4%	4.2%	4.4%	4.5%	4.5%	Retained to Com Eq	4.5%
											66%	76%	67%	70%	64%	64%	5%	57%	57%	57%	57%	58%	All Div'ds to Net Prof	58%
BUSINESS: Ameren Corporation is a holding company formed through the merger of Union Electric and CIPSCO. Has 1.2 million electric and 127,000 gas customers in Missouri; 1.2 million electric and 813,000 gas customers in Illinois. Discontinued unregulated power-generation operation in '13. Electric revenue breakdown: residential, 49%; commercial, 34%; industrial, 8%; other, 9%. Generating sources: coal, 73%; nuclear, 11%; hydro & other, 9%; purchased, 7%. Fuel costs: 25% of revenues. '21 reported deprec. rates: 3%-4%. Has 9,100 employees. Chairman: Warner L. Baxter. President & CEO: Martin J. Lyons, Jr. Inc.: Missouri. Address: One Ameren Plaza, 1901 Chouteau Ave., P.O. Box 66149, St. Louis, MO 63166-6149. Tel.: 314-621-3222. Internet: www.ameren.com.																								
Ameren received rate orders in Missouri. The commission approved settlements that raised electric and gas rates by \$220 million and \$5 million, respectively. An allowed return on equity was not specified, but the common equity ratio for electric was set at 52%. New tariffs took effect on February 28th.																								
Earnings will likely advance in 2022. The rate increases in Missouri will be a key factor. Also, growth in the utility's rate base will boost the company's earning power. Ameren's transmission business and electric operations in Illinois operate under formula rate plans. Ameren will pick up a few cents a share from having a full year of a gas rate hike that was granted in Illinois last year. These factors should outweigh the effects of higher operating and maintenance costs, depreciation, and average shares outstanding. We are sticking with our 2022 estimate of \$4.10 a share, which is within management's targeted range of \$3.95-\$4.15.																								
We expect further growth in 2023. Ameren will have a full year's effect of rate relief in Missouri and will continue to benefit from rate base growth. The compa-																								
ny's goal for yearly profit growth is 6%-8%, and our estimate would produce an increase within this range.																								
There is a risk to the company's earning power. The Federal Energy Regulatory Commission (FERC) is considering the removal of a half percentage point incentive "adder" on the allowed ROE for electric transmission. This would cut Ameren's annual earning power by \$0.05 a share. The timing of FERC's decision is unknown. Our estimates and projections are based on the utility maintaining its allowed ROE for transmission of 10.52%.																								
The board of directors raised the dividend in the first quarter. The hike was \$0.04 a share (7.3%) quarterly. Dividend growth will likely be in line with profit growth. Ameren's target for the payout ratio is 55%-70%, and this figure is near the lower end of this range.																								
The dividend yield of this untimely but high-quality stock is below the utility mean. The equity's prospects for the next 18 months and the 3- to 5-year period are subpar. The recent quotation is within our 2025-2027 Target Price Range. Paul E. Debbas, CFA March 11, 2022																								
Quarterly Revenues (\$ mill.)											2019	2020	2021	2022	2023	Full Year								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2019	1556	1379	1659	1316	5910.0																			
2020	1440	1398	1628	1328	5794.0																			
2021	1566	1472	1811	1545	6394.0																			
2022	1700	1500	1850	1600	6650																			
2023	1750	1550	1950	1650	6900																			
Earnings per Share ^A											2019	2020	2021	2022	2023	Full Year								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2019	.78	.72	1.47	.38	3.35																			
2020	.59	.98	1.47	.46	3.50																			
2021	.91	.80	1.65	.48	3.84																			
2022	.90	.85	1.85	.50	4.10																			
2023	.95	.90	1.95	.55	4.35																			
Quarterly Dividends Paid ^B											2018	2019	2020	2021	2022	Full Year								
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																			
2018	.4575	.4575	.4575	.475	1.85																			
2019	.475	.475	.475	.495	1.92																			
2020	.495	.495	.495	.515	2.00																			
2021	.55	.55	.55	.55	2.20																			
2022	.59																							
Annual Rates of Change (per sh)											10 Yrs.	5 Yrs.	to '25-'27											
Revenues											-2.5%	-1.0%	2.5%											
"Cash Flow"											3.0%	6.0%	6.0%											
Earnings											3.0%	7.5%	6.5%											
Dividends											3.0%	4.0%	7.0%											
Book Value											1.0%	4.5%	6.5%											
Fixed Charge Cov. (%)											307	291	325											
ANNUAL RATES											2019	2020	2021											
% Change Retail Sales (KWH)											-3.5	-5.6	+2.1											
Avg. Indust. Use (MWH)											NA	NA	NA											
Avg. Indust. Revs. per KWH (c)											NA	NA	NA											
Capacity at Peak (Mw)											NA	NA	NA											
Peak Load, Summer (Mw)											NA	NA	NA											
Annual Load Factor (%)											NA	NA	NA											
% Change Customers (yr-end)											NA	NA	NA											
(A) Diluted EPS. Excl. nonrec. gain (losses): '10, (\$2.19); '11, (32c); '12, (\$6.42); '17, (63c); gain (loss) from discontinued ops.: '13, (92c); '15, 21c. Next earnings report due early May.																								
(B) Div'ds paid late Mar., June, Sept., & Dec. Div'd reinvest. plan avail. (C) Incl. intang. In '21: \$6.60/sh. (D) In mill. (E) Rate base. Orig. cost depr. Rate allowed on com. eq. in MO in																								
'22: elec. & gas, none specified; in IL: electric, varies; in '21: gas, 9.67%; earned on avg. com. eq., '21: 10.6%. Regulatory Climate: MO, Average; IL, Below Average.																								
Company's Financial Strength											A													
Stock's Price Stability											100													
Price Growth Persistence											75													
Earnings Predictability											95													
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AMERICAN ELEC. PWR. NDQ-AEP				RECENT PRICE	90.65	P/E RATIO	17.9 (Trailing: 18.3 Median: 17.0)	RELATIVE P/E RATIO	1.00	DIV'D YLD	3.6%	VALUE LINE																																																																																																																																																																																																																												
TIMELINESS 4 Lowered 3/4/22	High: 41.7	45.4	51.6	63.2	65.4	71.3	78.1	81.1	96.2	105.0	91.5	91.7	Target Price Range 2025 2026 2027																																																																																																																																																																																																																											
SAFETY 1 Raised 3/17/17	Low: 33.1	37.0	41.8	45.8	52.3	56.8	61.8	62.7	72.3	65.1	74.8	84.2																																																																																																																																																																																																																												
TECHNICAL 2 Lowered 3/11/22	LEGENDS 0.67 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																																																																																																																																																																																																																																							
BETA .75 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$76-\$110 \$93 (5%)																																																																																																																																																																																																																																							
2025-27 PROJECTIONS <table border="1"> <thead> <tr> <th>High</th> <th>Price</th> <th>Gain</th> <th>Ann'l Total</th> </tr> <tr> <th>Low</th> <th>120</th> <th>(+30%)</th> <th>Return</th> </tr> <tr> <th>100</th> <th>(+10%)</th> <th>10%</th> <th>6%</th> </tr> </thead> </table>													High	Price	Gain	Ann'l Total	Low	120	(+30%)	Return	100	(+10%)	10%	6%																																																																																																																																																																																																																
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BUSINESS: American Electric Power Company Inc. (AEP), through 10 operating utilities, serves 5.5 million customers in Arkansas, Kentucky, Indiana, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, & West Virginia. Has a transmission subsidiary. Electric revenue breakdown: residential, 43%; commercial, 23%; industrial, 18%; wholesale, 10%; other, 6%. Sold commercial barge operation in '15. Generating sources not available. Fuel costs: 33% of revenues. '21 reported depreciation rates (utility): 2.6%-12.5%. Has 16,700 employees. Chairman, President & CEO: Nicholas K. Akins. COO: Lisa Barton. Incorporated: New York. Address: 1 Riverside Plaza, Columbus, Ohio 43215-2373. Telephone: 614-716-1000. Internet: www.aep.com.																																																																																																																																																																																																																																								
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QUARTERLY DIVIDENDS PAID ^B <table border="1"> <thead> <tr> <th>Cal-endar</th> <th>Mar.31</th> <th>Jun.30</th> <th>Sep.30</th> <th>Dec.31</th> <th>Full Year</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>.62</td> <td>.62</td> <td>.62</td> <td>.67</td> <td>2.53</td> </tr> <tr> <td>2019</td> <td>.67</td> <td>.67</td> <td>.67</td> <td>.70</td> <td>2.71</td> </tr> <tr> <td>2020</td> <td>.70</td> <td>.70</td> <td>.70</td> <td>.74</td> <td>2.84</td> </tr> <tr> <td>2021</td> <td>.74</td> <td>.74</td> <td>.74</td> <td>.78</td> <td>3.00</td> </tr> <tr> <td>2022</td> <td>.78</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>													Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	2018	.62	.62	.62	.67	2.53	2019	.67	.67	.67	.70	2.71	2020	.70	.70	.70	.74	2.84	2021	.74	.74	.74	.78	3.00	2022	.78																																																																																																																																																																																												
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																																																																																																																																																																																																																																			
2018	.62	.62	.62	.67	2.53																																																																																																																																																																																																																																			
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2020	.70	.70	.70	.74	2.84																																																																																																																																																																																																																																			
2021	.74	.74	.74	.78	3.00																																																																																																																																																																																																																																			
2022	.78																																																																																																																																																																																																																																							
American Electric Power's sale of its Kentucky Power subsidiary is likely to be completed in the second quarter. The sale would raise \$1.45 billion after taxes and transaction costs, and would offset the company's expected equity needs for 2022. (The estimated rise in the share count this year is due to the conversion of \$805 million of equity units.) The company wants to sell its nonregulated contracted renewable-energy assets. The company would reinvest the proceeds in regulated wind and solar projects and allocate to its transmission business capital that otherwise would have been used for nonregulated renewable expansion. Any gains on these sales will be included in our earnings presentation, although we have not assumed any in our estimates. AEP already has a presence in regulated renewables, and will soon complete the third phase of a \$2 billion, 1,484-megawatt wind project. Some regulatory matters are pending or have been concluded. SWEPCO filed a case for \$56 million in Arkansas, based on a 10.35% return on equity and a 51.3% common-equity ratio. An order is expected																																																																																																																																																																																																																																								
in the second quarter. The utility is trying to reach a settlement in Louisiana, where it had requested \$73 million, based on a 10.35% ROE and a 50.8% common-equity ratio. The Texas commission granted SWEPCO \$23 million, based on a 9.25% ROE and a 49.4% common-equity ratio. The Indiana commission approved a settlement for Indiana Michigan Power calling for a \$61 million increase, based on a 9.7% ROE and a 50% common-equity ratio. We estimate modest profit growth this year and a larger increase in 2023. The comparison with the 2021 tally is tough because mark-to-market accounting gains added \$0.14 to share net. Our estimate is within the company's targeted range of \$4.87-\$5.07 a share. Management narrowed its goal for annual earnings growth from 5%-7% to 6%-7%, and our 2023 estimate is within this range. Rate relief and volume growth are key factors boosting AEP's earning power. This untimely but high-quality stock has an average dividend yield for a utility. The issue doesn't stand out for the next 18 months or the 2025-2027 period. <i>Paul E. Debbas, CFA</i> <i>March 11, 2022</i>																																																																																																																																																																																																																																								

(A) Diluted EPS. Excl. nonrec. gains (losses): '06, (20c); '07, (20c); '08, 40c; '10, (7c); '11, 89c; '12, (38c); '13, (14c); '16, (\$2.99); '17, 26c; '19, (20c); gains (loss) from disc. ops.: '06, 2c; '08, 3c; '15, 58c; '16, (1c). Next earnings report due late April. (B) Div'ds paid early Mar., June, Sept., & Dec. ■ Div'd reinvestment plan avail. (C) Incl. intang. ln '21: \$17.04/sh. (D) In mill. (E) Rate base: various. Rates allowed on com. eq.: 9.3%-10.9%; earned on avg. com. eq.: '21: 11.6%. Regulatory Climate: Average.

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Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	60
Earnings Predictability	95

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DUKE ENERGY NYSE-DUK				RECENT PRICE	P/E RATIO	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE												
TIMELINESS 4 Raised 12/24/21 SAFETY 2 New 6/1/07 TECHNICAL 3 Raised 1/14/22 BETA .85 (1.00 = Market) 18-Month Target Price Range Low-High \$82-\$116 Midpoint (% to Mid) \$99 (-5%) 2025-27 PROJECTIONS High Price 130 Gain (+25%) Ann'l Total Return 9% Low Price 95 Gain (-10%) Return 2% Institutional Decisions 10/2021 20/2021 30/2021 to Buy 796 823 803 to Sell 681 623 615 Hld's(000) 483371 483062 481215 Percent shares traded 15 10 5				105.06	19.6	(Trailing: 27.1; Median: 18.0)	1.11	3.8%	Target Price Range 2025 2026 2027 320 160 120 100 80 60 40 18 % TOT. RETURN 1/22 THIS STOCK INDEX VL ARITH. 1 yr. 16.2 15.7 3 yr. 34.2 56.8 5 yr. 63.6 75.5												
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27		
25.32	30.24	31.15	29.18	32.22	32.63	27.88	34.84	33.84	34.10	32.49	33.66	33.73	34.21	31.04	32.40	33.30	34.30	Revenues per sh	37.50		
7.86	8.11	7.34	7.58	8.49	8.68	6.80	8.56	9.11	9.40	9.20	10.01	10.49	12.13	10.89	12.40	13.30	14.00	"Cash Flow" per sh	16.50		
2.76	3.60	3.03	3.39	4.02	4.14	3.71	3.98	4.13	4.10	3.71	4.22	4.13	5.07	3.92	4.95	5.45	5.80	Earnings per sh ^A	7.00		
--	2.58	2.70	2.82	2.91	2.97	3.03	3.09	3.15	3.24	3.36	3.49	3.64	3.75	3.82	3.90	3.98	4.06	Div'd Decl'd per sh ^B	4.35		
8.07	7.43	10.35	9.85	10.84	9.80	7.81	7.83	7.62	9.83	11.29	11.50	12.91	15.17	12.88	13.60	16.60	15.70	Cap'l Spending per sh	15.50		
62.30	50.40	49.51	49.85	50.84	51.14	58.04	58.54	57.81	57.74	58.62	59.63	60.27	61.20	59.82	60.90	62.40	64.15	Book Value per sh ^C	71.00		
418.96	420.62	423.96	436.29	442.96	445.29	704.00	706.00	707.00	688.00	700.00	700.00	727.00	733.00	769.00	770.00	770.00	770.00	Common Shs Outst'g ^D	770.00		
--	16.1	17.3	13.3	12.7	13.8	17.5	17.4	17.9	18.2	21.3	19.9	19.4	17.7	22.4	20.1	20.1	20.1	Avg Ann'l P/E Ratio	16.0		
--	.85	1.04	.89	.81	.87	1.11	.98	.94	.92	1.12	1.00	1.05	.94	1.15	1.05	1.05	1.05	Relative P/E Ratio	.90		
--	4.4%	5.2%	6.2%	5.7%	5.2%	4.7%	4.4%	4.3%	4.3%	4.3%	4.2%	4.5%	4.2%	4.4%	3.9%	3.9%	3.9%	Avg Ann'l Div'd Yield	3.9%		
CAPITAL STRUCTURE as of 9/30/21				19624	24598	23925	23459	22743	23565	24521	25079	23868	24950	25650	26400	26400	26400	26400	Revenues (\$mill)	28850	
Total Debt \$64900 mill. Due in 5 Yrs \$19594 mill.				2136.0	2813.0	2934.0	2854.0	2560.0	2963.0	2928.0	3755.0	2996.0	3910	4320	4565	4565	4565	4565	Net Profit (\$mill)	5415	
LT Debt \$57929 mill. LT Interest \$2211 mill.				30.2%	32.6%	30.6%	32.2%	31.0%	30.4%	14.2%	12.7%	4.9%	7.5%	7.0%	7.0%	7.0%	7.0%	7.0%	Income Tax Rate	7.0%	
Incl. \$845 mill. finance leases. (LT interest earned: 2.1x)				22.3%	8.8%	7.2%	9.2%	11.7%	12.3%	13.0%	7.9%	8.9%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	AFUDC % to Net Profit	6.0%	
Leases, Uncapitalized Annual rentals \$229 mill.				47.0%	48.0%	47.7%	48.6%	52.6%	54.0%	53.8%	54.0%	53.7%	54.5%	54.5%	55.0%	55.0%	55.0%	55.0%	Long-Term Debt Ratio	55.0%	
Pension Assets-12/20 \$9337 mill.				52.9%	52.0%	52.3%	51.4%	47.4%	46.0%	44.2%	44.1%	44.4%	44.0%	43.5%	43.5%	43.5%	43.5%	43.5%	Common Equity Ratio	43.5%	
Oblig \$8634 mill.				77307	79482	78088	77222	86609	90774	94940	101807	103589	106950	110075	113525	113525	113525	113525	Total Capital (\$mill)	125600	
Pfd Stock \$1962 mill. Pfd Div'd \$107 mill.				68558	69490	70046	75709	82520	86391	91694	102127	106782	111500	118275	124025	124025	124025	124025	Net Plant (\$mill)	138800	
40 mill. shs. 5.75%, cum., \$25 liq. value, redeemable at \$25.50 prior to 6/15/24; 1 mill. shs. 4.875%, cum., \$1000 liq. value.				3.6%	4.6%	4.8%	4.8%	4.0%	4.3%	4.2%	4.8%	3.9%	4.5%	5.0%	5.0%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.5%	
Common Stock 769,343,372 shs. as of 10/31/21				5.2%	6.8%	7.2%	7.2%	6.2%	7.1%	6.7%	8.0%	6.2%	8.0%	8.5%	9.0%	9.0%	9.0%	9.0%	Return on Shr. Equity	9.5%	
MARKET CAP: \$81 billion (Large Cap)				9%	1.5%	1.7%	1.5%	6%	1.2%	1.0%	2.4%	4%	1.5%	2.5%	2.5%	2.5%	2.5%	2.5%	Return on Com Equity ^E	9.5%	
ELECTRIC OPERATING STATISTICS				218	233	183													Retained to Com Eq	3.5%	
2018 2019 2020																			All Div'ds to Net Prof	64%	
% Change Retail Sales (KWH)				+3.9	-9	-2.3															
Avg. Indust. Use (MWH)				2953	2934	NA															
Avg. Indust. Revs. per KWH (c)				NA	NA	NA															
Capacity at Peak (Mw)				NA	NA	NA															
Peak Load, Summer (Mw)				NA	NA	NA															
Annual Load Factor (%)				NA	NA	NA															
% Change Customers (avg.)				+1.4	+1.5	NA															
Fixed Charge Cov. (%)				218	233	183															
ANNUAL RATES																					
of change (per sh)																					
Revenues				5%	-1.0%	2.0%															
"Cash Flow"				3.5%	4.5%	5.5%															
Earnings				2.5%	1.5%	7.0%															
Dividends				3.0%	3.5%	2.0%															
Book Value				2.0%	1.0%	2.5%															
QUARTERLY REVENUES (\$ mill.)																					
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																
2019	6163	5873	6940	6103	25079																
2020	5949	5421	6721	5777	23868																
2021	6150	5758	6951	6091	24950																
2022	6350	5900	7150	6250	25650																
2023	6550	6050	7130	6450	26400																
EARNINGS PER SHARE ^A																					
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																
2019	1.24	1.12	1.82	.89	5.07																
2020	1.24	1.08	1.74	d.13	3.92																
2021	1.25	.96	1.79	.95	4.95																
2022	1.35	1.15	1.90	1.05	5.45																
2023	1.45	1.25	2.00	1.10	5.80																
QUARTERLY DIVIDENDS PAID ^B																					
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year																
2018	.89	.89	.9275	.9275	3.64																
2019	.9275	.9275	.945	.945	3.75																
2020	.945	.945	.965	.965	3.82																
2021	.965	.965	.985	.985	3.90																
2022	.985																				
BUSINESS: Duke Energy Corporation is a holding company for utilities with 7.6 mill. elec. customers in NC, FL, IN, SC, OH, & KY, and 1.6 mill. gas customers in OH, KY, NC, SC, and TN. Owns independent power plants & has 25% stake in National Methanol in Saudi Arabia. Acq'd Progress Energy 7/12; Piedmont Natural Gas 10/16; discontinued most intl' ops. in '16. Elec. rev. breakdown: residential, 45%; commercial, 28%; industrial, 13%; other, 14%. Generating sources: gas, 31%; nuclear, 30%; coal, 18%; other, 2%; purchased, 19%. Fuel costs: 27% of revs. '20 reported deprec. rate: 3.0%. Has 27,500 employees. Chairman, President & CEO: Lynn J. Good. Inc.: DE. Address: 550 South Tryon St., Charlotte, NC 28202-1803. Tel.: 704-382-3853. Internet: www.duke-energy.com.																					
Duke Energy's earnings will likely advance significantly in 2022. The comparison shouldn't be difficult, especially in the June quarter, when the company took an \$0.18-a-share charge for a workforce realignment in 2021. Duke will benefit from increased rates. A \$67 million hike took effect in Florida at the start of 2022. Piedmont Natural Gas received a \$67 million increase on November 1st. Duke received a small gas hike in Kentucky at the start of 2022. The company should get a partial year of rate relief in Ohio (see below). Duke also obtains revenues every year from riders (surcharges) on customers' bills. Finally, the utility is benefiting from healthy growth in volume (especially from the industrial sector) and customers. Management put forth its expectations for the current year shortly before this report went to press.																					
An electric rate case is pending in Ohio. Duke is seeking an increase of \$55 million (3.3%), based on a 10.3% return on equity. An order is expected this summer. We look for another year of solid profit growth in 2023. Duke will get the next phase of multiyear rate relief (\$49 million)																					
in Florida at the start of the year. The company will benefit from a full year of rate relief in Ohio. We estimate a bottom-line increase of 6%, within management's annual target of 5%-7%. Duke is awaiting regulatory outcomes in North Carolina. This involves performance-based ratemaking and securitization for coal-fired assets that will be retired early. Developments from the state commission should come forth as the year progresses. Duke entered into a cooperation agreement with Elliott Investment Management. This involves the addition of two board members and a standstill agreement through November 13, 2022 (the one-year anniversary of the cooperation agreement). Elliott had been critical of Duke's management. There is some speculative interest for stockholders once the cooperation agreement expires. The untimely stock has a dividend yield that is a bit above the utility mean. But, dividend growth potential is low, and the stock lacks appeal for the next 18 months and the 2025-2027 period. <i>Paul E. Debbas, CFA February 11, 2022</i>																					
all'd on com. eq. in '21 in NC: 9.6%; in '19 in SC: 9.5%; in '20 in FL: 9.5%-11.5%; in '20 in IN: 9.7%; earn. on avg. com. eq., '20: 9.9%. Reg. Clim.: NC, SC Avg.; OH, IN Above Avg.															Company's Financial Strength A Stock's Price Stability 95 Price Growth Persistence 35 Earnings Predictability 85						

(A) Dil. EPS. Excl. nonrec. losses: '12, 70c; '13, 24c; '14, 67c; '17, 15c; '18, 41c; '20, \$2.21; losses on disc. ops.: '14, 80c; '16, 60c. '20 EPS don't sum due to rounding. Next eps. due early May. (B) Div'ds paid mid-Mar., June, Sept., & Dec. (C) Div'd rein. plan avail. (D) Incl. intang. In '20: \$41.25/sh. (E) In mill., adj. for rev. split. (F) Rate base: Net org. cost. Rate

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EDISON INTERNAT'L NYSE-EIX				RECENT PRICE	65.64	P/E RATIO	34.0 (Trailing: 32.2 Median: 15.0)	RELATIVE P/E RATIO	1.78	DIV'D YLD	4.3%	VALUE LINE								
TIMELINESS 3 Raised 9/17/21	High: 39.4	41.6	48.0	54.2	68.7	69.6	78.7	83.4	71.0	76.4	78.9	68.6	Target Price Range 2024 2025 2026							
SAFETY 3 Lowered 11/23/18	Low: 30.4	32.6	39.6	44.3	44.7	55.2	58.0	62.7	45.5	53.4	43.6	53.9								
TECHNICAL 2 Raised 1/21/22	LEGENDS 0.70 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																			
BETA .95 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$53-\$87 \$70 (5%)																			
2024-26 PROJECTIONS High Price 110 Gain (+70%) Ann'l Total Return 17% Low Price 70 Gain (+5%) Return 6%																				
Institutional Decisions 10Q2021 2Q2021 3Q2021 to Buy 289 320 298 to Sell 261 249 263 Hld's(000) 330900 330984 332161 Percent shares traded 30 20 10																				
% TOT. RETURN 12/21 THIS STOCK VL ARITH' INDEX 1 yr. 13.6 25.4 3 yr. 36.3 84.2 5 yr. 15.2 88.5																				
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC	24-26	
36.38	38.74	40.25	43.31	37.98	38.09	39.16	36.41	38.61	41.17	35.37	36.43	37.81	38.85	34.11	35.83	38.95	39.25	Revenues per sh	44.25	
6.99	7.25	7.60	8.08	7.96	8.41	9.03	9.63	8.80	9.95	10.35	10.43	11.03	4.69	9.15	7.94	7.95	10.95	"Cash Flow" per sh	12.50	
3.34	3.28	3.32	3.68	3.24	3.35	3.23	4.55	3.78	4.33	4.15	3.94	4.51	d1.26	3.98	1.72	1.60	4.50	Earnings per sh A	5.25	
1.02	1.10	1.18	1.23	1.25	1.27	1.29	1.31	1.37	1.48	1.73	1.98	2.23	2.43	2.48	2.58	2.69	2.84	Div'd Decl'd per sh B	3.35	
5.73	7.78	8.67	8.67	10.07	13.94	14.76	12.73	11.05	11.99	12.97	11.46	11.75	13.84	13.47	14.47	14.30	15.90	Cap'l Spending per sh	17.50	
20.30	23.66	25.92	29.21	30.20	32.44	30.86	28.95	30.50	33.64	34.89	36.82	35.82	32.10	36.75	37.08	36.40	38.45	Book Value per sh C	43.75	
325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	325.81	361.99	378.91	385.00	390.00	Common Shs Outst'g D	390.00	
11.7	13.0	16.0	12.4	9.7	10.3	11.8	9.7	12.7	13.0	14.8	17.9	17.2	--	16.7	34.9	37.1	--	Avg Ann'l P/E Ratio	17.0	
.62	.70	.85	.75	.65	.66	.74	.62	.71	.68	.75	.94	.87	--	.89	1.79	2.00	--	Relative P/E Ratio	.95	
2.6%	2.6%	2.2%	2.7%	4.0%	3.7%	3.4%	3.0%	2.8%	2.6%	2.8%	2.8%	2.9%	3.8%	3.7%	4.3%	4.5%	--	Avg Ann'l Div'd Yield	3.7%	
CAPITAL STRUCTURE as of 9/30/21				12760	11862	12581	13413	11524	11869	12320	12657	12347	13578	15000	15300	Revenues (\$mill)	17250			
Total Debt \$27160 mill. Due in 5 Yrs \$11170 mill.				1112.0	1594.0	1344.0	1539.0	1480.0	1422.0	1603.0	d290.0	1477.0	1477.0	775.0	770	1915	Net Profit (\$mill)	2200		
LT Debt \$23342 mill. LT Interest \$948 mill.				25.7%	14.3%	25.2%	22.4%	6.6%	11.1%	5.0%	--	--	--	5.0%	5.0%	Income Tax Rate	5.0%			
(LT interest earned: 1.5x)				14.8%	8.5%	7.8%	5.8%	8.0%	6.8%	7.2%	--	11.1%	22.5%	23.0%	9.0%	AFUDC % to Net Profit	8.0%			
Leases, Uncapitalized Annual rentals \$39 mill.				55.3%	45.2%	45.7%	44.1%	45.0%	41.8%	45.6%	53.6%	53.5%	55.2%	54.5%	55.0%	Long-Term Debt Ratio	58.0%			
Pension Assets-12/20 \$417.1 mill.				40.6%	46.2%	46.2%	47.2%	46.7%	49.2%	45.8%	38.3%	39.9%	39.5%	35.5%	35.5%	Com'n Equity Ratio	34.0%			
Oblig \$447.6 mill.				24773	20422	21516	23216	24352	24362	25506	27284	33360	35581	39475	42025	Total Capital (\$mill)	50000			
Pfd Stock \$3136 mill. Pfd Div'd \$172 mill.				32116	30273	30455	32981	35085	37000	39050	41348	44285	47839	50900	54575	Net Plant (\$mill)	64900			
350,000 sh. 6.25%, \$1000 liq. value; 638,020 sh.				6.0%	8.9%	7.3%	7.7%	7.1%	6.9%	7.3%	.1%	5.6%	3.4%	3.0%	5.5%	Return on Total Cap'l	5.5%			
5.0%-5.75%, \$2500 liq. value; 1,250,000 sh.				10.0%	14.2%	11.5%	11.9%	11.1%	10.0%	11.6%	NMF	9.5%	4.9%	4.5%	10.0%	Return on Shr. Equity	10.5%			
5.375%, \$1000 liq. value, all cumulative.				10.5%	15.9%	12.5%	13.0%	12.0%	10.8%	12.7%	NMF	10.2%	4.6%	4.5%	11.0%	Return on Com Equity E	12.0%			
Common Stock 379,908,256 shs.				6.3%	11.4%	8.1%	8.8%	7.2%	5.6%	6.6%	NMF	4.1%	NMF	NMF	4.0%	Retained to Com Eq	4.5%			
as of 10/26/21				43%	32%	40%	37%	44%	53%	52%	NMF	63%	NMF	NMF	66%	All Div's to Net Prof	67%			
MARKET CAP: \$25 billion (Large Cap)																				
ELECTRIC OPERATING STATISTICS																				
				2018	2019	2020														
% Change Retail Sales (KWH)				-4	-2.7	+7														
Avg. Indust. Use (MWH)				667	657	589														
Avg. Indust. Revs. per KWH (c)				NA	NA	NA														
Capacity at Peak (Mw)				NA	NA	NA														
Peak Load, Summer (Mw)				23766	22009	23133														
Annual Load Factor (%)				48.0	49.6	46.7														
% Change Customers (yr-end)				+6	+5	+6														
Fixed Charge Cov. (%)				NMF	172	NMF														
ANNUAL RATES																				
				Past 10 Yrs.	Past 5 Yrs.	Past Est'd '18-'20 to '24-'26														
Revenues				-1.0%	-1.0%	3.5%														
"Cash Flow"				-1.0%	-5.5%	9.5%														
Earnings				-8.0%	-18.5%	NMF														
Dividends				7.0%	10.5%	5.0%														
Book Value				1.5%	1.5%	3.5%														
QUARTERLY REVENUES (\$ mill.)																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	2564	2815	4269	3009	12657															
2019	2824	2812	3741	2970	12347															
2020	2790	2987	4644	3157	13578															
2021	2960	3315	5299	3426	15000															
2022	3100	3450	5300	3450	15300															
EARNINGS PER SHARE A																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	.82	.84	1.57	d4.49	d1.26															
2019	.64	1.57	1.35	.45	3.98															
2020	.50	.85	d.76	1.13	1.72															
2021	.68	.84	d.90	.98	1.60															
2022	.80	1.05	1.60	.95	4.50															
QUARTERLY DIVIDENDS PAID B																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	.605	.605	.605	.605	2.42															
2019	.6125	.6125	.6125	.6125	2.45															
2020	.6375	.6375	.6375	.6375	2.55															
2021	.6625	.6625	.6625	.6625	2.65															
2022	.70																			
BUSINESS: Edison International (formerly SCECorp) is a holding company for Southern California Edison Company (SCE), which supplies electricity to 5.2 mill. customers in a 50,000-sq.-mi. area in central, coastal, & southern CA (excl. Los Angeles & San Diego). Edison Energy is an energy svcs. co. Disc. Edison Mission Energy (independent power producer) in '12. Elec. rev. breakdown: residential, 42%; commercial, 40%; industrial, 4%; other, 14%. Generating sources: nuclear, 8%; gas, 5%; hydro, 4%; purchased, 83%. Fuel costs: 36% of revs. '20 reported depr. rate: 3.6%. Has 13,400 empl's. Chairman: William P. Sullivan. Pres. & CEO: Pedro J. Pizarro. Inc.: CA. Address: 2244 Walnut Grove Ave., P.O. Box 976, Rosemead, CA 91770. Tel.: 626-302-2222. Web: www.edison.com.																				
Edison International and its Southern California Edison utility subsidiary have increased the estimated liability stemming from wildfires and mudslides in 2017 and 2018. Previously, this figure was \$6.2 billion, with \$1.4 billion yet to be resolved. Now, the utility has raised this to \$7.5 billion, with \$2.2 billion yet to be resolved. Accordingly, the company took an aftertax charge of \$899 million (\$2.37 a share) against September-quarter results, part of which is for fines and penalties stemming from the wildfires. As is the case with previous charges, we included this in our earnings presentation. Thus, we slashed our 2021 share-earnings estimate from \$4.15 to \$1.60. We are not assuming any more charges in our 2022 estimate of \$4.50 a share. The utility has increased its capital spending plans. SCE intends to add some \$900 million of battery storage in 2022. This will probably necessitate some debt and equity issuances. The amount, timing, and form of the new equity are to be determined. Note that SCE issued \$2 billion of preferred equity last year, so additional preferred issuances would come as no surprise. A cost-of-capital application is pending. Based on a provision in the current cost-of-capital mechanism, SCE's allowed return on equity for 2022 will be reduced from 10.3% to 9.72%, reducing revenues by \$179 million. However, the utility argues that the provision should not apply due to the interest-rate cuts stemming from the government's reaction to the coronavirus. SCE has two counterproposals, one of which would result in no revenue loss and the other that would lower revenues by \$50 million. When this matter will be resolved is unknown. The board of directors raised the dividend. The move occurred in early December, effective with the payment in January. The increase was \$0.15 a share (5.7%) annually. This stock has an above-average dividend yield, even for a utility. This reflects the wildfire-related uncertainties that the company faces. Total return potential is unimpressive for the next 18 months but decent for the 3- to 5-year period. <i>Paul E. Debbas, CFA January 21, 2022</i>																				

(A) Dil. EPS, Excl. nonrec. gains (losses): '09, (64c); '10, 54c; '11, (\$3.33); '13, (\$1.12); '15, (\$1.18); '17, (\$1.37); '18, (15c); '19, (21c); '20, 25c; gains (loss) from disc. ops.: '12, (\$5.11); '13, 11c; '14, 57c; '15, 11c; '18, 10c. '19 EPS don't sum due to change in shs. Next earnings report due late Feb. (B) Div'ds paid late Jan., Apr., July, & Oct. (C) Div'd rein. plan avail. (C) Incl. def'd chgs. In '20: \$18.79/sh. (D) In mill. (E) Rate base: net orig. cost. Rate all'd on com. eq. in '20: 10.3%; earned on avg. com. eq., '20: 4.7%. Regulatory Climate: Average.

Company's Financial Strength B++
 Stock's Price Stability 75
 Price Growth Persistence 40
 Earnings Predictability 5

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ENERGY CORP. NYSE-ETR				RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE											
TIMELINESS 4 Lowered 12/10/21 SAFETY 2 Raised 12/13/19 TECHNICAL 2 Raised 3/4/22 BETA .95 (1.00 = Market)				105.21	15.4 (Trailing: 15.3; Median: 14.0)	0.86	3.9%	Target Price Range 2025 2026 2027											
18-Month Target Price Range Low-High Midpoint (% to Mid) \$88-\$132 \$110 (5%)				High: 74.5 Low: 57.6	74.5 61.6	72.6 60.2	92.0 60.4	90.3 61.3	82.1 65.4	87.9 69.6	90.8 71.9	122.1 83.2	135.5 75.2	115.0 85.8	113.1 100.2				
2025-27 PROJECTIONS High Price Gain Ann'l Total Low 160 (+50%) 14% 115 (+10%) 6%				LEGENDS 0.54 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession										% TOT. RETURN 2/22 THIS STOCK VL ARITH.* INDEX 1 yr. 25.3 15.1 3 yr. 24.3 61.1 5 yr. 65.2 84.2					
Institutional Decisions 202021 3Q2021 4Q2021 to Buy 306 264 352 to Sell 173 275 244 Hld's(000) 174484 183072 182168				© VALUE LINE PUB. LLC 25-27															
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Revenues per sh	59.25
10.69	11.73	12.89	13.29	16.54	17.53	15.98	16.25	17.68	17.71	18.72	16.70	16.50	17.19	18.21	17.90	17.75	18.50	"Cash Flow" per sh	21.25
5.36	5.60	6.20	6.30	6.66	7.55	6.02	4.96	5.77	5.81	6.88	5.19	5.88	6.30	6.90	6.87	6.30	6.70	Earnings per sh A	8.00
2.16	2.58	3.00	3.00	3.24	3.32	3.32	3.32	3.32	3.34	3.42	3.50	3.58	3.66	3.74	3.86	4.09	4.30	Div'd Decl'd per sh B = †	5.10
9.44	10.29	13.92	12.99	13.33	15.21	18.18	15.73	14.82	16.79	17.28	22.07	22.45	21.72	24.52	30.86	18.15	19.00	Cap'l Spending per sh	19.75
40.45	40.71	42.07	45.54	47.53	50.81	51.73	54.00	55.83	51.89	45.12	44.28	46.78	51.34	54.56	57.42	60.20	63.45	Book Value per sh C	73.00
202.67	193.12	189.36	189.12	178.75	176.36	177.81	178.37	179.24	178.39	179.13	180.52	189.06	199.15	200.24	202.65	206.00	209.00	Common Shs Outst'g D	214.00
14.3	19.3	16.6	12.0	11.6	9.1	11.2	13.2	12.9	12.5	10.9	15.0	13.8	16.5	15.3	15.0	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	17.0
.77	1.02	1.00	.80	.74	.57	.71	.74	.68	.63	.57	.75	.75	.88	.79	.80			Relative P/E Ratio	.95
2.8%	2.4%	2.9%	4.0%	4.2%	4.9%	4.9%	5.1%	4.5%	4.6%	4.6%	4.5%	4.4%	3.5%	3.6%	3.7%			Avg Ann'l Div'd Yield	3.7%
CAPITAL STRUCTURE as of 12/31/21 Total Debt \$27082 mill. Due in 5 Yrs \$10975 mill. LT Debt \$24842 mill. LT Interest \$780.0 mill. Incl. \$83.6 mill. of securitization bonds. (LT interest earned: 3.0x) Leases, Uncapitalized Annual rentals \$65.3 mill. Pension Assets-12/21 \$6993.1 mill. Oblig \$8409.6 mill. Pfd Stock \$254.4 mill. Pfd Div'd \$18.3 mill. 200,000 shs. 6.25%-7.5%, \$100 par; 250,000 shs. 8.75%, 1.4 mill. shs. 5.375%; all cum., without sinking fund. Common Stock 203,027,662 shs. as of 1/31/22 MARKET CAP: \$21 billion (Large Cap)				10302	11391	12495	11513	10846	11074	11009	10879	10114	11743	11300	11500	Revenues (\$mill)	12700		
				1091.9	904.5	1060.0	1061.2	1249.8	950.7	1092.1	1258.2	1406.7	1402.8	1320	1420	Net Profit (\$mill)	1735		
				13.0%	26.7%	37.8%	2.2%	11.3%	1.8%	NMF	NMF	16.1%	23.0%	23.0%	Income Tax Rate	23.0%			
				11.9%	10.1%	9.3%	7.4%	8.1%	14.7%	17.5%	16.7%	12.2%	7.1%	8.0%	8.0%	AFUDC % to Net Profit	8.0%		
				55.8%	55.1%	54.9%	57.8%	63.6%	63.6%	62.0%	65.5%	67.6%	66.5%	66.5%	Long-Term Debt Ratio	66.5%			
				42.9%	43.6%	43.8%	40.8%	35.5%	35.5%	35.9%	37.1%	33.7%	31.7%	32.5%	33.0%	Common Equity Ratio	33.0%		
				21432	22109	22842	22714	22777	22528	24602	27557	32386	36733	38025	40175	Total Capital (\$mill)	47000		
				27299	27882	28723	27824	27921	29664	31974	35183	38853	42244	43675	45250	Net Plant (\$mill)	49900		
				6.4%	5.4%	6.0%	6.0%	6.9%	5.7%	5.8%	5.9%	5.6%	4.8%	4.5%	4.5%	Return on Total Cap'l	5.0%		
				11.5%	9.1%	10.3%	11.1%	15.1%	11.6%	12.0%	12.0%	12.6%	11.6%	10.5%	10.5%	Return on Shr. Equity	11.0%		
				11.6%	9.2%	10.4%	11.2%	15.2%	11.7%	12.2%	12.1%	12.7%	11.9%	10.5%	10.5%	Return on Com Equity E	11.0%		
				5.2%	3.0%	4.4%	4.8%	7.7%	3.9%	4.9%	5.2%	5.9%	5.2%	3.5%	4.0%	Retained to Com Eq	4.0%		
				56%	68%	58%	58%	50%	68%	61%	58%	55%	57%	65%	64%	All Div's to Net Prof	64%		
ELECTRIC OPERATING STATISTICS 2019 2020 2021 % Change Retail Sales (KWH) -1.4 -4.1 +3.2 Avg. Indust. Use (MWH) 1070 1017 1015 Avg. Indust. Revs. per KWH(c) 5.24 4.95 5.91 Capacity at Peak (Mw) 23887 25665 NA Peak Load, Summer (Mw) 21598 21340 NA Annual Load Factor (%) 64 62 NA % Change Customers (yr-end) +8 +1.0 +1.0				BUSINESS: Entergy Corporation supplies electricity to 3 million commercial, 24%; industrial, 27%; other, 12%. Generating sources: gas, 46%; nuclear, 30%; coal, 6%; purchased, 18%. Fuel costs: 32% of revenues. '21 reported depreciation rate: 2.7%. Has 12,400 employees. Chairman & CEO: Leo P. Denault. Incorporated: Delaware. Address: 639 Loyola Avenue, P.O. Box 61000, New Orleans, Louisiana 70161. Tel.: 504-576-4000. Internet: www.entergy.com.															
ANNUAL RATES Past Past Est'd '19-'21 of change (per sh) 10 Yrs. 5 Yrs. to '25-'27 Revenues -1.0% -3.5% 1.5% "Cash Flow" 1.0% -5% 3.0% Earnings -1.5% 3.0% Dividends 1.5% 2.0% 5.0% Book Value 1.5% 1.5% 5.0%				Entergy is seeking to recover costs associated with severe storms in 2020 and 2021. In 2020, three hurricanes caused more than \$2 billion of damage in Louisiana and Texas. Hurricane Ida last year resulted in restoration costs of \$2.7 billion, above the previous estimate of \$2.1 billion-\$2.5 billion. In the coming months, Entergy will issue more than \$3 billion of securitized bonds, which includes \$1 billion for Hurricane Ida. The utility will seek recovery from the regulatory commissions in Louisiana and New Orleans (regulated separately from the rest of the state) for the remainder of the costs from Hurricane Ida. However, Entergy received criticism last year in New Orleans for its performance following the hurricane, which might affect the regulatory process. The company's exit from the merchant power business should be completed by mid-2022. Entergy has closed and sold its nonregulated nuclear units over the past few years. Its last nonutility nuclear plant, Palisades in Michigan, will be shut down in May. The sale of the plant is expected to close in midyear. (The point of these deals is that the buyer gets the															
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 2610 2666 3141 2462 10879 2020 2427 2413 2904 2370 10114 2021 2845 2822 3353 2723 11743 2022 2700 2700 3200 2700 11300 2023 2750 2750 3250 2750 11500				nuclear decommissioning trust at a sizable discount and the seller is relieved of the responsibility of decommissioning the facility.) Entergy's business risk has lessened as the company winds down its presence in nonregulated power generation. An earnings decline is likely in 2022, followed by improvement in 2023. Entergy's nonutility subsidiary contributed \$0.61 to share net last year, so this income will likely be less this year. Another negative factor will be an increase in average shares outstanding. Our 2022 estimate is at the midpoint of Entergy's targeted range of \$6.15-\$6.45 a share. Even so, Entergy's industrial sector is experiencing an economic recovery, and the company is benefiting from rate relief in several jurisdictions (much of which comes via formula rate plans). We think profits will advance to \$6.70 a share in 2023. Management's guidance for next year is \$6.55-\$6.85. This untimely stock has a dividend yield that is slightly above the utility average. Total return prospects are sub-par for the next 18 months and don't stand out for the 3- to 5-year period. <i>Paul E. Debbas, CFA March 11, 2022</i>															
EARNINGS PER SHARE A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 1.32 1.22 1.82 1.94 6.30 2020 .59 1.79 2.59 1.93 6.90 2021 1.66 1.30 2.63 1.28 6.87 2022 1.25 1.60 2.70 .75 6.30 2023 1.35 1.70 2.85 .80 6.70				commercially paid in early Mar., June, Sept., & Dec. base: Net original cost. Allowed ROE (blended): 9.95%; earned on avg. com. eq., '21: 12.1%. Regulatory Climate: Average.															
QUARTERLY DIVIDENDS PAID B = † Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .89 .89 .89 .91 3.58 2019 .91 .91 .91 .91 3.66 2020 .93 .93 .93 .95 3.74 2021 .95 .95 .95 1.01 3.86 2022 1.01				Company's Financial Strength B++ Stock's Price Stability 90 Price Growth Persistence 40 Earnings Predictability 70															

(A) Diluted EPS. Excl. nonrec. losses: '12, \$1.26; '13, \$1.14; '14, \$66; '15, \$6.99; '16, \$10.14; '17, \$2.91; '18, \$1.25; '21, \$1.33. Next earnings report due early May. (B) Div'ds historically paid in early Mar., June, Sept., & Dec. (C) Div'd reinvestment plan avail. † Shareholder investment plan avail. (D) Incl. deferred charges. In '21: \$35.95/sh. (E) Rate base: Net original cost. Allowed ROE (blended): 9.95%; earned on avg. com. eq., '21: 12.1%. Regulatory Climate: Average.

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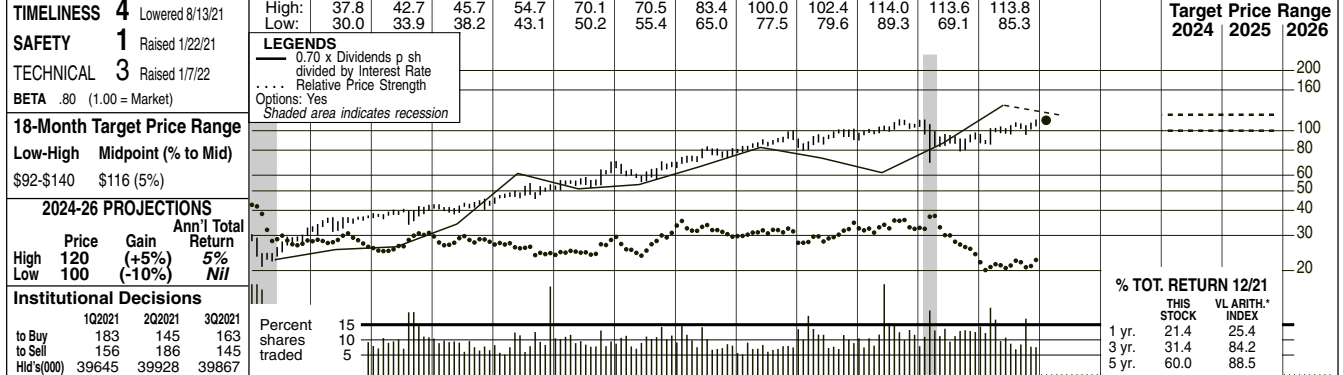
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EVERGY, INC. NYSE-EVRG		RECENT PRICE	62.41	P/E RATIO	17.9 (Trailing: 16.3 Median: NMF)	RELATIVE P/E RATIO	1.00	DIV/D YLD	3.8%	VALUE LINE					
TIMELINESS	5 Lowered 12/31/21														
SAFETY	2 New 9/14/18														
TECHNICAL	2 Lowered 3/11/22														
BETA	.95 (1.00 = Market)														
18-Month Target Price Range															
Low-High	Midpoint (% to Mid)														
\$50-\$73	\$62 (0%)														
2025-27 PROJECTIONS															
High	Price	Gain	Ann'l Total												
Low	95	(+50%)	14%												
	70	(+10%)	7%												
Institutional Decisions															
to Buy	202021	3Q2021	4Q2021	Percent	36										
to Sell	291	262	308	shares	24										
Hld's(000)	198932	204443	206094	traded	12										
Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Great Plains Energy holders received .5981 of a share of Evergy for each of their shares, and Westar Energy holders received one share of Evergy for each of their shares. The merger was completed on June 4, 2018. Shares of Evergy began trading on the New York Stock Exchange one day later.		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC 25-27	
		--	--	--	--	--	16.75	22.71	21.66	24.36	23.05	23.70	Revenues per sh	26.50	
		--	--	--	--	--	4.89	7.18	7.06	8.18	8.05	8.45	"Cash Flow" per sh	10.00	
		--	--	--	--	--	2.50	2.79	2.72	3.83	3.55	3.80	Earnings per sh ^A	4.75	
		--	--	--	--	--	1.74	1.93	2.05	2.18	2.33	2.48	Div'd Decl'd per sh ^B	3.05	
		--	--	--	--	--	4.19	5.34	6.88	8.60	8.60	9.20	Cap'l Spending per sh	9.50	
		--	--	--	--	--	39.28	37.82	38.50	40.32	41.45	42.75	Book Value per sh ^C	47.75	
		--	--	--	--	--	255.33	226.64	226.84	229.30	230.00	230.00	Common Shs Outst'g ^D	230.00	
		--	--	--	--	--	22.7	21.8	21.7	16.2	<i>Bold figures are Value Line estimates</i>		Avg Ann'l P/E Ratio	17.5	
		--	--	--	--	--	1.23	1.16	1.11	.87			Relative P/E Ratio	.95	
		--	--	--	--	--	3.1%	3.2%	3.5%	3.5%			Avg Ann'l Div'd Yield	3.7%	
CAPITAL STRUCTURE as of 12/31/21															
Total Debt \$11166 mill. Due in 5 Yrs \$4100.3 mill.		--	--	--	--	--	4275.9	5147.8	4913.4	5586.7	5300	5450	Revenues (\$mill)	6100	
LT Debt \$9297.9 mill. LT Interest \$332.8 mill.		--	--	--	--	--	535.8	669.9	618.3	879.7	835	895	Net Profit (\$mill)	1130	
Incl. \$40.9 mill. finance leases. (LT interest earned: 3.8x)		--	--	--	--	--	9.8%	12.6%	14.1%	11.7%	10.0%	10.0%	Income Tax Rate	10.0%	
Leases, Uncapitalized Annual rentals \$18.8 mill.		--	--	--	--	--	2.5%	2.5%	5.5%	5.0%	5.0%	6.0%	AFUDC % to Net Profit	5.0%	
Pension Assets-12/21 \$1714.7 mill.		--	--	--	--	--	40.0%	50.6%	51.3%	50.1%	51.5%	51.5%	Long-Term Debt Ratio	53.0%	
Oblig \$2561.7 mill.		--	--	--	--	--	60.0%	49.4%	48.7%	49.9%	48.5%	48.5%	Common Equity Ratio	47.0%	
Pfd Stock None		--	--	--	--	--	16716	17337	17924	18542	19675	20200	Total Capital (\$mill)	23400	
Common Stock 229,311,689 shs. as of 2/18/22		--	--	--	--	--	18952	19346	20106	21150	22100	23150	Net Plant (\$mill)	26300	
MARKET CAP: \$14 billion (Large Cap)		--	--	--	--	--	4.0%	4.8%	4.5%	5.7%	5.0%	5.5%	Return on Total Cap'l	6.0%	
		--	--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.5%	9.0%	Return on Shr. Equity	10.0%	
		--	--	--	--	--	5.3%	7.8%	7.1%	9.5%	8.5%	9.0%	Return on Com Equity ^E	10.0%	
		--	--	--	--	--	6.2%	2.4%	1.8%	4.1%	3.0%	3.0%	Retained to Com Eq	4.0%	
		--	--	--	--	--	89%	69%	75%	57%	64%	64%	All Div's to Net Prof	62%	
ELECTRIC OPERATING STATISTICS		2019	2020	2021											
% Change Retail Sales (KWH)		NA	-3.9	+3.1											
Avg. Indust. Use (MWH)		NA	NA	NA											
Avg. Indust. Revs. per KWH (¢)		7.25	7.14	6.94											
Capacity at Peak (Mw)		NA	NA	NA											
Peak Load, Summer (Mw)		NA	NA	NA											
Annual Load Factor (%)		NA	NA	NA											
% Change Customers (yr-end)		NA	NA	NA											
Fixed Charge Cov. (%)		305	286	350											
ANNUAL RATES		Past 10 Yrs.	Past 5 Yrs.	Est'd '19-'21 to '25-'27											
Revenues		--	--	2.5%											
"Cash Flow"		--	--	5.0%											
Earnings		--	--	7.5%											
Dividends		--	--	7.0%											
Book Value		--	--	3.5%											
Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year										
	Mar.31	Jun.30	Sep.30	Dec.31											
2019	1217	1222	1578	1131	5147.8										
2020	1117	1185	1517	1094	4913.4										
2021	1612	1236	1617	1122	5586.7										
2022	1250	1250	1650	1150	5300										
2023	1300	1300	1700	1150	5450										
Cal-endar	EARNINGS PER SHARE ^A				Full Year										
	Mar.31	Jun.30	Sep.30	Dec.31											
2019	.39	.57	1.56	.28	2.79										
2020	.31	.59	1.60	.22	2.72										
2021	.84	.81	1.95	.23	3.83										
2022	.55	.85	1.85	.30	3.55										
2023	.60	.90	2.00	.30	3.80										
Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year										
	Mar.31	Jun.30	Sep.30	Dec.31											
2018	.40	.40	.46	.475	1.74										
2019	.475	.475	.475	.505	1.93										
2020	.505	.505	.505	.535	2.05										
2021	.535	.535	.535	.5725	2.18										
2022	.5725														
BUSINESS: Evergy, Inc. was formed through the merger of Great Plains Energy and Westar Energy in June of 2018. Through its subsidiaries (now doing business under the Evergy name), provides electric service to 1.6 million customers in Kansas and Missouri, including the greater Kansas City area. Electric revenue breakdown: residential, 34%; commercial, 30%; industrial, 11%; wholesale, 13%; other, 12%. Generating sources: coal, 54%; nuclear, 17%; purchased, 29%. Fuel costs: 28% of revenues. '21 reported deprec. rate: 3%. Has 4,900 employees. Chairman: Mark A. Ruelle. President & CEO: David A. Campbell. COO: Kevin E. Bryant. Inc.: Missouri. Address: 1200 Main Street, Kansas City, Missouri 64105. Tel.: 816-556-2200. Internet: www.evergy.com.		<p>Evergy's utilities in Missouri have filed general rate cases. The company's Missouri Metro utility requested an increase of \$43.9 million (5.2%), based on a return on equity of 10% and a common-equity ratio of 51.2%. Its Missouri West utility filed for a hike of \$27.7 million (3.8%), based on a 10% ROE and a 51.8% common-equity ratio. These are the first rate cases Evergy has filed since the company was formed through a merger in June of 2018. Capital additions and updated depreciation rates are driving the petitions, partly offset by reductions in operating and maintenance expenses. New tariffs are expected to take effect on December 6th, 11 months after the filing date. This will be too late to have a significant effect on earnings in 2022. Note that the company plans to file rate applications in Kansas in 2023.</p> <p>The earnings decline that is probable for 2022 should not be troubling for investors. Last year, a cold spell in the Gulf Coast region in February was a boon for Evergy's energy-marketing subsidiary. This boosted pretax income by \$86.6 million in the first quarter. We expect no repeat of these auspicious conditions this year. A return to normal weather patterns would also be negative for the year-to-year comparison, as favorable weather boosted share net by \$0.08 in 2021. Still, there should be some positive factors, including increased income from the company's transmission system. We are sticking with our 2022 earnings estimate of \$3.55 a share, which is within Evergy's targeted range of \$3.43-\$3.63.</p> <p>We expect earnings to improve in 2023. Rate relief in Missouri should be a key factor. Modest growth in kilowatt-hour sales should help, as well. Our estimate of \$3.80 a share would produce an increase of 7%. This is within Evergy's annual goal of 6%-8%.</p> <p>This untimely stock has a dividend yield that is about average for a utility. Total return potential is subpar for the next 18 months and somewhat below average for the 3- to 5-year period. A standstill agreement with two investors expires after the 2022 annual meeting (normally held in the first week of May), so there is some speculative appeal.</p> <p>Paul E. Debbas, CFA March 11, 2022</p>													
(A) Diluted earnings. '19 EPS don't sum to full-year total due to rounding. Next earnings report due early May. (B) Dividends paid in mid-March, June, September, and December. (C) Dividend reinvestment plan available. (D) Incl. intangibles. In '21: \$4327.7 mill., \$18.87/sh. (E) In millions. (F) Rate base: Original cost depreciated. Rate allowed on common equity in Missouri in '18: none specified; in Kansas in '18: 9.3%. Earned on average common equity, '21: 9.8%. Regulatory Climate: Average.		<p>Company's Financial Strength B++ Stock's Price Stability 80 Price Growth Persistence NMF Earnings Predictability NMF</p>													
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EVERSOURCE ENERGY NYSE-ES				RECENT PRICE	P/E RATIO		RELATIVE P/E RATIO		DIV'D YLD		VALUE LINE								
				89.49	22.8 (Trailing: 26.0; Median: 19.0)		1.29		2.9%										
TIMELINESS 3	Raised 1/14/22	High: 36.5	40.9	45.7	56.7	56.8	60.4	66.1	70.5	86.6	99.4	92.7	90.9	Target Price Range 2025 2026 2027					
SAFETY 1	Raised 5/22/15	Low: 30.0	33.5	38.6	41.3	44.6	50.0	54.1	52.8	63.1	60.7	76.6	84.0						
TECHNICAL 2	Lowered 2/11/22	LEGENDS 0.80 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																	
BETA .90	(1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$72-\$121 \$97 (10%)																	
2025-27 PROJECTIONS High Price 105 Gain (+15%) Ann'l Total Return 7% Low Price 85 (-5%) 2%																			
Institutional Decisions 10/2021 20/2021 30/2021 to Buy 331 360 328 to Sell 369 326 308 Hld's(000) 266387 266114 272358 Percent shares traded 30 20 10																			
% TOT. RETURN 1/22 THIS STOCK VL ARITH. INDEX 1 yr. 5.2 15.7 3 yr. 40.1 56.8 5 yr. 87.4 75.5																			
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27
44.64	37.27	37.22	30.97	27.76	25.21	19.98	23.16	24.42	25.08	24.11	24.46	26.66	25.85	25.96	28.45	28.80	29.50	Revenues per sh	32.25
3.69	4.82	6.16	4.96	5.68	4.88	4.03	5.22	4.56	4.94	5.46	5.84	6.64	6.65	6.89	6.80	7.55	7.85	"Cash Flow" per sh	9.25
.82	1.59	1.86	1.91	2.10	2.22	1.89	2.49	2.58	2.76	2.96	3.11	3.25	3.45	3.55	3.45	4.05	4.25	Earnings per sh A	5.00
.73	.78	.83	.95	1.03	1.10	1.32	1.47	1.57	1.67	1.78	1.90	2.02	2.14	2.27	2.41	2.56	2.72	Div'd Decl'd per sh B	3.20
5.49	7.14	8.06	5.17	5.41	6.08	4.69	4.62	5.06	5.44	6.24	7.41	7.96	8.83	8.58	10.25	10.20	10.10	Cap'l Spending per sh	8.50
18.14	18.65	19.38	20.37	21.60	22.65	29.41	30.49	31.47	32.64	33.80	34.99	36.25	38.29	41.01	42.20	44.05	46.00	Book Value per sh C	52.25
154.23	156.22	155.83	175.62	176.45	177.16	314.05	315.27	316.98	317.19	316.89	316.89	316.89	329.88	342.95	344.30	347.00	351.00	Common Shs Outst'g D	360.00
27.1	18.7	13.7	12.0	13.4	15.4	19.9	16.9	17.9	18.1	18.7	19.5	18.7	22.1	24.3	24.8	24.8	24.8	Avg Ann'l P/E Ratio	19.5
1.46	.99	.82	.80	.85	.97	1.27	.95	.94	.91	.98	.98	1.01	1.18	1.25	1.35	1.35	1.35	Relative P/E Ratio	1.10
3.3%	2.6%	3.2%	4.2%	3.6%	3.2%	3.5%	3.5%	3.4%	3.3%	3.2%	3.1%	3.3%	2.8%	2.6%	2.8%	2.8%	2.8%	Avg Ann'l Div'd Yield	3.3%
CAPITAL STRUCTURE as of 9/30/21				6273.8	7301.2	7741.9	7954.8	7639.1	7752.0	8448.2	8526.5	8904.4	9800	10000	10350	Revenues (\$mill)	11650		
Total Debt \$19427 mill. Due in 5 Yrs \$7090.6 mill.				533.0	793.7	827.1	886.0	949.8	995.5	1040.5	1121.0	1212.7	1195	1405	1485	Net Profit (\$mill)	1800		
LT Debt \$17874 mill. LT Interest \$619.8 mill.				34.0%	35.0%	36.2%	37.9%	36.9%	36.8%	21.7%	19.7%	22.2%	24.5%	20.0%	20.0%	Income Tax Rate	20.0%		
(LT interest earned: 3.7x)				2.3%	1.4%	2.4%	2.9%	3.9%	4.7%	6.1%	6.3%	5.4%	5.0%	5.0%	4.0%	AFUDC % to Net Profit	4.0%		
Leases, Uncapitalized Annual rentals \$11.4 mill.				43.7%	44.3%	45.9%	45.6%	44.8%	51.2%	52.4%	52.8%	52.4%	55.0%	55.5%	55.5%	Long-Term Debt Ratio	57.0%		
Pension Assets-12/20 \$5409.2 mill.				55.4%	54.8%	53.2%	53.6%	54.4%	48.2%	46.9%	46.6%	47.1%	44.5%	44.0%	44.0%	Common Equity Ratio	42.5%		
Obliq \$7045.3 mill.				16675	17544	18738	19313	19697	23018	24474	27097	29842	32700	34675	36825	Total Capital (\$mill)	44000		
Pfd Stock \$155.6 mill. Pfd Div'd \$7.6 mill.				16605	17576	18647	19892	21351	23617	25610	27585	30883	33400	35875	38300	Net Plant (\$mill)	43900		
Incl. 2,324,000 shs \$1.90-\$3.28 rates (\$50 par) not subject to mandatory redemption, call. at \$50.50-\$54.00; 430,000 shs 4.25%-4.78% not subject to mandatory redemption, call. at \$102.80-\$103.63.				4.2%	5.5%	5.3%	5.5%	5.8%	5.2%	5.2%	5.1%	5.0%	5.0%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.0%	
Common Stock 343,805,812 shs. as of 10/31/21				5.7%	8.1%	8.2%	8.4%	8.7%	8.9%	8.9%	8.8%	8.5%	8.5%	9.0%	9.0%	9.0%	Return on Shr. Equity	9.5%	
MARKET CAP: \$31 billion (Large Cap)				5.7%	8.2%	8.2%	8.5%	8.8%	8.9%	9.0%	8.8%	8.6%	8.5%	9.0%	9.0%	9.0%	Return on Com Equity E	9.5%	
ELECTRIC OPERATING STATISTICS				1.6%	3.4%	3.5%	3.4%	3.5%	3.5%	3.4%	3.6%	3.3%	2.5%	3.5%	3.5%	3.5%	Retained to Com Eq	3.5%	
				72%	59%	58%	61%	60%	61%	62%	60%	62%	70%	64%	64%	All Div's to Net Prof	64%		
% Change Retail Sales (KWH) +2.2 2018 -3.3 2020 Avg. Indust. Use (MWH) NA NA NA Avg. Indust. Revs. per KWH (c) NA NA NA Capacity at Peak (Mw) NA NA NA Peak Load, Winter (Mw) NA NA NA Annual Load Factor (%) NA NA NA % Change Customers (yr-end) +5 +7 +8				BUSINESS: Eversource Energy (formerly Northeast Utilities) is the parent of utilities with 3.2 mill. electric, 881,000 gas, 216,000 water customers. Supplies power to most of Connecticut and gas to part of Connecticut; supplies power to 3/4 of New Hampshire's population; supplies power to western Massachusetts and parts of eastern MA & gas to central & eastern MA; supplies water to CT, MA, & NH.															
Fixed Charge Cov. (%) 319 319 345 ANNUAL RATES of change (per sh) Revenues -2.0% Past 10 Yrs. 1.5% Past 5 Yrs. 3.0% Est'd '18-'20 "Cash Flow" 2.0% 6.5% 4.5% Earnings 5.5% 5.5% 5.5% Dividends 8.5% 6.5% 6.0% Book Value 6.5% 4.0% 4.5%				Eversource Energy will likely post a significant earnings increase in 2022. The comparison is easy. In 2021, the company took a charge of \$0.07 a share in the first quarter for a service-related penalty in Connecticut (stemming from an outage in August of 2020) and a charge of \$0.17 a share in the third period to reflect bill credits and assistance. In addition, costs associated with the acquisition of a gas utility lowered the bottom line by \$0.05 a share in the first nine months of 2021. Besides the absence of these costs, Eversource should continue to benefit from investments in its electric transmission system. The utility will have a full year's benefit from a gas rate hike in Massachusetts that took effect on November 1, 2021 and a partial year of an increase taking effect on November 1, 2022. All told, we figure profits will exceed \$4.00 a share.															
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 2415 1884 2175 2050 8526.5 2020 2373 1953 2343 2233 8904.4 2021 2826 2122 2461 2391 9800 2022 2850 2200 2550 2400 10000 2023 2950 2250 2650 2500 10350				The board of trustees will probably increase the dividend soon. This is the usual timing of the board's announcement. We estimate an increase of \$0.15 a share (6.2%) annually. Eversource's target for yearly dividend growth is 5%-7%, the same as for profit growth.															
EARNINGS PER SHARE A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2019 .97 .74 .98 .76 3.45 2020 1.01 .75 1.01 .78 3.55 2021 1.06 .77 .82 .80 3.45 2022 1.17 .87 1.08 .93 4.05 2023 1.25 .90 1.13 .97 4.25				Eversource has several significant projects in various stages of development. Most notably, the company is planning to add 1,758 megawatts of offshore wind through a joint venture with Orsted, a European company, by 2025. This is expected to enhance its annual earnings growth rate, but also entails construction risk. The company also wants to add advanced meters in Connecticut at an expected cost of \$475 million and in Massachusetts at an expected cost of \$575 million. NSTAR Gas and Yankee Gas are replacing old gas mains. All of this will result in debt and equity financing.															
QUARTERLY DIVIDENDS PAID B Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .505 .505 .505 .505 2.02 2019 .535 .535 .535 .535 2.14 2020 .5675 .5675 .5675 .5675 2.27 2021 .6025 .6025 .6025 .6025 2.41				This high-quality stock's dividend yield is below the mean for the electric utility industry. Total return potential does not stand out for the next 18 months or the 3- to 5-year period.															
Company's Financial Strength A Stock's Price Stability 85 Price Growth Persistence 65 Earnings Predictability 100				Paul E. Debbas, CFA February 11, 2022															
(A) Diluted EPS. Excl. nonrecurring gain (losses): '08, (19c); '10, 9c; '19, (64c). Next earnings report due late Feb. (B) Div's historically paid late Mar., June, Sept., & Dec. (C) Reinvestment plan avail. (D) Incl. deferred charges. In '20: \$9939.3 mill., \$28.98/sh. (E) Rate allowed on com. eq. in MA: (elec.) '18, 10.0%; (gas) '20, 9.7%-9.9%; in CT: (elec.) '18, 9.25%; (gas) '18, 9.3%; in NH: '21, 9.3%; earned on avg. com. eq., '20: 9.0%. Regulatory Climate: CT, Below Average; NH, Average; MA, Above Average.				© 2022 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.															

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IDACORP, INC. NYSE-IDA										RECENT PRICE 112.66	P/E RATIO 23.3 (Trailing: 22.8 Median: 17.0)	RELATIVE P/E RATIO 1.22	DIV'D YLD 2.7%	VALUE LINE
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2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	© VALUE LINE PUB. LLC 24-26		
20.15	21.23	19.51	20.47	21.92	20.97	20.55	21.55	24.81	25.51	25.23	25.04	26.76	27.19	26.70	26.77	28.95	29.75	Revenues per sh	32.75	
3.87	4.58	4.11	4.27	5.07	5.35	5.84	5.93	6.29	6.58	6.70	6.86	7.50	7.85	8.07	8.19	8.50	8.80	"Cash Flow" per sh	10.00	
1.75	2.35	1.86	2.18	2.64	2.95	3.36	3.37	3.64	3.85	3.87	3.94	4.21	4.49	4.61	4.69	4.90	5.10	Earnings per sh A	5.75	
1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.37	1.57	1.76	1.92	2.08	2.24	2.40	2.56	2.72	2.88	3.05	Div'd Decl'd per sh B + †	3.70	
4.53	5.16	6.39	5.19	5.26	6.85	6.76	4.78	4.68	5.45	5.84	5.89	5.66	5.51	5.53	6.16	7.25	7.70	Cap'l Spending per sh	10.00	
24.04	25.77	26.79	27.76	29.17	31.01	33.19	35.07	36.84	38.85	40.88	42.74	44.65	47.01	48.88	50.73	52.80	54.85	Book Value per sh C	61.25	
42.66	43.63	45.06	46.92	47.90	49.41	49.95	50.16	50.23	50.27	50.34	50.40	50.42	50.42	50.42	50.42	50.46	50.45	50.45	Common Shs Outst'g D	50.45
16.7	15.1	18.2	13.9	10.2	11.8	11.5	12.4	13.4	14.7	16.2	19.1	20.6	20.5	22.3	19.9	20.6	20.6	Avg Ann'l P/E Ratio	19.0	
.89	.82	.97	.84	.68	.75	.72	.79	.75	.77	.82	1.00	1.04	1.11	1.19	1.02	1.10	1.10	Relative P/E Ratio	1.05	
4.1%	3.4%	3.5%	4.0%	4.5%	3.4%	3.1%	3.3%	3.2%	3.1%	3.1%	2.8%	2.6%	2.6%	2.5%	2.9%	2.9%	2.9%	Avg Ann'l Div'd Yield	3.4%	

CAPITAL STRUCTURE as of 9/30/21		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Debt \$2000.6 mill. Due in 5 Yrs \$144.7 mill.		1026.8	1080.7	1246.2	1282.5	1270.3	1262.0	1349.5	1370.8	1346.4	1350.7	1460	1500	Revenues (\$mill)	1650				
LT Debt \$2000.6 mill. LT Interest \$83.4 mill.		166.9	168.9	182.4	193.5	194.7	198.3	212.4	226.8	232.9	237.4	250	255	Net Profit (\$mill)	290				
(LT interest earned: 3.9x)		--	13.4%	28.3%	8.0%	19.0%	15.5%	18.6%	7.1%	9.5%	10.8%	10.5%	10.5%	Income Tax Rate	10.5%				
Pension Assets-12/20 \$871.6 mill.		23.3%	20.3%	12.3%	13.6%	16.3%	16.3%	13.9%	15.2%	16.2%	17.3%	17.0%	17.0%	AFUDC % to Net Profit	17.0%				
Oblig \$1337.4 mill.		45.6%	45.5%	46.6%	45.3%	45.6%	44.8%	43.7%	43.6%	41.3%	43.9%	44.5%	44.5%	Long-Term Debt Ratio	49.0%				
Pfd Stock None		54.4%	54.5%	53.4%	54.7%	54.4%	55.2%	56.3%	56.4%	58.7%	56.1%	55.5%	55.5%	Common Equity Ratio	51.0%				
Common Stock 50,516,479 shs. as of 10/22/21		3045.2	3225.4	3465.9	3567.6	3783.3	3898.5	3997.5	4205.1	4201.3	4560.4	4815	4990	Total Capital (\$mill)	6025				
MARKET CAP: \$5.7 billion (Large Cap)		3406.6	3536.0	3665.0	3833.5	3992.4	4172.0	4283.9	4395.7	4531.5	4709.5	4895	5095	Net Plant (\$mill)	6000				
ELECTRIC OPERATING STATISTICS		6.8%	6.5%	6.4%	6.6%	6.2%	6.1%	6.3%	6.4%	6.5%	6.1%	6.0%	6.0%	Return on Total Cap'l	6.0%				
2018 2019 2020		10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.5%	9.5%	Return on Shr. Equity	9.5%				
% Change Retail Sales (KWH)		10.1%	9.6%	9.9%	9.9%	9.5%	9.2%	9.4%	9.6%	9.4%	9.3%	9.5%	9.5%	Return on Com Equity E	9.5%				
Avg. Indust. Use (MWH)		6.5%	5.7%	5.6%	5.4%	4.8%	4.3%	4.4%	4.4%	4.2%	3.9%	4.0%	3.5%	Retained to Com Eq	3.5%				
Avg. Indust. Revs. per KWH (c)		36%	41%	43%	46%	50%	53%	53%	54%	54%	58%	59%	60%	All Div's to Net Prof	64%				
Capacity at Peak (Mw)		<p>BUSINESS: IDACORP, Inc. is a holding company for Idaho Power Company, a regulated electric utility that serves 583,000 customers throughout a 24,000-square-mile area in southern Idaho and eastern Oregon (population: 1.2 million). Most of the company's revenues are derived from the Idaho portion of its service area. Revenue breakdown: residential, 42%; commercial, 22%; industrial, 14%; irrigation, 12%; other, 10%. Generating sources: hydro, 39%; coal, 21%; gas, 12%; purchased, 28%. Fuel costs: 32% of revenues. '20 reported depreciation rate: 2.9%. Has 1,900 employees. Chairman: Richard J. Dahl. President & CEO: Lisa Grow. Incorporated: Idaho. Address: 1221 W. Idaho St., Boise, Idaho 83702. Telephone: 208-388-2200. Internet: www.idacorpinc.com.</p>																	

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	310.1	340.0	408.8	311.9	1370.8
2019	350.3	316.9	386.3	292.9	1346.4
2020	291.0	318.8	425.3	315.6	1350.7
2021	316.1	360.1	446.9	336.9	1460
2022	330	355	465	350	1500

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.72	1.23	2.02	.52	4.49
2019	.84	1.05	1.78	.93	4.61
2020	.74	1.19	2.02	.74	4.69
2021	.89	1.38	1.93	.70	4.90
2022	.95	1.25	2.10	.80	5.10

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2018	.59	.59	.59	.63	2.40
2019	.63	.63	.63	.67	2.56
2020	.67	.67	.67	.71	2.72
2021	.71	.71	.71	.75	2.88
2022					

(A) Diluted EPS. Excl. nonrecurring gain (loss): '05, (24c); '06, 17c. '19 earnings don't sum due to rounding. Next earnings report due mid-February. (B) Dividends historically paid in late Feb., May, Aug., and Nov. (C) Dividend reinvestment plan available. (D) Shareholder investment plan available. (E) Rate base: Net original cost. Rate allowed on common equity in '12: 10% (imputed); earned on avg. com. eq., '20: 9.5%. Regulatory Climate: Above Average.

The utility's integrated resource plan (IRP) is indicative of its accelerating growth in demand. Filed in late 2021, the IRP projects 2.6% annual growth in retail kilowatt-hour sales over the next five years. The previous IRP, filed two years earlier, projected 1.3% yearly growth. Idaho Power has put out a request for proposals seeking 80 mw of dispatchable capacity by mid-2023 in order to meet its expected peak demand. If the company winds up building this capacity, the utility might have to file a rate case. This has not occurred since 2011 because Idaho Power has been earning its allowed return on equity.

This high-quality but untimely stock has a lofty valuation for a utility. This reflects the market's view of IDACORP's consistency, financial health (Financial Strength rating: A+), and solid dividend growth prospects. The dividend yield is nearly a percentage point below the utility average. The equity does not stand out for the next 18 months. The recent quotation is well within our 3- to 5-year Target Price Range, so total return potential is low.

Paul E. Debbas, CFA January 21, 2022

Company's Financial Strength	A+
Stock's Price Stability	100
Price Growth Persistence	70
Earnings Predictability	100

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NORTHWESTERN NDQ-NWE				RECENT PRICE	P/E RATIO	TRAILING (15.4)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE											
				57.09	17.1	(Trailing: 15.4)	0.90	4.4%												
TIMELINESS 5 Lowered 12/24/21	High: 30.6	36.6	38.0	47.2	58.7	59.7	63.8	64.5	65.7	76.7	80.5	70.8	Target Price Range							
SAFETY 2 Raised 7/27/18	Low: 23.8	27.4	33.0	35.1	42.6	48.4	52.2	55.7	50.0	57.3	45.1	53.2	2024	2025	2026					
TECHNICAL 4 Raised 1/14/22	LEGENDS																			
BETA .95 (1.00 = Market)	0.61 x Dividends p sh divided by Interest Rate																			
	Relative Price Strength																			
	Options: Yes																			
	Shaded area indicates recession																			
18-Month Target Price Range																				
Low-High Midpoint (% to Mid)																				
\$48-\$79 \$64 (10%)																				
2024-26 PROJECTIONS																				
High	Price	Gain	Ann'l Total																	
Low	75	(+30%)	Return																	
	55	(-5%)	17%																	
			4%																	
Institutional Decisions																				
to Buy	102021	202021	302021																	
to Sell	114	118	121																	
Hid's(000)	47776	47852	49375																	
			Percent																	
			shares																	
			traded																	
			30																	
			20																	
			10																	
				© VALUE LINE PUB. LLC 24-26																
2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Revenues per sh		24.25
32.57	31.49	30.79	35.09	31.72	30.66	30.80	28.76	29.80	25.68	25.21	26.01	26.45	23.81	24.93	23.70	24.75	22.50	"Cash Flow" per sh		7.50
4.00	3.62	3.70	4.40	4.62	4.76	5.42	5.18	5.45	5.39	5.92	6.74	6.76	6.96	7.07	6.72	7.05	6.55	Earnings per sh A		3.75
1.71	1.31	1.44	1.77	2.02	2.14	2.53	2.26	2.46	2.99	2.90	3.39	3.34	3.40	3.53	3.06	3.65	3.35	Div'd Decl'd per sh B = †		2.65
1.00	1.24	1.28	1.32	1.34	1.36	1.44	1.48	1.52	1.60	1.92	2.00	2.10	2.20	2.30	2.40	2.48	2.52	Cap'l Spending per sh		6.75
2.26	2.81	3.00	3.47	5.26	6.30	5.20	5.89	5.95	5.76	5.89	5.96	5.60	5.64	6.26	8.02	8.70	9.70	Book Value per sh C		48.00
20.60	20.65	21.12	21.25	21.86	22.64	23.68	25.09	26.60	31.50	33.22	34.68	36.44	38.60	40.42	41.10	42.95	44.80	Common Shs Outst'g D		62.00
35.79	35.97	38.97	35.93	36.00	36.23	36.28	37.22	38.75	46.91	48.17	48.33	49.37	50.32	50.45	50.59	54.50	60.00	Avg Ann'l P/E Ratio		17.5
17.1	26.0	21.7	13.9	11.5	12.9	12.6	15.7	16.9	16.2	18.4	17.2	17.8	16.8	19.9	19.5	16.7		Relative P/E Ratio		.95
.91	1.40	1.15	.84	.77	.82	.79	1.00	.95	.85	.93	.90	.90	.91	1.06	1.00	.90		Avg Ann'l Div'd Yield		4.0%
3.4%	3.6%	4.1%	5.4%	5.7%	4.9%	4.5%	4.2%	3.7%	3.3%	3.6%	3.4%	3.5%	3.9%	3.3%	4.0%	4.1%				
CAPITAL STRUCTURE as of 9/30/21																				
Total Debt \$2519.5 mill. Due in 5 Yrs \$782.2 mill.																				
LT Debt \$2516.7 mill. LT Interest \$87.8 mill.																				
Incl. \$13.4 mill. finance leases.																				
(LT interest earned: 3.0x)																				
				1117.3	1070.3	1154.5	1204.9	1214.3	1257.2	1305.7	1198.1	1257.9	1198.7	1350	1350	Revenues (\$mill)		1500		
				92.6	83.7	94.0	120.7	138.4	164.2	171.1	179.3	155.2	195	190	Net Profit (\$mill)		230			
				9.8%	9.6%	13.2%	--	13.7%	--	7.6%	--	1.6%	--	5.0%	Income Tax Rate		12.0%			
				3.3%	9.4%	8.7%	8.9%	9.8%	4.3%	5.2%	3.4%	4.6%	6.3%	7.0%	13.0%	AFUDC % to Net Profit		4.0%		
				52.2%	53.8%	53.5%	53.4%	53.1%	52.0%	50.2%	52.2%	52.5%	52.8%	50.5%	47.5%	Long-Term Debt Ratio		47.0%		
				47.8%	46.2%	46.5%	46.6%	46.9%	48.0%	49.8%	47.8%	47.5%	47.2%	49.5%	52.5%	Common Equity Ratio		53.0%		
Pension Assets-12/20 \$688.5 mill.																				
Oblig \$821.0 mill.																				
Pfd Stock None																				
				1797.1	2020.7	2215.7	3168.0	3408.6	3493.9	3614.5	4064.6	4289.8	4409.1	4745	5145	Total Capital (\$mill)		5625		
				2213.3	2435.6	2690.1	3758.0	4059.5	4214.9	4358.3	4521.3	4700.9	4952.9	5235	5615	Net Plant (\$mill)		6400		
				7.0%	5.5%	5.5%	4.8%	5.2%	5.9%	5.6%	5.2%	5.2%	4.5%	5.0%	4.5%	Return on Total Cap'l		5.0%		
Common Stock 52,653,671 shs. as of 10/22/21																				
				10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.5%	8.0%	7.0%	Return on Shr. Equity		7.5%		
				10.8%	9.0%	9.1%	8.2%	8.6%	9.8%	9.0%	8.8%	8.8%	7.5%	8.0%	7.0%	Return on Com Equity E		7.5%		
				4.7%	3.2%	3.5%	3.8%	3.0%	4.1%	3.4%	3.2%	3.1%	1.7%	2.5%	1.5%	Retained to Com Eq		2.0%		
				56%	65%	61%	54%	65%	58%	62%	64%		68%	75%	All Div's to Net Prof		71%			
MARKET CAP: \$3.0 billion (Mid Cap)																				
ELECTRIC OPERATING STATISTICS																				
				2018	2019	2020														
% Change Retail Sales (KWH)				+2.9	+4.6	-4.4														
Avg. Indust. Use (MWH)				34573	37808	33526														
Avg. Indust. Revs. per KWH (c)				NA	NA	NA														
Capacity at Peak (Mw)				NA	NA	NA														
Peak Load, Winter (Mw)				2173	2237	NA														
Annual Load Factor (%)				NA	NA	NA														
% Change Customers (yr-end)				+1.2	+1.2	+1.2														
BUSINESS: NorthWestern Corporation (doing business as NorthWestern Energy) supplies electricity & gas in the Upper Midwest and Northwest, serving 449,000 electric customers in Montana and South Dakota and 294,000 gas customers in Montana (85% of gross margin), South Dakota (14%), and Nebraska (1%). Electric revenue breakdown: residential, 39%; commercial, 47%; industrial, 4%; other, 10%. Generating sources: hydro, 33%; coal, 22%; wind, 7%; other, 3%; purchased, 35%. Fuel costs: 25% of revenues. 20 reported deprec. rate: 2.8%. Has 1,500 employees. Chairman: Dana J. Dykhouse. CEO: Robert C. Rowe. President & COO: Brian B. Bird. Inc.: DE. Address: 3010 West 69th Street, Sioux Falls, SD 57108. Tel.: 605-978-2900. Internet: www.northwesternenergy.com.																				
NorthWestern's share earnings will probably decline in 2022. The main reason is the equity issuances the company made in 2021 and expects to make in 2022. NorthWestern issued \$200 million last year, and has effected a forward sale for an additional \$300 million that management expects to settle this year. This is being done to finance the company's capital budget and strengthen its balance sheet. The dilutive effect of the additional shares is expected to reduce share net by about \$0.25 in 2022. In our October report, we had not anticipated an equity issuance in 2022. Thus, we have reduced our share-net estimate from \$3.75 to \$3.35. Our revised estimate is within NorthWestern's preliminary guidance of \$3.20-\$3.40. The reduced earnings expectation will affect dividend growth in 2022. NorthWestern's target for the payout ratio is 60%-70%. However, the payout ratio will be above this range this year, based on the company's guidance. Management suggested that the disbursement will be raised to \$2.50-\$2.54 a share annually. We estimate an increase to \$2.52 a share (1.6%). NorthWestern's long-term goal is																				
				for annual dividend growth in line with annual profit growth of 3%-6%.																
				NorthWestern is planning to file an electric rate case in Montana. The utility is underearning its allowed return on equity. Any rate relief won't come in time to help boost the company's earning power until 2023, however.																
				The company is adding generating capacity. A 60 megawatt gas-fired facility in South Dakota is expected to begin commercial operation soon at a cost of \$80 million. NorthWestern also plans to add 175 mw of gas-fired generation in Montana by late 2023 at a cost of \$275 million. Note that the utility has not obtained a certificate of need from the state commission because this would have delayed the start of construction and raised the cost of the project.																
				The price of this timely stock fell slightly in 2021. We think this is due to the probable earnings decline in 2022 and the deceleration of earnings growth. The dividend yield is about one percentage point above the utility average. Total return potential to 2024-2026 is respectable. <i>Paul E. Debbas, CFA January 21, 2022</i>																
ANNUAL RATES																				
				Past 10 Yrs.	Past 5 Yrs.	Est'd '18-'20														
of change (per sh)				-3.0%	-2.0%	Nil														
Revenues				4.0%	4.5%	1.5%														
"Cash Flow"				5.5%	3.5%	2.0%														
Earnings				5.5%	6.5%	2.5%														
Dividends				6.0%	5.5%	3.0%														
Book Value																				
QUARTERLY REVENUES (\$ mill.)																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	341.5	261.8	279.9	314.9	1198.1															
2019	384.2	270.7	274.8	328.2	1257.9															
2020	335.3	269.4	280.6	313.4	1198.7															
2021	400.8	298.2	326.0	325	1350															
2022	390	300	325	335	1350															
EARNINGS PER SHARE A																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	1.18	.61	.56	1.06	3.40															
2019	1.44	.49	.42	1.18	3.53															
2020	1.00	.43	.58	1.06	3.06															
2021	1.24	.72	.68	1.01	3.65															
2022	1.15	.50	.60	1.10	3.35															
QUARTERLY DIVIDENDS PAID B = †																				
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year															
2018	.55	.55	.55	.55	2.20															
2019	.575	.575	.575	.575	2.30															
2020	.60	.60	.60	.60	2.40															
2021	.62	.62	.62	.62	2.48															
2022																				
Company's Financial Strength																				
Stock's Price Stability				B++																
Price Growth Persistence				90																
Earnings Predictability				45																
				90																
To subscribe call 1-800-VALUELINE																				

(A) Diluted EPS. Excl. gain (loss) on disc. ops. '05, ('06); '06, '16; nonrec. gains: '12, '39c net; '15, '27c; '18, '52c; '19, '45c; '18, '20 EPS don't sum due to rounding. Next earnings report due early Feb. (B) Div'ds historically paid in late Mar., June, Sept. & Dec. '15 Div'd reinvest. plan avail. (C) Incl. def'd charges. In '20: \$20.93/sh. (D) In mill. (E) Rate base: Net orig. cost. Rate allowed on com. eq. in MT in '19 (elec.): 9.65%; in '17 (gas): 9.55%; in SD in '15: none spec.; in NE in '07: 10.4%; earned on avg. com. eq., '20: 7.5%. Reg. Climate: Below Avg.

OGE ENERGY CORP. NYSE-OGE				RECENT PRICE	37.55	P/E RATIO	15.2 (Trailing: 16.0 Median: 17.0)	RELATIVE P/E RATIO	0.85	DIV'D YLD	4.4%	VALUE LINE																																																																																																																																																																																																																												
TIMELINESS 4 Lowered 12/17/21	High: 28.6	30.1	40.0	39.3	36.5	34.2	37.4	41.8	45.8	46.4	38.6	38.5	Target Price Range 2025 2026 2027																																																																																																																																																																																																																											
SAFETY 2 Lowered 12/18/15	Low: 20.3	25.1	27.7	32.8	24.2	23.4	32.6	29.6	38.0	23.0	29.2	35.2																																																																																																																																																																																																																												
TECHNICAL 2 Lowered 3/11/22	LEGENDS 0.56 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 7/13 Options: Yes Shaded area indicates recession																																																																																																																																																																																																																																							
BETA 1.05 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$27-\$43 \$35 (-5%)																																																																																																																																																																																																																																							
2025-27 PROJECTIONS <table border="1"> <thead> <tr> <th>High</th> <th>Price</th> <th>Gain</th> <th>Ann'l Total</th> </tr> <tr> <th>Low</th> <th>55</th> <th>(+45%)</th> <th>13%</th> </tr> <tr> <th>40</th> <th>40</th> <th>(+5%)</th> <th>6%</th> </tr> </thead> </table>													High	Price	Gain	Ann'l Total	Low	55	(+45%)	13%	40	40	(+5%)	6%																																																																																																																																																																																																																
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<table border="1"> <thead> <tr> <th>2006</th> <th>2007</th> <th>2008</th> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> <th>2020</th> <th>2021</th> <th>2022</th> <th>2023</th> <th>© VALUE LINE PUB. LLC</th> <th>25-27</th> </tr> </thead> <tbody> <tr> <td>21.96</td> <td>20.68</td> <td>21.77</td> <td>14.79</td> <td>19.04</td> <td>19.96</td> <td>18.58</td> <td>14.45</td> <td>12.30</td> <td>11.00</td> <td>11.31</td> <td>11.32</td> <td>11.37</td> <td>11.15</td> <td>10.61</td> <td>18.26</td> <td>14.00</td> <td>15.00</td> <td>Revenues per sh</td> <td>18.25</td> </tr> <tr> <td>2.23</td> <td>2.39</td> <td>2.40</td> <td>2.69</td> <td>3.01</td> <td>3.31</td> <td>3.69</td> <td>3.46</td> <td>3.40</td> <td>3.23</td> <td>3.31</td> <td>3.34</td> <td>3.74</td> <td>4.02</td> <td>4.03</td> <td>4.44</td> <td>4.70</td> <td>4.95</td> <td>"Cash Flow" per sh</td> <td>6.25</td> </tr> <tr> <td>1.23</td> <td>1.32</td> <td>1.25</td> <td>1.33</td> <td>1.50</td> <td>1.73</td> <td>1.79</td> <td>1.94</td> <td>1.98</td> <td>1.69</td> <td>1.69</td> <td>1.92</td> <td>2.12</td> <td>2.24</td> <td>2.08</td> <td>2.36</td> <td>2.50</td> <td>2.65</td> <td>Earnings per sh ^A</td> <td>3.25</td> </tr> <tr> <td>.67</td> <td>.68</td> <td>.70</td> <td>.71</td> <td>.73</td> <td>.76</td> <td>.80</td> <td>.85</td> <td>.95</td> <td>1.05</td> <td>1.16</td> <td>1.27</td> <td>1.40</td> <td>1.51</td> <td>1.58</td> <td>1.63</td> <td>1.66</td> <td>1.70</td> <td>Div'd Decl'd per sh ^B</td> <td>1.85</td> </tr> <tr> <td>2.67</td> <td>3.04</td> <td>4.01</td> <td>4.37</td> <td>4.36</td> <td>6.48</td> <td>5.85</td> <td>4.99</td> <td>2.86</td> <td>2.74</td> <td>3.31</td> <td>4.13</td> <td>2.87</td> <td>3.18</td> <td>3.25</td> <td>3.89</td> <td>4.75</td> <td>4.75</td> <td>Cap'l Spending per sh</td> <td>4.75</td> </tr> <tr> <td>8.79</td> <td>9.16</td> <td>10.14</td> <td>10.52</td> <td>11.73</td> <td>13.06</td> <td>14.00</td> <td>15.30</td> <td>16.27</td> <td>16.66</td> <td>17.24</td> <td>19.28</td> <td>20.06</td> <td>20.69</td> <td>18.15</td> <td>20.27</td> <td>21.10</td> <td>22.05</td> <td>Book Value per sh ^C</td> <td>25.75</td> </tr> <tr> <td>182.40</td> <td>183.60</td> <td>187.00</td> <td>194.00</td> <td>195.20</td> <td>196.20</td> <td>197.60</td> <td>198.50</td> <td>199.40</td> <td>199.70</td> <td>199.70</td> <td>199.70</td> <td>199.70</td> <td>200.10</td> <td>200.10</td> <td>200.10</td> <td>200.10</td> <td>200.10</td> <td>Common Shs Outst'g ^D</td> <td>200.10</td> </tr> <tr> <td>13.7</td> <td>13.8</td> <td>12.4</td> <td>10.8</td> <td>13.3</td> <td>14.4</td> <td>15.2</td> <td>17.7</td> <td>18.3</td> <td>17.7</td> <td>17.7</td> <td>18.3</td> <td>16.5</td> <td>19.0</td> <td>16.2</td> <td>14.3</td> <td>Bold figures are Value Line estimates</td> <td></td> <td>Avg Ann'l P/E Ratio</td> <td>14.0</td> </tr> <tr> <td>.74</td> <td>.73</td> <td>.75</td> <td>.72</td> <td>.85</td> <td>.90</td> <td>.97</td> <td>.99</td> <td>.96</td> <td>.89</td> <td>.93</td> <td>.92</td> <td>.89</td> <td>1.01</td> <td>.83</td> <td>.76</td> <td></td> <td></td> <td>Relative P/E Ratio</td> <td>.80</td> </tr> <tr> <td>4.0%</td> <td>3.8%</td> <td>4.5%</td> <td>5.0%</td> <td>3.7%</td> <td>3.1%</td> <td>2.9%</td> <td>2.5%</td> <td>2.6%</td> <td>3.5%</td> <td>3.9%</td> <td>3.6%</td> <td>4.0%</td> <td>3.5%</td> <td>4.7%</td> <td>4.8%</td> <td></td> <td></td> <td>Avg Ann'l Div'd Yield</td> <td>4.0%</td> </tr> </tbody> </table>													2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	© VALUE LINE PUB. LLC	25-27	21.96	20.68	21.77	14.79	19.04	19.96	18.58	14.45	12.30	11.00	11.31	11.32	11.37	11.15	10.61	18.26	14.00	15.00	Revenues per sh	18.25	2.23	2.39	2.40	2.69	3.01	3.31	3.69	3.46	3.40	3.23	3.31	3.34	3.74	4.02	4.03	4.44	4.70	4.95	"Cash Flow" per sh	6.25	1.23	1.32	1.25	1.33	1.50	1.73	1.79	1.94	1.98	1.69	1.69	1.92	2.12	2.24	2.08	2.36	2.50	2.65	Earnings per sh ^A	3.25	.67	.68	.70	.71	.73	.76	.80	.85	.95	1.05	1.16	1.27	1.40	1.51	1.58	1.63	1.66	1.70	Div'd Decl'd per sh ^B	1.85	2.67	3.04	4.01	4.37	4.36	6.48	5.85	4.99	2.86	2.74	3.31	4.13	2.87	3.18	3.25	3.89	4.75	4.75	Cap'l Spending per sh	4.75	8.79	9.16	10.14	10.52	11.73	13.06	14.00	15.30	16.27	16.66	17.24	19.28	20.06	20.69	18.15	20.27	21.10	22.05	Book Value per sh ^C	25.75	182.40	183.60	187.00	194.00	195.20	196.20	197.60	198.50	199.40	199.70	199.70	199.70	199.70	200.10	200.10	200.10	200.10	200.10	Common Shs Outst'g ^D	200.10	13.7	13.8	12.4	10.8	13.3	14.4	15.2	17.7	18.3	17.7	17.7	18.3	16.5	19.0	16.2	14.3	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	14.0	.74	.73	.75	.72	.85	.90	.97	.99	.96	.89	.93	.92	.89	1.01	.83	.76			Relative P/E Ratio	.80	4.0%	3.8%	4.5%	5.0%	3.7%	3.1%	2.9%	2.5%	2.6%	3.5%	3.9%	3.6%	4.0%	3.5%	4.7%	4.8%			Avg Ann'l Div'd Yield	4.0%
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CAPITAL STRUCTURE as of 12/31/21 Total Debt \$4983.3 mill. Due in 5 Yrs \$1486.9 mill. LT Debt \$4496.4 mill. LT Interest \$158.7 mill. (LT interest earned: 4.4x)													3671.2	2867.7	2453.1	2196.9	2259.2	2261.1	2270.3	2231.6	2122.3	3653.7	2800	3000	Revenues (\$mill)	3650																																																																																																																																																																																																														
Leases, Uncapitalized Annual rentals \$5.7 mill.													355.0	387.6	395.8	337.6	338.2	384.3	425.5	449.6	415.9	472.5	500	530	Net Profit (\$mill)	660																																																																																																																																																																																																														
Pension Assets-12/21 \$486.0 mill. Oblig \$502.9 mill.													26.0%	24.9%	30.4%	29.2%	30.5%	32.5%	14.5%	7.4%	13.2%	11.5%	12.0%	12.0%	Income Tax Rate	12.0%																																																																																																																																																																																																														
Pfd Stock None													2.7%	2.6%	1.7%	3.7%	6.4%	15.0%	8.3%	1.6%	1.6%	2.2%	2.0%	2.0%	AFUDC % to Net Profit	2.0%																																																																																																																																																																																																														
Common Stock 200,201,818 shs. as of 1/31/22													50.7%	43.1%	45.9%	44.3%	41.1%	41.7%	42.0%	43.6%	49.0%	52.6%	47.5%	53.0%	Long-Term Debt Ratio	50.5%																																																																																																																																																																																																														
MARKET CAP: \$7.5 billion (Large Cap)													49.3%	56.9%	54.1%	55.7%	58.9%	58.3%	58.0%	56.4%	51.0%	47.4%	52.5%	47.0%	Common Equity Ratio	49.5%																																																																																																																																																																																																														
ELECTRIC OPERATING STATISTICS													5615.8	5337.2	5999.7	5971.6	5849.6	6600.7	6902.0	7334.7	7126.2	8552.7	8020	9360	Total Capital (\$mill)	10375																																																																																																																																																																																																														
% Change Retail Sales (KWH) +1.1 2020 -4.9 2021 +2.6 Avg. Indust. Use (MWH) NA NA NA Avg. Indust. Revs. per KWH (c) 4.69 4.40 7.68 Capacity at Peak (Mw) NA NA NA Peak Load, Summer (Mw) 6817 6437 NA Annual Load Factor (%) NA NA NA % Change Customers (yr-end) +1.0 +1.1 +1.4													8344.8	6672.8	6979.9	7322.4	7696.2	8339.9	8643.8	9044.6	9374.6	9832.9	10345	10830	Net Plant (\$mill)	12075																																																																																																																																																																																																														
BUSINESS: OGE Energy Corp. is a holding company for Oklahoma Gas and Electric Company (OG&E), which supplies electricity to 879,000 customers in Oklahoma (84% of electric revenues) and western Arkansas (8%); wholesale is (8%). Owns 3% of Energy Transfer's limited partnership units. Electric revenue breakdown: residential, 44%; commercial, 25%; industrial, 11%; oilfield, 10%; other, 10%. Generating sources: gas, 25%; coal, 21%; wind, 6%; purchased, 48%. Fuel costs: 58% of revenues. '21 reported depreciation rate (utility): 2.6%. Has 2,200 employees. Chairman, President and Chief Executive Officer: Sean Trauschke. Incorporated: Oklahoma. Address: 321 North Harvey, P.O. Box 321, Oklahoma City, OK 73101-0321. Tel.: 405-553-3000. Internet: www.oge.com.													7.7%	8.6%	7.8%	6.9%	7.0%	7.0%	7.3%	7.1%	6.9%	6.4%	7.5%	6.5%	Return on Total Cap'l	7.5%																																																																																																																																																																																																														
OG&E reached a settlement calling for a \$4.2 million increase on April 1st under the state's formula rate plan. The utility also requested a five-year extension to this plan, and expects a decision in April.													12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	12.0%	12.0%	Return on Shr. Equity	13.0%																																																																																																																																																																																																														
The utility is seeking to place capital spending from the past three years into the rate base and asking the commission for a performance-based ratemaking plan, similar to what gas utilities have in the state. An order is expected in time for new tariffs to take effect in mid-2022.													12.8%	12.8%	12.2%	10.2%	9.8%	10.0%	10.6%	10.9%	11.5%	11.6%	12.0%	12.0%	Return on Com Equity ^E	13.0%																																																																																																																																																																																																														
A rate matter is pending in Arkansas.													7.2%	7.3%	6.5%	4.0%	3.3%	3.5%	3.8%	3.6%	2.8%	3.6%	4.0%	4.5%	Retained to Com Eq	5.5%																																																																																																																																																																																																														
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PORTLAND GENERAL NYSE-POR				RECENT PRICE	53.17	P/E RATIO	18.9 (Trailing: 20.8 Median: 18.0)	RELATIVE P/E RATIO	0.99	DIV'D YLD	3.4%	VALUE LINE									
TIMELINESS 3 Raised 9/10/21	High: 22.7	26.0	28.1	33.3	40.3	41.0	45.2	50.1	50.4	58.4	63.1	53.1	Target Price Range 2024 2025 2026								
SAFETY 2 Raised 10/22/21	Low: 17.5	21.3	24.3	27.4	29.0	33.0	35.3	42.4	39.0	44.0	32.0	40.8		128							
TECHNICAL 3 Raised 1/7/22	LEGENDS 0.63 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession												96								
BETA .90 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$33-\$60 \$47 (-15%)												80								
2024-26 PROJECTIONS High Price 65 Gain (+20%) Ann'l Total Return 9% Low Price 50 Gain (-5%) Return 2%													64								
Institutional Decisions 10/2021 20/2021 30/2021 to Buy 165 157 142 to Sell 149 142 145 Hid's(000) 82978 81434 82480													48								
2005F 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022													32								
© VALUE LINE PUB. LLC 24-26													24								
23.14	24.32	27.87	27.89	23.99	23.67	24.06	23.89	23.18	24.29	21.38	21.62	22.54	22.30	23.75	23.96	26.75	27.30	Revenues per sh	29.75		
4.75	4.64	5.21	4.71	4.07	4.82	4.96	5.15	4.93	6.08	5.37	5.78	6.16	6.65	6.97	6.80	7.50	7.85	"Cash Flow" per sh	9.00		
1.02	1.14	2.33	1.39	1.31	1.66	1.95	1.87	1.77	2.18	2.04	2.16	2.29	2.37	2.39	1.72	2.75	2.90	Earnings per sh ^A	3.25		
--	.68	.93	.97	1.01	1.04	1.06	1.08	1.10	1.12	1.18	1.26	1.34	1.43	1.52	1.59	1.70	1.80	Div'd Decl'd per sh ^B + †	2.10		
4.08	5.94	7.28	6.12	9.25	5.97	3.98	4.01	8.40	12.87	6.73	6.57	5.77	6.67	6.78	8.76	8.05	7.45	Cap'l Spending per sh	6.25		
19.15	19.58	21.05	21.64	20.50	21.14	22.07	22.87	23.30	24.43	25.43	26.35	27.11	28.07	28.99	29.18	30.20	31.25	Book Value per sh ^C	34.75		
62.50	62.50	62.53	62.58	75.21	75.32	75.36	75.56	78.09	78.23	88.79	88.95	89.11	89.27	89.39	89.54	89.65	89.80	Common Shs Outst'g ^D	90.00		
--	23.4	11.9	16.3	14.4	12.0	12.4	14.0	16.9	15.3	17.7	19.1	20.0	18.4	22.3	26.6	17.5		Avg Ann'l P/E Ratio	17.5		
--	1.26	.63	.98	.96	.76	.78	.89	.95	.81	.89	1.00	1.01	.99	1.19	1.36	.95		Relative P/E Ratio	.95		
--	2.5%	3.3%	4.3%	5.4%	5.2%	4.4%	4.1%	3.7%	3.3%	3.3%	3.1%	2.9%	3.3%	2.8%	3.5%	3.5%		Avg Ann'l Div'd Yield	3.7%		
CAPITAL STRUCTURE as of 9/30/21 Total Debt \$3301 mill. Due in 5 Yrs \$153 mill. LT Debt \$3285 mill. LT Interest \$128 mill. Incl. \$128 mill. finance leases. (LT interest earned: 2.4x) Leases, Uncapitalized Annual rentals \$8 mill. Pension Assets-12/20 \$753 mill. Oblig \$1010 mill. Pfd Stock None				1813.0	1805.0	1810.0	1900.0	1898.0	1923.0	2009.0	1991.0	2123.0	2145.0	2400	2450	2400	2450	2450	2450	Revenues (\$mill)	2675
				147.0	141.0	137.0	175.0	172.0	193.0	204.0	212.0	214.0	155.0	245	260	260	260	260	Net Profit (\$mill)	295	
				28.3%	31.4%	23.2%	26.0%	20.7%	20.6%	25.3%	7.4%	11.2%	--	11.0%	11.0%	11.0%	11.0%	11.0%	Income Tax Rate	11.0%	
				5.4%	7.1%	14.6%	33.7%	19.8%	16.6%	8.8%	8.0%	7.0%	15.5%	8.0%	7.0%	7.0%	7.0%	7.0%	AFUDC % to Net Profit	5.0%	
				49.6%	47.1%	51.3%	52.7%	47.8%	48.4%	50.1%	46.5%	51.3%	53.6%	56.0%	55.5%	55.5%	55.5%	55.5%	Long-Term Debt Ratio	54.5%	
				50.4%	52.9%	48.7%	47.3%	52.2%	51.6%	49.9%	53.5%	48.7%	46.4%	44.0%	44.5%	44.5%	44.5%	44.5%	Common Equity Ratio	45.5%	
				3298.0	3264.0	3735.0	4037.0	4329.0	4544.0	4842.0	4684.0	5323.0	5628.0	6125	6320	6320	6320	6320	Total Capital (\$mill)	6850	
				4285.0	4392.0	4880.0	5679.0	6012.0	6434.0	6741.0	6887.0	7161.0	7539.0	7835	8060	8060	8060	8060	Net Plant (\$mill)	8300	
				6.2%	5.9%	5.1%	5.8%	5.4%	5.6%	5.5%	5.8%	5.1%	4.0%	5.0%	5.0%	5.0%	5.0%	5.0%	Return on Total Cap'l	5.5%	
				8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	5.9%	9.0%	9.0%	9.0%	9.0%	9.0%	Return on Shr. Equity	9.5%	
				8.8%	8.2%	7.5%	9.2%	7.6%	8.2%	8.4%	8.5%	8.3%	5.9%	9.0%	9.0%	9.0%	9.0%	9.0%	Return on Com Equity ^E	9.5%	
				4.1%	3.5%	2.9%	4.6%	3.3%	3.5%	3.6%	3.5%	3.1%	6%	3.5%	3.5%	3.5%	3.5%	Retained to Com Eq	3.5%		
				54%	57%	61%	50%	56%	57%	58%	59%	63%	90%	62%	62%	62%	62%	62%	All Div'ds to Net Prof	64%	
ELECTRIC OPERATING STATISTICS 2018 2019 2020 % Change Retail Sales (KWH) -2.5 +1.2 +4 Avg. Indust. Use (MWH) 16207 17827 18472 Avg. Indust. Revs. per KWH (c) 4.79 4.75 4.99 Capacity at Peak (Mw) 4859 NA NA Peak Load, Summer (Mw) 3816 3765 3771 Annual Load Factor (%) NA NA NA % Change Customers (yr-end) +1.1 +1.1 +1.5				BUSINESS: Portland General Electric Company (PGE) provides electricity to 914,000 customers in 51 cities in a 4,000-square-mile area of Oregon, including Portland and Salem. The company is in the process of decommissioning the Trojan nuclear plant, which it closed in 1993. Electric revenue breakdown: residential, 49%; commercial, 29%; industrial, 10%; other, 12%. Generating sources: gas, 33%; coal, 13%; wind, 9%; hydro, 5%; purchased, 40%. Fuel costs: 33% of revenues. '20 reported depreciation rate: 3.5%. Has 2,900 full-time employees. Chairman: Jack E. Davis. President and Chief Executive Officer: Maria M. Pope. Incorporated: Oregon. Address: 121 S.W. Salmon Street, Portland, Oregon 97204. Telephone: 503-464-8000. Internet: www.portlandgeneral.com.																	
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Past Est'd '18-'20 of change (per sh) 10 Yrs. 5 Yrs. to '24-'20 Revenues -1.0% .5% 4.0% "Cash Flow" 4.0% 4.5% 5.0% Earnings 4.0% 1.5% 7.0% Dividends 4.0% 6.0% 5.5% Book Value 3.0% 3.5% 3.0%				Portland General Electric is awaiting a rate order. The utility is seeking a tariff increase of \$89 million (3.9%). PGE, the Oregon commission's staff, and intervenors have reached a settlement for a 9.5% return on equity and a 50% common-equity ratio, the same as the company had requested. The utility wants to place an integrated operations center in the rate base and recover rising costs for vegetation management, wildfire mitigation, and other items. (The integrated operations center was completed in late 2021 at a cost slightly under the budget of \$200 million.) A ruling is expected in time for new rates to take effect on May 1st.																	
QUARTERLY REVENUES (\$ mill.) Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 493 449 525 524 1991 2019 573 460 542 548 2123 2020 573 469 547 556 2145 2021 609 537 642 612 2400 2022 625 550 650 625 2450				After an earnings recovery in 2021, profits will likely take another step forward in 2022. The comparison was easy last year, as a trading loss hurt the bottom line by \$1.09 a share in the third quarter of 2020. In 2022, PGE should benefit from a partial year of rate relief. Load growth is another positive factor for the utility. Our estimate of \$2.90 a share might even be conservative, given that this is just slightly above the upper end of the company's guidance for 2021 of \$2.70-\$2.85 a share. Management will likely put forth guidance when it issues fourth-quarter results in mid-February.																	
EARNINGS PER SHARE ^A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .72 .51 .59 .55 2.37 2019 .82 .28 .61 .68 2.39 2020 .91 .43 d.19 .57 1.72 2021 1.07 .36 .56 .76 2.75 2022 1.05 .45 .60 .80 2.90				The utility filed an integrated resource plan. This is for up to 1,000 megawatts of capacity, primarily renewable and hydro. Depending upon how much capacity PGE builds, the company might have to issue equity. Otherwise, no equity issuances are expected through mid-decade.																	
QUARTERLY DIVIDENDS PAID ^B + † Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2018 .34 .34 .3625 .3625 1.41 2019 .3625 .3625 .385 .385 1.50 2020 .385 .385 .385 .4075 1.56 2021 .4075 .4075 .43 .43 1.68 2022 .43				PGE has deferred some expenses for future recovery. As of September 30th, the utility had deferred \$148 million for future recovery, mainly for bad-debt expense, system restoration after wildfires, major storms in February of 2021, and excess power costs. How and when these will be recovered are to be determined.																	
Company's Financial Strength B++ Stock's Price Stability 90 Price Growth Persistence 50 Earnings Predictability 85				The stock price soared 24% in 2021. Wall Street is comfortable that the trading problem was a one-time event, and the company's improved prospects (such as accelerating load growth) are appealing to investors. The dividend yield is average for a utility. However, total return potential is negative for the next 18 months and sub-par for the 3- to 5-year period.																	
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SOUTHERN COMPANY NYSE-SO				RECENT PRICE	69.49	P/E RATIO	19.2 (Trailing: 19.6; Median: 16.0)	RELATIVE P/E RATIO	1.08	DIV'D YLD	3.9%	VALUE LINE																																																																																																																																																																																																																												
TIMELINESS 4 Lowered 8/13/21	High: 46.7	48.6	48.7	51.3	53.2	54.6	53.5	49.4	64.3	71.1	68.9	69.8	Target Price Range 2025 2026 2027																																																																																																																																																																																																																											
SAFETY 2 Lowered 2/21/14	Low: 35.7	41.8	40.0	40.3	41.4	46.0	46.7	42.4	43.3	42.0	56.7	65.4																																																																																																																																																																																																																												
TECHNICAL 3 Raised 1/28/22	LEGENDS 0.62 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																																																																																																																																																																																																																																							
BETA .95 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$56-\$78 \$67 (-5%)																																																																																																																																																																																																																																							
2025-27 PROJECTIONS High Price 75 Gain (+10%) Ann'l Total Return 6% Low Price 55 Gain (-20%) Return -1%																																																																																																																																																																																																																																								
Institutional Decisions 10Q2021 2Q2021 3Q2021 to Buy 676 743 676 to Sell 649 580 598 Hld's(000) 627954 629680 633336 Percent shares traded 18 12 6																																																																																																																																																																																																																																								
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BUSINESS: The Southern Company, through its subs., supplies electricity to 4.3 mill. customers in GA, AL, and MS. Also has a competitive generation business. Acq'd AGL Resources (renamed Southern Company Gas, 4.3 mill. customers in GA, NJ, IL, VA, & TN) 7/16. Sold Gulf Power 1/19. Electric rev. breakdown: residential, 37%; commercial, 30%; industrial, 19%; other, 14%. Retail revs. by state: GA, 56%; AL, 38%; MS, 6%. Generating sources: gas, 47%; coal, 20%; nuclear, 15%; other, 9%; purchased, 9%. Fuel costs: 23% of revs. '20 reported depr. rates (util.): 2.6%-3.7%. Has 27,700 empl. Chairman, Pres. and CEO: Thomas A. Fanning, Inc.: DE. Address: 30 Ivan Allen Jr. Blvd., N.W., Atlanta, GA 30308. Tel.: 404-506-0747. Internet: www.southerncompany.com.																																																																																																																																																																																																																																								
Southern Company's Georgia Power subsidiary expects to complete Units 3 and 4 of the Vogtle nuclear station in the third quarter of 2022 and the second quarter of 2023, respectively. The project has had significant delays and cost overruns. In the first nine months of 2021, the company took aftertax charges totaling \$0.54 a share for the estimated loss on construction, which is not recoverable in rates. We excluded these charges from our earnings presentation as nonrecurring. The latest capital cost estimate is \$9.5 billion for Georgia Power's 45.7% share of the project. As of September 30th, \$1.3 billion remained to be spent. There might well be additional delays and cost overruns, but Wall Street has taken these in stride. In 2021, Southern Company stock posted a total return of 16.3%, not far below the median for this industry.																																																																																																																																																																																																																																								
Southern Company has issued equity and sold assets to finance the rising capital costs of its nuclear project. Most notably, it sold its Gulf Power electric utility in Florida a few years ago, and has also sold some gas companies. Most recently, Southern Company sold some leveraged leases. (This will result in a \$100 million aftertax gain in the fourth quarter of 2021.) Other asset sales are under consideration. For now, we do not anticipate any equity additions in the next few years, and are not assuming any asset sales.																																																																																																																																																																																																																																								
Earnings should advance this year and next. The company's utilities are benefiting from rate relief and growth in their service areas. Nicor Gas in Illinois will record a full year's effect of a \$240 million rate hike, based on a 9.75% return on equity and a 54.5% common-equity ratio, that went into place on December 1st. Atlanta Gas Light received \$49 million at the start of 2022. Note that Georgia Power expects to file a rate case on July 1st.																																																																																																																																																																																																																																								
We expect a dividend increase in the second quarter. We think the board will raise the quarterly payout \$0.02 a share (3.0%), the same as in recent years.																																																																																																																																																																																																																																								
The dividend yield is somewhat above average for a utility. Dividend growth prospects are subpar, and investors must be able to accept the uncertainties arising from the nuclear construction project. The stock is untimely.																																																																																																																																																																																																																																								
<i>Paul E. Debbas, CFA February 11, 2022</i>																																																																																																																																																																																																																																								
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(A) Diluted EPS. Excl. nonrec. gain (losses): '09, (25c); '13, (83c); '14, (59c); '15, (25c); '16, (28c); '17, (\$2.37); '18, (78c); '19, \$1.30; '20, (17c); '21, (54c). Next earnings report due mid-Feb. (B) Div'ds paid in early Mar., June, Sept. and Dec. (C) Div'd reinvest. plan avail. (D) In mill. (E) cost. Allowed return on common eq. (blended): 12.5%; earned on avg. com. eq. '20: 12.5%. Regulatory Climate: GA, AL Above Average; MS, FL Average. (F) Winter peak in '18.

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Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	35
Earnings Predictability	95

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Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Summary of Risk Premium Models for the
Proxy Group of Six Natural Gas Distribution Companies
and Proxy Group of Fourteen Electric Companies

	<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>Proxy Group of Fourteen Electric Companies</u>
Predictive Risk Premium Model (PRPM) (1)	10.52 %	10.77 %
Risk Premium Using an Adjusted Total Market Approach (2)	<u>10.67 %</u>	<u>10.90 %</u>
Average	<u><u>10.60 %</u></u>	<u><u>10.84 %</u></u>

Notes:

- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>LT Average Predicted Variance</u>	<u>Spot Predicted Variance</u>	<u>Recommended Variance (2)</u>	<u>GARCH Coefficient</u>	<u>Predicted Risk Premium (3)</u>	<u>Risk-Free Rate (4)</u>	<u>Indicated ROE (5)</u>
Atmos Energy Corporation	0.34%	0.48%	0.41%	2.3073	11.95%	2.89%	14.84%
New Jersey Resources Corporation	0.38%	0.41%	0.40%	2.0666	10.29%	2.89%	13.18%
NiSource Inc.	0.48%	0.54%	0.51%	0.8281	5.23%	2.89%	8.12%
Northwest Natural Holding Company	0.33%	0.41%	0.37%	1.5433	7.04%	2.89%	9.93%
ONE Gas, Inc.	0.34%	0.58%	0.46%	4.0503	24.76%	2.89%	NMF
Spire Inc.	0.71%	0.41%	0.56%	0.9436	6.52%	2.89%	9.41%
						Average	<u>11.10%</u>
						Median	<u>9.93%</u>
					Average of Mean and Median		<u>10.52%</u>
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
<u>Proxy Group of Fourteen Electric Companies</u>	<u>LT Average Predicted Variance</u>	<u>Spot Predicted Variance</u>	<u>Recommended Variance (2)</u>	<u>GARCH Coefficient</u>	<u>Predicted Risk Premium (3)</u>	<u>Risk-Free Rate (4)</u>	<u>Indicated ROE (5)</u>
Alliant Energy Corporation	0.27%	0.36%	0.32%	2.6805	10.70%	2.89%	13.59%
Ameren Corporation	0.23%	0.29%	0.26%	2.0193	6.52%	2.89%	9.41%
American Electric Power Company, Inc.	0.29%	0.31%	0.30%	2.3648	8.73%	2.89%	11.62%
Duke Energy Corporation	0.31%	0.28%	0.29%	1.8470	6.74%	2.89%	9.63%
Edison International	0.43%	0.50%	0.47%	1.4907	8.70%	2.89%	11.59%
Entergy Corporation	0.40%	0.49%	0.45%	2.2094	12.56%	2.89%	NMF
Evergy, Inc.	0.41%	0.57%	0.49%	0.8169	4.90%	2.89%	7.79%
Eversource Energy	0.31%	0.37%	0.34%	1.6205	6.75%	2.89%	9.64%
IDACORP, Inc.	0.29%	0.28%	0.28%	2.2082	7.80%	2.89%	10.69%
NorthWestern Corporation	0.33%	0.20%	0.27%	2.2559	7.51%	2.89%	10.40%
OGE Energy Corporation	0.31%	0.32%	0.31%	2.2029	8.65%	2.89%	11.54%
Portland General Electric Company	0.28%	0.29%	0.29%	2.0976	7.43%	2.89%	10.32%
The Southern Company	1.27%	0.35%	0.81%	0.9774	9.97%	2.89%	12.86%
Xcel Energy Inc.	0.28%	0.24%	0.26%	2.8075	9.03%	2.89%	11.92%
						Average	<u>10.85%</u>
						Median	<u>10.69%</u>
					Average of Mean and Median		<u>10.77%</u>

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Services.
- (2) Average of the long-term average and spot predicted variance.
- (3) $(1 + (\text{Column [3]} * \text{Column [4]})^{12}) - 1$.
- (4) From note 2 on page 2 of Schedule DWD-5.
- (5) Column [5] + Column [6].

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>Proxy Group of Fourteen Electric Companies</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	3.95 %	3.95 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds (2)	<u>0.41</u>	<u>0.41</u>
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	4.36 %	4.36 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group (3)	<u>0.08</u>	<u>0.17</u>
5.	Adjusted Bond Yield	4.44 %	4.53 %
6.	Equity Risk Premium (4)	<u>6.23</u>	<u>6.37</u>
7.	Risk Premium Derived Common Equity Cost Rate	<u><u>10.67 %</u></u>	<u><u>10.90 %</u></u>

- Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 10 and 11 of this Schedule).
- (2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.41% from page 4 of this Schedule.
- (3) Adjustment to reflect the A3 Moody's LT issuer rating of the Gas Utility Proxy Group and the Baa1 LT issuer rating of the Electric Utility Proxy Group, both shown on page 5 of this Schedule. For the Gas Group, the 0.08% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds ($1/3 * 0.25\% = 0.08\%$) as derived from page 4 of this Schedule. For the Electric Group, the 0.17% upward adjustment is derived by taking 2/3 of the spread between A2 and Baa2 Public Utility Bonds ($2/3 * 0.25\% = 0.17\%$) as derived from page 4 of this Schedule.
- (4) From page 7 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	<u>Aaa Rated Corporate Bond</u>	<u>A2 Rated Public Utility Bond</u>	<u>Baa2 Rated Public Utility Bond</u>
Feb-2022	3.25 %	3.68 %	3.95 %
Jan-2022	2.93	3.33	3.57
Dec-2021	<u>2.65</u>	<u>3.04</u>	<u>3.28</u>
Average	<u>2.94 %</u>	<u>3.35 %</u>	<u>3.60 %</u>

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:

0.41 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:

0.25 % (2)

Notes:

(1) Column [2] - Column [1].

(2) Column [3] - Column [2].

Source of Information:

Bloomberg Professional Services.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	Moody's		Standard & Poor's	
	Long-Term Issuer Rating		Long-Term Issuer Rating	
	March 2022		March 2022	
Proxy Group of Six Natural Gas Distribution Companies	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
Atmos Energy Corporation	A1	5.0	A-	7.0
New Jersey Resources Corporation	NA	-	NR	-
NiSource Inc.	Baa1	8.0	BBB+	8.0
Northwest Natural Holding Company	Baa1	8.0	A+	5.0
ONE Gas, Inc.	A3	7.0	BBB+	8.0
Spire Inc.	A1	5.0	A-	7.0
Average	A3	6.6	A-	7.0
Proxy Group of Fourteen Electric Companies	Long-Term Issuer Rating (1)	Numerical Weighting (2)	Long-Term Issuer Rating (1)	Numerical Weighting (2)
Alliant Energy Corporation	A3/Baa1	7.5	A/A-	6.5
Ameren Corporation	A3/Baa1	7.5	BBB+	8.0
American Electric Power Company, Inc.	Baa1	8.0	A-	7.0
Duke Energy Corporation	A3	7.0	BBB+	8.0
Edison International	Baa2	9.0	BBB	9.0
Entergy Corporation	Baa2	9.0	BBB+	8.0
Eversource Energy	A3	7.0	A-	7.0
IDACORP, Inc.	A3	7.0	BBB	9.0
NorthWestern Corporation	Baa2	9.0	BBB	9.0
OGE Energy Corporation	A3	7.0	A-	7.0
Portland General Electric Company	A3	7.0	BBB+	8.0
The Southern Company	A3	7.0	BBB+	8.0
Xcel Energy Inc.	A3	7.0	A-	7.0
Average	Baa1	7.6	BBB+	7.8

Notes:

- (1) Ratings are that of the average of each company's utility operating subsidiaries.
- (2) From page 6 of this Schedule.

Source Information: Moody's Investors Services.
Standard & Poor's Global Utilities Rating Services.

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

<u>Moody's Bond Rating</u>	<u>Numerical Bond Weighting</u>	<u>Standard & Poor's Bond Rating</u>
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Judgment of Equity Risk Premium for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

<u>Line No.</u>		<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>Proxy Group of Fourteen Electric Companies</u>
1.	Calculated equity risk premium based on the total market using the beta approach (1)	7.79 %	8.14 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	5.44	5.44
3.	Predicted Equity Risk Premium Based on Regression Analysis of 809 Fully-Litigated Natural Gas Utility Rate Cases (3)	5.46	NA
4.	Predicted Equity Risk Premium Based on Regression Analysis of 1,192 Fully-Litigated Electric Utility Rate Cases (4)	<u>NA</u>	<u>5.52</u>
5.	Average equity risk premium	<u><u>6.23 %</u></u>	<u><u>6.37 %</u></u>

Notes: (1) From page 8 of this Schedule.
(2) From page 12 of this Schedule.
(3) From pages 13 of this Schedule.
(4) From pages 14 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Six Natural Gas Distribution Companies</u>	<u>Proxy Group of Fourteen Electric Companies</u>
<u>Ibbotson-Based Equity Risk Premiums:</u>			
1.	Ibbotson Equity Risk Premium (1)	5.92 %	5.92 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.23	8.23
3.	Ibbotson Equity Risk Premium based on PRPM (3)	8.07	8.07
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	7.44	7.44
5.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	12.19	12.19
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	<u>10.65</u>	<u>10.65</u>
7.	Conclusion of Equity Risk Premium	8.75 %	8.75 %
8.	Adjusted Beta (7)	<u>0.89</u>	<u>0.93</u>
9.	Forecasted Equity Risk Premium	<u><u>7.79 %</u></u>	<u><u>8.14 %</u></u>

Notes provided on page 9 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the

Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2021 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1928-2020.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2020 referenced in Note 1 above.
- (3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through February 2022.
- (4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 3.95% (from page 3 of this Schedule) from the projected 3-5 year total annual market return of 11.39% (described fully in note 1 on page 2 of Schedule DWD-5).
- (5) Using data from Value Line for the S&P 500, an expected total return of 16.14% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.95% results in an expected equity risk premium of 12.19%.
- (6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 14.60% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 3.53% results in an expected equity risk premium of 10.65%.
- (7) Average of mean and median beta for each proxy group from page 1 of Schedule DWD-5.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2021 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index.
Blue Chip Financial Forecasts, March 1, 2022 and December 1, 2021
Bloomberg Professional Services.
Industrial Manual and Mergent Bond Record Monthly Update.

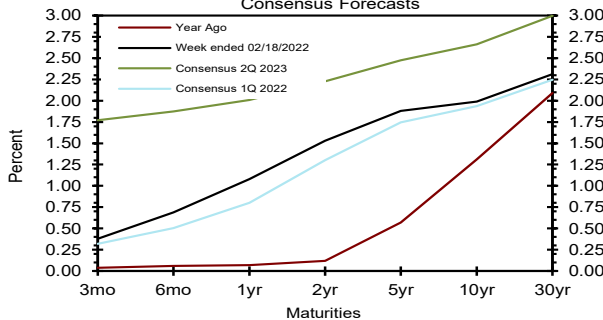
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.						
	Average For Week Ending				Average For Month				Latest Qtr	1Q	2Q	3Q	4Q	1Q	2Q
	Feb 18	Feb 11	Feb 4	Jan 28	Jan	Dec	Nov	4Q 2021	2022	2022	2022	2022	2023	2023	
Federal Funds Rate	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.2	0.6	1.0	1.3	1.6	1.8	
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.4	3.7	4.1	4.3	4.6	4.8	
SOFR	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.2	0.5	0.9	1.2	1.4	1.7	
Commercial Paper, 1-mo.	0.08	0.08	0.08	0.07	0.07	0.06	0.05	0.06	0.2	0.6	0.9	1.2	1.5	1.7	
Treasury bill, 3-mo.	0.38	0.31	0.21	0.19	0.06	0.05	0.05	0.05	0.3	0.7	1.0	1.3	1.5	1.8	
Treasury bill, 6-mo.	0.69	0.64	0.49	0.41	0.15	0.07	0.06	0.09	0.5	0.8	1.1	1.4	1.7	1.9	
Treasury bill, 1 yr.	1.08	0.98	0.80	0.69	0.30	0.18	0.11	0.20	0.8	1.1	1.4	1.6	1.8	2.0	
Treasury note, 2 yr.	1.53	1.42	1.20	1.09	0.68	0.51	0.39	0.53	1.3	1.6	1.8	2.0	2.1	2.2	
Treasury note, 5 yr.	1.88	1.84	1.66	1.60	1.23	1.20	1.11	1.18	1.7	2.0	2.1	2.3	2.4	2.5	
Treasury note, 10 yr.	1.99	1.95	1.83	1.79	1.47	1.56	1.58	1.54	1.9	2.1	2.3	2.4	2.6	2.7	
Treasury note, 30 yr.	2.31	2.25	2.14	2.11	1.85	1.94	2.06	1.95	2.2	2.5	2.6	2.7	2.9	3.0	
Corporate Aaa bond	3.43	3.31	3.19	3.14	2.79	2.79	2.85	2.81	3.2	3.4	3.7	3.9	4.0	4.1	
Corporate Baa bond	4.00	3.85	3.70	3.64	3.26	3.25	3.31	3.27	3.9	4.2	4.4	4.6	4.8	4.9	
State & Local bonds	3.08	2.97	2.92	2.85	2.57	2.57	2.59	2.58	2.6	2.9	3.0	3.2	3.3	3.4	
Home mortgage rate	3.92	3.69	3.55	3.55	3.10	3.07	3.07	3.08	3.7	3.9	4.1	4.2	4.4	4.5	

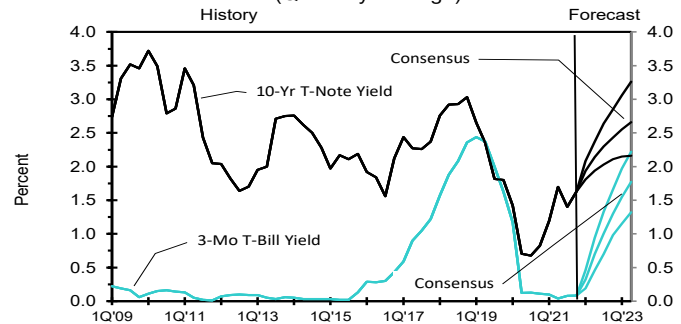
Key Assumptions	History								Consensus Forecasts-Quarterly					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
	2020	2020	2020	2020	2021	2021	2021	2021	2022	2022	2022	2022	2023	2023
Fed's AFE \$ Index	111.3	112.4	107.2	105.1	103.4	102.9	105.0	107.0	107.8	108.0	108.1	107.8	107.5	107.2
Real GDP	-5.1	-31.2	33.8	4.5	6.3	6.7	2.3	7.0	1.9	3.9	3.1	2.6	2.4	2.3
GDP Price Index	1.6	-1.5	3.6	2.2	4.3	6.1	6.0	7.1	4.8	3.8	3.1	2.8	2.6	2.5
Consumer Price Index	1.3	-3.4	4.8	2.2	4.1	8.2	6.7	7.9	5.8	3.9	3.1	2.7	2.5	2.4
PCE Price Index	1.3	-1.6	3.7	1.5	3.8	6.5	5.3	6.3	5.1	3.5	2.8	2.4	2.3	2.3

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Advanced Foreign Economies Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).

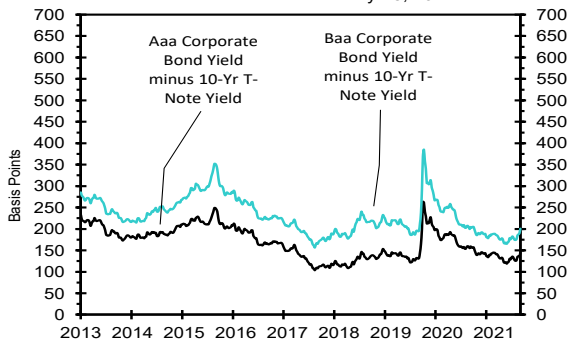
U.S. Treasury Yield Curve
 Week ended February 18, 2022 & Year Ago vs.
 1Q 2022 & 2Q 2023
 Consensus Forecasts



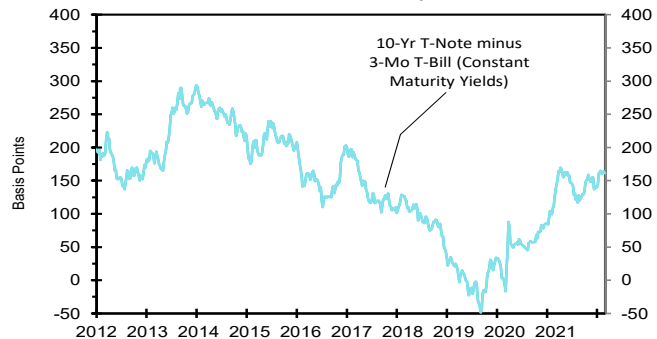
US 3-Mo T-Bills & 10-Yr T-Note Yield
 (Quarterly Average)



Corporate Bond Spreads
 As of week ended February 18, 2022



U.S. Treasury Yield Curve
 As of week ended February 18, 2022



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2027 and averages for the five-year periods 2023-2027 and 2028-2032. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

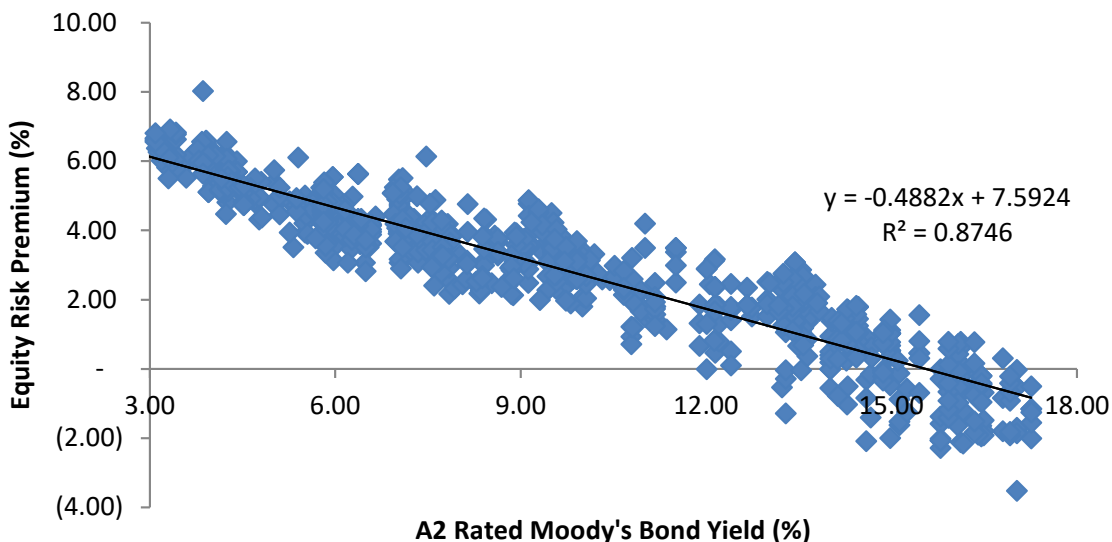
		Average For The Year					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
1. Federal Funds Rate	CONSENSUS	0.8	1.6	2.0	2.2	2.3	1.8	2.2
	Top 10 Average	1.2	2.2	2.7	2.7	2.8	2.3	2.9
	Bottom 10 Average	0.4	1.0	1.4	1.7	1.8	1.2	1.5
2. Prime Rate	CONSENSUS	4.0	4.7	5.1	5.3	5.4	4.9	5.3
	Top 10 Average	4.3	5.3	5.8	5.8	5.9	5.4	6.0
	Bottom 10 Average	3.6	4.1	4.5	4.9	5.0	4.4	4.6
3. LIBOR, 3-Mo.	CONSENSUS	1.0	1.7	2.2	2.4	2.5	1.9	2.4
	Top 10 Average	1.3	2.1	2.7	2.9	3.0	2.4	3.1
	Bottom 10 Average	0.7	1.2	1.6	1.9	2.0	1.5	1.8
4. Commercial Paper, 1-Mo	CONSENSUS	0.9	1.6	2.1	2.3	2.4	1.9	2.4
	Top 10 Average	1.2	2.0	2.6	2.8	2.9	2.3	2.9
	Bottom 10 Average	0.6	1.2	1.6	1.9	2.0	1.5	1.8
5. Treasury Bill Yield, 3-Mo	CONSENSUS	0.8	1.4	1.8	2.0	2.3	1.7	2.2
	Top 10 Average	1.2	1.9	2.5	2.6	2.8	2.2	2.9
	Bottom 10 Average	0.4	0.8	1.2	1.5	1.8	1.1	1.6
6. Treasury Bill Yield, 6-Mo	CONSENSUS	0.8	1.4	1.9	2.1	2.4	1.7	2.3
	Top 10 Average	1.2	2.0	2.6	2.7	2.9	2.3	3.0
	Bottom 10 Average	0.4	0.9	1.2	1.6	1.9	1.2	1.7
7. Treasury Bill Yield, 1-Yr	CONSENSUS	1.0	1.6	2.1	2.4	2.5	1.9	2.4
	Top 10 Average	1.4	2.1	2.7	2.8	3.0	2.4	3.1
	Bottom 10 Average	0.6	1.2	1.5	1.9	2.0	1.4	1.8
8. Treasury Note Yield, 2-Yr	CONSENSUS	1.3	1.9	2.4	2.6	2.6	2.2	2.6
	Top 10 Average	1.7	2.5	3.0	3.1	3.2	2.7	3.4
	Bottom 10 Average	0.8	1.4	1.8	2.0	2.1	1.6	1.9
9. Treasury Note Yield, 5-Yr	CONSENSUS	1.9	2.4	2.8	2.9	2.9	2.6	3.0
	Top 10 Average	2.3	3.0	3.4	3.5	3.6	3.1	3.8
	Bottom 10 Average	1.5	1.9	2.1	2.3	2.3	2.0	2.2
10. Treasury Note Yield, 10-Yr	CONSENSUS	2.4	2.8	3.1	3.2	3.2	2.9	3.3
	Top 10 Average	2.8	3.3	3.7	3.8	3.9	3.5	4.2
	Bottom 10 Average	2.0	2.3	2.4	2.5	2.5	2.3	2.4
11. Treasury Bond Yield, 30-Yr	CONSENSUS	2.9	3.3	3.6	3.7	3.7	3.4	3.8
	Top 10 Average	3.4	3.9	4.3	4.4	4.4	4.1	4.6
	Bottom 10 Average	2.4	2.8	2.9	3.0	3.0	2.8	3.0
12. Corporate Aaa Bond Yield	CONSENSUS	3.7	4.2	4.5	4.6	4.8	4.4	4.9
	Top 10 Average	4.3	4.7	5.1	5.2	5.4	4.9	5.6
	Bottom 10 Average	3.2	3.7	3.9	4.1	4.2	3.8	4.2
13. Corporate Baa Bond Yield	CONSENSUS	4.6	5.0	5.3	5.5	5.6	5.2	5.7
	Top 10 Average	5.1	5.5	5.9	6.1	6.2	5.7	6.5
	Bottom 10 Average	4.0	4.5	4.8	4.9	5.0	4.7	5.0
14. State & Local Bonds Yield	CONSENSUS	3.2	3.7	3.9	4.1	4.2	3.8	4.3
	Top 10 Average	3.8	4.3	4.5	4.7	4.8	4.4	5.0
	Bottom 10 Average	2.7	3.2	3.4	3.5	3.6	3.3	3.6
15. Home Mortgage Rate	CONSENSUS	4.0	4.4	4.7	4.8	4.8	4.5	4.9
	Top 10 Average	4.5	5.0	5.3	5.4	5.4	5.1	5.7
	Bottom 10 Average	3.6	3.9	4.1	4.1	4.2	4.0	4.1
A. Fed's AFE Nominal \$ Index	CONSENSUS	106.2	106.0	106.1	106.2	106.4	106.2	106.5
	Top 10 Average	108.1	108.4	108.9	109.0	109.2	108.7	110.1
	Bottom 10 Average	104.4	104.0	103.7	103.7	103.9	103.9	103.1
		----- Year-Over-Year, % Change -----					Five-Year Averages	
		2023	2024	2025	2026	2027	2023-2027	2028-2032
B. Real GDP	CONSENSUS	2.6	2.2	2.1	2.0	2.0	2.2	2.0
	Top 10 Average	3.1	2.6	2.5	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.2	1.7	1.7	1.7	1.7	1.8	1.7
C. GDP Chained Price Index	CONSENSUS	2.5	2.2	2.2	2.1	2.1	2.2	2.1
	Top 10 Average	3.0	2.7	2.5	2.4	2.4	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.8
D. Consumer Price Index	CONSENSUS	2.6	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	3.2	2.8	2.6	2.5	2.5	2.7	2.5
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	1.9
E. PCE Price Index	CONSENSUS	2.5	2.2	2.1	2.1	2.1	2.2	2.1
	Top 10 Average	3.0	2.6	2.4	2.4	2.3	2.6	2.4
	Bottom 10 Average	2.0	1.9	1.9	1.9	1.9	1.9	1.9

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

<u>Line No.</u>		<u>Implied Equity Risk Premium</u>
	<u>Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):</u>	
1.	Historical Equity Risk Premium	4.16 %
2.	Regression of Historical Equity Risk Premium (2)	6.04
3.	Forecasted Equity Risk Premium Based on PRPM (3)	5.27
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	6.33
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	<u>5.42</u>
6.	Average Equity Risk Premium (6)	<u><u>5.44 %</u></u>

- Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2020. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A2 rated public utility bond yields from 1928 - 2020 referenced in note 1 above.
- (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A2 rated public utility bonds from January 1928 - February 2022.
- (4) Using data from Value Line for the S&P Utilities Index, an expected total return of 10.69% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the expected A2 rated public utility bond yield of 4.36% results in an expected equity risk premium of 6.33%. (10.69% - 4.36 = 6.33%)
- (5) Using data from the Bloomberg Professional Service for the S&P Utilities Index, an expected total return of 9.78% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the expected A2 rated public utility bond yield of 4.36% results in an expected equity risk premium of 5.42%. (9.78% - 4.36 = 5.42%)
- (6) Average of lines 1 through 5.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Prediction of Equity Risk Premiums Relative to
Moody's A2 Rated Utility Bond Yields - Gas Utilities



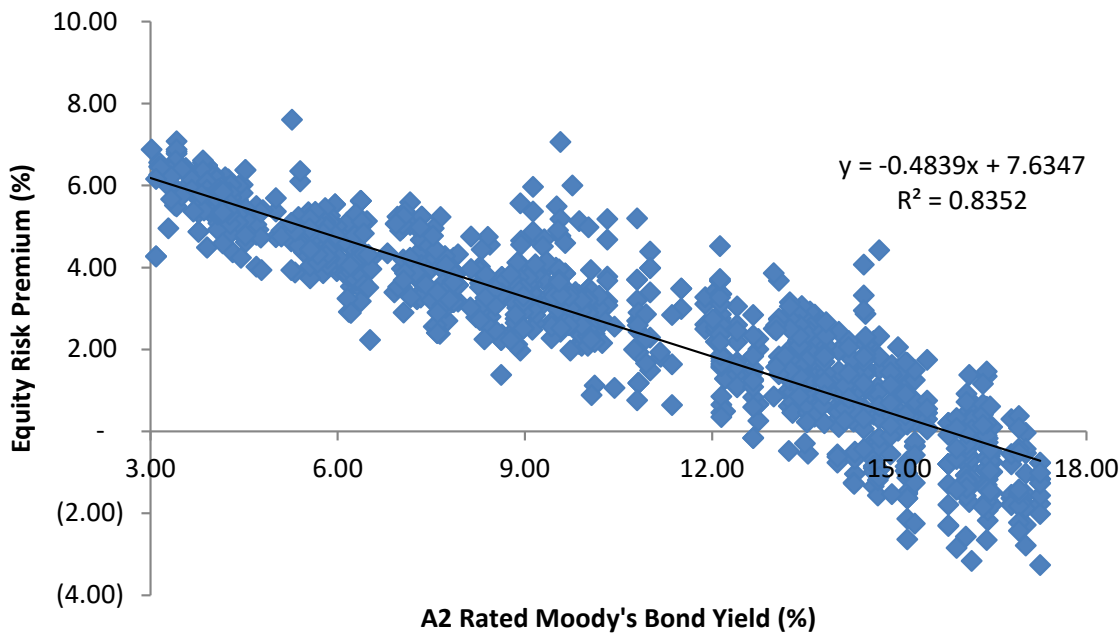
		Prospective A2 Rated Utility Bond (1)	Prospective Equity Risk Premium
<u>Constant</u>	<u>Slope</u>		
7.5924 %	-0.4882	4.36 %	5.46 %

Notes:

(1) From line 3 of page 3 of this Schedule.

Source of Information: Regulatory Research Associates.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Prediction of Equity Risk Premiums Relative to
Moody's A2 Rated Utility Bond Yields - Electric Utilities



		Prospective A2 Rated Utility Bond (1)	Prospective Equity Risk Premium
<u>Constant</u>	<u>Slope</u>		
7.6347 %	-0.4839	4.36 %	5.52 %

Notes:

(1) From line 3 of page 3 of this Schedule.

Source of Information: Regulatory Research Associates.

Valley Energy, Inc./ Citizens' Electric Company of Lewisburg, PA
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Six Natural Gas Distribution Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Atmos Energy Corporation	0.80	0.83	0.81	9.84 %	2.89 %	10.86 %	11.33 %	11.09 %
New Jersey Resources Corporation	1.00	0.93	0.96	9.84	2.89	12.33	12.43	12.38
NiSource Inc.	0.85	0.92	0.89	9.84	2.89	11.64	11.92	11.78
Northwest Natural Holding Company	0.80	0.85	0.83	9.84	2.89	11.05	11.47	11.26
ONE Gas, Inc.	0.80	0.97	0.89	9.84	2.89	11.64	11.92	11.78
Spire Inc.	0.85	0.96	0.91	9.84	2.89	11.84	12.06	11.95
Mean			<u>0.88</u>			<u>11.56 %</u>	<u>11.85 %</u>	<u>11.71 %</u>
Median			<u>0.89</u>			<u>11.64 %</u>	<u>11.92 %</u>	<u>11.78 %</u>
Average of Mean and Median			<u>0.89</u>			<u>11.60 %</u>	<u>11.89 %</u>	<u>11.75 %</u>

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Fourteen Electric Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Alliant Energy Corporation	0.85	0.91	0.88	9.84 %	2.89 %	11.55 %	11.84 %	11.69 %
Ameren Corporation	0.80	0.88	0.84	9.84	2.89	11.15	11.55	11.35
American Electric Power Company, Inc.	0.75	0.90	0.82	9.84	2.89	10.96	11.40	11.18
Duke Energy Corporation	0.85	0.82	0.83	9.84	2.89	11.05	11.47	11.26
Edison International	0.95	1.05	1.00	9.84	2.89	12.73	12.73	12.73
Energy Corporation	0.95	1.10	1.03	9.84	2.89	13.02	12.95	12.99
Eversource Energy	0.95	0.99	0.97	9.84	2.89	12.43	12.51	12.47
EverSource Energy	0.90	0.98	0.94	9.84	2.89	12.14	12.28	12.21
IDACORP, Inc.	0.80	0.92	0.86	9.84	2.89	11.35	11.69	11.52
NorthWestern Corporation	0.95	1.16	1.05	9.84	2.89	13.22	13.10	13.16
OGE Energy Corporation	1.05	1.20	1.12	9.84	2.89	13.91	13.61	13.76
Portland General Electric Company	0.90	0.93	0.92	9.84	2.89	11.94	12.14	12.04
The Southern Company	0.95	1.04	0.99	9.84	2.89	12.63	12.65	12.64
Xcel Energy Inc.	0.80	0.84	0.82	9.84	2.89	10.96	11.40	11.18
Mean			<u>0.93</u>			<u>12.07 %</u>	<u>12.24 %</u>	<u>12.16 %</u>
Median			<u>0.93</u>			<u>12.04 %</u>	<u>12.21 %</u>	<u>12.13 %</u>
Average of Mean and Median			<u>0.93</u>			<u>12.06 %</u>	<u>12.23 %</u>	<u>12.15 %</u>

Notes on page 2 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates:

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2020)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2020:	12.20 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.05
MRP based on Ibbotson Historical Data:	<u>7.15 %</u>

Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2020)

9.38 %

Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - February 2022)

9.03 %

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending March 18, 2022)

Total projected return on the market 3-5 years hence*:	11.39 %
Projected Risk-Free Rate (see note 2):	2.89
MRP based on Value Line Summary & Index:	<u>8.50 %</u>

*Forecasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	16.14 %
Projected Risk-Free Rate (see note 2):	2.89
MRP based on Value Line data	<u>13.25 %</u>

Measure 6: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	14.60 %
Projected Risk-Free Rate (see note 2):	2.89
MRP based on Bloomberg data	<u>11.71 %</u>

Average of Value Line, Ibbotson, and Bloomberg MRP: 9.84 %

- (2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 10 and 11 of Schedule DWD-4) The projection of the risk-free rate is illustrated below:

First Quarter 2022	2.20 %
Second Quarter 2022	2.50
Third Quarter 2022	2.60
Fourth Quarter 2022	2.70
First Quarter 2023	2.90
Second Quarter 2023	3.00
2023-2027	3.40
2028-2032	3.80
	<u>2.89 %</u>

- (3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index.
Blue Chip Financial Forecasts, March 1, 2022 and December 1, 2021
Stocks, Bonds, Bills, and Inflation - 2021 SBBi Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Basis of Selection of the Groups of Non-Price Regulated Companies
Comparable in Total Risk to the Gas and Electric Utility Proxy Groups

The criteria for selection of the proxy groups of non-price regulated companies comparable in total risk to the Gas and Electric Utility Proxy Groups were that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

One proxy group of non-price regulated companies was selected based on the unadjusted beta range of 0.59 – 0.87 and residual standard error of the regression range of 2.5562 – 3.0486 of the Gas Utility Proxy Group and another proxy group of non-price regulated companies was selected based on the unadjusted beta range of 0.65 – 0.93 and residual standard error of the regression range of 2.5237 – 3.0101 of the Electric Utility Proxy Group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Electric and Gas Utility Proxy Groups' residual standard errors of the regression are 0.1231 and 0.1216, respectively. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1231 = \frac{2.8024}{\sqrt{518}} = \frac{2.8024}{22.7596}$$

$$\text{and, } 0.1216 = \frac{2.7669}{\sqrt{518}} = \frac{2.7669}{22.7596}$$

Source of Information: Value Line, Inc., March 2022
Value Line Investment Survey (Standard Edition)

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
	Value Line		Residual	Standard
Proxy Group of Six Natural Gas Distribution Companies	Adjusted Beta	Unadjusted Beta	Standard Error of the Regression	Deviation of Beta
Atmos Energy Corporation	0.80	0.68	2.7298	0.0675
New Jersey Resources Corporation	1.00	0.92	2.9340	0.0726
NiSource Inc.	0.85	0.71	2.4700	0.0611
Northwest Natural Holding Company	0.80	0.69	3.1119	0.0770
ONE Gas, Inc.	0.80	0.66	2.7138	0.0671
Spire Inc.	0.85	0.71	2.8551	0.0706
Average	0.85	0.73	2.8024	0.0693
Beta Range (+/- 2 std. Devs. of Beta)	0.59	0.87		
2 std. Devs. of Beta	0.14			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.5562	3.0486		
Std. dev. of the Res. Std. Err.	0.1231			
2 std. devs. of the Res. Std. Err.	0.2462			
	[1]	[2]	[3]	[4]
	Value Line		Residual	Standard
Proxy Group of Fourteen Electric Companies	Adjusted Beta	Unadjusted Beta	Standard Error of the Regression	Deviation of Beta
Alliant Energy Corporation	0.85	0.71	2.6953	0.0667
Ameren Corporation	0.80	0.69	2.5235	0.0624
American Electric Power Company, Inc.	0.75	0.58	2.6108	0.0646
Duke Energy Corporation	0.85	0.75	2.6859	0.0664
Edison International	0.95	0.91	3.2986	0.0816
Entergy Corporation	0.95	0.86	2.7525	0.0681
Eversource Energy	0.95	0.85	3.0574	0.0778
Eversource Energy	0.90	0.82	3.0252	0.0748
IDACORP, Inc.	0.80	0.67	2.5897	0.0641
NorthWestern Corporation	0.95	0.89	2.7299	0.0675
OGE Energy Corporation	1.05	1.03	2.6847	0.0664
Portland General Electric Company	0.85	0.77	2.7744	0.0686
The Southern Company	0.95	0.87	2.6353	0.0652
Xcel Energy Inc.	0.80	0.65	2.6727	0.0661
Average	0.89	0.79	2.7669	0.0686
Beta Range (+/- 2 std. Devs. of Beta)	0.65	0.93		
2 std. Devs. of Beta	0.14			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.5237	3.0101		
Std. dev. of the Res. Std. Err.	0.1216			
2 std. devs. of the Res. Std. Err.	0.2432			

Source of Information: Valueline Proprietary Database, March 2022.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the

Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Thirty-Eight Non-Price Regulated Companies</u>	<u>VL Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
Agilent Technologies	0.90	0.78	2.7005	0.0668
Abbott Labs.	0.90	0.82	2.8039	0.0694
Assurant Inc.	0.90	0.84	2.7387	0.0677
Smith (A.O.)	0.85	0.77	2.8592	0.0707
Air Products & Chem.	0.90	0.79	2.6168	0.0647
Becton, Dickinson	0.75	0.60	2.8626	0.0708
Brown-Forman 'B'	0.90	0.80	2.7317	0.0676
Black Knight, Inc.	0.75	0.60	2.6932	0.0666
Bristol-Myers Squibb	0.85	0.75	2.9154	0.0721
Broadridge Fin'l	0.85	0.73	2.7513	0.0681
CACI Int'l	0.90	0.84	2.8642	0.0709
Cerner Corp.	0.90	0.80	2.6984	0.0667
Chemed Corp.	0.85	0.70	2.8432	0.0703
CSW Industrials	0.90	0.80	2.8686	0.0710
Exponent, Inc.	0.90	0.79	3.0005	0.0742
Ingredion Inc.	0.95	0.85	2.7688	0.0685
J&J Snack Foods	0.95	0.86	3.0009	0.0742
Henry (Jack) & Assoc	0.85	0.70	2.9159	0.0721
McCormick & Co.	0.80	0.65	2.8247	0.0699
Monster Beverage	0.85	0.75	2.9659	0.0734
Altria Group	0.95	0.86	3.0325	0.0750
Merck & Co.	0.80	0.63	2.8110	0.0695
Motorola Solutions	0.90	0.79	2.6488	0.0655
NewMarket Corp.	0.75	0.60	2.7398	0.0678
Northrop Grumman	0.85	0.75	2.9830	0.0738
Old Dominion Freight	0.95	0.86	2.9874	0.0739
Oracle Corp.	0.75	0.61	2.8406	0.0703
Pfizer, Inc.	0.80	0.65	2.6589	0.0658
Progressive Corp.	0.75	0.59	2.9344	0.0726
RLI Corp.	0.80	0.65	2.8568	0.0707
Selective Ins. Group	0.90	0.81	2.9172	0.0722
Sirius XM Holdings	0.95	0.85	2.9761	0.0736
Sensient Techn.	0.90	0.82	2.6687	0.0660
Thermo Fisher Sci.	0.85	0.70	2.6150	0.0647
Texas Instruments	0.85	0.76	2.6869	0.0665
VeriSign Inc.	0.90	0.79	2.6081	0.0645
Watsco, Inc.	0.85	0.74	2.6836	0.0664
Western Union	0.80	0.64	2.8493	0.0705
Average	<u>0.86</u>	<u>0.75</u>	<u>2.8138</u>	<u>0.0696</u>
Proxy Group of Six Natural Gas Distribution Companies	<u>0.85</u>	<u>0.73</u>	<u>2.8024</u>	<u>0.0693</u>

Source of Information:

Valueline Proprietary Database, March 2022.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the

Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Fourty Eight Non-Price Regulated Companies</u>	<u>VL Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
Agilent Technologies	0.90	0.78	2.7005	0.0668
Abbott Labs.	0.90	0.82	2.8039	0.0694
Analog Devices	0.95	0.88	2.8212	0.0698
Assurant Inc.	0.90	0.84	2.7387	0.0677
Smith (A.O.)	0.85	0.77	2.8592	0.0707
Air Products & Chem.	0.90	0.79	2.6168	0.0647
Brown-Forman 'B'	0.90	0.80	2.7317	0.0676
Ball Corp.	0.95	0.91	2.8617	0.0708
Bristol-Myers Squibb	0.85	0.75	2.9154	0.0721
Broadridge Fin'l	0.85	0.73	2.7513	0.0681
Brady Corp.	1.00	0.92	2.7776	0.0687
CACI Int'l	0.90	0.84	2.8642	0.0709
Cerner Corp.	0.90	0.80	2.6984	0.0667
Chemed Corp.	0.85	0.70	2.8432	0.0703
CSW Industrials	0.90	0.80	2.8686	0.0710
Danaher Corp.	0.80	0.68	2.5298	0.0626
Dolby Labs.	0.95	0.88	2.6074	0.0645
Exponent, Inc.	0.90	0.79	3.0005	0.0742
FactSet Research	0.95	0.92	2.7561	0.0682
GATX Corp.	0.95	0.88	2.9561	0.0731
Gentex Corp.	0.95	0.89	2.7619	0.0683
Alphabet Inc.	0.90	0.79	2.5405	0.0628
Ingredion Inc.	0.95	0.85	2.7688	0.0685
Hunt (J.B.)	0.95	0.91	2.8935	0.0716
J&J Snack Foods	0.95	0.86	3.0009	0.0742
Henry (Jack) & Assoc	0.85	0.70	2.9159	0.0721
McCormick & Co.	0.80	0.65	2.8247	0.0699
Monster Beverage	0.85	0.75	2.9659	0.0734
Motorola Solutions	0.90	0.79	2.6488	0.0655
Mettler-Toledo Int'l	0.95	0.91	2.8032	0.0693
Northrop Grumman	0.85	0.75	2.9830	0.0738
Old Dominion Freight	0.95	0.86	2.9874	0.0739
Pfizer, Inc.	0.80	0.65	2.6589	0.0658
Packaging Corp.	0.95	0.89	2.8411	0.0703
Post Holdings	0.95	0.87	2.8860	0.0714
RLI Corp.	0.80	0.65	2.8568	0.0707
Service Corp. Int'l	0.95	0.88	2.7221	0.0673
Sherwin-Williams	0.90	0.84	2.5345	0.0627
Selective Ins. Group	0.90	0.81	2.9172	0.0722
Sirius XM Holdings	0.95	0.85	2.9761	0.0736
Sensient Techn.	0.90	0.82	2.6687	0.0660
Thermo Fisher Sci.	0.85	0.70	2.6150	0.0647
Texas Instruments	0.85	0.76	2.6869	0.0665
AMERCO	0.95	0.90	2.7432	0.0679
UniFirst Corp.	0.95	0.90	2.7175	0.0672
VeriSign Inc.	0.90	0.79	2.6081	0.0645
Waters Corp.	0.95	0.88	2.8517	0.0705
Watsco, Inc.	0.85	0.74	2.6836	0.0664
Average	<u>0.90</u>	<u>0.81</u>	<u>2.7868</u>	<u>0.0689</u>
Proxy Group of Fourteen Electric Companies	<u>0.89</u>	<u>0.79</u>	<u>2.7669</u>	<u>0.0686</u>

Source of Information:

Valueline Proprietary Database, March 2022.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Summary of Cost of Equity Models Applied to
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

<u>Principal Methods</u>	<u>Proxy Group of Thirty- Eight Non-Price Regulated Companies</u>	<u>Proxy Group of Fourty Eight Non-Price Regulated Companies</u>
Discounted Cash Flow Model (DCF) (1)	12.22 %	12.70 %
Risk Premium Model (RPM) (2)	12.12	12.73
Capital Asset Pricing Model (CAPM) (3)	<u>11.54</u>	<u>12.07</u>
	Mean <u>11.96 %</u>	<u>12.50 %</u>
	Median <u>12.12 %</u>	<u>12.70 %</u>
	Average of Mean and Median <u>12.04 %</u>	<u>12.60 %</u>

Notes:

- (1) From pages 2 and 3 of this Schedule.
- (2) From page 4 of this Schedule.
- (3) From pages 7 and 8 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Thirty-Eight Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
Agilent Technologies	0.60 %	11.50 %	9.00 %	13.61 %	11.37 %	0.63 %	12.00 %
Abbott Labs.	1.49	10.00	7.80	12.12	9.97	1.56	11.53
Assurant Inc.	1.70	15.50	17.70	17.70	16.97	1.84	18.81
Smith (A.O.)	1.49	11.00	9.00	8.00	9.33	1.56	10.89
Air Products & Chem.	2.45	12.00	12.20	11.20	11.80	2.59	14.39
Becton, Dickinson	1.33	6.00	6.30	6.00	6.10	1.37	7.47
Brown-Forman 'B'	1.12	13.00	NA	7.01	10.01	1.18	11.19
Black Knight, Inc.	-	10.00	11.90	12.80	11.57	-	NA
Bristol-Myers Squibb	3.28	12.50	6.80	5.00	8.10	3.41	11.51
Broadridge Fin'l	1.63	9.00	NA	11.80	10.40	1.71	12.11
CACI Int'l	-	10.50	3.80	2.40	5.57	-	NA
Cerner Corp.	1.17	9.50	12.80	13.52	11.94	1.24	13.18
Chemed Corp.	0.30	9.50	8.30	6.60	8.13	0.31	8.44
CSW Industrials	0.51	14.00	NA	12.00	13.00	0.54	13.54
Exponent, Inc.	0.98	12.00	NA	15.00	13.50	1.05	14.55
Ingredion Inc.	2.83	7.50	NA	10.50	9.00	2.96	11.96
J&J Snack Foods	1.63	8.50	NA	6.00	7.25	1.69	8.94
Henry (Jack) & Assoc	1.14	10.50	17.00	14.00	13.83	1.22	15.05
McCormick & Co.	1.52	6.00	6.10	7.20	6.43	1.57	8.00
Monster Beverage	-	13.00	15.90	14.01	14.30	-	NA
Altria Group	7.16	5.50	4.00	5.36	4.95	7.34	12.29
Merck & Co.	3.53	7.50	8.60	9.42	8.51	3.68	12.19
Motorola Solutions	1.34	8.00	9.00	14.27	10.42	1.41	11.83
NewMarket Corp.	2.55	(1.00)	NA	7.70	7.70	2.65	10.35
Northrop Grumman	1.55	7.50	6.20	4.80	6.17	1.60	7.77
Old Dominion Freight	0.38	12.00	15.80	24.81	17.54	0.41	17.95
Oracle Corp.	1.57	10.00	8.00	10.24	9.41	1.64	11.05
Pfizer, Inc.	3.05	11.50	12.50	NMF	12.00	3.23	15.23
Progressive Corp.	0.38	4.50	19.70	(10.10)	12.10	0.40	12.50
RLI Corp.	0.95	12.00	NA	9.80	10.90	1.00	11.90
Selective Ins. Group	1.40	11.00	NA	13.40	12.20	1.49	13.69
Sirius XM Holdings	1.40	30.50	9.70	9.75	16.65	1.52	18.17
Sensient Techn.	1.90	2.50	NA	3.80	3.15	1.93	5.08
Thermo Fisher Sci.	0.21	15.50	14.00	10.87	13.46	0.22	13.68
Texas Instruments	2.60	9.00	9.30	10.00	9.43	2.72	12.15
VeriSign Inc.	-	8.50	NA	8.00	8.25	-	NA
Watsco, Inc.	2.73	11.00	NA	15.00	13.00	2.91	15.91
Western Union	5.11	8.00	NA	8.11	8.06	5.32	13.38
						Mean	12.31 %
						Median	12.13 %
						Average of Mean and Median	12.22 %

NA= Not Available
NMF= Not Meaningful Figure

Notes:

(1) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the Utility Proxy Groups. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of March 18, 2022. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information: Value Line Investment Survey.
www.zacks.com Downloaded on 03/18/2022.
www.yahoo.com Downloaded on 03/18/2022.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Fourty Eight Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
Agilent Technologies	0.60 %	11.50 %	9.00 %	13.61 %	11.37 %	0.63 %	12.00 %
Abbott Labs.	1.49	10.00	7.80	12.12	9.97	1.56	11.53
Analog Devices	1.87	11.00	12.30	14.71	12.67	1.99	14.66
Assurant Inc.	1.70	15.50	17.70	17.70	16.97	1.84	18.81
Smith (A.O.)	1.49	11.00	9.00	8.00	9.33	1.56	10.89
Air Products & Chem.	2.45	12.00	12.20	11.20	11.80	2.59	14.39
Brown-Forman 'B'	1.12	13.00	NA	7.01	10.01	1.18	11.19
Ball Corp.	0.88	21.00	5.00	14.78	13.59	0.94	14.53
Bristol-Myers Squibb	3.28	12.50	6.80	5.00	8.10	3.41	11.51
Broadridge Fin'l	1.63	9.00	NA	11.80	10.40	1.71	12.11
Brady Corp.	1.81	9.50	7.00	7.00	7.83	1.88	9.71
CACI Int'l	-	10.50	3.80	2.40	5.57	-	NA
Cerner Corp.	1.17	9.50	12.80	13.52	11.94	1.24	13.18
Chemed Corp.	0.30	9.50	8.30	6.60	8.13	0.31	8.44
CSW Industrials	0.51	14.00	NA	12.00	13.00	0.54	13.54
Danaher Corp.	0.35	22.00	20.50	16.87	19.79	0.38	20.17
Dolby Labs.	1.21	10.50	13.00	16.00	13.17	1.29	14.46
Exponent, Inc.	0.98	12.00	NA	15.00	13.50	1.05	14.55
FactSet Research	0.77	9.50	8.40	9.75	9.22	0.81	10.03
GATX Corp.	1.95	5.50	NA	12.00	8.75	2.04	10.79
Gentex Corp.	1.51	10.00	12.80	15.80	12.87	1.61	14.48
Alphabet Inc.	-	23.50	19.80	14.10	19.13	-	NA
Ingredion Inc.	2.83	7.50	NA	10.50	9.00	2.96	11.96
Hunt (J.B.)	0.81	11.00	15.00	28.04	18.01	0.88	18.89
J&J Snack Foods	1.63	8.50	NA	6.00	7.25	1.69	8.94
Henry (Jack) & Assoc	1.14	10.50	17.00	14.00	13.83	1.22	15.05
McCormick & Co.	1.52	6.00	6.10	7.20	6.43	1.57	8.00
Monster Beverage	-	13.00	15.90	14.01	14.30	-	NA
Motorola Solutions	1.34	8.00	9.00	14.27	10.42	1.41	11.83
Mettler-Toledo Int'l	-	13.50	19.10	17.80	16.80	-	NA
Northrop Grumman	1.55	7.50	6.20	4.80	6.17	1.60	7.77
Old Dominion Freight	0.38	12.00	15.80	24.81	17.54	0.41	17.95
Pfizer, Inc.	3.05	11.50	12.50	NMF	12.00	3.23	15.23
Packaging Corp.	2.79	9.00	5.00	16.40	10.13	2.93	13.06
Post Holdings	-	16.50	NA	26.40	21.45	-	NA
RLI Corp.	0.95	12.00	NA	9.80	10.90	1.00	11.90
Service Corp. Int'l	1.57	6.50	8.70	7.06	7.42	1.63	9.05
Sherwin-Williams	0.83	11.50	12.40	14.00	12.63	0.88	13.51
Selective Ins. Group	1.40	11.00	NA	13.40	12.20	1.49	13.69
Sirius XM Holdings	1.40	30.50	9.70	9.75	16.65	1.52	18.17
Sensient Techn.	1.90	2.50	NA	3.80	3.15	1.93	5.08
Thermo Fisher Sci.	0.21	15.50	14.00	10.87	13.46	0.22	13.68
Texas Instruments	2.60	9.00	9.30	10.00	9.43	2.72	12.15
AMERCO	-	11.50	NA	15.00	13.25	-	NA
UniFirst Corp.	0.64	5.50	NA	10.00	7.75	0.66	8.41
VeriSign Inc.	-	8.50	NA	8.00	8.25	-	NA
Waters Corp.	-	6.00	8.50	10.00	8.17	-	NA
Watsco, Inc.	2.73	11.00	NA	15.00	13.00	2.91	15.91
						Mean	<u>12.78 %</u>
						Median	<u>12.61 %</u>
						Average of Mean and Median	<u>12.70 %</u>

NA= Not Available
NMF= Not Meaningful Figure

Notes:

- (1) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the Utility Proxy Groups. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of March 18, 2022. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information: Value Line Investment Survey.
www.zacks.com Downloaded on 03/18/2022.
www.yahoo.com Downloaded on 03/18/2022.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Thirty-Eight Non- Price Regulated Companies</u>	<u>Proxy Group of Fourty Eight Non- Price Regulated Companies</u>
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	4.71 %	4.71 %
2.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (2)	<u>(0.12)</u>	<u>(0.12)</u>
3.	Adjusted Prospective Bond Yield	4.59 %	4.59 %
4.	Equity Risk Premium (3)	<u>7.53</u>	<u>8.14</u>
5.	Risk Premium Derived Common Equity Cost Rate	<u>12.12 %</u>	<u>12.73 %</u>

Notes: (1) Average forecast of Baa corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated December 1, 2021 (see pages 10 and 11 of Schedule DWD-4). The estimates are detailed below.

First Quarter 2022	3.90 %
Second Quarter 2022	4.20
Third Quarter 2022	4.40
Fourth Quarter 2022	4.60
First Quarter 2023	4.80
Second Quarter 2023	4.90
2023-2027	5.20
2028-2032	<u>5.70</u>
Average	<u>4.71 %</u>

(2) Both Non-Price Regulated Proxy Groups have an average LT issuer rating of Baa1. To reflect the Baa1 average rating of the Non-Price Regulated Proxy Groups, the prospective yield on Baa corporate bonds must be adjusted by 1/3 of the spread between A and Baa corporate bond yields as shown below:

	<u>A Corp. Bond Yield</u>	<u>Baa Corp. Bond Yield</u>	<u>Spread</u>
Feb-22	3.60 %	3.97 %	0.37 %
Jan-22	3.25	3.59	0.34
Dec-21	2.97	3.30	<u>0.33</u>
	Average yield spread		<u>0.35</u>
	1/3 of spread		<u>0.12</u>

(3) From page 7 of this Schedule.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

Proxy Group of Thirty-Eight Non-Price Regulated Companies	Moody's Long-Term Issuer Rating March 2022		Standard & Poor's Long-Term Issuer Rating March 2022	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Agilent Technologies	Baa2	9.0	BBB+	8.0
Abbott Labs.	A1	5.0	AA-	4.0
Assurant Inc.	Baa3	10.0	BBB	9.0
Smith (A.O.)	NA	--	NA	--
Air Products & Chem.	A2	6.0	A	6.0
Becton, Dickinson	Baa3	10.0	BBB	9.0
Brown-Forman 'B'	A1	5.0	A-	7.0
Black Knight, Inc.	Ba3	13.0	BB	12.0
Bristol-Myers Squibb	A2	6.0	A+	5.0
Broadridge Fin'l	Baa1	8.0	BBB+	8.0
CACI Int'l	NA	--	BB+	11.0
Cerner Corp.	NA	--	NA	--
Chemed Corp.	WR	--	NR	--
CSW Industrials	NA	--	NA	--
Exponent, Inc.	NA	--	NA	--
Ingredion Inc.	Baa1	8.0	BBB	9.0
J&J Snack Foods	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
McCormick & Co.	Baa2	9.0	BBB	9.0
Monster Beverage	NA	--	NA	--
Altria Group	A3	7.0	BBB	9.0
Merck & Co.	A1	5.0	A+	5.0
Motorola Solutions	Baa3	10.0	BBB-	10.0
NewMarket Corp.	Baa2	9.0	BBB+	8.0
Northrop Grumman	Baa1	8.0	BBB+	8.0
Old Dominion Freight	NA	--	NA	--
Oracle Corp.	Baa2	9.0	BBB+	8.0
Pfizer, Inc.	A2	6.0	A+	5.0
Progressive Corp.	A2	6.0	A	6.0
RLI Corp.	Baa2	9.0	BBB	9.0
Selective Ins. Group	Baa2	9.0	BBB	9.0
Sirius XM Holdings	NA	--	BB	12.0
Sensient Techn.	WR	--	NR	--
Thermo Fisher Sci.	A3	7.0	BBB+	8.0
Texas Instruments	Aa3	4.0	A+	5.0
VeriSign Inc.	Baa3	10.0	BBB	9.0
Watsco, Inc.	NA	--	NA	--
Western Union	Baa2	9.0	BBB	9.0
Average	Baa1	7.9	BBB+	8.0

Notes:

(1) From page 6 of Schedule DWD-4.

Source of Information:

Bloomberg Professional Services.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

Proxy Group of Fourty Eight Non-Price Regulated Companies	Moody's Long-Term Issuer Rating March 2022		Standard & Poor's Long-Term Issuer Rating March 2022	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Agilent Technologies	Baa2	9.0	BBB+	8.0
Abbott Labs.	A1	5.0	AA-	4.0
Analog Devices	A3	7.0	A-	7.0
Assurant Inc.	Baa3	10.0	BBB	9.0
Smith (A.O.)	NA	--	NA	--
Air Products & Chem.	A2	6.0	A	6.0
Brown-Forman 'B'	A1	5.0	A-	7.0
Ball Corp.	Ba1	11.0	BB+	11.0
Bristol-Myers Squibb	A2	6.0	A+	5.0
Broadridge Fin'l	Baa1	8.0	BBB+	8.0
Brady Corp.	NA	--	NA	--
CACI Int'l	NA	--	BB+	11.0
Cerner Corp.	NA	--	NA	--
Chemed Corp.	WR	--	NR	--
CSW Industrials	NA	--	NA	--
Danaher Corp.	Baa1	8.0	BBB+	8.0
Dolby Labs.	NA	--	NA	--
Exponent, Inc.	NA	--	NA	--
FactSet Research	Baa3	10.0	NA	--
GATX Corp.	Baa2	9.0	BBB	9.0
Gentex Corp.	NA	--	NA	--
Alphabet Inc.	Aa2	3.0	AA+	2.0
Ingredion Inc.	Baa1	8.0	BBB	9.0
Hunt (J.B.)	Baa1	8.0	BBB+	8.0
J&J Snack Foods	NA	--	NA	--
Henry (Jack) & Assoc	NA	--	NA	--
McCormick & Co.	Baa2	9.0	BBB	9.0
Monster Beverage	NA	--	NA	--
Motorola Solutions	Baa3	10.0	BBB-	10.0
Mettler-Toledo Int'l	WR	--	NR	--
Northrop Grumman	Baa1	8.0	BBB+	8.0
Old Dominion Freight	NA	--	NA	--
Pfizer, Inc.	A2	6.0	A+	5.0
Packaging Corp.	Baa2	9.0	BBB	9.0
Post Holdings	B2	15.0	B+	14.0
RLI Corp.	Baa2	9.0	BBB	9.0
Service Corp. Int'l	Ba3	13.0	BB+	11.0
Sherwin-Williams	Baa2	9.0	BBB	9.0
Selective Ins. Group	Baa2	9.0	BBB	9.0
Sirius XM Holdings	NA	--	BB	12.0
Sensient Techn.	WR	--	NR	--
Thermo Fisher Sci.	A3	7.0	BBB+	8.0
Texas Instruments	Aa3	4.0	A+	5.0
AMERCO	WR	--	NR	--
UniFirst Corp.	NA	--	NA	--
VeriSign Inc.	Baa3	10.0	BBB	9.0
Waters Corp.	NA	--	NA	--
Watsco, Inc.	NA	--	NA	--
Average	<u>Baa1</u>	<u>8.3</u>	<u>BBB+</u>	<u>8.2</u>

Notes:
(1) From page 6 of Schedule DWD-4.

Source of Information:
Bloomberg Professional Services.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Thirty- Eight Non-Price Regulated Companies</u>	<u>Proxy Group of Fourty Eight Non-Price Regulated Companies</u>
1.	Ibbotson Equity Risk Premium (1)	5.92 %	5.92 %
2.	Regression on Ibbotson Risk Premium Data (2)	8.23	8.23
3.	Ibbotson Equity Risk Premium based on PRPM (3)	8.07	8.07
4.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (4)	7.44	7.44
5	Equity Risk Premium Based on <u>Value Line</u> S&P 500 Companies (5)	12.19	12.19
6.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	10.65	10.65
7.	Conclusion of Equity Risk Premium	8.75 %	8.75 %
8.	Adjusted Beta (7)	0.86	0.93
9.	Forecasted Equity Risk Premium	7.53 %	8.14 %

Notes:

- (1) From note 1 of page 9 of Schedule DWD-4.
- (2) From note 2 of page 9 of Schedule DWD-4.
- (3) From note 3 of page 9 of Schedule DWD-4.
- (4) From note 4 of page 9 of Schedule DWD-4.
- (5) From note 5 of page 9 of Schedule DWD-4.
- (6) From note 6 of page 9 of Schedule DWD-4.
- (7) Average of mean and median beta from pages 8 and 9 of this Schedule.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2021 SBBi Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index.
Blue Chip Financial Forecasts, March 1, 2022 and December 1, 2021
Bloomberg Professional Services.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Thirty-Eight Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Agilent Technologies	0.90	0.98	0.94	9.84 %	2.89 %	12.14 %	12.28 %	12.21 %
Abbott Labs.	0.90	0.79	0.84	9.84	2.89	11.15	11.55	11.35
Assurant Inc.	0.95	0.93	0.94	9.84	2.89	12.14	12.28	12.21
Smith (A.O.)	0.85	1.06	0.95	9.84	2.89	12.24	12.36	12.30
Air Products & Chem.	0.90	0.90	0.90	9.84	2.89	11.74	11.99	11.87
Becton, Dickinson	0.75	0.52	0.64	9.84	2.89	9.19	10.07	9.63
Brown-Forman 'B'	0.90	0.96	0.93	9.84	2.89	12.04	12.21	12.12
Black Knight, Inc.	0.75	0.80	0.77	9.84	2.89	10.46	11.03	10.75
Bristol-Myers Squibb	0.85	0.64	0.74	9.84	2.89	10.17	10.81	10.49
Broadridge Fin'l	0.85	0.85	0.85	9.84	2.89	11.25	11.62	11.44
CACI Int'l	0.90	0.92	0.91	9.84	2.89	11.84	12.06	11.95
Cerner Corp.	0.90	0.75	0.82	9.84	2.89	10.96	11.40	11.18
Chemed Corp.	0.85	0.90	0.88	9.84	2.89	11.55	11.84	11.69
CSW Industrials	0.90	1.07	0.99	9.84	2.89	12.63	12.65	12.64
Exponent, Inc.	0.90	1.01	0.95	9.84	2.89	12.24	12.36	12.30
Ingredion Inc.	0.90	0.83	0.86	9.84	2.89	11.35	11.69	11.52
J&J Snack Foods	0.95	0.72	0.83	9.84	2.89	11.05	11.47	11.26
Henry (Jack) & Assoc	0.85	0.78	0.82	9.84	2.89	10.96	11.40	11.18
McCormick & Co.	0.80	0.59	0.70	9.84	2.89	9.78	10.51	10.14
Monster Beverage	0.85	1.00	0.92	9.84	2.89	11.94	12.14	12.04
Altria Group	0.95	0.81	0.88	9.84	2.89	11.55	11.84	11.69
Merck & Co.	0.80	0.57	0.68	9.84	2.89	9.58	10.37	9.97
Motorola Solutions	0.90	1.01	0.95	9.84	2.89	12.24	12.36	12.30
NewMarket Corp.	0.75	0.54	0.64	9.84	2.89	9.19	10.07	9.63
Northrop Grumman	0.85	0.73	0.79	9.84	2.89	10.66	11.18	10.92
Old Dominion Freight	0.95	1.07	1.01	9.84	2.89	12.83	12.80	12.81
Oracle Corp.	0.75	0.84	0.80	9.84	2.89	10.76	11.25	11.01
Pfizer, Inc.	0.80	0.59	0.69	9.84	2.89	9.68	10.44	10.06
Progressive Corp.	0.75	0.67	0.71	9.84	2.89	9.87	10.59	10.23
RLI Corp.	0.80	1.02	0.91	9.84	2.89	11.84	12.06	11.95
Selective Ins. Group	0.90	1.00	0.95	9.84	2.89	12.24	12.36	12.30
Sirius XM Holdings	0.95	1.01	0.98	9.84	2.89	12.53	12.58	12.55
Sensient Techn.	0.90	0.99	0.95	9.84	2.89	12.24	12.36	12.30
Thermo Fisher Sci.	0.85	0.76	0.80	9.84	2.89	10.76	11.25	11.01
Texas Instruments	0.85	0.92	0.89	9.84	2.89	11.64	11.92	11.78
VeriSign Inc.	0.90	0.78	0.84	9.84	2.89	11.15	11.55	11.35
Watsco, Inc.	0.85	0.78	0.82	9.84	2.89	10.96	11.40	11.18
Western Union	0.80	1.04	0.92	9.84	2.89	11.94	12.14	12.04
Mean			<u>0.85</u>			<u>11.27 %</u>	<u>11.64 %</u>	<u>11.46 %</u>
Median			<u>0.87</u>			<u>11.45 %</u>	<u>11.77 %</u>	<u>11.61 %</u>
Average of Mean and Median			<u>0.86</u>			<u>11.36 %</u>	<u>11.71 %</u>	<u>11.54 %</u>

Notes:

- (1) From note 1 of page 2 of Schedule DWD-5.
- (2) From note 2 of page 2 of Schedule DWD-5.
- (3) Average of CAPM and ECAPM cost rates.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Fourty Eight Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
Agilent Technologies	0.90	0.98	0.94	9.84 %	2.89 %	12.14 %	12.28 %	12.21 %
Abbott Labs.	0.90	0.79	0.84	9.84	2.89	11.15	11.55	11.35
Analog Devices	0.95	1.08	1.01	9.84	2.89	12.83	12.80	12.81
Assurant Inc.	0.95	0.93	0.94	9.84	2.89	12.14	12.28	12.21
Smith (A.O.)	0.85	1.06	0.95	9.84	2.89	12.24	12.36	12.30
Air Products & Chem.	0.90	0.90	0.90	9.84	2.89	11.74	11.99	11.87
Brown-Forman 'B'	0.90	0.96	0.93	9.84	2.89	12.04	12.21	12.12
Ball Corp.	0.95	1.02	0.98	9.84	2.89	12.53	12.58	12.55
Bristol-Myers Squibb	0.85	0.64	0.74	9.84	2.89	10.17	10.81	10.49
Broadridge Fin'l	0.85	0.85	0.85	9.84	2.89	11.25	11.62	11.44
Brady Corp.	1.00	1.17	1.08	9.84	2.89	13.51	13.32	13.42
CACI Int'l	0.90	0.92	0.91	9.84	2.89	11.84	12.06	11.95
Cerner Corp.	0.90	0.75	0.82	9.84	2.89	10.96	11.40	11.18
Chemed Corp.	0.85	0.90	0.88	9.84	2.89	11.55	11.84	11.69
CSW Industrials	0.90	1.07	0.99	9.84	2.89	12.63	12.65	12.64
Danaher Corp.	0.80	0.82	0.81	9.84	2.89	10.86	11.33	11.09
Dolby Labs.	0.95	0.88	0.91	9.84	2.89	11.84	12.06	11.95
Exponent, Inc.	0.90	1.01	0.95	9.84	2.89	12.24	12.36	12.30
FactSet Research	0.95	0.94	0.94	9.84	2.89	12.14	12.28	12.21
GATX Corp.	0.95	0.97	0.96	9.84	2.89	12.33	12.43	12.38
Gentex Corp.	0.95	1.09	1.02	9.84	2.89	12.92	12.87	12.90
Alphabet Inc.	0.90	0.98	0.94	9.84	2.89	12.14	12.28	12.21
Ingredion Inc.	0.90	0.83	0.86	9.84	2.89	11.35	11.69	11.52
Hunt (J.B.)	0.95	0.99	0.97	9.84	2.89	12.43	12.51	12.47
J&J Snack Foods	0.95	0.72	0.83	9.84	2.89	11.05	11.47	11.26
Henry (Jack) & Assoc	0.85	0.78	0.82	9.84	2.89	10.96	11.40	11.18
McCormick & Co.	0.80	0.59	0.70	9.84	2.89	9.78	10.51	10.14
Monster Beverage	0.85	1.00	0.92	9.84	2.89	11.94	12.14	12.04
Motorola Solutions	0.90	1.01	0.95	9.84	2.89	12.24	12.36	12.30
Mettler-Toledo Int'l	0.95	1.10	1.03	9.84	2.89	13.02	12.95	12.99
Northrop Grumman	0.85	0.73	0.79	9.84	2.89	10.66	11.18	10.92
Old Dominion Freight	0.95	1.07	1.01	9.84	2.89	12.83	12.80	12.81
Pfizer, Inc.	0.80	0.59	0.69	9.84	2.89	9.68	10.44	10.06
Packaging Corp.	0.95	0.82	0.89	9.84	2.89	11.64	11.92	11.78
Post Holdings	0.95	0.81	0.88	9.84	2.89	11.55	11.84	11.69
RLI Corp.	0.80	1.02	0.91	9.84	2.89	11.84	12.06	11.95
Service Corp. Int'l	0.95	1.03	0.99	9.84	2.89	12.63	12.65	12.64
Sherwin-Williams	0.90	0.98	0.94	9.84	2.89	12.14	12.28	12.21
Selective Ins. Group	0.90	1.00	0.95	9.84	2.89	12.24	12.36	12.30
Sirius XM Holdings	0.95	1.01	0.98	9.84	2.89	12.53	12.58	12.55
Sensient Techn.	0.90	0.99	0.95	9.84	2.89	12.24	12.36	12.30
Thermo Fisher Sci.	0.85	0.76	0.80	9.84	2.89	10.76	11.25	11.01
Texas Instruments	0.85	0.92	0.89	9.84	2.89	11.64	11.92	11.78
AMERCO	0.95	1.13	1.04	9.84	2.89	13.12	13.02	13.07
UniFirst Corp.	0.95	1.10	1.02	9.84	2.89	12.92	12.87	12.90
VeriSign Inc.	0.90	0.78	0.84	9.84	2.89	11.15	11.55	11.35
Waters Corp.	0.95	0.94	0.94	9.84	2.89	12.14	12.28	12.21
Watsco, Inc.	0.85	0.78	0.82	9.84	2.89	10.96	11.40	11.18
		Mean	0.91			11.85 %	12.07 %	11.96 %
		Median	0.94			12.09 %	12.25 %	12.17 %
		Average of Mean and Median	0.93			11.97 %	12.16 %	12.07 %

Notes:

- (1) From note 1 of page 2 of Schedule DWD-5.
- (2) From note 2 of page 2 of Schedule DWD-5.
- (3) Average of CAPM and ECAPM cost rates.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.	[1] Market Capitalization on March 18, 2022 (1) (millions)	[2] Applicable Decile of the NYSE/AMEX/NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	a. Valley Energy, Inc.	10	5.01%	
	b. Citizens' Electric Company of Lewisburg, PA	10	5.01%	
2.	a. Proxy Group of Six Natural Gas Distribution Companies	4	0.75%	4.26%
	b. Proxy Group of Fourteen Electric Companies	2	0.49%	4.52%

[A] Decile	[B] Market Capitalization of Smallest Company (millions)	[C] Market Capitalization of Largest Company (millions)	[D] Size Premium (Return in Excess of CAPM)*
Largest	1 \$ 29,025.803	\$ 1,966,078.882	-0.22%
	2 13,178.743	28,808.073	0.49%
	3 6,743.361	13,177.828	0.71%
	4 3,861.858	6,710.676	0.75%
	5 2,445.693	3,836.536	1.09%
	6 1,591.865	2,444.745	1.37%
	7 911.586	1,591.765	1.54%
	8 451.955	911.103	1.46%
	9 190.019	451.800	2.29%
Smallest	10 2.194	189.831	5.01%

Notes:

- (1) From page 2 of this Schedule.
- (2) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
- (3) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
- (4) Line No. 1 Column [3] - Line No. 2 Column [3]. For example, the 4.26% in Column [4], Line No. 2 is derived as follows 4.26% = 5.01% - 0.75%.

*From 2021 Duff & Phelps Cost of Capital Navigator

Valley Energy, Inc./Citizens' Electric Company of Lewisburg, PA
Market Capitalization of Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA and the
Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies

Company	[1] Exchange	[2] Common Stock Shares Outstanding at Fiscal Year End 2021 (millions)	[3] Book Value per Share at Fiscal Year End 2021 (1)	[4] Total Common Equity at Fiscal Year End 2021 (millions)	[5] Closing Stock Market Price on March 18, 2022	[6] Market-to-Book Ratio on March 18, 2022 (2)	[6] Market Capitalization on March 18, 2022 (millions)
Valley Energy, Inc.		NA	NA	10,426 (4)	NA		
Citizens' Electric Company of Lewisburg, PA		NA	NA	7,934 (4)	NA		
Based upon Proxy Group of Six Natural Gas Distribution Companies						195.9 (5)	\$ 20,425 (6)
Based upon Proxy Group of Fourteen Electric Companies						201.3 (5)	\$ 15,971 (6)
Proxy Group of Six Natural Gas Distribution Companies							
Atmos Energy Corporation	NYSE	132,420	\$ 59.711	\$ 7,906,889	\$ 112.730	188.8 %	\$ 14,927,679
New Jersey Resources Corporation	NYSE	95,710	17.040	1,630,862	43,460	255.0	4,159,542
NSource Inc.	NYSE	405,303	13.325	5,400,800	30,090	225.8	12,195,568
Northwest Natural Holding Company	NYSE	31,129	30.041	935,146	52,660	175.4	1,639,876
ONE Gas, Inc.	NYSE	53,633	43.807	2,349,532	82,500	188.3	4,424,740
Spire Inc.	NYSE	51,685	46.749	2,416,200	66,350	141.9	3,429,292
Average		128,313	\$ 35.112	\$ 3,439,905	\$ 64,635	195.9 %	\$ 6,796,116
Proxy Group of Fourteen Electric Companies							
Alliant Energy Corporation	NASDAQ	250,475	\$ 23.915	\$ 5,990,000	\$ 60.310	252.2 %	\$ 15,106,119
Ameren Corporation	NYSE	257,700	37.641	9,700,000	87,850	233.4	22,638,945
American Electric Power Company, Inc.	NASDAQ	504,212	44.492	22,433,200	94,070	211.4	47,431,224
Duke Energy Corporation	NYSE	769,000	61.553	47,334,000	105,050	170.7	80,783,450
Edison International	NYSE	380,378	36.572	13,911,000	64,650	176.8	24,591,447
Energy Corporation	NYSE	202,653	57.425	11,637,284	109,450	190.6	22,180,391
Energy, Inc.	NYSE	229,300	40.316	9,244,400	64,770	160.7	14,851,755
Eversource Energy	NYSE	344,403	42.982	14,599,844	83,430	196.8	28,733,559
IDACORP, Inc.	NYSE	50,516	52.823	2,668,436	110,250	208.7	5,569,442
NorthWestern Corporation	NASDAQ	57,606	40.616	2,339,713	57,340	141.2	3,303,142
OGE Energy Corporation	NYSE	200,500	20.231	4,056,300	38,410	189.9	7,701,205
Portland General Electric Company	NYSE	89,411	30.276	2,707,000	53,790	177.7	4,809,397
The Southern Company	NYSE	1,100,000	25.340	27,874,000	68,030	268.5	74,833,000
Xcel Energy, Inc.	NASDAQ	544,025	28.697	15,612,000	68,790	239.7	37,423,498
Average		355,727	\$ 38.735	\$ 13,579,084	\$ 76,156	201.3 %	\$ 27,854,041

NA= Not Available

- Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 1 * Column 4.
(4) Requested rate base multiplied by the requested common equity ratio.
(5) The market-to-book ratio of Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA on March 18, 2022 is assumed to be equal to the market-to-book ratio of Proxy Group of Six Natural Gas Distribution Companies and Proxy Group of Fourteen Electric Companies on March 18, 2022 as appropriate.

(6) Column [3] multiplied by Column [5].

Source of Information: 2021 Annual Forms 10K
yahoo.finance.com.
Bloomberg Professional Services

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-_____
	:	R-2022-_____
Citizens' Electric Company of Lewisburg, PA and Valley Energy Company	:	

**DIRECT TESTIMONY
AND EXHIBIT
OF
MELISSA SULLIVAN**

**ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY COMPANY**

APRIL 29, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
: **Docket Nos. R-2022-_____**
v. : **R-2022-_____**
: **Citizens' Electric Company of Lewisburg, PA** :
and Valley Energy Company :

**DIRECT TESTIMONY OF MELISSA SULLIVAN
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA, AND
VALLEY ENERGY COMPANY**

1 **Q. Please state your name and business address.**

2 A. My name is Melissa Sullivan and my business address is 33 Austin Street, 3rd Floor,
3 Wellsboro, Pennsylvania.

4 **Q. By whom are you employed?**

5 A. I am employed by C&T Enterprises, Inc. ("C&T"), as the Chief Financial Officer ("CFO").

6 **Q. What are your duties in that capacity?**

7 A. As CFO, I have a number of duties, including: administering C&T's financial activities;
8 reporting to C&T's Chief Executive Officers and Board of Directors regarding C&T's
9 financial condition and making recommendations when required; providing accounting
10 support to the affiliated companies; arranging long-term and short-term financing for
11 C&T's affiliates; reviewing the operating companies' monthly financial statements and
12 consolidating the financial statements quarterly for C&T's officers, directors and lending
13 institutions review; assisting each accounting department with preliminary and year-end
14 audits; reviewing and consolidating annual budgets and supplying the operating companies
15 with projections for shared services and long-term and short-term debt service projections;

1 and attending at least one Board of Directors meeting annually for each operating company
2 to review audited financials and provide an update on C&T. In addition, I have
3 responsibility for the oversight of regulatory activities of C&T's affiliates: Citizens'
4 Electric Company of Lewisburg, PA ("Citizens"); Wellsboro Electric Company
5 ("Wellsboro"); and Valley Energy, Inc. ("Valley") (collectively, "Companies").
6 Regulatory activities include annual Pennsylvania Public Utility Commission ("PUC" or
7 "Commission") reporting, securities certificate filings, rate filings, Public Utility Realty
8 Tax Act ("PURTA") filings, State Tax Adjustment Surcharge ("STAS") filings and
9 Generation Supply Service Rate ("GSSR")/Gas Cost Rate ("GCR") filings and GSSR/GCR
10 audits.

11 **Q. Please describe your employment and educational background.**

12 A. I have a Bachelor of Science degree in Business Administration and Industrial Relations
13 (Human Resources) from Clarion University of Pennsylvania as well as a Master of
14 Science degree in Business Leadership from Wilkes University. I began my career as
15 Business Manager at Galeton Area School District in 2007 and remained there until 2013.
16 In 2013, I accepted a position at Mansfield University of Pennsylvania as Human
17 Resources Manager working directly with the Director of Human Resources and other top
18 officers. In 2014, due to cutbacks at the University, I began serving as Director of Human
19 Resources at SMC Powder Metallurgy, where I remained until taking the position as Chief
20 Financial Officer at C&T Enterprises, Inc. in 2018.

21 **Q. What are your responsibilities with respect to this filing?**

22 A. I am responsible for coordinating the internal and external resources for this case, including
23 legal, consulting, auditing, and company support.

1 **Q. What is the purpose of your testimony?**

2 A. The purpose of my testimony is to explain C&T's roles and procedures as the management
3 services company, and to discuss the history and circumstances surrounding C&T's
4 acquisition of the two operating companies that are seeking rate relief (Citizens' and
5 Valley).

6 **Q. Did you provide information to other witnesses to prepare their testimony for this**
7 **proceeding?**

8 A. Yes. Mr. Gorman, Ms. Levering, Ms. Stauder, and Mr. D'Ascendis rely upon certain
9 information that I provided.

10 **HISTORY OF C&T AND ACQUISITIONS**

11 **Q. Please explain the relationship between C&T and the affiliates.**

12 A. C&T is a for-profit subsidiary of Claverack Rural Electric Cooperative ("Claverack") and
13 Tri-Country Rural Electric Cooperative ("Tri-County"). C&T was formed in 1998 to
14 facilitate the purchase of Citizens'. C&T now owns all of the stock of Citizens', Wellsboro
15 and Valley. Charts showing the current corporate family structures are attached as
16 Exhibit__(MS-1). Also included in Exhibit__(MS-1) is a description of each entity within
17 the C&T family.

18 **Q. Could you please provide a brief history of each of the affiliate acquisitions by C&T?**

19 A. As noted above, C&T was originally formed by Tri-County and Claverack in 1998 to
20 acquire Citizens'. On February 8, 1999, C&T completed a stock purchase acquiring
21 approximately 99% of Citizens' stock. Subsequently, C&T acquired the remaining shares.
22 When C&T purchased Citizens', Citizens' had very little debt. Our accountants advised us
23 that we should place the debt for the purchase on C&T's books. As a result, Citizens' capital

1 structure was 100% equity and zero debt at closing. Citizens' capital structure as of
2 December 31, 2021, was 16.1% debt and 83.9% equity.

3 On March 10, 1994, Tri-County formed Wilderness Area Utilities, Inc. ("Wilderness"), to
4 acquire Wellsboro. On January 4, 1995, Wilderness completed a stock purchase acquiring
5 100% of Wellsboro. On January 1, 2005, Tri-County transferred 100% ownership of its
6 common stock in Wilderness to C&T. Wilderness then transferred 100% of its stock in
7 Wellsboro to C&T and Wilderness was subsequently inactivated. When Wilderness
8 purchased Wellsboro, Wellsboro had approximately \$2.3 million in existing debt and our
9 accountants advised us not to place any of the acquisition debt on Wellsboro's books. The
10 resulting capital structure was 65.2% debt and 34.8% equity. Wellsboro's current capital
11 structure as of December 31, 2021, was 75% debt, 1.0% preferred stock and 24% common
12 equity.

13 C&T formed Valley on October 17, 2000, to facilitate the purchase of the assets of Valley
14 Cities Gas and Waverly Gas Service from NUI Corporation. On November 7, 2002, the
15 transaction was completed and Valley assumed ownership of the assets and began
16 operation. The assets were purchased for \$15 million. C&T's parent companies made an
17 equity infusion of \$3 million and C&T assumed a long-term loan for \$12 million. Because
18 it was an asset deal, C&T could place the entire acquisition debt (including \$899,000 of
19 acquisition cost) in the amount of \$12.9 million on Valley's books, resulting in an initial
20 capitalization of 81.1% debt and 18.9% equity. Valley's current capital structure as of
21 December 31, 2021, was 46.5% debt and 53.5% common equity.

22 **Q. Do you have any comments on the capital structures that exist for each operating**
23 **company?**

1 A. Yes. As the previous question demonstrates, C&T's three PUC-regulated subsidiaries have
2 different capital structures. This occurred due to the historic financial practices of each
3 particular subsidiary prior to C&T's acquisition, the amount of debt that has been incurred
4 since acquisition to fund system improvements, and/or the deal structure for the
5 acquisition. On a consolidated basis, C&T's capital structure as of December 31, 2021, is
6 49.53% equity and 50.47% debt. Mr. D'Ascendis' testimony explains why the consolidated
7 capital structure is an appropriate hypothetical capital structure to use for Citizens' and
8 Valley in this case.

9 **C&T SERVICES PROVIDED TO CITIZENS', WELLSBORO, AND VALLEY**

10 **Q. Please describe the services that C&T provides the affiliates.**

11 A. In addition to being the parent holding company, C&T currently provides various
12 management services to its affiliates. These services include shared services such as
13 human resources and payroll; call center; information technology; safety oversight; and
14 legal/regulatory. Finally, C&T functions as the formal employer of the non-union
15 employees within the entire corporate family so our group can combine resources for
16 insurance and other benefits.

17 **Q. Are there Affiliated Interest Agreements that address the services provided among**
18 **the C&T entities?**

19 A. Yes. There is an Affiliated Interest Agreement ("AIA") that was executed by all of the
20 C&T entities (including the cooperatives) in 2019. C&T has a more detailed Contract for
21 Services with each subsidiary that implements the AIA, including the assignment of
22 various employees to the subsidiary. The Contract for Services was approved for Citizens'
23 at Docket No. G-2008-2020733 and for Valley at Docket No. G-2008-2020732. Citizens',

1 Valley and Wellsboro submitted proposed modifications to the AIA that are pending before
2 the Commission at the following dockets: G-2022-3031755 (Citizens'), G-2022-3031753
3 (Valley) and G-2022-3031756 (Wellsboro). I will discuss the Shared Services covered by
4 the AIA in more detail below.

5
6 **EMPLOYEE COSTS**

7 **Q. How does C&T determine the wages and benefits that are billed to each of the**
8 **affiliates for employees that are assigned to each operating company?**

9 A. The operating companies each determine which individuals they want to have on their
10 staffs; however, the official "employer" for all non-union employees is C&T. C&T handles
11 the payroll and benefits for all of the non-union employees in the corporate family. The
12 wages and benefits billed to Citizens', Wellsboro and Valley for the C&T employees are a
13 direct assignment of the salaries and benefits provided to the particular employees by C&T.
14 This applies only to non-union positions. Wellsboro's linemen are union employees that
15 are employed directly by Wellsboro.

16 With the exception of the salaries for the CEOs of Claverack, Tri-County and the three
17 subsidiaries, which are established by the respective Boards of Directors, C&T applies a
18 uniform methodology to determine the salaries for each of its employees. This
19 methodology is based on periodic surveys of the wages and salaries that are common in
20 the utility industry and in our portions of Pennsylvania. Performance range and grade
21 levels were established for each position. Grade levels were last updated in November,
22 2011. Also, each of the operating companies undertakes a performance evaluation process.

1 Each year, a wage and salary survey analysis is conducted to determine the prevailing pay
2 increases that are being implemented by employers in the labor market area and industry
3 of the operating company. Along with the labor market analysis, an economic analysis is
4 completed annually. After consideration of these two factors, C&T's Board of Directors,
5 upon the recommendation of the co-chairs of the oversight committee, makes a
6 determination of the base compensation adjustment to be applied to the pay rates of each
7 employee. Performance ranges for each position are also typically reviewed and adjusted
8 at this time.

9 Based on performance, an employee may be awarded a merit increase or bonus. The CEO
10 of the individual operating companies approve merit increases and bonuses when
11 appropriate for their employees.

12 **Q. Please provide the historic and projected base compensation adjustments for the**
13 **C&T employees.**

14 A. Historically, the base compensation adjustment was 3.0% to 3.5%, as set by the Board of
15 Directors each year. In December 2021, the C&T Board of Directors approved a 4.5%
16 adjustment for 2022. This was consistent with reports of other employer decisions
17 regarding annual wage increases, which we must consider to remain competitive in
18 attracting and retaining our employees. For the FPFTY 2023, Citizens' and Valley have
19 reflected an annual base compensation adjustment of 3.0% consistent with historic levels;
20 however, the C&T Board of Directors will make the final determination in late 2022. This
21 is conservative given the current levels of inflation.

22 **Q. How does C&T establish the benefits costs for the assigned employees.**

1 A. All full-time C&T employees are eligible for the benefits provided by C&T regardless of
2 which operating company they are assigned. C&T negotiates with the providers for bulk
3 benefit packages and premiums. We review our benefits options on an annual basis to
4 ensure that we are providing our employees with options that are attractive and consistent
5 with workforce expectations. We negotiate our health insurance prices each year to
6 minimize cost increases. We were very pleased to have a 0% increase from 2021 to 2022;
7 however, based on historic experience and continued inflationary pressures, we believe
8 that we could see an increase of 10 % for our benefits costs from 2022 to 2023. To be
9 conservative, both Companies have reflected just a 3% increase in benefit costs for 2023.
10 We will continue to check with our brokers during the litigation of this case to get
11 additional information regarding the 2023 increase. Normally, we finalize the contract in
12 October or November for the following year.

13 **Q. Please explain the billing process that C&T undertakes for the assigned employees.**

14 A. When possible, C&T attempts to directly assign costs to the operating companies. If direct
15 assignment is not administratively feasible, then we use another reasonable allocation
16 methodology.

17 Wages are billed monthly based on weekly time sheets submitted by each operating
18 company. The operating companies are billed for the direct and indirect labor expenses
19 for their employees. All employee benefits are arranged for and paid by C&T. The
20 premiums for medical, prescription, vision, dental, life insurance, and contributions to the
21 pension fund are directly assigned to the companies based on which company the employee
22 is assigned. All other benefits are allocated monthly based on percentage of payroll.

23

C&T SHARED SERVICES

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Q. What are the advantages of providing the C&T affiliates with the shared services?

A. There are several advantages. First, the shared services are functions that any single entity within the C&T family may not be able to support on a stand-alone basis. For example, Citizens', Wellsboro, and Valley likely would not be able to justify having a person dedicated to human resources when viewed separately; however, when the needs of the entire C&T family are assessed, the six companies clearly can justify a person dedicated to human resources. The people filling our shared services functions have specialized knowledge on highly technical issues due, largely, to their ability to devote their entire attention to the particular topic.

Second, the personnel at C&T who provide this advice have the experience of working with three PUC-regulated entities and two non-PUC-regulated entities with a combined workforce in excess of 200 employees, more than 61,000 combined customers and combined 2021 revenues exceeding \$106.5 million. These shared resources enable C&T and its affiliates to implement more standardized solutions reflecting the "best practices" of all of the affiliated companies.

Q. How has C&T historically billed the operating companies for the shared services?

A. Salaries and benefits for shared services (except the Controller Department) are billed monthly based on a pro-rata comparison of the number of active meters and the revenues for each operating company during the previous year, as follows: 60% active meters and 40% revenue. Under the implementation plan approved by the Bureau of Audits in 2007, the expenses for the shared services and other C&T administrative expenses (other than salaries and benefits) are being allocated based on the same formula as above and billed

1 monthly. The Controller's Department is allocated one-third to each regulated operating
2 company. No allocation is made to Tri-County or Claverack because none of the
3 controller's activities are performed for them.

4 Call Center charges are billed monthly based on a flat charge plus a nominal amount for
5 incoming and outgoing calls attributed to the particular operating company.

6 **Q. Please explain the changes to the shared services arrangement in the pending AIA**
7 **revisions?**

8 A. On April 1, 2022, Citizens', Valley and Wellsboro filed proposed revisions to the AIA that
9 would make the following changes:

- 10 1. Elimination of the "Key Accounts" function, which is now done by each individual
11 member organization rather than through a centralized shared employee.
- 12 2. Modifications to the explanation of the "Information Technology" function to reflect
13 the ongoing enhanced focus by this department on network infrastructure, third-party
14 technology and cyber security.
- 15 3. Addition of a "Legal/Regulatory" function, which is a new service provided as of
16 January 1, 2021. The "Legal/Regulatory" function provides advice and assistance on
17 legal and regulatory issues, including contracts, rates, ratemaking, tariffs, regulatory
18 proceedings, legislative proposals, regulatory business strategy and similar issues. A
19 portion the time for this function is devoted to activities necessary to operate the C&T
20 corporation, including assistance with human resources, board meetings and other
21 corporate functions. The remaining time is spent on the Legal/Regulatory Shared
22 Support Services functions as defined previously. This department also is available on
23 an "as needed" basis for specific projects for Tri-County and Claverack.
24

25 **Q. How do the companies allocate the costs for the Legal/Regulatory function?**

26 A. The agreement includes a cost allocation for the new Legal/Regulatory function that
27 appropriately reflects the anticipated activities for this department. Specifically, 10% of
28 the costs of this function are classified as relating to the operation of the C&T corporation.
29 That 10% is allocated among the member organizations using the meters/revenue
30 allocation that is used for the other C&T Shared Support Services (except

1 Treasury/Corporate Finance and Call Center). The remaining 90% of the Legal/Regulatory
2 department costs are allocated 1/3, 1/3, 1/3 to Citizens', Valley and Wellsboro, like the
3 allocation of the Treasury/Corporate Finance department costs. To appropriately account
4 for any projects or activities done for Claverack and Tri-County, the Legal/Regulatory
5 department tracks the hours on those projects. Claverack and Tri-County compensate C&T
6 for the tracked Legal/Regulatory hours, and those payments are used to offset the costs
7 allocated to Citizens', Valley and Wellsboro.

8 **FINANCING AND OTHER BENEFITS OF C&T STRUCTURE**

9 **Q. What are the other benefits of the C&T relationship?**

10 A. C&T's relationship with Tri-County and Claverack provides C&T access to reasonable cost
11 financing with better terms. C&T offers this financing to the operating companies. Also,
12 C&T has obtained reasonable premiums for Directors & Officers ("D&O"), liability, and
13 property insurance for its affiliates through Federated Rural Electric Cooperative Insurance
14 Company. The parent companies (C&T, Claverack and Tri-County) also provide parental
15 guarantees when necessary for various contracts such as Citizens' and Wellsboro's
16 wholesale electricity supply agreements, thus reducing the operating companies' need to
17 access independent or third-party financing for these arrangements. Citizens', Wellsboro,
18 and Valley each have access from C&T to a \$14 million short-term line of credit.

19 **Q. Please describe the financing arrangements that C&T has in place for Citizens',**
20 **Wellsboro, and Valley.**

21 A. Due to its affiliation with Tri-County and Claverack, C&T is able to borrow funds for
22 Citizens', Wellsboro's and Valley's use from the National Cooperative Services
23 Corporation ("NCSC"). NCSC is a lending institution formed by the Cooperative Finance

1 Corporation to address the financing needs of for-profit affiliates of rural electric
2 cooperatives. C&T borrows funds from NCSC on behalf of Citizens', Wellsboro, and
3 Valley. Currently, C&T has approximately \$30 million in outstanding debt with NCSC on
4 behalf of its subsidiaries. Citizens', Wellsboro, and Valley guarantee this debt with their
5 assets and stock.

6 **Q. What requirements or covenants does NCSC place on C&T?**

7 A. In addition to the standard Affirmative and Negative Covenants, NCSC requires C&T to
8 meet certain financial ratios, such as an annual Debt Service Coverage ("DSC") ratio on a
9 consolidated basis of not less than 1.15, and an Equity Ratio. NCSC also requires quarterly
10 financial reporting on a consolidated basis and an audited annual report for each subsidiary.
11 By January 31 of each calendar year each subsidiary must provide an updated five-year
12 financial plan.

13 Other covenants include that C&T shall not declare or make any dividend payments
14 without the written consent of NCSC. Without the prior written consent of NCSC, C&T
15 shall not cause or permit any subsidiary to: (i) consolidate with, merge, or sell all or
16 substantially all of its business or assets, to another entity or person, or (ii) acquire the
17 assets of another business or entity. Finally, C&T must notify NCSC of any changes in its
18 management agreements with any of its affiliates and shall submit copies of such revised
19 agreements to NCSC.

20 **Q. Will the requested rate relief be viewed positively by C&T's lender?**

21 A. Yes. As discussed above, NCSC actively monitors the financial condition of C&T and its
22 subsidiaries. Improving Citizens' and Valley's financial conditions through the requested
23 rate relief will contribute to C&T's ability to continue meeting its loan covenants and also

1 influence the amount of financing that NCSC may be willing to provide C&T and its
2 subsidiaries in the future for various purposes. Finally, by ensuring that the Companies'
3 rates provide the Companies with the opportunity to recover their costs and to earn a fair
4 return on investments, the Companies may be able to fund some capital improvements
5 without incurring additional debt, and to obtain a more favorable cost on debt they do incur.

6 **Q. Does this complete your Direct Testimony?**

7 A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

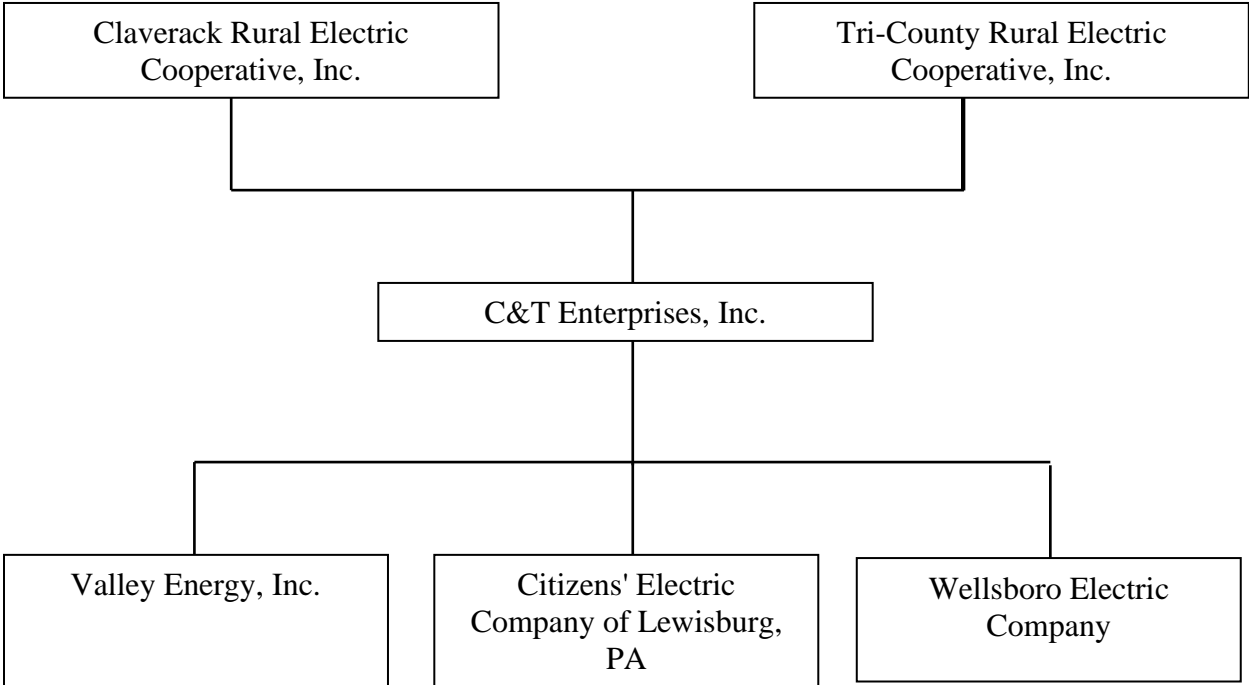
Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-_____
	:	R-2022-_____
Citizens' Electric Company of Lewisburg, PA and Valley Energy Company	:	

**EXHIBIT
OF
MELISSA SULLIVAN**

**ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA,
AND
VALLEY ENERGY COMPANY**

APRIL 29, 2022

**C&T ENTERPRISES, INC.
CORPORATE CHART**



**DESCRIPTION OF
C&T ENTERPRISES CORPORATE CHART**

Citizens' Electric Company of Lewisburg, PA

Citizens' is an investor-owned, for-profit electric utility incorporated under the laws of Pennsylvania. Citizens' serves approximately 7,100 customers in and around Lewisburg, Pennsylvania, in a 55 square mile territory in Union County. Approximately eighty percent (80%) of Citizens' customers are residential, with the remaining twenty percent (20%) of customers being commercial and small industrial users. Citizens' is subject to regulation by the Pennsylvania Public Utility Commission.

Claverack Rural Electric Cooperative, Inc.

Claverack is a rural electric cooperative incorporated under the Pennsylvania Electric Cooperative Corporation Act of 1937 providing service to approximately 18,900 members in an eight-county region in Northeastern Pennsylvania. It's service area is approximately 1,820 square miles in area. Claverack's service area includes all or parts of the following counties: Bradford, Lackawanna, Luzerne, Lycoming, Sullivan, Susquehanna, Tioga, and Wyoming. Approximately ninety-four percent (94%) of Claverack's customers are residential or seasonal customers. The remaining six percent (6%) are commercial or small industrial customers. The Rural Utility Service, Office of the United States Department of Agriculture, provides oversight of Claverack's operations.

C&T Enterprises, Inc.

C&T is a Pennsylvania business corporation that functions as a public utility holding company, which owns all of the stock of Valley Energy, WECO, and Citizens'. C&T acts as a management services company for the Group Members.

Tri-County Rural Electric Cooperative, Inc.

Tri-County is a member-owned rural electric cooperative incorporated under the Pennsylvania Electric Cooperative Corporation Act of 1937. Tri-County provides electric service to approximately 19,500 members in the following counties in Northcentral, Pennsylvania: Bradford, Cameron, Clinton, Lycoming, McKeon, Potter, and Tioga. Tri-County's service territory is approximately 4,484 square miles in area. The Rural Utility Service, Office of the United States Department of Agriculture, provides administrative oversight of Tri-County's operations.

Valley Energy, Inc. – Pennsylvania Division

VE-PA is a for-profit, investor-owned public utility incorporated under the laws of Pennsylvania. VE-PA is engaged in the business of supplying and distributing natural gas to approximately 6,400 residential customers and 930 commercial and industrial customers. VE-PA's service territory is in and around Sayre, Pennsylvania, in Northcentral Pennsylvania. VE-PA is subject to regulation by the Pennsylvania Public Utility Commission.

Valley Energy, Inc. – New York Division

VE-NY is a for-profit, investor-owned public utility incorporated under the laws of Pennsylvania. VE-NY is engaged in the business of supplying and distributing natural gas to approximately 1,800 residential and 220 commercial and industrial customers. VE-NY's service area is in and around Waverly, New York. VE-NY is subject to regulation by the New York Public Service Commission.

Wellsboro Electric Company

WECO is a for-profit, investor-owned utility rendering electric utility service in the Borough of Wellsboro, Pennsylvania and surrounding communities. WECO serves approximately 6,400 customers, over eighty percent (80%) of which are residential and twenty percent (20%) of which are commercial or industrial. WECO is regulated by the Pennsylvania Public Utility Commission.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-_____
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**DIRECT TESTIMONY
AND EXHIBITS

OF

JOHN KELCHNER**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022

**BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
Citizens' Electric Company of Lewisburg, PA :

**DIRECT TESTIMONY OF JOHN KELCHNER
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

1 **Q. Please state your name and business address.**

2 A. My name is John Kelchner. My business address is 1775 Industrial Blvd., Lewisburg,
3 Pennsylvania.

4 **Q. By whom are you employed and what position do you hold with Citizens' Electric**
5 **Company of Lewisburg, PA?**

6 A. I am employed by C&T Enterprises, Inc., ("C&T"), and assigned to Citizens' Electric
7 Company of Lewisburg, PA ("Citizens" or "Company"), as the President and Chief
8 Executive Officer.

9 **Q. What are your duties in that capacity?**

10 A. My duties are to lead and provide general management to Citizens'. I am also responsible
11 for power supply and regulatory issues.

12 **Q. Please describe your educational and professional background.**

13 A. I have a bachelor's degree in electrical engineering from The Pennsylvania State
14 University. I joined Citizens' as the Senior Director of Engineering and Operations in 2003.
15 From 2006 to 2018, I served as the Vice President of Engineering and Operations. In 2018,
16 I became President and Chief Executive Officer. Prior to joining Citizens', I held various

1 technical, supervisory and management positions in engineering and operations with the
2 Potomac Edison Company, later dba Allegheny Power, in Hagerstown, MD, Augusta, WV,
3 Winchester, VA and Martinsburg, WV. In addition to my degree from Penn State, I am a
4 graduate of the National Rural Electric Cooperative Association's Robert I. Kabat
5 Management Internship Program at the University of Wisconsin at Madison. I am also a
6 registered professional engineer in Pennsylvania and West Virginia.

7 **Q. Please describe the purpose of your testimony.**

8 A. My testimony provides a general overview of Citizens', its service territory, and its
9 customer base. In addition, I address portions of the historical data, future test year
10 expenses, and capital improvements information provided to Company witness
11 Mr. Gorman for compilation and preparation of the filing. I also address the unique
12 circumstances faced by Citizens' as a small electric utility, and the bases for a performance
13 adjustment to the Company's rate of return. Additionally, I will address Citizens' staffing
14 and succession planning efforts.

15 **Q. Please provide a brief overview of Citizens' and its service territory.**

16 A. Citizens' is a small investor-owned Electric Distribution Company ("EDC") under the
17 jurisdiction of the Pennsylvania Public Utility Commission ("PUC" or "Commission")
18 operating in Lewisburg Borough, Buffalo, East Buffalo and Kelly Townships in Union
19 County, Pennsylvania. Citizens' service territory is surrounded by PPL Electric Utilities
20 Corporation ("PPL"). In 2021, Citizens' served an average of approximately 5,892
21 residential customers, 1,161 commercial and industrial customers, and 39 lighting
22 customers – a total of approximately 7,093.

1 Citizens' was acquired on February 8, 1999, by C&T through the purchase of 99.9% of
2 Citizens' stock with the remaining shares being held by several minority shareholders.
3 C&T subsequently acquired the remaining outstanding shares, making C&T the sole
4 shareholder of Citizens'. C&T is a holding company and management services firm that is
5 jointly owned by Tri-County Rural Electric Cooperative based in Mansfield, Pennsylvania,
6 and Claverack Rural Electric Cooperative based in Wysox, Pennsylvania. C&T is also the
7 parent corporation of Wellsboro Electric Company ("Wellsboro") and Valley Energy, Inc.
8 ("Valley").

9 **Q. What changes were made to the Company's tariff and operations as a result of the**
10 **Electricity Generation Customer Choice and Competition Act ("Competition Act")?**

11 A. Citizens' unbundled its generation supply service from its electric distribution service.
12 Electric distribution service remains a service that is regulated by the Commission pursuant
13 to traditional ratemaking processes under Chapter 13 of the Public Utility Code. This filing
14 proposes changes to our unbundled distribution rates in accordance with the Chapter 13
15 requirements and process.

16 Citizens' retains the obligation to provide generation supply service to all customers as the
17 Default Service Provider ("DSP") in its service territory in conformance with requirements
18 set forth in the Competition Act. The Commission approves the rules and tariff mechanism
19 to pass through our costs for DSP generation supply service in separate proceedings that
20 address only generation issues. The generation rate is known as our Generation Supply
21 Service Rate ("GSSR" includes GSSR-1 and GSSR-2). We are not proposing to make any
22 changes to the GSSR in this proceeding.

23 **Q. Do the proposed distribution rates include any expenses related to generation supply?**

1 A. No. Mr. Gorman's analysis focused solely on our regulated distribution service rates. As
2 a result, both the revenues and expenses related to generation supply services in the
3 historic, future, and fully-projected future test years are removed from our overall revenue
4 and expenses.

5 In addition, the legal and consulting fees that Citizens' incurs for the generation function
6 are collected through the GSSR and were not included in the distribution rates in this filing.
7 Finally, our cash working capital assumption for the new distribution rates is based only
8 on the portion of the expenses and bills related to distribution service and does not include
9 generation expenses.

10 **Q. When was Citizens' last base rate proceeding?**

11 A. Citizens' last base rate proceeding was in 2019, with the new rates taking effect on May 1,
12 2020. In that proceeding, we were granted an increase of approximately \$494,749 in
13 annual distribution revenues. The Commission granted us a 9.54% Return on Equity
14 ("ROE"), which included upward adjustments to reflect our small size and also our
15 management performance.

16 **Q. What revenue requirement increase is Citizens' requesting in this proceeding?**

17 A. Citizens' is requesting an increase of \$1 million. Based on our analysis, the increased costs
18 and other changes that we are experiencing demonstrate that we could request an increase
19 of over \$1 million; however, to mitigate the impact on our customers, we are limiting this
20 request to \$1 million. This also enables us to proceed under the Commission's regulations
21 that apply to rate increases of \$1 million or less, and to avoid the additional costs and
22 burden of compiling the information that the Commission requires for rate requests that
23 exceed \$1 million.

1 On a total bill basis (including generation costs), for the average residential customer using
2 1,250 kWh per month, this will be an 8% increase. A typical small commercial customer
3 on Rate GLP-1 will experience a 2 to 5% increase on a total bill basis. For a larger
4 commercial customer on Rate GLP-3, the increase is 2 to 3%.

5 **Q. Can you explain generally the changes that have occurred since the last rate case?**

6 A. Yes. Many elements of our financial and operational environment have changed in three
7 years. First, there has been considerable inflation in the cost of materials and equipment,
8 and of labor over that time. The general inflation that is impacting the country also applies
9 to many of the materials and supplies that we use. From 2021 to 2022, to remain
10 competitive in attracting and retaining our employees, we also increased base salaries by
11 4.5%, in addition to granting various merit-based adjustments. This exceeded our historic
12 increases, which were in the range of 3.0% adjustment to base compensation. Ms. Stauder
13 and Mr. Johnson will discuss in greater detail how those increases and other factors
14 impacted our distribution expenses that we are claiming in this filing.

15 **Q. How did the COVID-19 pandemic impact Citizens' operations?**

16 A. The COVID-19 pandemic created major impacts to Citizens' operations, especially the
17 supply chain delays that have lingered after the pandemic. To minimize the risk of
18 widespread employee illness and absenteeism, and to ensure our ability to maintain
19 ongoing operations prior to vaccine availability, we made significant adjustments to our
20 operation. These adjustments included the purchase of IT and telecom resources to allow
21 customer service, technical, and management employees to work from home, splitting line
22 crews into two separate units and rotating them through stand-by assignments to ensure a
23 minimum level of availability to respond to emergencies, implementing enhanced cleaning

1 and sanitation processes for office, truck, and common areas, and waiving late fees for all
2 customer classes.

3 **Q. Please discuss the supply chain delays that you are experiencing and how those delays**
4 **impacted this filing.**

5 A. We are seeing extensive delays in ordering certain equipment. For example, we currently
6 are being quoted delivery time-frames of 2 to 3 years for trucks and other specialty
7 equipment that we need for operations. We also are seeing delays in the delivery of
8 transformers, poles, conduit, metering equipment, and line hardware. We started to see
9 delays in 2021. Mr. Johnson will provide additional details on this topic.

10 **SMALL UTILITY ISSUES AND COMPANY PERFORMANCE**

11 **Q. Do you classify Citizens' as a small utility?**

12 A. Yes. As I mentioned previously, Citizens' serves just over 7,000 customers. I further note
13 that in his Direct Testimony, Company witness Dylan D'Ascendis of ScottMadden, Inc.
14 conducts a market capitalization analysis showing Citizens' to be a small public utility
15 relative to his comparison group.

16 **Q. As a small, privately-held utility, does Citizens' face any unique financial challenges?**

17 A. Yes. As explained in Mr. D'Ascendis' testimony, small utilities face increased financial
18 and business risks. A significant risk we face is the reduction of electric load due to
19 business closures or other factors outside of our control that adversely impact our kWh
20 sales (such as weather, net metering, customer on-site generation, etc.). Citizens' capital
21 investment and operating expenses that are necessary to maintain service and reliability
22 remain the same whether we lose customers or distribute less kWh; however, our operating
23 income is decreased. Small utilities also experience greater revenue swings and variation

1 based on weather patterns. Finally, at times, the costs of complying with regulatory
2 requirements can have greater impact on Citizens' than it would on larger EDCs.

3 **Q. Can you discuss the risk of customer loss that Citizens' faces as a small utility?**

4 A. Yes. Approximately one-third of Citizens' load is large commercial and industrial, with 10
5 of our largest customers representing approximately 27% of our total kWh sales. In the
6 current economic environment, we view a portion of that load as having a high potential
7 risk of closure or relocation. As an unfortunate and actual example, when one customer,
8 Pennsylvania House Furniture ("Pennsylvania House"), ceased operations in Lewisburg at
9 the end of 2004, Citizens' suffered the substantial loss of approximately 5.4% of annual
10 revenues. We have a similar loss of a customer that is reflected in this filing. In late 2021,
11 RR Donnelley stopped production in Lewisburg. This reduced our load by 7,104,000 kWh.
12 A portion of that loss is offset by adding a new hotel; however, overall, we will see a
13 decrease. Overall, our annual revenues from distribution service have been decreasing
14 since our last rate case. This revenue reduction accounts for \$181,407, or 18.1%, of our
15 rate adjustment requested in this proceeding. *See Exhibit__(HSG-1), Schedule C5-1.*

16 **Q. Do you anticipate any additional specific load reductions during the FTY and/or**
17 **FPFTY?**

18 A. Estimates for 2022 and 2023 reflect sales reductions due to the solar photovoltaic ("Solar
19 PV") generation at Bucknell University that we discussed in our prior filing, ultimately
20 constructed at a 1.6 MW capacity. Mr. Gorman's Exhibit__(HSG-1), Schedule B2-1,
21 page 3, explains the overall net decrease in our sales due to the RR Donnelley closure, the
22 new hotel and the Bucknell generation.

1 **Q. Are these load reductions temporary in nature?**

2 A. No. Additionally, we see general trends pointing toward load reduction via customer
3 energy efficiency through improvements such as LED lighting, higher-efficiency
4 appliances, and variable speed heat pumps. We are also seeing a steady expansion of
5 natural gas service in parts of Citizens' territory. While this expansion is primarily targeting
6 older neighborhoods with high concentrations of oil or propane heat, I anticipate that it will
7 also reduce the need for electric heat in those areas.

8 **Q. Can you explain how regulatory requirements can have a magnified impact on**
9 **smaller utilities?**

10 A. First, let me express our appreciation to the Commission and the General Assembly for
11 recognizing in many instances where smaller utilities should have flexibility in meeting
12 certain regulations and policies. The General Assembly exempted Citizens' and Wellsboro
13 from the mandatory Energy Efficiency and Conservation Plans and from Smart Meter
14 requirements. Similarly, the Commission has allowed us flexibility in designing our DSP
15 plans.

16 For some items, however, we have the same requirements as the larger EDCs. One
17 requirement is Net Metering. Because of our small size, we have fewer customers to offset
18 any lost distribution revenues from net metering. The impact of virtual net metering or an
19 oversized net metering project is greater on a smaller EDC than on larger EDCs.

1 **Q. How do you recommend the Commission should address the additional risks faced by**
2 **small utilities?**

3 A. In my opinion, it is reasonable for the Commission to address this risk through an
4 appropriate overall return on our investment through distribution rates. For the rate of
5 return, the Commission should adopt the recommendation of Mr. D'Ascendis.

6 **Q. Regarding the Company's rate of return, did Mr. D'Ascendis propose any**
7 **adjustments?**

8 A. Yes, he proposed both a small company adjustment and a performance adjustment.

9 **Q. What are the bases for the small company and performance adjustments proposed**
10 **by Mr. D'Ascendis?**

11 A. I have already discussed the Company's size, which forms the basis for the proposed small
12 company adjustment. For the performance adjustment, Mr. D'Ascendis' testimony cites to
13 Section 523 of the Public Utility Code, which provides the Commission's guidelines for
14 performance adjustments. I am advised by counsel that the Public Utility Code identifies
15 several criteria to be considered in assessing the performance of a fixed utility for purposes
16 of a performance factor adjustment, including consideration of any relevant and material
17 evidence of efficiency, effectiveness, and adequacy of service. The Commission should
18 consider Citizens' operations as supportive of the proposed performance adjustment,
19 including the following:

20 • **Low customer complaints.** For the period 2019-2021, Citizens' received no
21 formal complaints and 6 informal complaints, resolved in an average resolution
22 period of 20 days. A spreadsheet tracking the formal and informal PUC complaints
23 and resolution timeframes for the period 2019-2021 is attached as Exhibit__(JK-1).

- 1 • **Favorable customer feedback.** We consistently receive very favorable
2 evaluations and comments from our customers. I have attached an image of a poster
3 that was created for internal use which highlights customer comments received
4 during the most recent Annual Customer Contact survey, as Exhibit__(JK-2).
- 5 • **High responsiveness: customer support calls.** Records from the Commission's
6 Quality of Service System attached as Exhibit__(JK-3) show Citizens' has
7 answered, on average, more than 97% of customer phone calls within 30 seconds.
8 Citizens' has been and remains very responsive to customer inquiries.
- 9 • **High responsiveness: energizing new service locations.** The spreadsheet
10 attached as Exhibit__(JK-4) demonstrates that new service locations are energized,
11 on average, within 6 days of receipt of an approved cut-in card from an electrical
12 inspector.
- 13 • **Excellent reliability metrics.** Exhibit__(JK-5) is a Quarterly Reliability Report
14 for 4th Quarter 2021 indicating that Citizens' met or beat applicable PUC reliability
15 standards in 2021. Additionally, Exhibit__(JK-6) contains excerpts from the
16 PUC's *Pennsylvania Electric Reliability Report 2020* (the latest report available).
17 This exhibit includes pages which demonstrate that Citizens' exceeds its PUC
18 reliability benchmarks, as well as a statement in the report acknowledging the
19 Company's "excellent performance" regarding safety. Also included is *Appendix B*
20 – *Reliability Performance Scorecard Results 2016-2020* from the report, which
21 indicates that Citizens' is one of just two PA EDCs that achieved all benchmarks
22 and standards for the period.

- 1 • **Zero reportable injuries.** Citizens' had zero reportable injuries in 2021, as
2 demonstrated by the OSHA Form 300A attached as Exhibit__(JK-7).
- 3 • **Technology adoption: Smarthub use.** A total of 2,749 customers, representing
4 3,248 accounts (almost half of Citizens' total accounts) are now using Smarthub to
5 receive and/or pay their bills electronically, analyze detailed usage reports, report
6 and check on outages, and conduct other business with the Company via a mobile
7 application or the website. Smarthub provides significant customer convenience
8 and is available 24 hours a day. The Company has continued to enhance the
9 services available on SmartHub. Recently, we added the ability for customers to
10 report outages via text message. We also updated restoration messaging options to
11 include text message in addition to the existing options including phone, email, and
12 push notification in the mobile app.
- 13 • **Technology adoption: tablets for line crews.** With tablets provided to line crews,
14 the crews are able to complete inspections, report some types of work completed,
15 view up-to-date system maps, view live analysis of outages, access online material
16 safety information, consult company safety and procedures manuals, and complete
17 time sheets. This is a significant asset to the crews and increases their efficiency,
18 safety, and knowledge.
- 19 • **Increased pole attachment billing.** Citizens' saw a 53% increase in pole
20 attachment billing from 2021 to 2022 realized through the execution of updated
21 contracts with attaching entities utilizing current FCC cost formulae. These
22 revenues help offset increased distribution system expenses and reduce the revenue

1 requirement to be recovered from ratepayers. Reports documenting 2021 and 2022
2 billings are attached as Exhibit__(JK-8).

3 • **"Tree Line USA" designation.** The Company has been recognized by the
4 National Arbor Day Foundation as a "Tree Line USA" utility for the 20th
5 consecutive year. This recognition acknowledges Citizens' commitment to proper
6 tree pruning techniques which result in a more efficient vegetation management
7 program and healthier trees. Exhibit__(JK-9) contains a recent press release
8 documenting this designation.

9 • **Street Light Upgrades.** 503 out of a total of 631 streetlights (80%) have now been
10 replaced with LED, resulting in lower energy use and reduced charges to customers
11 and municipalities. When the Company's LED tariff was approved in March of
12 2018, we committed to a ten-year replacement program. We are significantly ahead
13 of schedule. Exhibit__(JK-10) provides a current listing of streetlights in service.

14 • **Significant capital investment.** As discussed below, Citizens' continues to invest
15 approximately \$1.5 million annually in system replacements and improvements.
16 Exhibit__(JK-11) shows three years of capital results. These investments were
17 funded from base rates, without assessing a Distribution System Improvement
18 Charge upon customers.

19 • **Customer Service Representatives' Efforts to Assist Payment-Troubled**
20 **Customers During the Pandemic.** Our customer service team engaged in
21 extensive efforts to connect payment-troubled customers with public and private
22 funding during the pandemic. As Ms. Stauder explains in her testimony, from 2020
23 through 2021, our customers accessed over \$342,000 in LIHEAP and other

1 funding. We maintained connections with over 9 local organizations that were
2 offering utility assistance.

3 **CITIZENS' STAFFING**

4 **Q. Please describe the relationship between C&T Enterprises and Citizens'.**

5 A. As Melissa Sullivan, Chief Financial Officer of C&T, explains in her Direct Testimony,
6 C&T is a holding company, which owns 100% of Citizens' Electric's common stock. C&T
7 also contracts with the other C&T affiliates to provide the staff necessary to meet their
8 needs. Currently, C&T provides 17 employees to fulfill all of Citizens' staffing needs.
9 C&T also provides support services for activities that may not justify Citizens' employing
10 its own full or part-time employees, such as Human Resources, Information Technology
11 support (*e.g.*, network maintenance and administration), Safety Coordinator,
12 Legal/Regulatory, call center and publicity/communications activities. In addition to
13 Citizens', C&T provides these same services to Wellsboro, Valley, Claverack Rural
14 Electric Cooperative, and Tri-County Rural Electric Cooperative through a single set of
15 C&T employees.¹ C&T allocates the cost of those employees to the individual operating
16 companies based on the relative number of customers served and revenues.

17 **Q. Are the costs of these employees reflected in the filing?**

18 A. Yes. Ms. Sullivan explains how the C&T costs are allocated and billed to Citizens'.

19 **Q. Do you anticipate any increases or decreases to the staffing at Citizens' in the
20 foreseeable future?**

21 A. Yes. For the past 30 plus years, Citizens' has enjoyed the benefits of a stable and reliable
22 workforce. The few retirements during this period were predictable and anticipated well

¹ Ms. Sullivan's department serves only Citizens', Wellsboro and Valley.

1 in advance; there were only a handful of resignations. Being a relatively lean and small
2 organization, replacements were hired to fill the openings as they occurred.

3 As with many electric utilities, Citizens' must address the pressures of an aging workforce.
4 It is expected that within the next 6 years, 8 of Citizens' current 17 employees will have
5 retired. Of the 8 retirees, 3 will be in the administrative area, and 5 will be in the operations
6 area. Citizens' management team has been entrusted by the shareholders, customers and
7 the Commission to provide safe and reliable service at a fair cost. To address this core
8 responsibility and the potentially negative impact from failure to plan, we are implementing
9 a long-term and methodical transition strategy that will prevent a lapse in experience and
10 job knowledge necessary to effectively operate Citizens' system. The Company will
11 incorporate additional short-term staffing overlaps during 2022, 2023 and beyond as
12 appropriate to ensure that new hires have sufficient time to learn the skills needed.

13 **Q. Does this conclude your Direct Testimony?**

14 A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
Citizens' Electric Company of Lewisburg, PA :

EXHIBITS
OF
JOHN KELCHNER

ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022



PUC FORMAL COMPLAINT INFORMATION 2019-2021

YEAR	TOTAL	Type of Complaint
2019	0	
2020	0	
2021	0	

PUC INFORMAL COMPLAINT INFORMATION 2019-2021

2019	2019 Resolved in Days	Type of Complaint
1	20	PAR/TERMINATION
1	8	PAR/TERMINATION
1	28	PAR/TERMINATION
1	27	PAR/TERMINATION
1	3	PAR/TERMINATION
1	32	PAR/TERMINATION
TOTALS	6	

2020	2020 Resolved in Days	Type of Complaint
0	0	
TOTALS	0	

2021	2021 Resolved in Days	Type of Complaint
0	0	
TOTALS	0	

13. Do you have any other questions or comments you would like addressed?

Name: Marshall Pugh (Optional)
Address: Your company is outstanding

Ac 13. Do you have any other questions or comments you would like addressed?

Name: Stuart P. Boos (Optional)
Address: Great Service

13. Do you have any other questions or comments you would like addressed?
GRAT AS ALWAYS!

Name: Andrea Turo, Donald Heiser (Optional)
Address: 100 N. 5th St Lewisbur (Optional)

13. Do you have any other questions or comments you would like addressed?
Name: Bill Hawk (Optional)
Address: 117 Oakwood Dr. Winfield PA 17889

13. Do you have any other questions or comments you would like addressed?

Name: Butch Woolsey (Optional)
Address: The guys do a good job. Keeping you all in our pray God Bless (Optional)

13. Do you have any other questions or comments you would like addressed?

Name: Wiking the outage map - for the rare times when electricity out! Help us

13. Do you have any other questions or comments you would like addressed?

Name: Martha Holland & John Rickard (Optional)
Address: Over the many years that we have dealt with Citizens Electric, we have been extremely pleased with the courteous, professional & prompt service
141 Pine Ridge Rd Lewisburg (Optional)

13. Do you have any other questions or comments you would like addressed?

Name: Deborah With
Address: We have always appreciated the fine service we have experienced with Citizens Electric
439 Market Leiby

13. Do you have any other questions or comments you would like addressed?

Name: Dorothy Neam (Optional)
Address: Keep up the good job as always. A great crew
33 Brown St. Leiby (Optional)

13. Do you have any other questions or comments you would like addressed?
Have not had to contact Citizens Electric - You do Great Work + Care for your customers!

Name: Lynn R. Walter (Optional)
Address: 261 Wood-Linn Lane - Middleburg 17544 (Optional)

13. Do you have any other questions or comments you would like addressed?
Keep up the good work. Stay local. It's so please see real human being

Name: Bruce Jackson (Optional)
Address: 214 N. 2nd St. Leiby (Optional)

13. Do you have any other questions or comments you would like addressed?
We have never had a problem

Name: Charlotte Wintu (Optional)
Address: bea your service is excellent (Optional)

13. Do you have any other questions or comments you would like addressed?

Name: Nancy Paschuk & Tr. James Chuta (Optional)
Address: No, we love Citizens Electric!
32 N. 5th St. Lewisburg (Optional)

13. Do you have any other questions or comments you would like addressed?

Name: John Lockman (Optional)
Address: Great Company
129 Veituck Ridge Rd Leiby (Optional)

YES _____ none Number _____

13. Do you have any other questions or comments you would like addressed?

Name: Daniel J. Mulligan (Optional)
Address: The service I get is very good.
1661 Saint Mary St. Lewis (Optional)

YES _____ Phone Number _____ NO _____ (Please check one)

13. Do you have any other questions or comments you would like addressed?

Name: Jean Flournoy (Optional)
Address: Have been with Citizens' for 40 some years - extremely professional & helpful (Optional)

YES _____ Phone Number _____

13. Do you have any other questions or comments you would like addressed?

Name: James C. Detert (Optional)
Address: We are very grateful to have Citizens as our elect service provider
800 Market, Lewisburg, PA 17837 (Optional)

13. Do you have any other questions or comments you would like addressed?
I know ppl that have PPL, Citizens is by far better in so many ways

Name: Jolene Schmidt (Optional)
Address: 190 Fisher Lane Lewisburg (Optional)

13. Do you have any other questions or comments you would like addressed?

Name: Emma K. Markert (Optional)
Address: We never had a problem with Citizen Electric - this goes back to 1948
1842 W. Mt. St. Leiby (Optional)



[Number of Call Centers](#) | [Input Data](#) | [Help Page](#) | [Log Off](#)

[Input Page 1](#) | [Data Input Page 2](#) | [Data Input Page 3](#) | [Data Input Page 4](#) | [Data Input Page 5](#) | [Data Input Page 6](#) | [Data Input Page 7](#) | [Data Input Page 8](#) | [Data Input Page 9](#) | [Data Input Page 10](#) | [Data Input Page 11](#) | [Data Input Page 12](#)

Citizens Electric

Quality of Service - Input Data Document 1

Year

Citizens Electric data is displayed.

1. Percent of calls answered within 30 seconds - by month	Call Center 1	
	Overall %	Overall %
January	99.0	99.0
February	98.7	98.7
March	98.0	98.0
April	97.7	97.7
May	96.4	96.4
June	99.1	99.1
July	99.4	99.4
August	99.1	99.1
September	94.4	94.4
October	98.6	98.6
November	99.4	99.4
December	99.1	99.1
12-Month Cumulative Average	98.2	98.2



[Number of Call Centers](#) | [Input Data](#) | [Help Page](#) | [Log Off](#)

[Data Input Page 1](#) | [Data Input Page 2](#) | [Data Input Page 3](#) | [Data Input Page 4](#) | [Data Input Page 5](#) | [Data Input Page 6](#) | [Data Input Page 7](#) | [Data Input Page 8](#) | [Data Input Page 9](#) | [Data Input Page 10](#) | [Data Input Page 11](#) | [Data Input Page 12](#)

Citizens Electric

Quality of Service - Input Data Document 1

Year

Citizens Electric data is displayed.

1. Percent of calls answered within 30 seconds - by month	Call Center 1	
	Overall %	Overall %
January	91.2	91.2
February	98.4	98.4
March	97.4	97.4
April	95.5	95.5
May	99.1	99.1
June	99.5	99.5
July	99.5	99.5
August	99.0	99.0
September	98.2	98.2
October	95.0	95.0
November	97.5	97.5
December	96.0	96.0
12-Month Cumulative Average	97.19	97.19

	A	B
1	Quality of Service	Percent of Calls
2	2021	Answered
3		within 30
4	Company	Seconds
5	Duquesne	
6	Met-ED	
7	PECO-Elec.	
8	Penelec	
9	Penn Power	
10	PPL	
11	West Penn	
12	UGI Electric	
13	ELEC AVG/TOTAL	
14	ELEC MEDIAN	
15	Columbia	
16	NFG	
17	PECO-Gas	
18	Peoples	
19	PGW	
20	UGI-Gas	
21	GAS AVG/TOTAL	
22	GAS MEDIAN	
23	INDUSTRY AVG/TOTAL	
24		
25	Citizens Electric Co. of Lewisburg	97.7%
26	Pike County Light & Power Co.	
27	Wellsboro Electric Co.	
28	SM ELEC AVG/TOTAL	97.70%
29	SM ELEC MEDIAN	97.7%
30	RoadMap; Input Report	Data Input Pg 1
31		

**This report was done differently as their website was down, we were asked to submit our data via special spreadsheet

To Account	Open Date	Date	Days to Close	Close Date
		Inspection Card Rcd	after Card Rcd	
██████████	2/1/2019	2/1/2019	4	2/5/2019
██████████	2/5/2019	2/19/2019	2	2/21/2019
██████████	3/8/2019	3/18/2019	9	3/27/2019
██████████	3/18/2019	3/28/2019	1	3/29/2019
██████████	3/26/2019	3/25/2019	4	3/29/2019
██████████	4/8/2019	4/23/2019	17	5/10/2019
██████████	4/2/2019	5/10/2019	4	5/14/2019
██████████	5/8/2019	5/14/2019	2	5/16/2019
██████████	5/9/2019	5/21/2019	1	5/22/2019
██████████	6/14/2019	6/20/2019	4	6/24/2019
██████████	6/26/2019	7/5/2019	12	7/17/2019
██████████	7/3/2019	7/17/2019	0	7/17/2019
██████████	7/17/2019	7/10/2019	7	7/17/2019
██████████	7/17/2019	7/10/2019	7	7/17/2019
██████████	6/28/2019	7/16/2019	2	7/18/2019
██████████	5/16/2019	7/19/2019	3	7/22/2019
██████████	8/7/2019	8/14/2019	8	8/22/2019
██████████	8/22/2019	8/29/2019	1	8/30/2019
██████████	8/7/2019	8/30/2019	6	9/5/2019
██████████	6/17/2019	9/4/2019	2	9/6/2019
██████████	8/15/2019	9/3/2019	14	9/17/2019
██████████	5/6/2019	7/12/2019	70	9/20/2019
██████████	3/25/2019	9/19/2019	5	9/24/2019
██████████	9/13/2019	10/4/2019	5	10/9/2019
██████████	10/9/2019	10/28/2019	8	11/5/2019
██████████	10/9/2019	11/1/2019	10	11/11/2019
██████████	11/5/2019	11/5/2019	9	11/14/2019
██████████	11/11/2019	11/13/2019	6	11/19/2019
██████████	12/26/2019	1/8/2020	2	1/10/2020
██████████	1/14/2020	1/14/2020	0	1/14/2020
██████████	12/23/2019	1/21/2020	6	1/27/2020
██████████	11/21/2019	1/28/2020	2	1/30/2020
██████████	12/19/2019	3/3/2020	2	3/5/2020
██████████	3/20/2020	3/18/2020	2	3/20/2020
██████████	3/6/2020	3/16/2020	15	3/31/2020
██████████	1/6/2020	4/7/2020	2	4/9/2020
██████████	4/24/2020	4/23/2020	12	5/5/2020
██████████	4/24/2020	5/4/2020	1	5/5/2020
██████████	4/24/2020	5/4/2020	2	5/6/2020
██████████	5/4/2020	5/4/2020	8	5/12/2020
██████████	1/15/2020	5/14/2020	0	5/14/2020
██████████	4/24/2020	5/11/2020	8	5/19/2020
██████████	4/30/2020	5/20/2020	6	5/26/2020
██████████	5/5/2020	5/29/2020	4	6/2/2020

██████████	3/6/2020	6/1/2020	3	6/4/2020
██████████	4/24/2020	5/29/2020	6	6/4/2020
██████████	4/24/2020	5/29/2020	6	6/4/2020
██████████	5/29/2020	5/29/2020	6	6/4/2020
██████████	4/24/2020	6/16/2020	6	6/22/2020
██████████	6/22/2020	6/17/2020	6	6/23/2020
██████████	7/30/2020	7/21/2020	9	7/30/2020
██████████	8/27/2020	8/26/2020	1	8/27/2020
██████████	6/18/2020	8/31/2020	3	9/3/2020
██████████	9/18/2020	9/21/2020	0	9/21/2020
██████████	9/9/2020	9/16/2020	9	9/25/2020
██████████	9/16/2020	10/5/2020	4	10/9/2020
██████████	6/30/2020	10/13/2020	7	10/20/2020
██████████	9/4/2020	10/22/2020	6	10/28/2020
██████████	8/21/2020	10/23/2020	10	11/2/2020
██████████	6/26/2020	10/21/2020	13	11/3/2020
██████████	11/2/2020	10/30/2020	6	11/5/2020
██████████	11/2/2020	10/30/2020	6	11/5/2020
██████████	5/15/2019	11/5/2020	5	11/10/2020
██████████	5/15/2019	11/5/2020	5	11/10/2020
██████████	11/6/2020	11/11/2020	1	11/12/2020
██████████	11/16/2020	11/16/2020	0	11/16/2020
██████████	9/23/2020	11/20/2020	4	11/24/2020
██████████	12/31/2020	1/28/2021	4	2/1/2021
██████████	1/8/2021	2/11/2021	4	2/15/2021
██████████	12/29/2020	2/18/2021	5	2/23/2021
██████████	12/29/2020	2/18/2021	5	2/23/2021
██████████	1/11/2021	2/15/2021	10	2/25/2021
██████████	1/28/2021	2/25/2021	0	2/25/2021
██████████	2/16/2021	2/25/2021	0	2/25/2021
██████████	1/14/2021	2/19/2021	24	3/15/2021
██████████	1/26/2021	3/5/2021	11	3/16/2021
██████████	1/26/2021	3/5/2021	11	3/16/2021
██████████	2/19/2021	3/15/2021	4	3/19/2021
██████████	1/11/2021	3/24/2021	2	3/26/2021
██████████	3/26/2021	4/14/2021	6	4/20/2021
██████████	4/27/2021	4/27/2021	8	5/5/2021
██████████	4/15/2021	5/12/2021	0	5/12/2021
██████████	4/9/2021	5/18/2021	0	5/18/2021
██████████	4/15/2021	6/14/2021	3	6/17/2021
██████████	4/29/2021	6/11/2021	6	6/17/2021
██████████	5/28/2021	6/16/2021	2	6/18/2021
██████████	6/28/2021	6/28/2021	3	7/1/2021
██████████	7/14/2021	7/14/2021	2	7/16/2021
██████████	4/22/2021	6/22/2021	43	8/4/2021
██████████	6/17/2021	9/3/2021	5	9/8/2021
██████████	8/18/2021	9/7/2021	2	9/9/2021

██████	9/22/2021	9/22/2021	0	9/22/2021
██████	9/22/2021	9/24/2021	0	9/24/2021
██████	4/16/2021	9/24/2021	5	9/29/2021
██████	8/9/2021	10/1/2021	4	10/5/2021
██████	10/1/2021	10/5/2021	2	10/7/2021
██████	9/2/2021	10/6/2021	7	10/13/2021
██████	11/1/2021	11/2/2021	0	11/2/2021
██████	10/14/2021	11/2/2021	14	11/16/2021
██████	10/11/2021	10/21/2021	57	12/17/2021
██████	10/6/2021	1/13/2022	8	1/21/2022
██████	12/13/2021	1/25/2022	6	1/31/2022
██████	1/20/2022	2/3/2022	5	2/8/2022
██████	9/21/2021	2/2/2022	9	2/11/2022
██████	8/18/2021	3/3/2022	0	3/3/2022
██████	11/26/2021	3/18/2022	4	3/22/2022
██████	5/7/2021	3/25/2022	4	3/29/2022
██████	4/7/2022	2/23/2022	49	4/13/2022

Average # Days From Inspection to Order Closing	6.95
Orders are normally closed 1 day after service energized	-1
Actual average time from inspection received to service energized	5.95



Over a Century
of Service

January 26, 2022

Ms. Rosemary Chiavetta
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

RE: Docket No. M-2016-2522508 – Quarterly Reliability Report

Dear Secretary Chiavetta,

Please find the enclosed Fourth Quarter Reliability Report for Citizens' Electric Company. Please contact me at 570-522-6143 or johnsonn@citizenselectric.com if I can answer any questions.

Best Regards,

A handwritten signature in black ink, appearing to read "Nathan Johnson", written over a light blue horizontal line.

Nathan Johnson, PE
Vice President of Engineering & Operations

cc: Dan Searfoorce (via email)
John Van Zant (via email)
Harry Bidelspach (via email)

1775 Industrial Blvd., Lewisburg, PA 17837
570-524-2231 ♦ www.citizenselectric.com ♦ Fax 570-524-5887

Serving the Wonderful Lewisburg-Buffalo Valley since 1911

Citizens' Electric Company
 Quarterly Service Reliability Report
 Fourth Quarter, 2021

Prepared by Nathan Johnson, PE
 Vice President of Engineering & Operations
 570-522-6143
johnsom@citizenselectric.com
 January 26, 2022

§ 57.195(e)(1) - A description of each major event that occurred during the preceding quarter, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted in order to avoid or minimize the impact of similar events in the future.

Date	Time	Duration (Minutes)	Customers Affected	Cause
------	------	--------------------	--------------------	-------

No excludable major events occurred during the fourth quarter.

§ 57.195(e)(2) - Rolling 12-month reliability index values (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC’s service territory for the preceding quarter. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained customer interruptions, the number of customers affected, and the customer minutes of interruption. If MAIFI values are provided, the report shall also include the number of customer momentary interruptions.

Rolling 12-Month Reliability Indices	
Index	Value
SAIFI	0.27
SAIDI	25.6
CAIDI	94.1

Reliability Indices – Supporting Data			
Total # of Customers Served	# of Interruptions	# of Customers Affected	Customer Minutes
7,075	61	1,926	181,274

The following outages were approved for exclusion as Major Events during the preceding 12-month period and are not included in the above calculations:

Major Event Exclusions		
Date	# of Customers Affected	Customer Minutes
2/16/21	875	237,475
3/1/21	760	87,159
4/11/21	1,460	100,570
4/30/21	880	71,076
6/30/21	3,009	431,161
8/11/21	1,038	81,734
8/20/21	883	15,320

§ 57.195(e)(5) - A rolling 12-month breakdown and analysis of outage causes during the preceding quarter, including the number and percentage of service outages, the number of customers interrupted, and customer interruption minutes categorized by outage cause such as equipment failure, animal contact, tree related, and so forth. Proposed solutions to identified service problems shall be reported.

Outage Analysis by Cause				
Outage Cause	Number of Interruptions	% of Interruptions	Number of Customers Affected	Customer Interruption Minutes
Off R/W Trees	34	56%	1,383	138,650
On R/W Trees	0	0%	0	0
Animal	8	13%	14	785
Weather	7	11%	16	1,523
Equipment	8	13%	78	8,388
Vehicle	2	3%	378	28,077
Other	2	3%	57	3,851
Total	61		1,926	181,274

Discussion

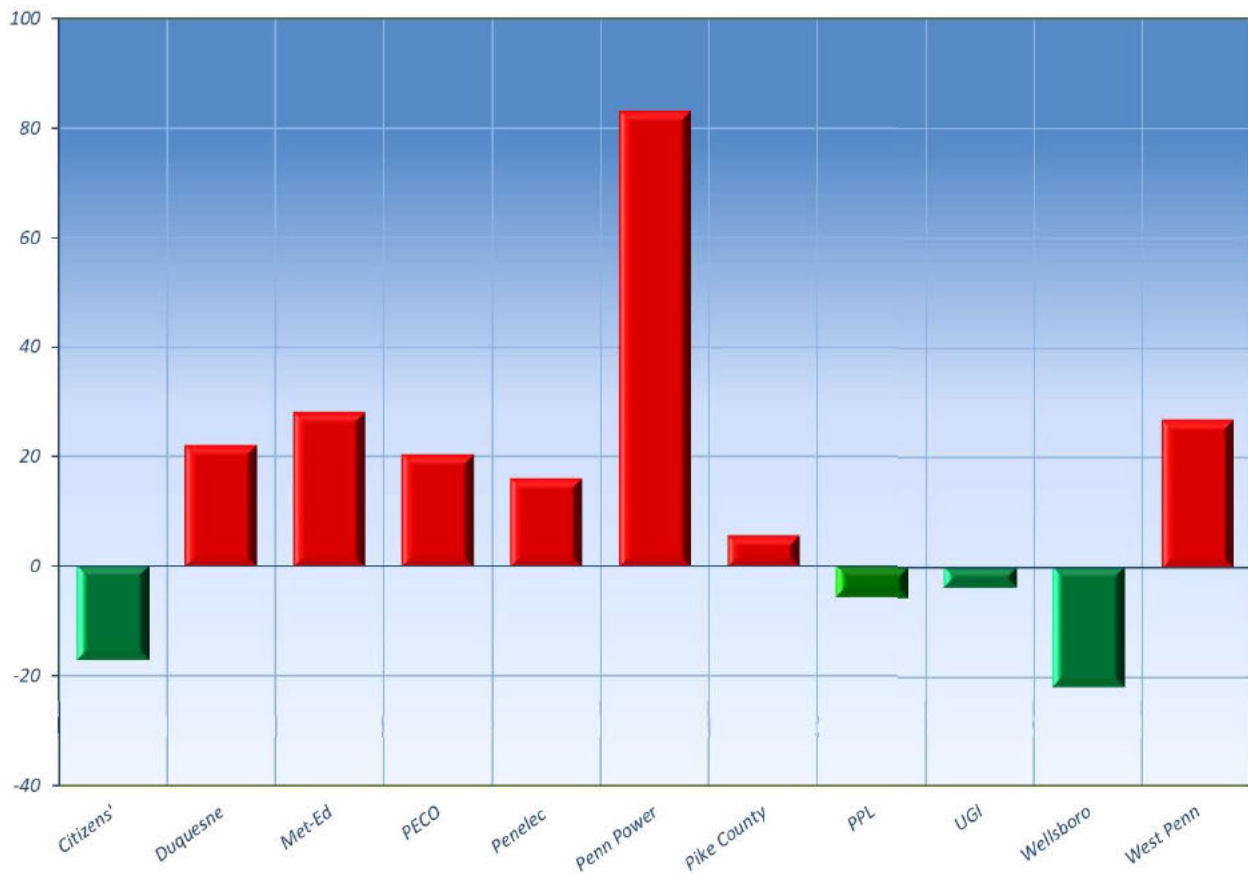
The fourth quarter saw a return to more typical outage activity, with eleven total outages and no excludable major events. Compared to an even milder Q4 of 2020, however, the primary reliability indices still rose slightly. All indices remained within PUC standard thresholds for the Company and CAIDI was also well under the benchmark value. On a three-year basis, SAIFI, SAIDI and CAIDI all remain within the PUC standard.

Major causes of outages were off right-of-way trees, animal contacts and equipment failures, respectively. These are typically the top contributors for Citizens.' The company remains committed to monitoring and mitigating tree caused outages and expects to secure its 2022 tree clearing contract early in 2022 to maximize the volume of clearing work completed before foliage appears and the summer storm season returns.

2020 Pennsylvania Electric Reliability Report

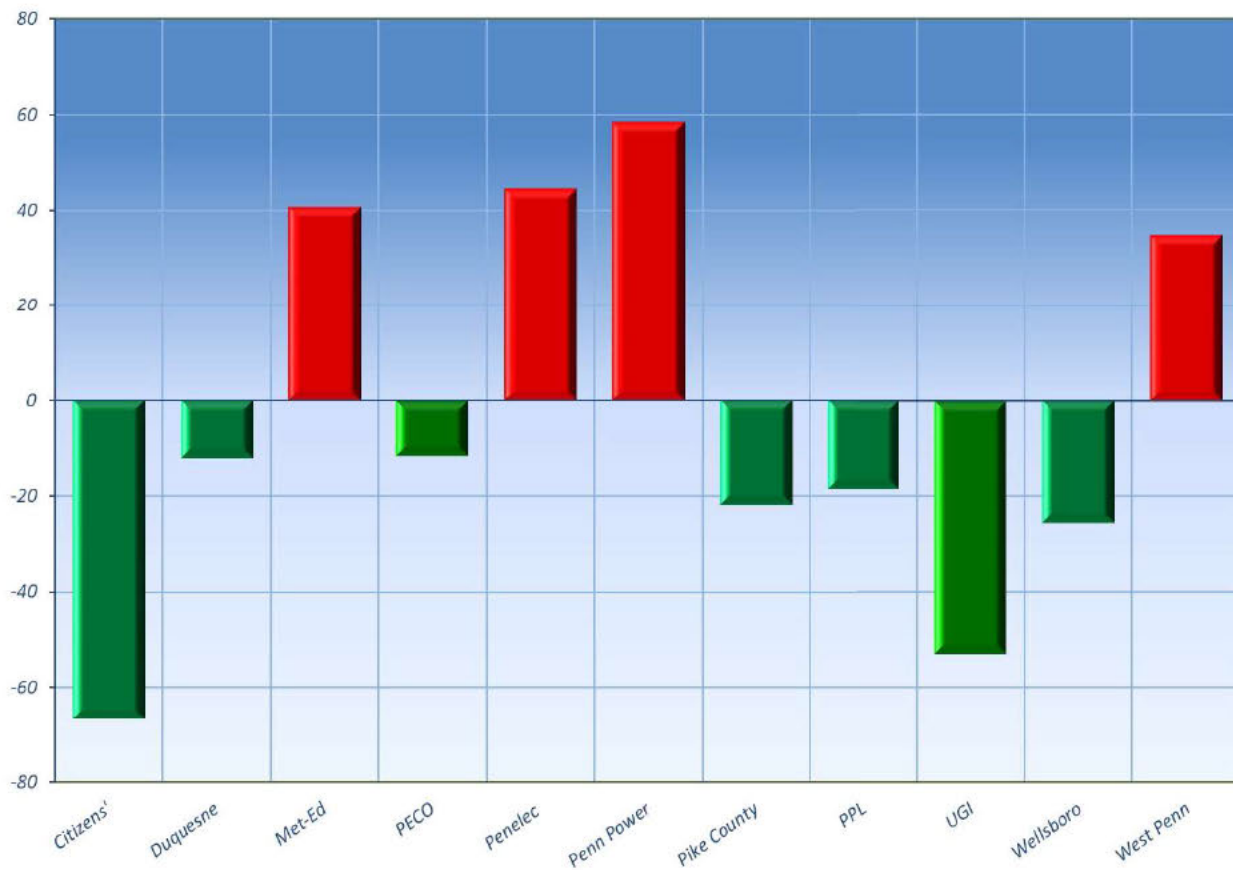
- Four EDCs achieved the **CAIDI Benchmark**, while seven EDCs failed to achieve the CAIDI benchmark (Figure 1).
- Seven EDCs achieved the **SAIDI Benchmark**, while four EDCs failed to achieve the SAIDI benchmark (Figure 2).
- Eight EDCs achieved the **SAIFI Benchmark**, while three EDCs failed to achieve the SAIFI benchmark (Figure 3).

Figure 1 – 2020 CAIDI Comparison (percent above or below benchmark)



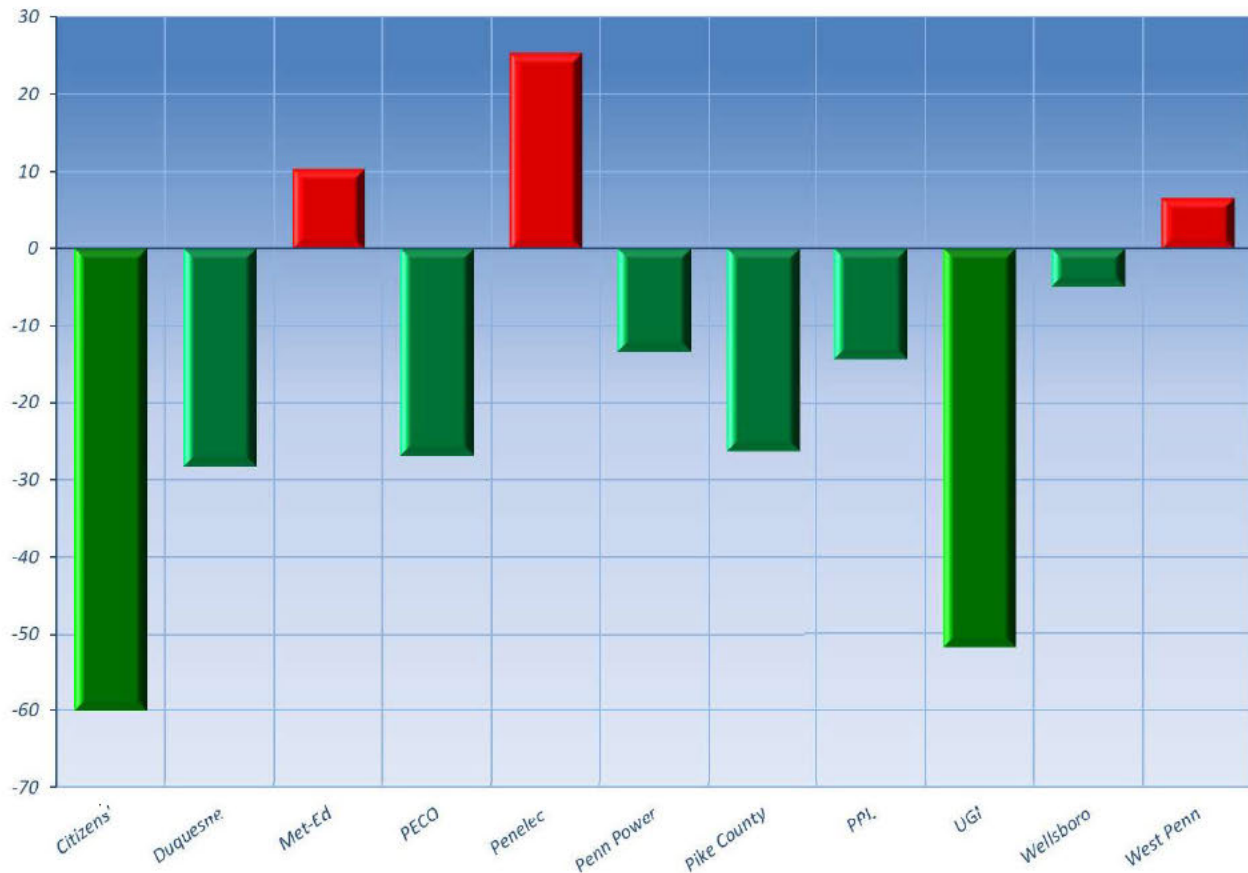
2020 Pennsylvania Electric Reliability Report

Figure 2 – 2019 SAIDI Comparison (percent above or below benchmark)



2020 Pennsylvania Electric Reliability Report

Figure 3 – 2019 SAIFI Comparison (percent above or below benchmark)



Rolling 3-year Average (2018-2020) Performance Compliance

Appendix A provides the 2020 results for the 12-month average and 3-year average reliability performance metrics for individual EDCs.

Six EDCs (Met-Ed, PECO, Penelec, Penn Power, Pike County, and PPL) failed to meet the rolling 3-year **CAIDI performance standard**.

Three EDCs (Met-Ed, Penelec, and West Penn) failed to meet the rolling 3-year **SAIFI performance standard**.

Three EDCs (Met-Ed, Penelec, and Penn Power) failed to meet the rolling 3-year **SAIDI performance standard**.

2020 Pennsylvania Electric Reliability Report

interrupted, and number of customers affected. Equipment and off ROW trees caused the most number of incidents.

Figure 35 shows the historical trend of the top three main outage causes. Off ROW trees and Equipment are the two most frequent outage-causes that are significantly negatively affecting Citizens' distribution system reliability and resilience, as well as almost every EDC in Pennsylvania.

General Reliability

Citizens' notes that its customers enjoyed one of the best reliability years in 2020. Citizens' notes that it experienced ten-year lows for its rolling 12-month SAIDI and SAIFI, as well as 12-month rolling CAIDI significantly below benchmark levels. This marks the third year of an overall positive trend in reliability.

Citizens' notes that it is continuing its commitment to a responsible vegetation management program as evidenced by being recognized for 18 consecutive years as a "Tree Line USA" utility by the National Arbor Day Foundation. Citizens' notes that this award recognizes utilities for their use of nationally approved trimming techniques and vegetation management procedures. Part of Citizens' Tree Line effort is its annual educational session hosted in cooperation with the Penn State Extension. Citizens' state that this event provides education not only for Company employees, but also the company's current vegetation management contractor, and local municipal road and public works crews. Topics covered include directional pruning techniques, 'Right Tree in the Right Place' planning, and updates on current and expected threats to Pennsylvania forests.

Citizens' notes that trees were again the most impactful cause of outages in 2020 and off ROW trees in particular. Citizens' states that it continues to emphasize hazard tree identification and removal with employees, tree contractors and customers. Citizens' also notes that it began to increase its efforts during 2020 to replace porcelain cutouts to address the increasing trend in equipment failures and that it will continue to sustain the increased replacement efforts into 2021.

Citizens' notes that it continues to evaluate, compare and improve its practices through participation in a variety of industry peer groups, including the Pennsylvania Rural Electric Association, the Energy Association of Pennsylvania, the National Rural Electric Cooperative Association, and the International Association of Arboriculture.

Conclusion

Citizens' had the best CAIDI, SAIFI, and SAIDI performance of any Pennsylvania EDC in 2020, which is commendable. Citizens' should continue to refine its processes and methods and improve on this excellent performance.

It should also be noted that Major Events had a significant negative impact on Citizens' customers that is not reflected in CAIDI and SAIFI performance metrics.

2020 Pennsylvania Electric Reliability Report

Appendix B – Reliability Performance Scorecard Results 2016-2020

2020 EDC Performance Scorecard												
Metrics achieved		GREEN	Benchmark Metrics not achieved				YELLOW	Standard Metrics not achieved				RED
		Rolling 12-Month										
		Benchmark Score					Standard Score					
EDCs	¹ Metrics	² BM	Q1	Q2	Q3	Q4	³ STD	Q1	Q2	Q3	Q4	
Large EDCs												
Duquesne Light	CAIDI	108	103	106	126	132	130	103	106	126	132	
	SAIDI	126	98	84	102	111	182	98	84	102	111	
	SAIFI	1.17	0.95	0.79	0.81	0.84	1.40	0.95	0.79	0.81	0.84	
PECO	CAIDI	112	190	182	171	135	134	190	182	171	135	
	SAIDI	138	193	181	157	122	198	193	181	157	122	
	SAIFI	1.23	1.01	0.99	0.92	0.90	1.48	1.01	0.99	0.92	0.90	
PPL	CAIDI	145	167	136	145	137	174	167	136	145	137	
	SAIDI	142	131	111	128	116	205	131	111	128	116	
	SAIFI	0.98	0.79	0.82	0.88	0.84	1.18	0.79	0.82	0.88	0.84	
Met-Ed (FirstEnergy)	CAIDI	117	146	144	145	150	140	146	144	145	150	
	SAIDI	135	222	202	205	190	194	222	202	205	190	
	SAIFI	1.15	1.52	1.41	1.42	1.27	1.38	1.52	1.41	1.42	1.27	
Penelec (FirstEnergy)	CAIDI	117	148	143	146	136	141	148	143	146	136	
	SAIDI	148	246	231	235	214	213	246	231	235	214	
	SAIFI	1.26	1.66	1.62	1.60	1.58	1.52	1.66	1.62	1.60	1.58	
Penn Power (FirstEnergy)	CAIDI	101	137	160	161	185	121	137	160	161	185	
	SAIDI	113	187	173	164	179	162	187	173	164	179	
	SAIFI	1.12	1.37	1.08	1.02	0.97	1.34	1.37	1.08	1.02	0.97	
West Penn (FirstEnergy)	CAIDI	170	162	178	203	216	204	162	178	203	216	
	SAIDI	179	187	206	231	241	257	187	206	231	241	
	SAIFI	1.05	1.15	1.16	1.14	1.12	1.26	1.15	1.16	1.14	1.12	
Small EDCs												
Citizens'	CAIDI	105	88	90	90	87	141	87.6	90.3	90	87	
	SAIDI	21	11	11	13	7	38	10.7	11	12.5	7	
	SAIFI	0.20	0.12	0.12	0.14	0.08	0.27	0.12	0.12	0.14	0.08	
Pike County	CAIDI	174	166	160	185	184	235	166	160	185	184	
	SAIDI	106	75	96	107	83	194	75	96	107	83	
	SAIFI	0.61	0.45	0.60	0.58	0.45	0.82	0.45	0.60	0.58	0.45	
UGI	CAIDI	169	212	186	166	163	228	212	186	166	163	
	SAIDI	140	185	142	81	66	256	185	142	81	66	
	SAIFI	0.83	0.87	0.76	0.48	0.40	1.12	0.87	0.76	0.48	0.40	
Wellsboro	CAIDI	124	98	89	92	97	167	98	89	92	97	
	SAIDI	153	68	75	101	114	278	68	75	101	114	
	SAIFI	1.23	0.70	0.84	1.10	1.17	1.66	0.70	0.84	1.10	1.17	
¹ CAIDI	(Customer Average Interruption Duration Index) - Measures average power restoration time (minutes) for every customer who lost power during this year.											
SAIDI	(System Average Interruption Duration Index) - Measures average outage duration time (minutes) for every customer served during this year.											
SAIFI	(System Average Interruption Frequency Index) - Measures average frequency of power interruptions for every customer served during this year.											
² BM	(Benchmark) - EDC's attained performance baseline score prior to electric restructuring. Calculated by averaging historical performance metrics over the five-year period directly prior to electric restructuring (1994 to 1998).											
³ STD	(Standard) - EDC's upper limit performance value. CAIDI STD & SAIFI STD is calculated by multiplying BM by 120% for large EDCs and 135% for small EDCs. SAIDI STD is calculated by multiplying CAIDI STD x SAIFI STD.											

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 2021



U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases			
Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	0	0
(G)	(H)	(I)	(J)

Number of Days	
Total number of days away from work	Total number of days of job transfer or restriction
0	0
(K)	(L)

Injury and Illness Types			
Total number of . . . (M)			
(1) Injuries	0	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name Citizens' Electric Co

Street 1775 Industrial Blvd

City Lewisburg State PA Zip 17837

Industry description (e.g., *Manufacture of motor truck trailers*)
Electric Distribution Utility

Standard Industrial Classification (SIC), if known (e.g., 3715)

OR _____

North American Industrial Classification (NAICS), if known (e.g., 336212)
221122

Employment information (If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees 18

Total hours worked by all employees last year 34651

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge, the entries are true, accurate, and complete.

[Signature] Director - Safety
Company executive Title

Phone 570-522-6149 Date 01/24/2022

Save Input

04/18/2022 8:41:34 am

MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 1

Invoice: 647 - Pole attachment charges for 2021.
Account: 231 - [REDACTED] [REDACTED] [REDACTED] [REDACTED] Attacher A

Invoice Date: 01/11/2021
Due Date: 01/21/2021
Status: Paid
EFT:No
Disputed:No

Total Line Amount: 3,370.00
Tax: 0.00
Invoice Amount: 3,370.00

Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Compan			EA	337.000	10.0000	0.00	3,370.00	No
		Revenue Group:								
		Nontaxable Group:								

	GL	GL		
	Div	Account	Description	GL Department
AR GL Account:	0	143.0	Other Accts Receivable	0 - Unassigned Department
REV GL Account:	0	454.0	Rent From Electric Property	0 - Unassigned Department

Total Line Amount For Invoice 647: 3,370.00

Invoice: 648 - Pole attachment charges for 2021.
Account: 187 - [REDACTED] [REDACTED] [REDACTED] [REDACTED] Attacher B

Invoice Date: 01/11/2021
Due Date: 01/21/2021
Status: Paid
EFT:No
Disputed:No

Total Line Amount: 1,420.00
Tax: 0.00
Invoice Amount: 1,420.00

Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	142.000	10.0000	0.00	1,420.00	No
		Revenue Group:								
		Nontaxable Group:								

	GL	GL		
	Div	Account	Description	GL Department
AR GL Account:	0	143.0	Other Accts Receivable	0 - Unassigned Department
REV GL Account:	0	454.0	Rent From Electric Property	0 - Unassigned Department

Total Line Amount For Invoice 648: 1,420.00

Invoice: 649 - Pole attachment charges for 2021.
Account: 35 - [REDACTED] [REDACTED] [REDACTED] [REDACTED] Attacher C

Invoice Date: 01/11/2021
Due Date: 01/21/2021
Status: Paid
EFT:No
Disputed:No

Total Line Amount: 70.00
Tax: 0.00
Invoice Amount: 70.00

Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 2

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	7.000	10.0000	0.00	70.00	No
Revenue Group:		Nontaxable Group:								
	GL GL									
	Div Account	Description	GL Department	GL Activity						
	AR GL Account: 0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity						
	REV GL Account: 0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity						
Total Line Amount For Invoice 649:									70.00	

Invoice: 650 - Pole attachment charges for 2021.

Account: 33 - [REDACTED]

Attacher D

Invoice Date: 01/11/2021

Due Date: 01/21/2021

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 1,050.00

Tax: 0.00

Invoice Amount: 1,050.00

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attechments to Citizens' Electric Co			EA	105.000	10.0000	0.00	1,050.00	No
Revenue Group:		Nontaxable Group:								
	GL GL									
	Div Account	Description	GL Department	GL Activity						
	AR GL Account: 0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity						
	REV GL Account: 0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity						
Total Line Amount For Invoice 650:									1,050.00	

Invoice: 651 - Pole attachment charges for 2021.

Account: 34 - [REDACTED]

Attacher E

Invoice Date: 01/11/2021

Due Date: 01/21/2021

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 1,140.00

Tax: 0.00

Invoice Amount: 1,140.00

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	57.000	20.0000	0.00	1,140.00	No
Revenue Group:		Nontaxable Group:								
	GL GL									
	Div Account	Description	GL Department	GL Activity						
	AR GL Account: 0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity						
	REV GL Account: 0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity						

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 3

Total Line Amount For Invoice 651: 1,140.00

Invoice: 652 - Pole attachment charges for 2021.
Account: 32 - [REDACTED] Attacher F

Invoice Date: 01/11/2021 **Total Line Amount:** 18,350.00
Due Date: 01/21/2021 **Tax:** 0.00
Status: Paid **Invoice Amount:** 18,350.00
EFT: No
Disputed: No

Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co			EA	3,598.000	5.0000	0.00	17,990.00	No

Revenue Group:

Nontaxable Group:

GL GL

	Div Account	Description	GL Department	GL Activity
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity

2 Sale	MISC	Booster Box			EA	72.000	5.0000	0.00	360.00	No
--------	------	-------------	--	--	----	--------	--------	------	--------	----

Revenue Group:

Nontaxable Group:

GL GL

	Div Account	Description	GL Department	GL Activity
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 652: 18,350.00

Invoice: 653 - Pole attachment charges for 2021.
Account: 81 - [REDACTED] Attacher G

Invoice Date: 01/11/2021 **Total Line Amount:** 650.00
Due Date: 01/21/2021 **Tax:** 0.00
Status: Paid **Invoice Amount:** 650.00
EFT: No
Disputed: No

Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	65.000	10.0000	0.00	650.00	No

Revenue Group:

Nontaxable Group:

GL GL

	Div Account	Description	GL Department	GL Activity
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 653: 650.00

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 4

Invoice: 654 - Pole attachment charges for 2021.

Account: 31 - [REDACTED] [REDACTED] Attacher H

Invoice Date: 01/11/2021

Due Date: 01/21/2021

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 11,320.00

Tax: 0.00

Invoice Amount: 11,320.00

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	3,244.000	5.0000	0.00	16,220.00	No
Revenue Group:		Nontaxable Group:								
		GL GL								
		Div Account	Description	GL Department	GL Activity					
AR GL Account:		0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
REV GL Account:		0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity					
2 Credit	MISC	Citizens' attached to [REDACTED]			EA	-980.000	5.0000	0.00	-4,900.00	No
Revenue Group:		Nontaxable Group:								
		GL GL								
		Div Account	Description	GL Department	GL Activity					
AR GL Account:		0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
REV GL Account:		0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity					
Total Line Amount For Invoice 654:									11,320.00	

Invoice: 655 - Pole attachment charges for 2021.

Account: 46 - [REDACTED] [REDACTED] Attacher I

Invoice Date: 01/11/2021

Due Date: 01/21/2021

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 60.00

Tax: 0.00

Invoice Amount: 60.00

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co.			EA	6.000	10.0000	0.00	60.00	No
Revenue Group:		Nontaxable Group:								
		GL GL								
		Div Account	Description	GL Department	GL Activity					
AR GL Account:		0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
REV GL Account:		0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity					
Total Line Amount For Invoice 655:									60.00	

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 5

Invoice: 656 - Pole attachment charges for 2021.

Invoice Date: 01/11/2021

Total Line Amount: 1,250.00

Account: 186 - [REDACTED]

Due Date: 01/21/2021

Tax: 0.00

Attacher J

Status: Paid

Invoice Amount: 1,250.00

Control Group: DIV0 - 0

EFT: No

Sales Location: 1 - SALES LOCATION 1

Disputed: No

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens' Electric Co			EA	125.000	10.0000	0.00	1,250.00	No

Revenue Group:

Nontaxable Group:

	GL GL			
	Div Account	Description	GL Department	GL Activity
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 656: 1,250.00

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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GL Accounting Summary

GL GL Div Account	Description	GL Department	GL Activity	BU Project	Debit	Credit
0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity		38,680.00	0.00
0 454.0	Rent From Electric Property	0 - Unassigned Department	0 - Unassigned Activity		0.00	38,680.00
Total:					38,680.00	38,680.00

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 7

PARAMETERS ENTERED:

Invoice: 647, 648, 649, 650, 651, 652, 653, 654, 655, 656

Account: All

Invoice Date: 01/01/2021 To 01/31/2021

Sort: Invoice

Additional Information: Yes

Instructions: Yes

Tax Detail: No

Long Description: Yes

Line Details: Yes

Warranty Information: No

GL Accounting: Yes

Page Break By Invoice: No

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 1

Invoice: 715 - Pole Attachment charges for 2022.

Account: 231 - [REDACTED]

Attacher A

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 2,888.09

Tax: 0.00

Invoice Amount: 2,888.09

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	337.000	8.5700	0.00	2,888.09	No

Revenue Group:

Nontaxable Group:

	GL	GL		
	Div	Account	Description	GL Department
AR GL Account:	0	143.0	Other Accts Receivable	0 - Unassigned Department
REV GL Account:	0	456.0	Other Electric Revenues	0 - Unassigned Department

GL Activity

0 - Unassigned Activity

0 - Unassigned Activity

Total Line Amount For Invoice 715: 2,888.09

Invoice: 716 - Pole Attachment charges for 2022.

Account: 187 - [REDACTED]

Attacher B

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 1,234.08

Tax: 0.00

Invoice Amount: 1,234.08

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	144.000	8.5700	0.00	1,234.08	No

Revenue Group:

Nontaxable Group:

	GL	GL		
	Div	Account	Description	GL Department
AR GL Account:	0	143.0	Other Accts Receivable	0 - Unassigned Department
REV GL Account:	0	456.0	Other Electric Revenues	0 - Unassigned Department

GL Activity

0 - Unassigned Activity

0 - Unassigned Activity

Total Line Amount For Invoice 716: 1,234.08

Invoice: 717 - Pole Attachment charges for 2022.

Account: 33 - [REDACTED]

Attacher D

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 899.85

Tax: 0.00

Invoice Amount: 899.85

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

Page: 2

Instructions: 1/5/22 Rec'd email from [REDACTED] stating to forward invoice to [REDACTED].invoices@[REDACTED].com (see attachment in vault). deb

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	105.000	8.5700	0.00	899.85	No
Revenue Group:			Nontaxable Group:							
		GL GL								
		Div Account	Description	GL Department	GL Activity					
AR GL Account:		0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
REV GL Account:		0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					
Total Line Amount For Invoice 717:									899.85	

Invoice: 718 - Pole Attachment charges for 2022.

Account: 34 - [REDACTED]

Attacher E

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 488.49

Tax: 0.00

Invoice Amount: 488.49

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	57.000	8.5700	0.00	488.49	No
Revenue Group:			Nontaxable Group:							
		GL GL								
		Div Account	Description	GL Department	GL Activity					
AR GL Account:		0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
REV GL Account:		0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					
Total Line Amount For Invoice 718:									488.49	

Invoice: 719 - Pole Attachment charges for 2022.

Account: 32 - [REDACTED]

Attacher F

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT: No

Disputed: No

Total Line Amount: 32,703.12

Tax: 0.00

Invoice Amount: 32,703.12

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	3,597.000	8.5700	0.00	30,826.29	No
Revenue Group:			Nontaxable Group:							

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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Invoice: 719 - Pole Attachment charges for 2022.

Invoice Date: 01/04/2022

Total Line Amount: 32,703.12

Account: 32 - [REDACTED]

Due Date: 01/31/2022

Tax: 0.00

Status: Paid

Invoice Amount: 32,703.12

Control Group: DIV0 - 0

Attacher F

EFT: No

Sales Location: 1 - SALES LOCATION 1

Disputed: No

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
		GL GL								
		Div Account	Description	GL Department	GL Activity					
	AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
	REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					
2 Sale	MISC	Booster Box Attachments			EA	73.000	25.7100	0.00	1,876.83	No
Revenue Group:			Nontaxable Group:							
		GL GL								
		Div Account	Description	GL Department	GL Activity					
	AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
	REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					
Total Line Amount For Invoice 719:									32,703.12	

Invoice: 720 - Pole Attachment charges for 2022.

Invoice Date: 01/04/2022

Total Line Amount: 19,333.92

Account: 31 - [REDACTED]

Due Date: 01/31/2022

Tax: 0.00

Status: Paid

Invoice Amount: 19,333.92

Control Group: DIV0 - 0

Attacher H

EFT: No

Sales Location: 1 - SALES LOCATION 1

Disputed: No

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	3,244.000	8.5700	0.00	27,801.08	No
Revenue Group:			Nontaxable Group:							
		GL GL								
		Div Account	Description	GL Department	GL Activity					
	AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
	REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					
2 Credit	MISC	Citizens Attached to [REDACTED]			EA	-988.000	8.5700	0.00	-8,467.16	No
Revenue Group:			Nontaxable Group:							
		GL GL								
		Div Account	Description	GL Department	GL Activity					
	AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity					
	REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity					

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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Total Line Amount For Invoice 720: 19,333.92

Invoice: 721 - Pole Attachment charges for 2022.

Account: 81 - [REDACTED] [REDACTED] [REDACTED] Attacher G

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT:No

Disputed:No

Total Line Amount: 557.05

Tax: 0.00

Invoice Amount: 557.05

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
I Sale	MISC	Attachments to Citizens Electric Company			EA	65.000	8.5700	0.00	557.05	No

Revenue Group:

Nontaxable Group:

	GL GL	Description	GL Department	GL Activity
	Div Account			
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 721: 557.05

Invoice: 722 - Pole Attachment charges for 2022.

Account: 46 - [REDACTED] [REDACTED] Attacher I

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

EFT:No

Disputed:No

Total Line Amount: 51.42

Tax: 0.00

Invoice Amount: 51.42

Control Group: DIV0 - 0

Sales Location: 1 - SALES LOCATION 1

Invoice Group:

Salesperson:

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
I Sale	MISC	Attachments to Citizens Electric Company			EA	6.000	8.5700	0.00	51.42	No

Revenue Group:

Nontaxable Group:

	GL GL	Description	GL Department	GL Activity
	Div Account			
AR GL Account:	0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account:	0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 722: 51.42

Invoice: 723 - Pole Attachment charges for 2022.

Account: 186 - [REDACTED] [REDACTED] Attacher J

Invoice Date: 01/04/2022

Due Date: 01/31/2022

Status: Paid

Total Line Amount: 1,071.25

Tax: 0.00

Invoice Amount: 1,071.25

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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Control Group: DIV0 - 0
Sales Location: 1 - SALES LOCATION 1
Invoice Group:
Salesperson:

EFT:No
Disputed:No

Line Type	Catalog Item	Description	Loc	Sub Location	UOM	Quantity	Unit Price	Discount	Total Line Amount	Txbl
1 Sale	MISC	Attachments to Citizens Electric Company			EA	125.000	8.5700	0.00	1,071.25	No

Revenue Group:

Nontaxable Group:

GL GL Div Account	Description	GL Department	GL Activity
AR GL Account: 0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity
REV GL Account: 0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity

Total Line Amount For Invoice 723: 1,071.25

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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GL Accounting Summary

GL GL Div Account	Description	GL Department	GL Activity	BU Project	Debit	Credit
0 143.0	Other Accts Receivable	0 - Unassigned Department	0 - Unassigned Activity		59,227.27	0.00
0 456.0	Other Electric Revenues	0 - Unassigned Department	0 - Unassigned Activity		0.00	59,227.27
Total:					59,227.27	59,227.27

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MISCELLANEOUS RECEIVABLE INVOICE DETAILS

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PARAMETERS ENTERED:

Invoice: 715, 716, 717, 718, 719, 720, 721, 722, 723

Account: All

Invoice Date: 01/01/2022 To 01/31/2022

Sort: Invoice

Additional Information: Yes

Instructions: Yes

Tax Detail: No

Long Description: Yes

Line Details: Yes

Warranty Information: No

GL Accounting: Yes

Page Break By Invoice: No

Local News

Support Your Local Businesses

Citizens' Electric

LEWISBURG — Citizens' Electric Co. has been recognized as a Tree Line USA utility for the 20th consecutive year.

The Lewisburg-based electric provider was selected for the Tree Line USA designation in recognition of its commitment to proper urban forest management practices.

Tree Line USA, a partnership between the National Arbor Day Foundation and the National Association of State Foresters, annually recognizes utilities for pursuing best practices that protect and cultivate America's urban tree canopy. In addition, the program promotes the delivery of safe and reliable electricity while maintaining healthy community forests.

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
421	MV	A-20-1-FR	175
428	MV	B-27-1	175
432	MV	B-39-A	175
778	MV	B-41-2	175
521	MV	C-35	175
600	MV	E-33	175
601	MV	E-42	175
919	MV	F-81-1-1-B-2	175
920	MV	F-81-1-1-B-3	175
945	MV	G-41	175
811	MV	H-19-4-1	175
1161	MV	J-75-1-1	175
1170	MV	J-82-L-1-1	175
1171	MV	J-93-D	175
210	MV	K-11	175
987	MV	K-15	175
169	MV	K-18-11 1/2-1	175
1172	MV	K-18-12-A-1-A	175
1175	MV	K-18-12-A-2-A	175
1191	MV	K-18-12-A-2-B	175
1173	MV	K-18-12-A-3-A	175
1177	MV	K-18-12-A-4-A	175
1189	MV	K-18-12-A-6-A	175
1182	MV	K-18-12-A-7-A	175
1187	MV	K-18-12-A-7-B	175
175	MV	K-18-21-14-2-FR	175
986	MV	K-18-21-5-2-1	175
167	MV	K-18-B-4 1/2-1	175
172	MV	K-18-B-4 1/2-4	175
990	MV	K-54-4-1	175
1124	MV	K-7 1/2-4-2	175
1204	MV	M-15-7-1 1/2	175
184	MV	M-4-2	175
1081	MV	M-44	175
203	MV	M-64-4-B	175
232	MV	R-141-6-1	175
82	MV	R-240-2	175
75	MV	R-251-25-1-1	175
325	MV	R-251-25-2-1	175
335	MV	R-251-25-3-1	175
1158	MV	R-40-7	175
62	MV	S-32-10-1	175
61	MV	S-34-7-1-1	175
68	MV	T-19-14-13	175
66	MV	T-19-14-2-2	175
94	MV	U-17-2-FR	175

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
111	MV	U-202-7-E-1	175
102	MV	U-37-1	175
100	MV	U-48-1	175
106	MV	U-8-4	175
139	MV	V-24-25-13-1	175
128	MV	V-24-9-43-A	175
126	MV	V-8-40-7-3-1	175
25	MV	X-102-1	175
330	MV	Y-11-16-1-1	175
323	MV	Y-11-16-4-1	175
326	MV	Y-11-16-5-1-1	175
324	MV	Y-11-16-5-A	175
333	MV	Y-11-19-4-A3-1	175
2	MV	Y-15-6-1-1	175
45	MV	Y-6-2	175
16	MV	Y-9-1-1-1	175
57	MV	Y-9-1-1-2	175
54	MV	Y-9-1-1-3	175
48	MV	Y-9-1-1-4	175

MV Count:	65	MV Wattage:	11,375
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417	HPS	A-10	100
527	HPS	C-13-1	100
224	HPS	D-2	100
1038	HPS	F-75	100
1000	HPS	F-81-1-1-F-1	100
1165	HPS	J-69-2-1-1	100
1032	HPS	K-2-6-8-1	100
1209	HPS	K-33-1-1	100
1208	HPS	K-33-2-1	100
177	HPS	K-40-5-1	100
924	HPS	K-7 1/2	100
1131	HPS	K-7 1/2-8	100
1075	HPS	M-34	100
1121	HPS	M-81	100
225	HPS	R-40-5	100
996	HPS	R-74-7-1/2-1	100
455	HPS	V-24-44-A	100
183	HPS	V-8-28-7	100
948	HPS	V-8-28-9	100
147	HPS	V-8-37-O-A	100
222	HPS	V-8-40-1-2-1	100
1041	HPS	V-8-40-15-B	100
587	HPS	X-67 1/2-4-2-1	100
1174	HPS	X-67 1/2-4-2-2	100
1318	HPS	X-67 1/2-4-2-3	100

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1001	HPS	X-73-4-1	100
1039	HPS	J-51-A-FR	175
209	HPS	K-18	175
182	HPS	K-18-21-18-8-1	175
173	HPS	K-18-B-4 1/2-2	175
1270	HPS	R-130-1-FR	175
1224	HPS	R-181-1/2-A	175
1723	HPS	R-181-9-A-1	175
1219	HPS	R-184	175
1062	HPS	R-49-13-3-1-2	175
1003	HPS	R-74-12-1-1	175
1011	HPS	R-74-12-3-1	175
1008	HPS	R-74-12-5-1	175
1014	HPS	R-74-12-7-1	175
241	HPS	R-74-12-8-2	175
1250	HPS	U-122-4-1	175
1252	HPS	V-8-28-6	175
314	HPS	X-6-1-1	175
315	HPS	X-6-3-1	175
312	HPS	X-6-4-1	175
1267	HPS	X-73-11-5-1	175
343	HPS	Y-11-19-4-A10-1	175
327	HPS	Y-11-19-4-A11-1	175
320	HPS	Y-11-19-4-A7-1	175
336	HPS	Y-11-19-4-A8-1	175
51	HPS	Y-11-19-4-A9-1	175
338	HPS	Y-11-19-4-B1-1	175
340	HPS	Y-11-19-4-B3-1	175
350	HPS	Y-11-19-5-C1-3	175
349	HPS	Y-11-19-5-C2-1	175
348	HPS	Y-11-19-5-C3-1	175
347	HPS	Y-11-19-5-C5-1	175
346	HPS	Y-11-19-5-C6-1	175
345	HPS	Y-11-19-5-C7-1	175
1274	HPS	Y-8	175
1203	HPS	K-18-38-1	400
1119	HPS	R-37 1/2-A-1-1	400
1153	HPS	R-40-2	400
MV Count:	63	MV Wattage:	9,750
1206	LED	Y-11-16-3-1	40
420	LED	A-13	48
1266	LED	A-17-1-FR	48
418	LED	A-20-A-FR	48
409	LED	A-3	48
422	LED	A-40-1	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
424	LED	A-42-FR	48
423	LED	A-53-FR	48
788	LED	A-55-FR	48
408	LED	A-6	48
790	LED	A-61 1/2-B-2-FR	48
787	LED	A-61 1/2-FR	48
792	LED	B-10	48
796	LED	B-117	48
793	LED	B-12	48
800	LED	B-120	48
591	LED	B-122	48
1297	LED	B-125	48
1101	LED	B-127-5	48
784	LED	B-129-FR	48
148	LED	B-135	48
785	LED	B-135-2	48
789	LED	B-135-3-FR	48
791	LED	B-14	48
794	LED	B-16	48
416	LED	B-17	48
592	LED	B-21	48
426	LED	B-24	48
425	LED	B-27-1-FR	48
429	LED	B-27-2-FR	48
1218	LED	B-29	48
431	LED	B-34	48
3381	LED	B-4	48
313	LED	B-40	48
797	LED	B-4-4 1/2	48
1238	LED	B-4-6	48
3399	LED	B-4-8	48
414	LED	B-56-2	48
411	LED	B-56-2-1	48
779	LED	B-6	48
412	LED	B-62-C	48
1002	LED	B-64	48
413	LED	B-65	48
410	LED	B-65-1	48
781	LED	B-8	48
1718	LED	B-8-3	48
2543	LED	B-8-6	48
415	LED	B-95-3-1	48
786	LED	C-1	48
528	LED	C-11-2	48
533	LED	C-2	48
3382	LED	C-24	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
529	LED	C-25	48
519	LED	C-25-3	48
520	LED	C-28-1-A-FR	48
535	LED	C-3	48
531	LED	C-4 1/2	48
2548	LED	C-4-1	48
2549	LED	C-53	48
537	LED	C-6	48
530	LED	C-8-1-FR	48
536	LED	C-9	48
525	LED	D-10	48
495	LED	D-12	48
496	LED	D-12-1-FR	48
497	LED	D-16	48
2530	LED	D-2	48
498	LED	D-20	48
2531	LED	D-21-B	48
513	LED	D-22	48
514	LED	D-24	48
510	LED	D-29	48
515	LED	D-34	48
516	LED	D-34-A	48
1220	LED	D-36	48
518	LED	D-40	48
523	LED	D-46-1	48
524	LED	D-5	48
526	LED	D-8	48
502	LED	E-10	48
1	LED	E-2	48
501	LED	E-2-1	48
1237	LED	E-28	48
509	LED	E-29	48
506	LED	E-29-A	48
1254	LED	E-29-A-C	48
500	LED	E-2-A	48
2529	LED	E-33	48
604	LED	E-37	48
602	LED	E-38	48
606	LED	E-38-2	48
3403	LED	E-40	48
3402	LED	E-41	48
494	LED	E-4-1	48
608	LED	E-45	48
609	LED	E-48-A-FR	48
503	LED	E-4-A	48
2534	LED	E-55	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
504	LED	E-6-1	48
813	LED	E-7	48
3405	LED	F-47	48
452	LED	F-48	48
453	LED	F-55-1	48
454	LED	F-59	48
456	LED	F-62-1	48
915	LED	F-69-A	48
916	LED	F-73	48
917	LED	F-79	48
918	LED	F-79-3	48
1179	LED	F-81-1-1-B	48
951	LED	F-81-1-1-B-1	48
923	LED	F-81-1-1-C	48
1311	LED	F-81-1-1-C-1	48
1312	LED	F-81-1-1-C-2	48
1309	LED	F-81-1-1-D-1	48
1310	LED	F-81-1-1-D-3	48
933	LED	F-81-1-1-E	48
934	LED	F-81-1-1-F-B	48
930	LED	F-81-1-1-F-C	48
230	LED	F-81-1-1-I	48
925	LED	F-83	48
927	LED	F-83-S-1	48
926	LED	F-85-1	48
928	LED	F-86-1	48
1180	LED	F-90-A	48
940	LED	G-13	48
941	LED	G-16	48
939	LED	G-18	48
944	LED	G-20	48
942	LED	G-26	48
938	LED	G-33	48
943	LED	G-36-1	48
947	LED	G-44	48
946	LED	G-51	48
937	LED	G-9	48
1301	LED	H-15-1	48
808	LED	H-15-3 1/2-1	48
810	LED	H-19-4-3	48
1281	LED	H-19-4-3-1	48
809	LED	H-19-4-4	48
3407	LED	H-21 1/2	48
3408	LED	H-21 1/2-1/2	48
812	LED	J-51-1	48
1103	LED	J-62-A	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1154	LED	J-63-A	48
1164	LED	J-64-3	48
3387	LED	J-93-1	48
213	LED	K-10-1	48
171	LED	K-18-2	48
180	LED	K-18-21-17-1	48
181	LED	K-18-25-A-1	48
1298	LED	K-18-38-1-3-1	48
1199	LED	K-18-38-1-3-2	48
1202	LED	K-18-38-1-A	48
1201	LED	K-18-38-1-B	48
170	LED	K-18-4	48
1192	LED	K-18-42-C-A	48
1194	LED	K-18-42-E	48
1210	LED	K-18-45-11-1-1	48
1168	LED	K-18-5-2-1	48
1181	LED	K-18-55-2-FR	48
1207	LED	K-18-55-3	48
211	LED	K-18-A-1	48
1285	LED	K-18-A-2-B-4-1	48
1110	LED	K-18-A-2-B-7-1	48
1112	LED	K-18-A-3-1	48
164	LED	K-18-B-2-1	48
1300	LED	K-18-B-4 1/2-5-1	48
1299	LED	K-18-B-4 1/2-6-1	48
992	LED	K-18-B-8-1	48
991	LED	K-18-B-9 1/2-1	48
1111	LED	K-18-B-A-2-B-9-1	48
2535	LED	K-20-1	48
1095	LED	K-2-3-A	48
1096	LED	K-2-6-1	48
1024	LED	K-2-6-2-C-1	48
1030	LED	K-2-6-2-D	48
1025	LED	K-2-6-3	48
166	LED	K-2-6-4	48
179	LED	K-2-6-4-C-1	48
1284	LED	K-2-6-4-D-4	48
1020	LED	K-2-6-6-B	48
1019	LED	K-2-6-7	48
1023	LED	K-2-6-7-1	48
1018	LED	K-2-6-7-1-2	48
1022	LED	K-2-6-7-2-2-1	48
1026	LED	K-2-6-7-2-3-1	48
1726	LED	K-2-6-A	48
1720	LED	K-2-8-2	48
1029	LED	K-3	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1031	LED	K-3-2	48
1042	LED	K-3-D	48
3412	LED	K-3-D	48
3393	LED	K-3-D-4	48
3392	LED	K-3-D-5	48
1036	LED	K-3-E	48
1028	LED	K-3-E-1	48
1099	LED	K-4-2-1	48
1105	LED	K-4-4-1	48
1106	LED	K-4-4-2	48
1098	LED	K-4-5-1	48
1107	LED	K-5	48
3400	LED	K-54	48
1294	LED	K-59-A	48
1127	LED	K-7 1/2-10	48
1163	LED	K-7 1/2-1-1	48
1128	LED	K-7 1/2-3 1/2-FR	48
1130	LED	K-7 1/2-3-3-1	48
1125	LED	K-7 1/2-4-B-1	48
1129	LED	K-7 1/2-5-3	48
185	LED	M-11	48
988	LED	M-15	48
1195	LED	M-15-6-FR	48
1188	LED	M-15-7-1-B-4-1	48
1196	LED	M-15-7-1-B-5-FR	48
831	LED	M-15-7-1-D	48
1186	LED	M-19	48
1078	LED	M-22	48
1076	LED	M-23	48
2542	LED	M-26	48
2540	LED	M-27	48
2541	LED	M-27-1-FR	48
1077	LED	M-29	48
1080	LED	M-29-B	48
1308	LED	M-32	48
1083	LED	M-37-2	48
1084	LED	M-37-5	48
1184	LED	M-4	48
2539	LED	M-4-4	48
1100	LED	M-4-5-1	48
1149	LED	M-48-1	48
1150	LED	M-48-2-1	48
3384	LED	M-48-A-1	48
3385	LED	M-48-A-3	48
208	LED	M-48-A-5	48
206	LED	M-52-2	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1217	LED	M-52-4	48
200	LED	M-52-A	48
207	LED	M-52-B	48
201	LED	M-52-C	48
197	LED	M-55	48
231	LED	M-55-2	48
193	LED	M-57-2	48
2964	LED	M-57-B-FR	48
2965	LED	M-57-C-FR	48
217	LED	M-60-1	48
199	LED	M-63	48
205	LED	M-64-4-A	48
204	LED	M-66-2-1	48
195	LED	M-66-2-A	48
198	LED	M-69-2-1	48
215	LED	M-74	48
216	LED	M-76 1/2-4-FR	48
1140	LED	M-76 1/2-6-FR	48
1122	LED	M-79	48
188	LED	M-8	48
1134	LED	M-81-1	48
1120	LED	M-84	48
1132	LED	M-85-2-1	48
2545	LED	PVT	48
1043	LED	R-141-2-7-2	48
1279	LED	R-181-1/4-FR	48
1722	LED	R-181-4	48
1142	LED	R-181-9	48
90	LED	R-181-9-2-5	48
85	LED	R-188	48
1290	LED	R-189-1	48
88	LED	R-191-A-FR	48
84	LED	R-195-2-FR	48
86	LED	R-197	48
89	LED	R-197-1-FR	48
87	LED	R-201	48
1228	LED	R-229-B-FR	48
79	LED	R-231 1/2	48
936	LED	R-237	48
1291	LED	R-240-1/2-FR-1	48
1724	LED	R-241-2-1	48
78	LED	R-243-1-FR	48
337	LED	R-251-25	48
2538	LED	R-252 1/2-1	48
1231	LED	R-253-1-3-1	48
3383	LED	R-31	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1123	LED	R-32-2 1/2-1	48
1147	LED	R-36	48
1148	LED	R-40-4	48
226	LED	R-41	48
1185	LED	R-41-3	48
1157	LED	R-41-6	48
3391	LED	R-44	48
3388	LED	R-46	48
1263	LED	R-48-10-A	48
1118	LED	R-48-10-B	48
221	LED	R-48-11	48
223	LED	R-48-12	48
1280	LED	R-48-13	48
219	LED	R-48-5-1	48
1159	LED	R-48-5-1-1	48
218	LED	R-48-5-2	48
1145	LED	R-48-9-1	48
2975	LED	R-49-15	48
2966	LED	R-49-17	48
3390	LED	R-49-17-1	48
2974	LED	R-49-17-1-FR	48
3389	LED	R-49-6	48
1070	LED	R-53	48
1047	LED	R-54-A	48
1046	LED	R-56-1-1	48
2980	LED	R-60-5-1-FR	48
2977	LED	R-60-5-2	48
2979	LED	R-60-5-A	48
1071	LED	R-62-2	48
1057	LED	R-64-1	48
242	LED	R-71-B	48
3404	LED	S-51-12-14-3-1	48
3395	LED	S-9-A-1	48
1236	LED	T-19-14-11	48
1223	LED	T-19-14-12	48
73	LED	T-19-14-18-11-1-1	48
1108	LED	T-19-14-19-A	48
590	LED	T-19-14-7-3-C	48
64	LED	T-19-15-1	48
3409	LED	T-19-38	48
131	LED	U-103-2	48
118	LED	U-122-9-A	48
113	LED	U-202-7-2	48
115	LED	U-214-D	48
110	LED	U-214-D-A-1	48
1235	LED	U-45-6-4	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1719	LED	U-50-A	48
145	LED	U-51-1-FR	48
103	LED	U-52-27-FR	48
129	LED	U-77-1-2	48
2544	LED	V-17-1-FR	48
2546	LED	V-18-FR	48
1183	LED	V-20	48
141	LED	V-24-41-B	48
1144	LED	V-24-9-19-1 1/2-1	48
1239	LED	V-24-9-19-1/2-1	48
1257	LED	V-24-9-20-1	48
1258	LED	V-24-9-20-4	48
1259	LED	V-24-9-24-1	48
137	LED	V-24-9-36-B	48
1260	LED	V-24-9-42-1	48
1261	LED	V-24-9-51-FR	48
125	LED	V-24-9-63-3	48
2127	LED	V-24-9-63-B-1	48
814	LED	V-24-B	48
3411	LED	V-24-B 1/2-1	48
136	LED	V-24-B-A	48
1289	LED	V-6-1	48
120	LED	V-8-40-5 1/2-2-1	48
3415	LED	V-8-40-5 1/2-2-2	48
2961	LED	V-8-40-7-2	48
3401	LED	V-8-40-7-3	48
1221	LED	W-4-1-FR	48
801	LED	W-42-4-1	48
802	LED	W-42-4-2	48
803	LED	W-42-4-3	48
804	LED	W-42-4-4	48
805	LED	W-42-4-5	48
806	LED	W-42-4-6	48
1262	LED	W-43-1-5-1	48
105	LED	W-43-A	48
104	LED	W-46 1/2-1	48
107	LED	W-46 1/2-2	48
929	LED	X-101	48
1269	LED	X-101-3-1	48
174	LED	X-101-8	48
8	LED	X-35-5-1	48
24	LED	X-36 1/2-1-1-FR	48
44	LED	X-37-4	48
9	LED	X-37-5	48
5	LED	X-37-8-1	48
3	LED	X-4-1	48

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
1222	LED	X-68-B-2	48
29	LED	X-72-1	48
1268	LED	X-81	48
27	LED	X-81-2	48
1302	LED	X-92-1	48
28	LED	X-93-A	48
3397	LED	Y-11-9-A	48
14	LED	Y-1-2-1	48
321	LED	Y-1-2-A	48
2527	LED	Y-15-3-10	48
2528	LED	Y-15-6-11	48
238	LED	Y-15-6-7	48
1283	LED	Y-15-6-8	48
3398	LED	Y-3-A-1	48
42	LED	Y-6	48
1271	LED	Y-6-1	48
1293	LED	Y-7	48
1275	LED	Y-8-1	48
1277	LED	Y-8-1-2	48
3394	LED	Y-8-1-3	48
339	LED	R-251-25-1-2	50
351	LED	R-251-25-4-1	50
1064	LED	R-49-13-2-1-A	50
1065	LED	R-49-13-2-1-B	50
1063	LED	R-49-13-2-1-C	50
1066	LED	R-49-13-2-1-D	50
1067	LED	R-49-13-2-1-E	50
176	LED	R-49-13-2-1-F	50
1059	LED	R-49-13-3-1-1	50
1060	LED	R-49-13-3-1-3	50
1061	LED	R-49-13-3-1-4	50
1094	LED	R-70-10-1	50
1044	LED	R-70-10-2	50
1087	LED	R-70-1-1	50
1090	LED	R-70-2-1	50
1086	LED	R-70-2-2	50
1091	LED	R-70-4-1	50
1072	LED	R-70-5-1	50
1088	LED	R-70-6-1	50
1089	LED	R-70-7-1	50
316	LED	R-70-7-2	50
1092	LED	R-70-8-1	50
1093	LED	R-70-9-1	50
1009	LED	R-72-12-11-1	50
1007	LED	R-74-12-10-1	50
1006	LED	R-74-12-10-2	50

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
246	LED	R-74-12-1-2	50
1010	LED	R-74-12-12-1	50
229	LED	R-74-12-1-3	50
233	LED	R-74-12-1-4	50
1013	LED	R-74-12-2-1	50
1016	LED	R-74-12-4-1	50
1015	LED	R-74-12-6-1	50
1012	LED	R-74-12-7-2	50
1005	LED	R-74-12-8-1	50
1004	LED	R-74-12-9-1	50
999	LED	R-74-6-1	50
995	LED	R-74-7-1 1/2-1	50
998	LED	R-74-7-1-1	50
997	LED	R-74-7-2-1	50
994	LED	R-74-7-3-1	50
2126	LED	R-74-7-3-2	50
1113	LED	X-6-2-1	50
588	LED	X-67 1/2-4-3-1	50
329	LED	Y-11-16-1-2	50
317	LED	Y-11-16-2-1	50
328	LED	Y-11-16-5-2-1	50
50	LED	Y-11-16-6-1	50
331	LED	Y-11-16-6-2	50
332	LED	Y-11-16-7-1	50
935	LED	Y-11-19-4-A1-1	50
344	LED	Y-11-19-4-A12-1	50
334	LED	Y-11-19-4-A4-1	50
341	LED	Y-11-19-4-B4-1	50
342	LED	Y-11-19-4-B6-1	50
352	LED	Y-11-19-5-C1-1	50
585	LED	Y-11-19-5-C1-2	50
318	LED	Y-11-19-A4-2	50
49	LED	Y-3-17-1-1	50
12	LED	Y-3-17-2-1	50
55	LED	Y-3-17-2-2	50
52	LED	Y-3-17-3-1	50
15	LED	Y-3-17-4-1	50
56	LED	Y-3-17-4-2	50
47	LED	Y-3-17-5-1	50
21	LED	Y-3-17-5-2	50
13	LED	Y-3-17-6-1	50
10	LED	Y-3-17-7-1	50
43	LED	Y-3-17-7-2	50
6	LED	Y-3-17-8-1	50
7	LED	Y-3-17-8-2	50
17	LED	Y-3-17-8-3	50

OBJECTID	gs_lamp_type	gs_support_structure_id	gs_wattage
322	LED	Y-11-16-3-2	70
2960	LED	B-123	143
2959	LED	B-123-1	143
2956	LED	B-123-1/2	143
2953	LED	B-123-B	143
2957	LED	B-123-C	143
2958	LED	B-124	143
3396	LED	M-15-7-1-B	143
189	LED	M-4-2-C-FR	143
2536	LED	M-4-2-D-FR	143
187	LED	M-4-2-E-FR	143
1126	LED	M-4-2-F-FR	143
1138	LED	M-83-1 1/2-7	143
2978	LED	R-141	143
2976	LED	R-141-1	143
1151	LED	R-37-1-FR	143
1017	LED	R-96	143
71	LED	T-19-14-31-3-2	143
3406	LED	V-8-40-7-2 1/2-1	143
640	LED	BL-57-A	280
1296	LED	BL-57-A	280
283	LED	BL-57-C	280
1295	LED	BL-57-C	280
532	LED	C-11	280
2982	LED	C-23-1-FR	280
2981	LED	C-23-2-FR	280
2550	LED	H-15-3-3	280
168	LED	K-18-12	280
1021	LED	K-2-7-1	280
192	LED	M-2-1	280
1139	LED	M-83-1 1/2-6 1/2	280
1169	LED	V-24-25-8-1 1/2	280
1232	LED	V-24-25-8-2	280
949	LED	X-1-1	280
1205	LED	Y-5 1/2	280
1273	LED	Y-7-1	280
1160	LED	Y-A	280
LED Count:	503	LED Wattage:	30,188

Citizens' Electric Company
Comparison - Actual Capital Expenditures Against Budget
January - December 2019

Description	Reimbursement Capital Expense		Material Cost		Labor Cost		Overhead Cost		Truck Cost		Total Cost		Percent Used To Date	Item Complete Y/N
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget		
1. General Construction**	\$ 18,520	\$ -	\$ 140,140	\$ 152,528	\$ 315,391	\$ 305,056	\$ 339,322	\$ 323,437	\$ 74,152	\$ 61,593	\$ 850,486	\$ 842,614	101%	Y
2. New Transformers	\$ -	\$ -	\$ 52,466	\$ 61,200	\$ 7,114	\$ 9,806	\$ 7,540	\$ 10,397	\$ 1,950	\$ 2,940	\$ 69,070	\$ 84,343	82%	Y
3. New Meters	\$ -	\$ -	\$ 111,255	\$ 120,056	\$ 22,574	\$ 28,577	\$ 23,945	\$ 30,299	\$ 9,613	\$ 11,540	\$ 167,387	\$ 190,472	88%	Y
4. Rt 15 Rebuild - Smoketown - Jonathan Rd WO 20190102**	\$ -	\$ -	\$ 79,452	\$ 81,937	\$ 21,200	\$ 36,003	\$ 26,830	\$ 38,172	\$ 2,948	\$ 7,269	\$ 130,430	\$ 163,381	80%	Y
5. UG Cable Repl - S 17th & S 16th WO 20190101**	\$ -	\$ -	\$ 32,121	\$ 32,593	\$ 8,647	\$ 3,401	\$ 9,688	\$ 3,606	\$ 470	\$ 687	\$ 50,927	\$ 40,287	126%	Y
6. Moore Rebuild - Final Section WO 20190103	\$ -	\$ -	\$ 21,906	\$ 15,976	\$ 61,682	\$ 19,266	\$ 67,512	\$ 20,427	\$ 19,666	\$ 3,890	\$ 170,768	\$ 59,559	287%	Y
7. IT Replacements & Enhancements	\$ -	\$ -	\$ 20,564	\$ 23,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,564	\$ 23,000	89%	Y
8. Video Security System WO 20190209	\$ -	\$ -	\$ 1,502	\$ 3,000	\$ 397	\$ 313	\$ 1,072	\$ 332	\$ 102	\$ 63	\$ 3,073	\$ 3,708	83%	Y
9. Building Exterior Lighting Repl WO 20190210	\$ -	\$ -	\$ 2,634	\$ 2,700	\$ 2,347	\$ 1,429	\$ 2,014	\$ 1,515	\$ 735	\$ 288	\$ 7,730	\$ 5,932	130%	Y
10. Reel Stand for Dump Truck	\$ -	\$ -	\$ 7,322	\$ 7,500	\$ -	\$ 313	\$ -	\$ 332	\$ -	\$ 63	\$ 7,322	\$ 8,208	89%	Y
11. Portable Meter Test Set	\$ -	\$ -	\$ 13,095	\$ 17,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,095	\$ 17,000	77%	Y
12. Contingency	\$ -	\$ -	\$ 15,600	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,600	\$ 20,000	78%	Y
Total	\$ 18,520	\$ -	\$ 498,057	\$ 537,490	\$ 439,353	\$ 404,164	\$ 477,925	\$ 428,517	\$ 109,636	\$ 88,333	\$ 1,506,451	\$ 1,458,504	103%	

** Change Approved by Board on 4/26/2019

Citizens' Electric Company

Comparison - Actual Capital Expenditures Against Budget

January 2020 - December 2020

Description	Reimbursement Capital Expense		Material Cost		Labor w/ G&A Allocation		Overhead Cost		Truck Cost		Total Cost		Percent Used To Date	Item Complete Y/N
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget		
1. General Construction**	\$ 24,485	\$ -	\$ 127,519	\$ 157,752	\$ 305,342	\$ 315,504	\$ 335,167	\$ 337,726	\$ 75,304	\$ 47,468	\$ 818,847	\$ 858,450	95%	Y
2. New Transformers	\$ -	\$ -	\$ 46,149	\$ 71,500	\$ 3,818	\$ 10,748	\$ 4,089	\$ 11,505	\$ 1,008	\$ 2,387	\$ 55,064	\$ 96,140	57%	Y
3. New Meters	\$ -	\$ -	\$ 97,143	\$ 120,056	\$ 20,978	\$ 29,531	\$ 22,475	\$ 31,611	\$ 8,219	\$ 8,886	\$ 148,815	\$ 190,084	78%	Y
4. Rt. 15 Rebuild-Wyndham Hills OH WO 20200102	\$ -	\$ -	\$ 18,806	\$ 20,765	\$ 41,542	\$ 42,822	\$ 44,089	\$ 45,838	\$ 11,891	\$ 6,443	\$ 116,328	\$ 115,868	100%	Y
5. UG Cable Repl - S 17th & S 16th WO 20200101	\$ -	\$ -	\$ 50,641	\$ 39,165	\$ 9,091	\$ 7,239	\$ 9,564	\$ 7,748	\$ 1,258	\$ 1,089	\$ 70,554	\$ 55,241	128%	Y
6. Lincoln Lane Relocation WO 20200103	\$ -	\$ -	\$ 6,777	\$ 5,150	\$ 5,313	\$ 7,294	\$ 4,824	\$ 7,808	\$ 3,664	\$ 1,097	\$ 20,579	\$ 21,349	96%	Y
7. Fire/Low Oil Alarm Repl	\$ -	\$ -	\$ 7,479	\$ 8,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,479	\$ 8,500	88%	Y
8. IT Replacements & Enhancements	\$ -	\$ -	\$ 10,634	\$ 25,400	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,634	\$ 25,400	42%	Y
9. IR Camera	\$ -	\$ -	\$ 5,300	\$ 5,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,300	\$ 5,300	100%	Y
10. Arc Assessment Project being expensed.	\$ -	\$ -	\$ -	\$ 6,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,000	0%	Y
11. Lobby Renovation	\$ -	\$ -	\$ 37,209	\$ 36,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,209	\$ 36,500	102%	Y
12. Forklift	\$ -	\$ -	\$ 18,656	\$ 15,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,656	\$ 15,000	124%	Y
13. SUV	\$ -	\$ -	\$ -	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ 39,100	\$ -	\$ 39,100	\$ 45,000	87%	Y
14. Underground Locator	\$ -	\$ -	\$ 8,292	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,292	\$ 5,000	166%	Y
15. Contingency	\$ -	\$ -	\$ 12,860	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,860	\$ 20,000	64%	Y
Total	\$ 24,485	\$ -	\$ 447,467	\$ 581,088	\$ 386,085	\$ 413,138	\$ 420,207	\$ 442,235	\$ 140,444	\$ 67,370	\$ 1,369,717	\$ 1,503,831	91%	

Citizens' Electric Company
Comparison - Actual Capital Expenditures Against Budget
 January - December 2021

Description	Reimbursement Capital Expense		Material Cost		Labor w/ G&A Allocation		Overhead Cost		Truck Cost		Total Cost		Percent Used To Date	Item Complete Y/N
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget		
1. General Construction**	\$ 5,775	\$ -	\$ 127,900	\$ 217,600	\$ 326,856	\$ 435,199	\$ 387,441	\$ 465,851	\$ 56,772	\$ 69,772	\$ 893,193	\$ 1,188,422	75%	Y
2. New Transformers	\$ -	\$ -	\$ 44,109	\$ 77,000	\$ 5,697	\$ 10,774	\$ 6,696	\$ 11,532	\$ 1,601	\$ 2,550	\$ 58,103	\$ 101,856	57%	Y
3. New Meters	\$ -	\$ -	\$ 95,393	\$ 101,587	\$ 22,113	\$ 26,831	\$ 25,990	\$ 28,721	\$ 9,327	\$ 8,603	\$ 152,823	\$ 165,742	92%	Y
4. Pheasant Ridge Reconductor WO 20210103	\$ -	\$ -	\$ 6,604	\$ 32,250	\$ 15,086	\$ 16,594	\$ 16,968	\$ 17,763	\$ 4,781	\$ 2,660	\$ 43,439	\$ 69,267	63%	Y
5. Wolfland Rd Relocation WO 20210102	\$ -	\$ -	\$ 5,733	\$ 5,800	\$ 9,631	\$ 9,361	\$ 15,326	\$ 10,020	\$ 1,333	\$ 1,501	\$ 32,023	\$ 26,682	120%	Y
6. Lintown UG WO 20210101	\$ -	\$ -	\$ 77,798	\$ 77,500	\$ 17,397	\$ 16,108	\$ 17,784	\$ 17,243	\$ 3,535	\$ 2,582	\$ 116,514	\$ 113,433	103%	Y
7. IT Replacements & Enhancements	\$ -	\$ -	\$ 15,103	\$ 47,855	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,103	\$ 47,855	32%	Y
8. Pole Trailer	\$ -	\$ -	\$ 23,078	\$ 21,250	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,078	\$ 21,250	109%	Y
9. Laser Distance/Inclination Rangefinder	\$ -	\$ -	\$ 1,347	\$ 1,450	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,347	\$ 1,450	93%	Y
10. Bucket Truck	\$ -	\$ -	\$ 217,321	\$ 215,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 217,321	\$ 215,000	101%	Y
11. Contingency - Warehouse Lights, Crimper, Saw, Tools - Purch 12/2021 {Crimper, Wire Cut.Jaw - Purch 4/2021}	\$ -	\$ -	\$ 16,226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,226	\$ -	0%	Y
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	
Total	\$ 5,775	\$ -	\$ 630,612	\$ 797,292	\$ 396,779	\$ 514,867	\$ 470,205	\$ 551,131	\$ 77,349	\$ 87,668	\$ 1,569,171	\$ 1,950,958	80%	

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-_____
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**DIRECT TESTIMONY
AND EXHIBITS
OF
KATHY STAUDER**

**ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

APRIL 29, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
Citizens' Electric Company of Lewisburg, PA :

**DIRECT TESTIMONY OF KATHY STAUDER
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

1 **Q. Please state your name and business address.**

2 A. My name is Kathy Stauder, and my business address is 1775 Industrial Blvd., Lewisburg,
3 Pennsylvania.

4 **Q. By whom are you employed and in what capacity do you serve at Citizens' Electric**
5 **Company of Lewisburg, PA?**

6 A. I am employed by C&T Enterprises, Inc. ("C&T"), and assigned to Citizens' Electric
7 Company of Lewisburg, PA ("Citizens" or "Company") as Treasurer.

8 **Q. Please describe your duties in this capacity.**

9 A. My duties are to organize, direct, and coordinate the financial department. I provide
10 administrative direction and oversight for billing for electric service to consumers. I also
11 advise the President & CEO of the financial aspects of the company, manage the financial
12 record keeping, coordinate the budget, coordinate with computer services, and coordinate
13 with consumer services.

14 **Q. Please describe your employment and educational background.**

1 A. I have an Accounting and MBA degrees from Bloomsburg University. Before joining
2 C&T, I was Vice-President of Finance at Remmey Pallet Company and Director of Finance
3 at Playworld Systems.

4 **Q. What are your responsibilities with respect to this filing?**

5 A. As Treasurer, I am responsible for coordinating with our auditors and representatives of
6 Company witness Mr. Gorman to ensure that historic and test year expenses, taxes,
7 revenues, and rate base are appropriately reflected.

8 **Q. Are Citizens' records regularly audited by a licensed accounting firm?**

9 A. Yes. The accounting firm of BKD, LLP ("BKD") audits the Company's financial records.
10 Prior to BKD, Beard Miller Company, LLP performed the audits. They prepare an annual
11 report of the Company operations and assist Company personnel with specific PUC filings,
12 such as our State Tax Adjustment Surcharge ("STAS") filings. They also prepare our tax
13 returns. A copy of our Annual Report for the year ended December 31, 2021, is attached
14 as Exhibit__(KS-1).

15 **Q. Do you have any comments regarding the future test year expenses?**

16 A. Yes. Attached as Exhibit__(KS-2) is a table showing the operating expenses for the
17 Historic Test Year ("HTY"), Future Test Year ("FTY") and Fully-Projected Future Test
18 Year ("FPFTY"). The table includes our actual FTY expenses through March 31, 2022.
19 Our expenses are tracking as we would expect through March 31, 2022. We will continue
20 to update this information on a quarterly basis during the proceeding.

21 **Q. Did you compile a similar comparison of future test year plant?**

22 A. Yes. Attached as Exhibit__(KS-3) is a table showing the utility plant for the HTY, FTY
23 and FPFTY, as well as actual plant as of March 31, 2022.

1 **Q. Is it unusual for Citizens' expenses and plant by Account to vary from quarter to**
2 **quarter during the year?**

3 A. No. For many of our Accounts, our actual expenses vary quarter-to-quarter based on the
4 activities that our workers and contractors are doing. Over the entire year, there can be
5 some overall variation if more of our work is done on projects that are expensed rather than
6 projects that are capitalized. Mr. Johnson will explain how the types of projects and focus
7 of our workers may vary during the various quarters of the year. The expenses can also
8 vary due to unexpected weather or other circumstances.

9 **Q. Is Citizens' proposing to roll-in its STAS?**

10 A. Yes. Mr. Gorman has reflected the current levels of state taxes in his analysis. As a result,
11 the current STAS is being rolled-into base rates. When the new rates take effect, we will
12 adjust the then-applicable STAS rate to reflect any difference between the then-applicable
13 tax levels and the ones that were rolled-into base rates. Our most recent STAS filing is
14 included as Exhibit__(KS-4).

15 **Q. How did the Company develop the financial data provided to HSG Group?**

16 A. The HTY data is based on actual experiences during the historic test year ending December
17 31, 2021. The FTY data is based largely on our operating budget for the year ending
18 December 31, 2022, with updates for any known and measurable changes that we have
19 identified between the date that budget was approved by our Board of Directors and April
20 2022 when we are submitting this filing. The FPFTY data is based on our projections for
21 the year ending December 31, 2023.

22 **Q. What general changes has Citizens' identified since the 2022 budget was approved by**
23 **the Board?**

1 A. We continue to see the impacts of inflation on our costs. Mr. Johnson will discuss many
2 of the specific categories where we are seeing this impact.

3 **Q. Please discuss the major expense categories for Citizens'.**

4 Citizens' expenses are budgeted and tracked in the following categories: (1) Labor &
5 Overheads, including C&T Shared Services; (2) Transportation; (3) Materials & Supplies
6 (4) Administrative & General; (5) Outside Services; (6) Uncollectibles; (7) Depreciation
7 & Amortization; (8) Regulatory Fees; and (9) Taxes. Citizen's also reports by account,
8 corresponding to the FERC chart of accounts. Each Operating and Maintenance includes
9 (as appropriate) costs for Labor, Overhead, Material and Transportation. The information
10 provided to Mr. Gorman is by FERC account, with subaccounts for Labor, Overhead,
11 Material and Transportation.

12 **Q. What is the largest expense category?**

13 A. Labor & Overheads constitute the largest expense item. This category includes our
14 employees and the various benefits that we provide (health, dental, vision, retirement, etc.).
15 To develop the projected 2022 costs for Labor & Overheads, we examined the wages and
16 benefits for our employees. This included the general wage increase discussed by Mr.
17 Kelchner and any merit increases. In doing so, we made several adjustments to the prior
18 year to reflect positions that were open and also to reflect new positions that we will be
19 adding during 2022. For 2023, we increased the wages by 3% and increased the benefits
20 by 3%. We developed those projected cost increases based on historic experience and our
21 assessment of likely economic conditions for the remainder of 2022 and for 2023. We did
22 make adjustments to our employee complement for 2023. Ms. Sullivan's testimony

1 discusses the 2022 and 2023 projections for the C&T Shared Services and insurance
2 benefits.

3 **Q. Please discuss the Transportation projections.**

4 A. This item reflects the costs of our vehicles and other equipment, including fuel and
5 maintenance expenses. For 2022 and 2023, we are projecting vehicle and equipment
6 purchases. We are planning on spending \$203,000 in 2022 and \$270,000 in 2023. We have
7 also increased this expense in 2022 and 2023 to reflect the higher gasoline prices that we
8 anticipate will remain for the near future.

9 **Q. Is Citizens' projecting increased Materials and Supplies costs?**

10 A. Yes. The various materials and supplies for our business have increased consistent with
11 general inflation of many items. We included a 3% increase for office supplies. Mr.
12 Johnson will address the increases in our materials.

13 **Q. Please discuss the costs incurred by Citizens' for Administrative and General.**

14 A. The items in this category include the general costs to heat, furnish and maintain our office
15 space and warehouses.

16 **Q. What costs are included in Outside Services?**

17 A. Outside Services includes the charges by various vendors for their service. This includes
18 attorneys, accountants, auditors, consultants, cleaning vendors and contractors that we hire
19 for capital projects. Most of the construction contractor expense would be capitalized
20 rather than expensed.

21 **Q. Could costs in the other categories that you addressed above be capitalized rather
22 than being expensed?**

1 A. Yes. As part of this filing, we have made assumptions regarding the portion of Labor &
2 Overheads, Transportation, Materials & Supplies and Administrative & General that will
3 be capitalized rather than expensed. We have done this based on both historic experience
4 and projected 2022 and 2023 capital projects.

5 **Q. How did Citizens' develop the Uncollectible expenses?**

6 A. Uncollectible expense is based on historical experience.

7 **Q. Please discuss the Depreciation and Amortization expense reflected in the filing.**

8 A. Depreciation expense is developed by Mr. Gorman, Exhibit__(HSG-1), Schedule C3 and
9 explained in his testimony.

10 **Q. Finally, what Regulatory Fees and Taxes are reflected in the filing?**

11 A. These are developed by Mr. Gorman, Exhibit__(HSG-1), Schedule C1-3, and explained in
12 his testimony.

13 **Q. Is Citizens' claiming any costs related to COVID-19?**

14 A. Yes. We identified costs directly related to the Coronavirus pandemic, and we computed
15 the additional receivables that we could not collect due to the Commission's extension of
16 the termination moratorium. Pursuant to the Commission's Orders in Docket P-2020-
17 3023523 and Docket M-2020-3019775, Citizens' is requesting recovery of these
18 extraordinary out-of-pocket and carrying charges, as discussed by Mr. Gorman.

19 **Q. Did Citizens' adhere to the Commission's extension of the termination moratorium
20 due to COVID-19?**

21 A. Yes. Under normal circumstances, we would start preparing our collection activities as the
22 winter termination moratorium ends as of April 1st. In early 2020, the COVID-19
23 pandemic began just as the winter termination moratorium was ending. The Commission

1 extended the termination moratorium due to the COVID-19 pandemic. Consistent with the
2 Commission's extension of the moratorium, we delayed collection activities until
3 November 2020. We were able to get some of our residential customers and most of our
4 commercial customers onto payment arrangements or otherwise current with their charges
5 before the Winter 2020-2021 termination moratorium began on December 1, 2020.

6 When the Winter 2020-2021 termination moratorium ended, Citizens' worked with its
7 payment-troubled accounts to establish appropriate payment arrangements. From early
8 2020 through 2021, we were also able to connect our residential consumers with
9 approximately \$342,000 in assistance through LIHEAP, the state rental assistance
10 program, and other local agencies. We helped our customers access funding from
11 approximately nine different grant programs. Our customer service representatives worked
12 extremely hard to get our payment-troubled customers onto arrangements so they could
13 avoid termination.

14 **Q. Does this conclude your testimony at this time?**

15 **A. Yes.**

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
 Citizens' Electric Company of Lewisburg, PA :

EXHIBITS
OF
KATHY STAUDER

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022

Exhibit KS-1 - Annual report Audited Financial Statements

Citizens' Electric Company of Lewisburg, Pa.

Independent Auditor's Report and Financial Statements

December 31, 2021 and 2020

Citizens' Electric Company of Lewisburg, Pa.

December 31, 2021 and 2020

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Independent Auditor's Report

Board of Directors
Citizens' Electric Company of Lewisburg, Pa.
Lewisburg, Pennsylvania

Opinion

We have audited the financial statements of Citizens' Electric Company of Lewisburg, Pa. (the Company), which comprise the balance sheets as of December 31, 2021 and 2020, and the related statements of income, stockholder's equity, and cash flows for the years then ended, and the related notes to the financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that these financial statements are available to be issued.

Board of Directors
Citizens' Electric Company of Lewisburg, Pa.
Page 2

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying supplementary information listed in the table of contents is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used

Board of Directors
Citizens' Electric Company of Lewisburg, Pa.
Page 3

to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

The financial statements of the Company for the years ended December 31, 2019, 2018 and 2017, (none of which is presented herein) were audited by us in accordance with auditing standards generally accepted in the United States of America, and we expressed an unmodified opinion on those financial statements. In our opinion, the information for 2019, 2018 and 2017, presented on page 22 is fairly stated, in all material respects, in relation to the financial statements as a whole.

BKD, LLP

Decatur, Illinois
March 10, 2022

Citizens' Electric Company of Lewisburg, Pa.
Balance Sheets
December 31, 2021 and 2020

Assets

	2021	2020
Utility Plant, at Cost		
Electric plant in service	\$ 27,031,762	\$ 26,178,704
Accumulated depreciation	(13,401,719)	(13,048,978)
	13,630,043	13,129,726
Construction work in progress	914	28,794
Net utility plant	13,630,957	13,158,520
Other Assets and Nonutility Property		
Nonutility property	21,704	21,704
Goodwill	3,978,203	3,978,203
Regulatory assets	211,675	323,899
Cash surrender value of life insurance	179,270	158,283
RS plan prepayment	88,277	176,573
Other	64,700	59,760
Total other assets and nonutility property	4,543,829	4,718,422
Current Assets		
Cash and cash equivalents	253,241	456,910
Accounts receivable		
Customers, less allowance for uncollectible accounts, 2021 and 2020 - \$35,000	985,770	1,118,299
Unbilled revenues	826,569	913,275
Other	65,545	116,842
Advances, affiliates	90,700	90,700
Inventories	202,480	170,160
Prepaid expenses and other	53,143	41,490
Under collected power costs	623,973	581,502
Prepaid taxes, net	-	23,051
Total current assets	3,101,421	3,512,229
Total assets	\$ 21,276,207	\$ 21,389,171

Liabilities and Stockholder's Equity

	<u>2021</u>	<u>2020</u>
Stockholder's Equity		
Common stock, par value \$10 per share; authorized 200,000 shares; issued 139,472 shares; outstanding 134,702 shares	\$ 1,394,720	\$ 1,394,720
Paid-in capital	1,236,168	1,236,168
Retained earnings	<u>11,130,367</u>	<u>11,009,903</u>
	13,761,255	13,640,791
Treasury stock, at cost; 4,770 shares	<u>(376,830)</u>	<u>(376,830)</u>
Total stockholder's equity	<u>13,384,425</u>	<u>13,263,961</u>
Long-Term Debt	<u>1,935,261</u>	<u>2,130,325</u>
Capital Lease Obligations	<u>256,832</u>	<u>118,114</u>
Current Liabilities		
Current maturities of long-term debt	192,004	261,191
Current maturities of capital lease obligations	58,678	76,390
Line of credit	1,200,000	1,600,000
Accounts payable		
Trade	165,815	268,378
Related party	218,505	183,686
Due for purchased electricity	634,407	597,758
Accrued expenses	230,488	248,625
Customer deposits	228,657	171,235
Accrued taxes, net	<u>96,321</u>	<u>-</u>
Total current liabilities	<u>3,024,875</u>	<u>3,407,263</u>
Deferred Charges and Other Liabilities		
Deferred income taxes	1,742,800	1,523,800
Accrued postretirement cost	821,439	789,175
Regulatory liability	108,575	154,533
Deferred benefits	<u>2,000</u>	<u>2,000</u>
Total deferred charges and other liabilities	<u>2,674,814</u>	<u>2,469,508</u>
Total liabilities and stockholder's equity	<u>\$ 21,276,207</u>	<u>\$ 21,389,171</u>

Citizens' Electric Company of Lewisburg, Pa.
Statements of Income
Years Ended December 31, 2021 and 2020

	<u>2021</u>	<u>2020</u>
Operating Revenues	\$ 13,759,137	\$ 13,654,824
Operating Expenses		
Power	7,890,338	8,165,083
Distribution expenses		
Operation	842,011	773,439
Maintenance	520,823	492,031
Customer accounts	487,762	471,216
General and administrative	1,035,972	1,101,800
Depreciation	1,022,812	1,008,813
Taxes, other than income	900,903	904,086
	<u>12,700,621</u>	<u>12,916,468</u>
Operating Income Before Interest and Other Expenses	<u>1,058,516</u>	<u>738,356</u>
Other Income (Expenses)		
Interest expense	(131,991)	(141,961)
Management fee	(556,189)	(564,107)
Other income	37,187	31,176
Other expense	(28,233)	(26,116)
	<u>(679,226)</u>	<u>(701,008)</u>
Income Before Income Taxes	379,290	37,348
Provision for Income Taxes	<u>238,526</u>	<u>80,248</u>
Net Income (Loss)	<u>\$ 140,764</u>	<u>\$ (42,900)</u>

Citizens' Electric Company of Lewisburg, Pa.
Statements of Stockholder's Equity
Years Ended December 31, 2021 and 2020

	Common Stock	Paid-in Capital	Retained Earnings	Treasury Stock	Total
Balance, January 1, 2020	\$ 1,394,720	\$ 1,236,168	\$ 11,080,403	\$ (376,830)	\$ 13,334,461
Net loss	-	-	(42,900)	-	(42,900)
Dividends	-	-	(27,600)	-	(27,600)
Balance, December 31, 2020	1,394,720	1,236,168	11,009,903	(376,830)	13,263,961
Net income	-	-	140,764	-	140,764
Dividends	-	-	(20,300)	-	(20,300)
Balance, December 31, 2021	<u>\$ 1,394,720</u>	<u>\$ 1,236,168</u>	<u>\$ 11,130,367</u>	<u>\$ (376,830)</u>	<u>\$ 13,384,425</u>

Citizens' Electric Company of Lewisburg, Pa.
Statements of Cash Flows
Years Ended December 31, 2021 and 2020

	2021	2020
Operating Activities		
Net income (loss)	\$ 140,764	\$ (42,900)
Items not requiring (providing) cash		
Depreciation and amortization	1,158,457	1,127,116
Deferred income taxes	219,000	183,400
Gain on sales of utility plant	(14,690)	-
Increase in cash surrender value of life insurance	(10,987)	(14,072)
Changes in		
Accounts receivable	270,532	(436,551)
Inventories	(32,320)	(3,282)
Regulatory assets and liabilities	(69,379)	(125,839)
Prepaid expenses, other assets and deferred benefits	(16,593)	(10,771)
RS plan prepayment	88,296	88,296
Accounts payable and accrued expenses	(64,634)	38,398
Due for purchased electricity	36,649	(21,856)
Customer deposits	57,422	(57,685)
Accrued postretirement costs	11,017	(29,636)
Prepaid/accrued taxes	119,372	85,755
Over/under collected power costs	(42,471)	(33,819)
Net cash provided by operating activities	1,850,435	746,554
Investing Activities		
Additions to utility plant, net	(1,277,928)	(1,262,132)
Proceeds from sales of utility plant	14,690	-
Premiums paid on life insurance policy	(10,000)	(10,000)
Net cash used in investing activities	(1,273,238)	(1,272,132)
Financing Activities		
Borrowings under line of credit agreement	500,000	800,000
Repayments under line of credit agreement	(900,000)	-
Principal payments under capital lease obligations	(96,315)	(58,064)
Principal payments on long-term debt	(264,251)	(254,083)
Dividends paid	(20,300)	(27,600)
Net cash provided by (used in) financing activities	(780,866)	460,253
Decrease in Cash and Cash Equivalents	(203,669)	(65,325)
Cash and Cash Equivalents, Beginning of Year	456,910	522,235
Cash and Cash Equivalents, End of Year	\$ 253,241	\$ 456,910
Supplemental Cash Flows Information		
Interest paid	\$ 131,991	\$ 141,961
Income taxes paid	\$ 2,292	\$ -
Income taxes refunded	\$ -	\$ 36,771
Capital lease obligation incurred for equipment	\$ 217,321	\$ 39,100

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

Note 1: Nature of Operations and Summary of Significant Accounting Policies

Nature of Operations

Citizens' Electric Company of Lewisburg, Pa. ("Company"), a wholly-owned subsidiary of C&T Enterprises, Inc. ("C&T"), is a regulated public utility distributing electric service to customers in parts of Union and Northumberland Counties, Pennsylvania. The Company's operations are regulated by the Pennsylvania Utility Commission (PUC). The Company extends unsecured credit to its customers.

Basis of Accounting

The Company maintains its accounting records in accordance with the Federal Energy Regulatory Commission's (FERC) uniform system of accounts for public utilities as modified and adopted by the PUC. The accompanying financial statements and the related notes have been prepared on the basis of U.S. generally accepted accounting principles ("GAAP").

In accordance with FERC guidelines, the Company also maintains its accounts in accordance with Codification Topic 980, *Regulated Operations*. On a regular basis, the Company reevaluates its application of accounting for regulated operations. The Company has determined that regulatory assets and liabilities should continue to be accounted for under provisions of Codification Topic 980 because it is reasonable to assume that the Company will continue to be able to charge and collect its cost of service-based rates.

Purchased Power

The Company purchases power under a default service plan that utilizes a third party generator to fulfill its requirements under the current plan. The plan, which was approved by the PUC, allows for full recovery of the cost of energy supply and all related costs, including legal and consulting fees and allows adjustments to rates to reflect current market conditions. Power costs can be different than what is recovered in base charges, resulting in over or under collected power costs.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates include the allowance for accounts receivable, unbilled revenues and utility plant.

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

Cash and Cash Equivalents

The Company considers all liquid investments with original maturities of three months or less to be cash equivalents. At December 31, 2021 and 2020, cash equivalents consisted primarily of a daily investment fund account.

At December 31, 2021, the Company's cash accounts did not exceed federally insured limits.

Accounts Receivable

Accounts receivable include billed and unbilled amounts for services provided to customers for which the Company has an unconditional right to payment. The Company provides an allowance for doubtful accounts, which is based upon a review of outstanding receivables, historical collection information and existing economic conditions.

Accounts receivable are ordinarily due 20 days after the issuance of the invoice. Accounts that are unpaid after the due date bear interest at 1.50 percent per month. Accounts past due more than 30 days are considered delinquent. Interest continues to accrue on delinquent accounts until the account is no longer classified as delinquent. Delinquent receivables are written off based on individual credit evaluation and specific circumstances of the customer.

During the years ended December 31, 2021 and 2020, bad debt expense related to doubtful accounts receivable, where collectibility is not reasonably assured, was approximately \$32,000 and \$19,000, respectively.

Inventories

Inventories consist of materials and supplies and are stated at the lower of cost or net realizable value. Cost is determined based on average cost.

Utility Plant

Utility plant and equipment are carried at cost. Additions to utility plant and replacements of property are capitalized at cost. Retirements of electric plant or replacements are removed from electric plant accounts at cost and these costs plus cost of removal less salvage are charged to accumulated depreciation. Depreciation of utility plant is provided over the estimated useful life of the respective assets on a straight line basis as follows:

Utility Plant	Years
Distribution plant	25
General plant	33
Equipment	8-15

Maintenance and repairs of property and replacements are charged to expense.

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

Nonutility Property

Nonutility property consists of land and other depreciable property not currently used for utility purposes.

Cash Surrender Value of Life Insurance

The Company has purchased a life insurance policy on a certain individual. Company owned life insurance is recorded at the amount that can be realized under the insurance contract at the balance sheet date, which is the cash surrender value adjusted for other charges or other amounts due that are probable at settlement.

Impairment of Long-Lived Assets

The Company reviews the carrying amount of an asset for possible impairment whenever events or changes in circumstances indicate that such amounts may not be recoverable. If a long-lived asset is tested for recoverability and the undiscounted estimated future cash flows expected to result from the use and eventual disposition of the asset is less than the carrying amount of the asset, the asset cost is adjusted to fair value and an impairment loss is recognized as the amount by which the carrying amount of a long-lived asset exceeds its fair value. No asset impairment was recognized during the years ended December 31, 2021 and 2020.

Goodwill

Goodwill is evaluated annually for impairment or more frequently if impairment indicators are present. The quantitative impairment test (Step 1) consists of calculating the fair value of a reporting unit and comparing it to the carrying amount, including goodwill. If the fair value of a reporting unit is less than the carrying amount, then the Company proceeds to Step 2 of the impairment test. Step 2 consists of calculating the implied fair value of reporting unit goodwill and comparing it to the carrying amount of that goodwill. If the implied fair value of goodwill is lower than its carrying amount, a goodwill impairment is indicated and goodwill is written down to its implied fair value. Subsequent increases in goodwill value are not recognized in the financial statements. The Company did not record any impairment charges for 2021 or 2020.

Income Taxes

The Company is included in the consolidated federal income tax return filed by C&T. The Company files its own tax return in Pennsylvania. The Company's federal income tax expense is computed using the separate return method for intercorporate tax allocation.

The Company accounts for income taxes in accordance with income tax accounting guidance (ASC 740, *Income Taxes*). The income tax accounting guidance results in two components of income tax expense: current and deferred. Current income tax expense reflects taxes to be paid or refunded for the current period by applying the provisions of the enacted tax law to the taxable income or excess of deductions over revenues. The Company determines deferred income taxes

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

using the liability (or balance sheet) method. Under this method, the net deferred tax asset or liability is based on the tax effects of the differences between the book and tax bases of assets and liabilities, and enacted changes in tax rates and laws are recognized in the period in which they occur. Deferred income tax expense results from changes in deferred tax assets and liabilities between periods. Deferred tax assets are reduced by a valuation allowance if, based on the weight of evidence available, it is more likely than not that some portion or all of a deferred tax asset will not be realized.

Tax positions are recognized if it is more likely than not, based on the technical merits, that the tax position will be realized or sustained upon examination. The term more likely than not means a likelihood of more than 50 percent; the terms examined and upon examination also include resolution of the related appeals or litigation processes, if any. A tax position that meets the more likely than not recognition threshold is initially and subsequently measured as the largest amount of tax benefit that has a greater than 50 percent likelihood of being realized upon settlement with a taxing authority that has full knowledge of all relevant information. The determination of whether or not a tax position has met the more likely than not recognition threshold considers the facts, circumstances and information available at the reporting date and is subject to the management's judgment.

The Company recognizes interest and penalties on income taxes as a component of income tax expense.

Regulatory Matters

The Company is subject to the authoritative accounting guidance applicable to rate-regulated organizations. The PUC has full authority to establish electric rates. Certain items collected in rates have been recorded as regulatory liabilities. These amounts will be recognized as revenue in future periods as costs for which the amounts have been collected are incurred, or when authorized by the PUC. Certain expenses have been recorded as regulatory assets, and management believes these amounts are probable of future rate recovery.

Revenue Recognition

Revenues from the sale of electricity are recognized as electricity is delivered to customers. Revenues also include amounts receivable from or payable to customers through purchased power clauses, which are adjusted semi-annually.

Costs that are recoverable or refundable in future periods through purchase power recovery are deferred. Costs that are refundable or recoverable in future periods through purchased power recovery rates are subject to audit and approval by the appropriate regulatory body. Changes to the related asset or liability amounts that result from these audits are recorded as a charge to current operations.

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

The amount and timing of revenue recognition varies based on the nature of the goods or services provided and the terms and conditions of the customer contract. Unbilled revenues of \$826,569 and \$913,275 at December 31, 2021 and 2020, respectively, represent amounts delivered through December 31 and not billed to the members until the following month. Customer deposits of \$228,657 and \$171,235 at December 31, 2021 and 2020, respectively, represent amounts received in advance of services provided. See Note 10 for additional information about the Company's revenue.

For significant financing components, the Company elected a practical expedient, which allows an entity to recognize the promised amount of consideration without adjusting for the time value of money if the contract has a duration of one year or less, or if the reason the contract extended beyond one year is because the timing of delivery of the product is at the customer's discretion. As the Company's contracts are typically less than one year in length and do not have significant financing components, the Company has not presented revenue on a present value basis.

Treasury Stock

Common stock shares repurchased are recorded at cost. Cost of shares retired or reissued is determined using the first-in, first-out method.

Taxes Collected from Customers and Remitted to Governmental Authorities

Sales and gross receipts taxes collected from customers and remitted to governmental authorities are presented in the accompanying statements of operations on a net basis.

Note 2: Utility Plant

Utility plant consists of the following at December 31:

	2021	2020
Electric plant in service		
Distribution plant	\$ 23,835,356	\$ 23,112,396
General plant	957,349	950,565
Equipment	2,239,057	2,115,743
	27,031,762	26,178,704
Construction work-in-progress	914	28,794
	27,032,676	26,207,498
Accumulated depreciation	(13,401,719)	(13,048,978)
	\$ 13,630,957	\$ 13,158,520

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

Note 3: Regulatory Assets and Liability

Regulatory assets consist of the following at December 31:

	2021	2020	Amortization Period
Rate case - 2020	\$ 149,899	\$ 258,565	3 years
POLR/PJM - 2018	-	16,431	3 years
POLR/PJM - 2021	61,776	48,903	*
	<u>\$ 211,675</u>	<u>\$ 323,899</u>	

* Amortization period has not been determined or begun.

For the years ended December 31, 2021 and 2020, the Company recorded a regulatory liability of \$108,575 and \$154,533, respectively, for other postretirement benefits that resulted from unrecognized gains. The Company expects to recover the deferred other postretirement benefits consistent with the anticipated income recognition of other postretirement income.

Amortization expense was \$135,645 and \$118,303 for the years ended December 31, 2021 and 2020, respectively.

Note 4: Line of Credit

The Company has a \$4,000,000 revolving line of credit with C&T payable on demand, which was amended during 2020 to increase the amount available from \$2,000,000. At December 31, 2021 and 2020, there was \$1,200,000 and \$1,600,000 borrowed against this line, respectively. Interest varies based on the CoBank quoted variable rate. The rate was 2.41 and 2.45 percent on December 31, 2021 and 2020, respectively, and is payable monthly.

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

Note 5: Long-Term Debt and Capital Lease Obligations

	2021	2020
Note payable, C&T, quarterly principal and interest payments of \$22,323; interest at 5.25%; collateralized by substantially all Company assets, due June 2025	\$ 277,185	\$ 352,260
Note payable, C&T, quarterly principal and interest payments of \$6,112; interest at 7.20%; collateralized by substantially all Company assets, paid off in full in 2021	-	23,384
Note payable, C&T, quarterly principal and interest payments of \$28,016; interest at 2.95%; collateralized by substantially all Company assets, due June 2022	55,417	163,838
Note payable, C&T, quarterly principal and interest payments of \$19,117; interest at 3.925%; collateralized by substantially all Company assets, due March 2042	1,056,218	1,090,388
Note payable, C&T, quarterly principal and interest payments of \$13,660; interest at 4.175%; collateralized by substantially all Company assets, due December 2041	738,445	761,646
Capital lease obligations for equipment, requiring monthly principal and interest payments ranging from \$620 to \$2,587; collateralized by leased equipment, payments due in varying amounts through July 2028	315,510	194,504
	2,442,775	2,586,020
Less current maturities	250,682	337,581
	\$ 2,192,093	\$ 2,248,439

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

Aggregate annual maturities of long-term debt and payments on capital lease obligations at December 31, 2021, are:

	Long-Term Debt	Capital Lease Obligations
2022	\$ 192,004	\$ 66,968
2023	140,866	89,316
2024	145,289	35,865
2025	108,359	36,056
2026	70,096	28,427
Thereafter	1,470,651	86,103
	\$ 2,127,265	342,735
Less amount representing interest		27,225
Present value of future minimum lease payments		\$ 315,510

Equipment under capital leases is as follows:

	2021	2020
Transportation equipment	\$ 676,750	\$ 459,429
Accumulated depreciation	(392,033)	(330,439)
	\$ 284,717	\$ 128,990

C&T has a Master Letter of Credit agreement with National Cooperative Services Corporation. This Letter of Credit is for \$7,000,000 and expires October 2024. The Company has the ability to post letters of credit with wholesale electric suppliers under the terms of this agreement. As of December 31, 2021 and 2020, the Company had approximately \$200,000 of outstanding letters of credit.

Note 6: Income Taxes

The provision for income taxes includes these components:

	2021	2020
Taxes currently payable (refundable)	\$ 19,526	\$ (103,152)
Deferred income taxes	219,000	183,400
Income tax expense	\$ 238,526	\$ 80,248

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

A reconciliation of income tax expense at the statutory rate to the Company's actual income tax expense is shown below:

	2021	2020
Computed at the statutory rate (21%)	\$ 79,700	\$ 7,800
Increase (decrease) resulting from		
State income taxes	119,400	(5,200)
Other	39,426	77,648
Actual tax expense	\$ 238,526	\$ 80,248

The tax effects of temporary differences related to deferred taxes shown on the balance sheets were:

	2021	2020
Deferred tax assets		
Allowance for doubtful accounts	\$ 10,100	\$ 10,100
Net operating loss carryforwards	145,600	31,900
Post retirement benefits	251,800	249,200
Other	80,900	100,300
	488,400	391,500
Deferred tax liabilities		
Depreciation	(2,129,500)	(1,759,100)
Other	(101,700)	(156,200)
	(2,231,200)	(1,915,300)
Net deferred tax liability	\$ (1,742,800)	\$ (1,523,800)

At December 31, 2021, the Company's allocation of C&T's consolidated unused federal operating loss carryforwards approximates \$700,000, which expire through 2041.

Note 7: Pension and Postretirement Plans

Multiemployer Pension Plans

C&T is a member of the National Rural Electric Cooperative Association (NRECA) Retirement Security Plan (RS Plan), a defined benefit pension plan qualified under Section 401 and tax-exempt under Section 501(a) of the Internal Revenue Code. It is a multiemployer plan under the accounting standards. The Plan sponsor's Employer Identification Number is 53-0116145 and the Plan Number is 333.

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

A unique characteristic of a multiemployer plan compared to a single-employer plan is that all plan assets are available to pay benefits of any plan participant. Separate asset accounts are not maintained for participating employers. This means that assets contributed by one employer may be used to provide benefits to employees of other participating employers.

C&T contributions to the RS Plan in 2021 and 2020 represented less than 5 percent of the total contributions made to the plan by all participating employers. C&T made contributions to the plan of \$2,647,072 and \$2,403,433 for years ended December 31, 2021 and 2020, respectively. The Company reimbursed C&T \$398,393 and \$359,401 for its share of the contributions for the years ended December 31, 2021 and 2020, respectively. There have been no significant changes affecting the comparability of the 2021 and 2020 contributions.

In the RS Plan, a "zone status" determination is not required, and therefore not determined, under the *Pension Protection Act* (PPA) of 2006. In addition, the accumulated benefit obligations and plan assets are not determined or allocated separately by individual employer. In total, the RS Plan was over 80 percent funded on January 1, 2021 and 2020, based on the PPA funding target and PPA actuarial value of assets on those dates.

Because the provisions of the PPA do not apply to the RS Plan, funding improvement plans and surcharges are not applicable. Future contribution requirements are determined each year as a part of the actuarial valuation of the plan and may change as a result of plan experience.

C&T is also a member of the NRECA SelectRE Pension Plan. C&T makes a matching contribution of 200 percent of the employees' contributions up to 2.5 percent of compensation. The Company reimbursed C&T \$79,952 and \$72,314 for its share of contributions for the years ended December 31, 2021 and 2020, respectively.

RS Plan Prepayment

At the December 2012 meeting of the Insurance and Financial Services (I&FS) Committee of the NRECA Board of Directors, the Committee approved an option to allow participating cooperatives in the RS Plan to make a prepayment and reduce future required contributions. The prepayment amount is a cooperative's share, as of January 1, 2013, of future contributions required to fund the RS Plan's unfunded value of benefits earned to date using Plan actuarial valuation assumptions. The prepayment amount will typically equal approximately 2.5 times a cooperative's annual RS Plan required contribution as of January 1, 2013. After making the prepayment, for most cooperatives the billing rate is reduced by approximately 25 percent, retroactive to January 1, 2013. The 25 percent differential in billing rates is expected to continue for approximately 15 years.

However, changes in interest rates, asset returns and other plan experience different from that expected, plan assumption changes and other factors may have an impact on the differential in billing rates and the 15-year period.

Citizens' Electric Company of Lewisburg, Pa.
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December 31, 2021 and 2020

Two prepayment options were available to participating cooperatives:

1. Use current assets to make the prepayment over a period of not more than four years.
2. Borrow funds sufficient to make the prepayment in a lump sum, with the repayment of the borrowed amount determined by the loan's amortization schedule.

On June 28, 2013, C&T made a lump sum prepayment of \$2,248,934 to the NRECA RS Plan. This prepayment was funded with a note through the National Cooperative Services Corporation. The Company's share of the prepayment, \$882,939, will be repaid to C&T under the terms of a note as described in Note 5 (with an outstanding balance of \$55,417 and \$163,838 at December 31, 2021 and 2020, respectively) and is recorded on the balance sheets as a prepaid asset. The Company is amortizing this amount over 10 years.

Other Postretirement Benefit Plans

C&T has a postretirement health care plan covering substantially all employees. The Plan is unfunded. The estimated costs that will be paid after retirement are generally being accrued over the employees' active service periods to the dates they are fully eligible for benefits. The Company expects to contribute \$37,000 to the Plan in 2022. The following table sets forth the Plan's funded status and the amounts of accrued benefit cost of the C&T plan and the Company's allocation based on an actuarial valuation as of December 31, 2021 and 2020.

	2021	2020
C&T's benefit obligation	\$ 5,928,389	\$ 5,773,135
Company's allocation of benefit obligation	\$ 873,669	\$ 862,652
C&T's accrued benefit cost	\$ 5,928,389	\$ 5,773,135
Company's allocation of accrued benefit cost	\$ 873,669	\$ 862,652
Amounts recognized in the Company's balance sheets		
Current liability, included in accrued expenses	\$ 52,230	\$ 73,477
Non-current liability	821,439	789,175
	\$ 873,669	\$ 862,652
C&T's benefit expense	\$ 357,460	\$ 356,284
Company's allocation of benefit expense	\$ 38,425	\$ 40,222

Citizens' Electric Company of Lewisburg, Pa.
Notes to Financial Statements
December 31, 2021 and 2020

The Company uses a December 31 measurement date for the plans. For measurement purposes, a 6.80 percent annual rate of increase in the per capita cost of covered health care benefits was assumed in 2021. The rate was assumed to decrease gradually to 5.00 percent in 2028 and remain at that level thereafter.

The benefit obligation was calculated assuming a weighted average discount rate of 3.25 percent and 3.15 percent in 2021 and 2020, respectively.

The amount of net gain and net prior service cost expected to be recognized by the Company during 2022 is \$229 and \$-0-, respectively.

Benefits expected to be paid by the Company in each of the next five years and in the aggregate for the five years thereafter are as follows:

2022		\$ 52,230
2023		63,668
2024		77,323
2025		104,418
2026		112,370
2027-2031		457,895
		\$ 867,904
		\$ 867,904

Because the Company is subject to regulation in the states in which it operates, it is required to maintain its accounts in accordance with the regulatory authority's rules and regulations, which may differ from other authoritative accounting pronouncements. In those instances, the Company follows the guidance of accounting for regulated operations. Based on prior regulatory practice, and in accordance with the related guidance, the Company recorded an unfunded postretirement obligation, which otherwise would be recognized as other comprehensive income, as a regulatory asset, and expects to recover those costs in rates charged to customers.

Note 8: Related Party Transactions

The Company has a contract for services with C&T to purchase all employee services. The contract automatically renews annually unless terminated by either party.

Citizens' Electric Company of Lewisburg, Pa.
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December 31, 2021 and 2020

In the ordinary course of business, the Company's activities involve significant transactions with C&T. The activity between the Company and C&T for the years ended December 31, 2021 and 2020, and the effected account balances at December 31, 2021 and 2020, were as follows:

	<u>2021</u>	<u>2020</u>
Allocation of overhead recorded as operating expense	\$ 365,259	\$ 285,067
Other costs in accounts receivable - other	\$ 29,500	\$ 101,000
Accounts payable - related party	\$ 218,505	\$ 183,686
Accrued vacation liability in accrued expenses	\$ 172,114	\$ 144,442
Payroll costs paid in advance and included in advances, affiliate	\$ 90,700	\$ 90,700
Interest expense	\$ 123,003	\$ 133,195
Management fee	\$ 556,189	\$ 564,107

The Company paid C&T \$1,775,576 and \$1,758,115 for payroll and \$739,697 and \$684,094 for benefits in 2021 and 2020, respectively.

Note 9: Commitments and Contingencies

The Company has guaranteed payments on notes payable that are obligations of C&T. At December 31, 2021, the amounts outstanding on these obligations are \$7,357,775, of which \$2,127,265 is recorded by the Company, see Note 5. These obligations are being repaid in quarterly payments of principal and interest through 2042. The Company would be required to perform under this guarantee if C&T were to default under the notes payable and the bank were to demand the Company's performance.

COVID-19

As a result of the spread of the SARS-CoV-2 virus and the incidence of COVID-19, economic uncertainties have arisen which may affect the financial position, results of operations and cash flows of the Company. The duration of these uncertainties and the ultimate financial effects cannot be reasonably estimated at this time.

Note 10: Revenue from Contracts with Customers

Performance Obligations

The Company's revenues are derived primarily from the sale of electric power to customers. Customers consist of commercial, industrial and residential accounts within dedicated territories in and around Lewisburg, Pennsylvania.

Citizens' Electric Company of Lewisburg, Pa.

Notes to Financial Statements

December 31, 2021 and 2020

Rates charged for electric power sales to customers are established by the Pennsylvania PUC. The Company provides energy and capacity to customers as one stand-ready performance obligation. Electric power revenue is recognized by the Company upon transfer of control of promised services to customers in an amount that reflects the consideration expected to be received in exchange for those services.

The Company transfers control of the electric power to customers at each customer's meter point and the customers simultaneously receive and consume the benefits of the energy provided. Electric power provided to customers is accounted for as a series of performance obligations. Progress towards completion is measured using the output method [kilowatt hour (kwh) received by the customer], meter readings are taken at the end of the month for billing purposes, the quantity of energy transferred is determined after the meter readings. Payments from customers are received in accordance with each customer's contract, which is ordinarily 20 days from the invoice date.

Revenue associated with the electric power performance obligation to customers are recorded as sales of electric energy and capacity to customers in the accompanying statements of operations.

The Company has determined that the nature, amount, timing and uncertainty of revenue and cash flows are primarily affected by factors that impact demand.

Contract Balances

The following table provides information about the Company's accounts receivable and customer deposits from contracts with customers:

	2021	2020
Accounts receivable - customers, beginning of year	\$ 1,118,299	\$ 862,481
Accounts receivable - customers, end of year	\$ 985,770	\$ 1,118,299
Unbilled revenues, beginning of year	\$ 913,275	\$ 829,754
Unbilled revenues, end of year	\$ 826,569	\$ 913,275
Customer deposits, beginning of year	\$ 171,235	\$ 228,920
Customer deposits, end of year	\$ 228,657	\$ 171,235

Note 11: Subsequent Events

Subsequent events have been evaluated through March 10, 2022, which is the date the financial statements were available to be issued.

Supplementary Information

Citizens' Electric Company of Lewisburg, Pa.
Comparative Financial Statistics
Years Ended December 31, 2021, 2020, 2019, 2018 and 2017

	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>
Income Statistics					
Operating revenues	\$ 13,759,137	\$ 13,654,824	\$ 13,551,338	\$ 14,044,163	\$ 13,201,563
Power purchased	7,890,338	8,165,083	8,166,181	8,490,716	7,929,291
Other operating expenses	<u>4,810,283</u>	<u>4,751,385</u>	<u>4,472,872</u>	<u>4,612,307</u>	<u>4,396,725</u>
Operating income	1,058,516	738,356	912,285	941,140	875,547
Other expense, net	<u>(679,226)</u>	<u>(701,008)</u>	<u>(698,170)</u>	<u>(713,182)</u>	<u>(708,838)</u>
Income before income taxes	379,290	37,348	214,115	227,958	166,709
Provision (credit) for income taxes	<u>238,526</u>	<u>80,248</u>	<u>(206,400)</u>	<u>84,000</u>	<u>(320,500)</u>
Net income (loss)	<u>\$ 140,764</u>	<u>\$ (42,900)</u>	<u>\$ 420,515</u>	<u>\$ 143,958</u>	<u>\$ 487,209</u>
Balance Sheet Statistics					
Working capital	\$ 76,546	\$ 104,966	\$ 596,021	\$ 768,958	\$ 773,203
Total Stockholder's Equity	\$ 13,384,425	\$ 13,263,961	\$ 13,334,461	\$ 12,945,746	\$ 12,835,788
Per Share Statistics					
Basic earnings per share	\$ 1.05	\$ (0.32)	\$ 3.12	\$ 1.07	\$ 3.62
Book Value Per Share	\$ 99.36	\$ 98.47	\$ 98.99	\$ 96.11	\$ 95.29

Citizens' Electric Company of Lewisburg, Pa.

Utility Plant and Accumulated Depreciation

Year Ended December 31, 2021

Acct. No.	Account	Utility Plant				Accumulated Depreciation				Balance December 31, 2021				
		Cost January 1, 2021	Additions	Retirements	Cost December 31, 2021	Balance January 1, 2021	Retirements	Cost of Removals	Salvage Received		Rate	Depreciation Amount		
302	Distribution plant													
360	Franchises and consents	\$ 27	\$ -	\$ -	\$ 27	\$ -	\$ -	\$ -	\$ -	0.000	\$ -	\$ -	\$ -	\$ -
362	Land and land rights	15,258	511	-	15,769	-	-	-	-	0.000	-	-	-	-
362	Station equipment	792,280	-	-	792,280	752,626	-	-	-	4.000	3,063	3,063	755,689	-
364	Poles, towers and fixtures	3,917,947	151,932	15,282	4,054,597	2,735,409	15,282	23,798	1,113	4.125	163,604	163,604	2,861,046	-
365	Overhead conductors and devices	7,005,713	386,527	108,877	7,283,363	1,660,901	108,877	131,420	5,742	4.000	279,956	279,956	1,706,302	-
367	Underground conductors and devices	3,137,953	83,664	1,622	3,219,995	1,769,771	1,622	1,405	-	4.000	125,840	125,840	1,892,584	-
368	Line transformers	2,652,960	58,739	29,117	2,682,582	1,983,394	29,117	822	-	4.000	106,484	106,484	2,059,939	-
369	Services	3,599,255	219,141	20,397	3,797,999	1,453,907	20,397	24,656	449	4.000	146,851	146,851	1,556,154	-
370	Meters	1,403,780	152,823	185,312	1,371,291	168,063	185,312	4,194	30	4.000	57,485	57,485	36,072	-
373	Street lighting and signal systems	587,221	60,297	30,066	617,452	49,769	30,066	25,675	51	4.000	36,703	36,703	30,782	-
390	General plant													
390	Structures and improvements, general plant	630,321	6,784	-	637,105	574,619	-	-	-	3.000	4,678	4,678	579,297	-
301	Organization	968	-	-	968	-	-	-	-	0.000	-	-	-	-
303	Intangible asset - EDI	319,218	-	-	319,218	227,920	-	-	-	0.000	45,584	45,584	273,504	-
391	Equipment													
391	Office furniture and equipment	466,841	15,103	-	481,944	336,454	-	-	-	8.000	32,822	32,822	369,276	-
392	Transportation equipment	1,032,022	238,777	141,881	1,128,918	873,048	141,881	-	-	12.500	72,436	72,436	803,603	-
393	Stores equipment	32,495	-	-	32,495	35,148	-	-	-	6.666	281	281	35,429	-
394	Tools, shop and garage equipment	96,590	11,314	-	107,904	62,410	-	-	-	10.000	4,761	4,761	67,171	-
395	Laboratory equipment	117,337	-	-	117,337	77,084	-	-	-	6.666	4,449	4,449	81,533	-
396	Power operated equipment	11,845	-	-	11,845	12,517	-	-	-	12.500	-	-	12,517	-
397	Communication equipment	343,590	-	-	343,590	271,796	-	-	-	6.666	3,966	3,966	275,762	-
398	Miscellaneous equipment	15,082	-	-	15,082	4,142	-	-	-	6.666	917	917	5,059	-
		<u>26,178,704</u>	<u>1,385,612</u>	<u>532,554</u>	<u>27,031,762</u>	<u>13,048,978</u>	<u>532,554</u>	<u>211,970</u>	<u>7,385</u>		<u>1,089,880</u>	<u>1,089,880</u>	<u>\$ 13,401,719</u>	
	Construction work-in-process	28,794	-	27,880	914								67,068	
		<u>\$ 26,207,498</u>	<u>\$ 1,385,612</u>	<u>\$ 560,434</u>	<u>\$ 27,032,676</u>								<u>\$ 1,022,812</u>	

Less charged to clearing 67,068

Total depreciation \$ 1,022,812

(N) Net Decrease

Citizens' Electric Company of Lewisburg, Pa.
Prepaid (Accrued) Taxes, Net
December 31, 2021 and 2020

	<u>2021</u>	<u>2020</u>
State gross receipts tax	\$ (79,940)	\$ 4,114
State public utility realty tax	16,853	16,753
State income tax	(33,514)	2,220
Other	<u>280</u>	<u>(36)</u>
	<u>\$ (96,321)</u>	<u>\$ 23,051</u>

Citizens' Electric Company of Lewisburg, Pa.
Operating Revenues and Taxes, Other Than Income
Years Ended December 31, 2021 and 2020

	2021	2020
Operating Revenues		
Residential sales	\$ 9,173,846	\$ 9,349,526
Commercial and industrial sales	4,387,448	4,123,163
Public street and highway lighting sales	130,820	131,149
Customers' forfeited discounts	23,994	9,523
Rent from electric property	38,680	38,640
Other electric revenues	4,349	2,823
	\$ 13,759,137	\$ 13,654,824
Taxes, Other Than Income		
State gross receipts	\$ 824,054	\$ 834,666
State Pennsylvania Utility Commission assessment	48,804	44,802
State use tax	4,145	1,660
State public utility realty tax	23,900	22,958
	\$ 900,903	\$ 904,086

Citizens' Electric Company of Lewisburg, Pa.
Distribution, Operation; Distribution, Maintenance; Customer Accounts and
General and Administrative Expenses
Years Ended December 31, 2021 and 2020

	2021	2020	Increase (Decrease)	% Change
Distribution, Operation Expenses				
Station	\$ 13,240	\$ 5,386	\$ 7,854	145.82%
Overhead lines	146,696	122,644	24,052	19.61%
Underground lines	60,831	52,710	8,121	15.41%
Street lighting and signal system	7,725	4,469	3,256	72.86%
Meters	19,013	6,123	12,890	210.52%
Engineering	131,110	121,382	9,728	8.01%
Customer installations	60,746	21,146	39,600	187.27%
Miscellaneous distribution	402,151	439,089	(36,938)	-8.41%
Rents	499	490	9	1.84%
	<u>\$ 842,011</u>	<u>\$ 773,439</u>	<u>\$ 68,572</u>	<u>8.87%</u>
Distribution, Maintenance Expenses				
Station equipment	\$ 5,436	\$ 13,429	\$ (7,993)	-59.52%
Overhead lines	481,912	452,111	29,801	6.59%
Underground lines	4,246	2,873	1,373	47.79%
Line transformers	18,983	14,149	4,834	34.16%
Street lighting and signal system	10,246	9,469	777	8.21%
	<u>\$ 520,823</u>	<u>\$ 492,031</u>	<u>\$ 28,792</u>	<u>5.85%</u>
Customer Accounts Expenses				
Meter reading	\$ 13,636	\$ 473	\$ 13,163	2782.88%
Customer records and collection	442,185	451,625	(9,440)	-2.09%
Uncollectible accounts	31,941	19,118	12,823	67.07%
	<u>\$ 487,762</u>	<u>\$ 471,216</u>	<u>\$ 16,546</u>	<u>3.51%</u>
General and Administrative Expenses				
Salaries and benefits	\$ 609,425	\$ 608,292	\$ 1,133	0.19%
Administrative	125,450	111,211	14,239	12.80%
Outside services employed	5,524	107,143	(101,619)	-94.84%
Insurance	11,111	10,798	313	2.90%
Injuries and damage	26,644	26,136	508	1.94%
General advertising	433	373	60	16.09%
Miscellaneous general	81,216	76,752	4,464	5.82%
Directors' committee	12,931	12,535	396	3.16%
Maintenance of general plant	163,238	148,560	14,678	9.88%
	<u>\$ 1,035,972</u>	<u>\$ 1,101,800</u>	<u>\$ (65,828)</u>	<u>-5.97%</u>

	Historic Year Actual	Historic Year Actual	Historic Year Actual	Historic Year Actual	Future Test Year	Actual	Fully Projected Future Test Year
	Ended 12/31/18	Ended 12/31/19	Ended 12/31/20	Ended 12/31/21	Ended 12/31/22	Ended 03/31/22	Ended 12/31/23
<u>Distribution Expenses:</u>							
580 Operations Supt & Eng	166,701	116,122	118,985	131,110	171,605	37,068	123,139
582 Station Expense	7,342	9,647	5,349	13,239	7,837	(5,222)	8,606
583/584 Overhead Line Expense	199,963	137,278	174,136	207,522	150,065	13,520	161,359
585 Street Lighting Expense	4,342	3,552	4,469	7,724	5,310	2,073	5,530
586 Meter Expense	53,310	20,827	5,072	19,012	14,008	(36,000)	22,480
587 Customer Installation Expense	22,588	50,305	20,848	60,744	32,238	4,841	34,698
588 Miscellaneous Distribution Exp	253,338	264,659	321,841	293,481	290,554	103,842	313,536
589 Rents	471	480	490	499	490	-	505
<i>Total Operating Expense</i>	<u>708,055</u>	<u>602,870</u>	<u>651,190</u>	<u>733,331</u>	<u>672,107</u>	<u>120,122</u>	<u>669,853</u>
590 Maint Supv & Eng	-	-	-	-	-	-	-
591 Maint of Structures	-	-	-	-	-	-	-
592 Maintenance of Station Equipment	10,099	272	13,430	5,435	7,734	-	7,265
593 Maintenance of Overhead Line	401,475	428,177	449,463	481,913	448,049	152,552	554,049
594 Maintenance of Underground Lines	16,523	3,312	2,873	4,246	4,689	610	4,964
595 Maintain Line Transformers	10,769	14,889	14,148	18,983	8,750	860	8,937
596 Maint. Street Light & Signal Expense	11,977	8,721	9,469	9,879	6,493	2,784	7,142
597 Maint of Misc. Distrib Plant	1,316	-	-	367	304	-	337
<i>Total Maintenance Expense</i>	<u>452,159</u>	<u>455,371</u>	<u>489,383</u>	<u>520,823</u>	<u>476,019</u>	<u>156,806</u>	<u>582,694</u>
<i>Total Operating & Maintenance Exp.</i>	<u>1,160,214</u>	<u>1,058,241</u>	<u>1,140,573</u>	<u>1,254,154</u>	<u>1,148,126</u>	<u>276,928</u>	<u>1,252,547</u>
<u>Customer Accounting & Collection Expenses:</u>							
902 Meter Reading Expense	24,087	3,497	473	13,633	1,374	5,802	1,521
903 Customer records & Collections Exp	426,029	456,243	445,658	442,188	402,522	95,713	416,324
904 Uncollectible Accounts	19,729	28,031	19,119	31,941	20,000	2,416	20,600
<i>Total Customer Acctg & Coll. Exp</i>	<u>469,845</u>	<u>487,771</u>	<u>465,250</u>	<u>487,762</u>	<u>423,896</u>	<u>103,931</u>	<u>438,445</u>
<u>Sales Expense, Public Relations</u>							
908-913 Safety and Communications	-	-	-	-	-	-	-
<u>Administrative & General Expenses:</u>							
920 Administrative & General Salaries	595,872	572,164	638,159	607,671	709,518	168,682	740,110
921 Office Supplies & Expenses	171,706	185,132	194,507	206,061	200,528	56,135	206,563
923 Outside Services Employed	91,750	57,287	107,143	5,525	75,000	15,799	77,250
924 Property Insurance	10,082	10,381	10,796	11,112	11,640	2,772	11,988
925 Injuries & Damages	26,514	25,415	26,136	26,647	33,812	6,699	34,824
926 Employee Pensions & Benefits	29,513	455	(5,423)	1,756	23,000	2,930	23,690
928 Regulatory Commission Expense	61,908	61,908	108,686	108,668	120,000	27,168	142,745
930 Miscellaneous General Expense	91,646	91,414	89,660	94,585	92,315	20,018	95,084
931 Rents	-	-	-	-	-	-	-
932 Maintenance of General Property	149,108	137,958	146,305	163,227	129,968	82,484	141,596
<i>Total Administrative & General Exp.</i>	<u>1,228,099</u>	<u>1,142,114</u>	<u>1,315,969</u>	<u>1,225,252</u>	<u>1,395,781</u>	<u>382,687</u>	<u>1,473,850</u>
Total Operating & Maintenance Exp.	<u>2,858,158</u>	<u>2,688,126</u>	<u>2,921,792</u>	<u>2,967,168</u>	<u>2,967,803</u>	<u>763,546</u>	<u>3,164,842</u>
<i>Check to C1-1</i>	<u>\$2,858,158</u>	<u>\$2,688,126</u>	<u>\$2,921,792</u>	<u>\$2,967,168</u>	<u>\$2,967,803</u>		<u>\$3,164,842</u>

	Historic Actual	Historic Actual	Historic Actual	Historic Actual	Future Test Year	Actual	Fully Projected Future Test Year
	Balance 12/31/18	Balance 12/31/19	Balance 12/31/20	Balance 12/31/21	Forecast 12/31/22	03/31/22	Forecast 12/31/23
Depreciable Plant:							
360 Land & Land Rights	14,291	14,804	15,197	15,770	16,388	16,000	17,024
361 Structures and Improvements	-	-	-	-	-	-	-
362 Station Equipment	792,280	792,280	792,280	792,280	792,280	792,280	792,280
364 Poles, Tower & Fixtures	3,574,267	3,781,653	3,917,947	4,054,597	4,272,220	4,075,408	4,496,808
365 Overhead Conductors & Devices	6,368,882	6,685,866	7,005,714	7,283,364	7,879,018	7,422,734	8,495,180
366 Underground Conduit	2,945,647	3,036,091	3,137,954	3,219,995	3,341,045	3,238,206	3,465,856
368 Line Transformers	2,587,731	2,622,407	2,652,959	2,682,582	2,757,338	2,721,064	2,835,049
369 Services	3,234,601	3,485,444	3,599,254	3,797,998	4,089,043	3,817,744	4,389,420
370 Meters	1,419,770	1,392,262	1,403,783	1,371,294	1,397,548	1,509,761	1,299,744
373 Steet Lighting & Signal Systems	560,891	570,372	587,221	617,452	695,183	621,145	776,050
Total Distribution Plant	21,498,360	22,381,179	23,112,309	23,835,332	25,240,063	24,214,342	26,567,411
General Plant							
390.1 Structures & Improvements, Office	603,970	593,170	630,379	637,162	684,173	637,581	726,883
390X General - Fully Depreciated	764,864	764,864	764,864	764,864	764,864	764,864	764,864
391 Office Furniture & Equipment	230,036	270,767	292,036	307,139	395,960	334,449	477,027
392 Transportation Equipment	615,876	615,876	644,682	741,579	868,658	742,580	1,063,236
394 Tools, Shop & Garage Equipment	29,409	49,824	58,118	69,432	79,172	97,290	91,678
395 Laboratory & Stores Equipment	65,669	65,669	70,969	70,969	71,597	60,768	73,253
397 Communication Equipment	272,313	272,313	272,313	272,313	272,313	272,313	272,313
398 Miscellaneous Equipment	10,631	10,631	13,754	13,754	13,395	3,660	13,554
Intangible Plant, Organization	995	995	995	995	995	995	995
301 Intangible Plant, EDI	318,223	318,223	318,223	318,223	318,223	318,223	318,224
Total General Plant	2,911,986	2,962,332	3,066,333	3,196,430	3,469,350	3,232,723	3,802,027
Total Plant In Service	24,410,346	25,343,511	26,178,642	27,031,762	28,709,413	27,447,065	30,369,438
<i>Check to C3</i>	<i>\$24,410,346</i>	<i>\$25,343,511</i>	<i>\$26,178,642</i>	<i>\$27,031,762</i>	<i>\$28,709,413</i>	<i>\$27,447,065</i>	<i>\$30,369,438</i>

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

**Computation of State Tax Adjustment Surcharge
for the Period January 1, 2022 through December 31, 2022**

	<u>Amount</u>	<u>Attachment Number</u>
1 Capital Stock Tax	\$ -	
2 Corporate Net Income Tax	\$ -	
3 Utility Realty Tax	\$ 921	A
4 Gross Receipts Tax	<u>\$ -</u>	
5 Total of Lines 1, 2, 3, and 4	\$ 921	
6 PURTA Surcharge Rate Adjustment	\$ -	B
7 Revenue Neutral Reconciliation (RNR) Tax Adjustment	<u>\$ -</u>	C
8 Total of Lines 5, 6, and 7	\$ 921	
9 Line 8 divided by complement of Gross Receipts Tax Rate (.941)	\$ 979	
10 STAS reconciliation for period January 1, 2021 through December 31, 2021	<u>\$ (65)</u>	D
11 Total of Lines 9 and 10	\$ 914	
12 Gross Intrastate Operating Revenues derived from service under rates subject to the jurisdiction of the Pa. Public Utility Commission for the application period January 1, 2020 through December 31, 2020 with adjustments (Page 11)	\$ 13,035,923	E
13 Surcharge rate to be applied for the period January 1, 2022 through December 31, 2022 (Line 11 divided by Line 12)	<u><u>0.0070%</u></u>	

ATTACHMENT A

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Calculation of Surcharge Rate 1/01/22 - 12/31/22

Public Utility Realty Tax Assessment (PURTA)

1	8/01/2021 Notice of Determination Adjustments: State Tax Property Value at December 31, 2020	\$ 853,632	
2	Pa. Public Utility Realty Tax (Based on applied rate of 27.9975 mills x Line 1)		\$ 23,900
3	8/19/2020 Notice of Determination Adjustments: State Tax Property Value at December 31, 2019	\$ 803,088	
4	Pa. Public Utility Realty Tax (Based on applied rate of 28.9061 mills x Line 1)		\$ 22,976
5	2022 PURTA Adjustment (Line 2 minus Line 4)		<u>\$ 924</u>

continued on page 2A

ATTACHMENT A

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Calculation of Surcharge Rate 1/01/22 - 12/31/22

Public Utility Realty Tax Assessment (PURTA)

1	Continued from page 2 (Line 5)		\$	924
	Notice of Determination Adjustments:			
		<u>8/1/2021</u>		
2	<u>1998 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
3	<u>1999 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
4	<u>2000 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
5	<u>2001 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
6	<u>2002 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
7	<u>2003 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
8	<u>2004 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
9	<u>2005 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
10	<u>2006 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
11	<u>2007 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
12	<u>2008 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
13	<u>2009 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
14	<u>2010 PURTA</u>			
	Liability Adjustment	\$ (1)	\$	(1)
15	<u>2011 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
16	<u>2012 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
17	<u>2013 PURTA</u>			
	Liability Adjustment	\$ -	\$	-
18	<u>2014 PURTA</u>			
	Liability Adjustment	\$ (1)	\$	(1)
19	<u>2015 PURTA</u>			
	Liability Adjustment	\$ (1)	\$	(1)
20	Total 2022 PURTA Adjustment (Lines 1 through 19)		\$	<u>921</u>

ATTACHMENT B

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Calculation of Surcharge Rate 1/01/22 - 12/31/22

Public Utility Realty Tax Assessment Surcharge

Tax Year Ending 2022

Projected taxable revenues for period January 1, 2022 to December 31, 2022 (Page 13)	\$ 14,257,789
PURTA surcharge rate as established by the Department of Revenue and published in the Pennsylvania Bulletin on September 11, 2021	<u>0.0000</u>
2022 PURTA Surcharge	<u><u>\$ -</u></u>

ATTACHMENT C

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Calculation of Surcharge Rate 1/01/22 - 12/31/22

Revenue Neutral Reconciliation (RNR) Tax Adjustment
Applicable to Gross Receipts Tax

Tax Year Ending 2022

Projected taxable revenues for Pa. gross receipts tax for period January 1, 2022 to December 31, 2022 (Page 13)	\$ 14,257,789
RNR tax rate adjustment as established by the Department of Revenue and published in the Pennsylvania Bulletin on Dec. 1, 2001	<u>0.000</u>
Projected increase in applicable 2022 gross receipts tax liability based on RNR tax rate adjustment	<u><u>\$ -</u></u>

ATTACHMENT D

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

	<u>Amount</u>	<u>Schedule Number</u>
1 Capital Stock Tax	\$ -	1
2 Corporate Net Income Tax	\$ -	
3 Utility Realty Tax	\$ (253)	2
4 Gross Receipts Tax	<u>\$ -</u>	
5 Total of Items 1, 2, 3, and 4	\$ (253)	
6 PURTA Surcharge Rate Adjustment	\$ -	3
7 Revenue Neutral Reconciliation (RNR) Tax Adjustment	<u>\$ -</u>	4
8 Total of Lines 5, 6, and 7	\$ (253)	
9 Line 8 divided by complement of Gross Receipts Tax Rate (.941)	\$ (269)	
10 STAS reconciliation for period Jan. 1, 2020 through December 31, 2020	<u>\$ (366)</u>	
11 Total of Lines 9 and 10	\$ (635)	
12 STAS Revenue Collections (Page 11)	<u>\$ (570)</u>	5
13 (Over)/Under Collection (Line 11 minus Line 12)	<u><u>\$ (65)</u></u>	

ATTACHMENT E

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

Schedule 1

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

Calculation of Surcharge Rate 4/11/19 - 12/31/19

****Capital Stock Tax Phased out in 2016****

Capital Stock Tax @ .00 mills effective 1/1/19

1	Tax Base -- year 2017 see attached page 2 of 2017 PA Tax Report		\$	-
2	Tax Millage in basic rates (2019)	0.000000		
3	Tax Millage effective 1/1/19	<u>0.000000</u>		
4	Effective Rate Increase (Decrease) (Line 2 minus Line 3)			<u>0.000000</u>
5	Total Capital Stock/Franchise Tax Increase (Decrease) (Line 1 X Line 4)		\$	<u><u>-</u></u>

ATTACHMENT E

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

Schedule 2

Public Utility Realty Tax Assessment (PURTA)

Calculation of Surcharge Rate 4/11/21 - 12/31/21

1	8/19/2020 Notice of Determination Adjustments: State Tax Property Value at December 31, 2019	\$	803,088	
2	Pa. Public Utility Realty Tax (Based on applied rate of 28.6091 mills x Line 1)			\$ 22,976
3	8/15/2019 Notice of Determination Adjustments: State Tax Property Value at December 31, 2018	\$	769,392	
4	Pa. Public Utility Realty Tax (Based on applied rate of 30.1894 mills x Line 1)			\$ 23,227
5	2021 PURTA Adjustment (Line 2 minus Line 4)			<u>\$ (252)</u>

continued on page 7A

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

ATTACHMENT E

Schedule 2

Public Utility Realty Tax Assessment (PURTA)

1	Continued from page 7 (Line 5)		\$	(252)
	Notice of Determination Adjustments:			
		<u>8/19/2020</u>		
2	<u>1998 PURTA</u>			
	Liability Adjustment	\$	1	\$
3	<u>1999 PURTA</u>			
	Liability Adjustment	\$	-	\$
4	<u>2000 PURTA</u>			
	Liability Adjustment	\$	-	\$
5	<u>2001 PURTA</u>			
	Liability Adjustment	\$	-	\$
6	<u>2002 PURTA</u>			
	Liability Adjustment	\$	-	\$
7	<u>2003 PURTA</u>			
	Liability Adjustment	\$	-	\$
8	<u>2004 PURTA</u>			
	Liability Adjustment	\$	-	\$
9	<u>2005 PURTA</u>			
	Liability Adjustment	\$	-	\$
10	<u>2006 PURTA</u>			
	Liability Adjustment	\$	-	\$
11	<u>2007 PURTA</u>			
	Liability Adjustment	\$	-	\$
12	<u>2008 PURTA</u>			
	Liability Adjustment	\$	-	\$
13	<u>2009 PURTA</u>			
	Liability Adjustment	\$	-	\$
14	<u>2010 PURTA</u>			
	Liability Adjustment	\$	-	\$
15	<u>2011 PURTA</u>			
	Liability Adjustment	\$	(1)	\$
16	<u>2012 PURTA</u>			
	Liability Adjustment	\$	-	\$
17	<u>2013 PURTA</u>			
	Liability Adjustment	\$	-	\$
18	<u>2014 PURTA</u>			
	Liability Adjustment	\$	-	\$
19	<u>2015 PURTA</u>			
	Liability Adjustment	\$	(1)	\$
20	Total 2021 PURTA Adjustment (Lines 1 through 18)		\$	(253)

ATTACHMENT E

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Schedule 3

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

Public Utility Realty Tax Assessment Surcharge

Tax Year Ending 2021

Taxable revenues for Pa. gross receipts tax
for period January 1, 2021 to December 31, 2021 (Page 12) \$ 13,528,814

PURTA surcharge rate as established by the Department
of Revenue and published in the Pennsylvania Bulletin on September 12, 2020 0.0000

2021 PURTA Surcharge \$ -

ATTACHMENT E

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

Schedule 4

**Reconciliation of State Tax Adjustment Surcharge
for the Period ending December 31, 2021**

**Revenue Neutral Reconciliation (RNR) Tax Adjustment
Applicable to Gross Receipts Tax**

Tax Year Ending 2021

1	Taxable revenues for Pa. gross receipts tax for period January 1, 2021 to December 31, 2021 (Page 12)	\$ 13,528,814
2	RNR tax rate adjustment as established by the Department of Revenue and published in the Pennsylvania Bulletin on December 1, 2001	<u>\$ -</u>
3	Projected increase in applicable 2021 gross receipts tax liability based on RNR tax rate adjustment	<u><u>\$ -</u></u>

ATTACHMENT E

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Schedule 5

STAS Revenue Collected/(Refunded)
for period January 1, 2021 through December 31, 2021

<u>Month</u>	<u>Tax Surcharge</u>
January	\$ (67)
February	\$ (65)
March	\$ (54)
April	\$ (44)
May	\$ (36)
June	\$ (44)
July	\$ (47)
August	\$ (48)
September	\$ (49)
October	\$ (36)
November (estimate)	\$ (40)
December (estimate)	\$ (40)
Total STAS Collected/(Refunded)	<u>\$ (570)</u>

ATTACHMENT E

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

OPERATING REVENUES

Revenue billed for 12 month audited period ending December 31, 2020

Residential	\$	8,948,210	
Commercial & Industrial	\$	3,946,182	
Public Street & Highway Lighting	\$	131,149	
Customer' Forfeited Discounts	\$	<u>9,523</u>	
Total Gross Electric Revenue including Tax Surcharge *	\$		13,035,064
Less: Tax Surcharge collected	\$		<u>(859)</u>
Total Electric Revenue projected for application period January 1, 2021 through December 31, 2022	\$		<u><u>13,035,923</u></u>

*Revenue does not include unbilled revenue.

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Revenues Billed from Service Under Rates
for the Application Period January 1, 2021 to December 31, 2021

<u>Month</u>	<u>MWh Sales</u>	<u>Base Rate Revenue*</u>	<u>Forfeited Discounts</u>	<u>Total Revenues</u>
January	16,958	\$ 1,449,335	\$ 2,319	\$ 1,451,654
February	18,070	\$ 1,409,781	\$ 2,894	\$ 1,412,675
March	15,123	\$ 1,188,361	\$ 2,367	\$ 1,190,728
April	12,656	\$ 971,647	\$ 1,969	\$ 973,616
May	11,115	\$ 861,662	\$ 2,226	\$ 863,888
June	13,359	\$ 1,052,532	\$ 1,787	\$ 1,054,319
July	13,151	\$ 1,077,270	\$ 1,674	\$ 1,078,944
August	13,757	\$ 1,115,773	\$ 1,678	\$ 1,117,451
September	14,185	\$ 1,127,235	\$ 1,866	\$ 1,129,101
October	11,204	\$ 919,866	\$ 1,874	\$ 921,740
November (estimate)	14,115	\$ 1,165,478	\$ 1,871	\$ 1,167,349
December (estimate)	14,115	\$ 1,165,478	\$ 1,871	\$ 1,167,349
Totals	167,808	\$ 13,504,418	\$ 24,396	\$ 13,528,814

*Does not include unbilled revenue.

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

Projected Revenues Billed from Service Under Rates
for the Application Period January 1, 2022 to December 31, 2022

<u>Month</u>	<u>MWh Sales</u>	<u>Base Rate Revenue*</u>	<u>Forfeited Discounts</u>	<u>Projected Revenues</u>
January	16,021	\$ 1,459,048	\$ 2,000	\$ 1,461,048
February	17,434	\$ 1,587,730	\$ 2,000	\$ 1,589,730
March	14,675	\$ 1,336,468	\$ 2,000	\$ 1,338,468
April	12,542	\$ 1,142,215	\$ 2,000	\$ 1,144,215
May	10,815	\$ 984,938	\$ 2,000	\$ 986,938
June	11,599	\$ 1,056,336	\$ 2,000	\$ 1,058,336
July	12,029	\$ 1,095,497	\$ 2,000	\$ 1,097,497
August	13,220	\$ 1,203,961	\$ 2,000	\$ 1,205,961
September	12,172	\$ 1,108,520	\$ 2,000	\$ 1,110,520
October	10,388	\$ 946,051	\$ 2,000	\$ 948,051
November	11,747	\$ 1,069,815	\$ 2,000	\$ 1,071,815
December	<u>13,651</u>	<u>\$ 1,243,212</u>	<u>\$ 2,000</u>	<u>\$ 1,245,212</u>
Totals	<u>156,295</u>	<u>\$ 14,233,789</u>	<u>\$ 24,000</u>	<u>\$ 14,257,789</u>

*Does not include unbilled revenue.

**BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
Citizens' Electric Company of Lewisburg, PA :

**DIRECT TESTIMONY OF NATHAN JOHNSON
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

1 **Q. Please state your name and business address.**

2 A. My name is Nathan (Nate) Johnson. My business address is 1775 Industrial Blvd.,
3 Lewisburg, Pennsylvania.

4 **Q. By whom are you employed and what position do you hold with Citizens' Electric**
5 **Company of Lewisburg, PA?**

6 A. I am employed by C&T Enterprises, Inc., ("C&T"), and assigned to Citizens' Electric
7 Company of Lewisburg, PA ("Citizens" or "Company"), as the Vice President of
8 Engineering and Operations.

9 **Q. What are your duties in that capacity?**

10 A. My duties include oversight of all aspects of engineering and operations at Citizens'. This
11 includes direct engineering work, managing line crews and construction/maintenance
12 activities, operations budget planning and execution, monitoring service quality and
13 reliability, and oversight of the safety program.

14 **Q. Please describe your educational and professional background.**

15 A. I have a bachelor's degree in electrical engineering from Bucknell University. I joined
16 Citizens' as the Senior Director of Engineering and Operations in 2018. Prior to joining

1 Citizens', I held various technical and supervisory positions in distribution operations with
2 PPL Electric Utilities Corporation. I am also a registered professional engineer in
3 Pennsylvania.

4 **Q. Please describe the purpose of your testimony.**

5 A. My testimony supports the operations, maintenance and capital plan projections that were
6 used by HSG Group, Inc. ("HSG Group") for compilation and preparation of the filing. In
7 discussing this topic, I also address our capital improvement activities, vegetation
8 management, and the proposed changes to Citizens' tariff.

9 **Q. Could you please describe some of the distribution system projects Citizens' has
10 completed since the Company's last rate case?**

11 A. In addition to ongoing maintenance and operations, the Company has invested in capital
12 improvements. These plant investments were in the form of replacing aged poles,
13 increasing conductor size to provide greater operating flexibility and reliability, replacing
14 underground cable, reconductoring to increase capacity and reliability, replacing first-
15 generation smart meters, and relocating lines for reliability improvement. Additionally,
16 Citizens' has completed numerous small line extensions and upgrades.

17 **Q. Have you taken any actions to mitigate the effects of ongoing supply chain issues on
18 future budget execution?**

19 A. Yes. During the second half of 2021, we began to observe material prices and lead times
20 increasing substantially. In order to ensure that work execution is not impeded, we have
21 increased inventory levels of critical equipment, and advanced our own procurement
22 timelines to keep all necessary materials in stock. Additionally, we revised our capital and
23 O&M budgets to reflect observed cost increases. Specifically, material needs for all major

1 projects have been reviewed for long lead time and costly materials and specific
2 procurements have been made to secure the necessary materials in advance of start dates.

3 I have Exhibit__(NJ-1) showing our analysis of material cost and lead times.

4 **Q. Please provide some examples of projects that the Company is undertaking in 2022**
5 **and 2023.**

6 A. Significant capital projects for our Future Test Year and Fully-Projected Future Test Year
7 include:

- 8 • **Reconductoring along Beagle Club Rd.** The Company has budgeted \$91,000 for
9 this project in 2022, which will improve capacity and reliability.
- 10 • **Neutral Reconductoring along Route 45.** The Company has budgeted \$39,000 in
11 2022 to upgrade the neutral conductor on the main supply circuit to the western
12 extent of the service area. This will allow full utilization of the capacity of the
13 existing three-phase primary conductors in the area.
- 14 • **Single Phase Recloser Replacement Pilot.** The Company budgeted \$7,000 to pilot
15 a new single-phase electronic vacuum recloser (“VCR”) in 2022. The new VCRs
16 will be installed in lieu of preventative maintenance on the Company’s existing
17 fleet of single-phase hydraulic oil circuit reclosers (“OCR”), which are nearing end-
18 of-life. This will provide both a cost and operational benefit by reducing
19 maintenance needs and increasing reliability.
- 20 • **Underground Cable Reconductoring in Valley View Development.** This project
21 upgrades 1980s vintage cable and will ensure continued reliability for customers.
22 The Company has budgeted \$92,500 in 2022 for this project. Recognizing the
23 limited, remaining life expectancy of the 1970- and 1980-vintage direct buried,

1 underground, high voltage cables, the Company plans to continue a systematic
2 cable replacement program.

3 **Q. Do you anticipate that the rate of capital improvements will continue?**

4 A. Yes, Citizens' has a 5-year work plan that includes additional improvements. A copy of
5 our 5-year work plan is attached as Exhibit__(NJ-2).

6 **Q. Does Citizens' O&M and Capital spending vary from quarter to quarter during the**
7 **year?**

8 A. Yes. Due our small size, Citizens' can only work on a limited number of projects
9 concurrently. Since work on budget projects is typically continuous from start to finish,
10 spending tends to reflect any individual major projects under way at the time. For example,
11 when a major line reconductoring project is under construction, it may require 75% or more
12 of the workforce on a typical day. The result is that spending during that time will be
13 predominantly Capital. Upon completion of the project, the workforce may move on to
14 I&M inspections, at which point spending will shift towards O&M. This is also true of
15 contracted work, such as tree trimming or underground cable replacement. In addition to
16 an inherently low volume of concurrent work, weather also drives certain patterns in
17 spending. Major projects tend to be completed in the shoulder months when favorable
18 weather and low demand allow for uninterrupted work and greater flexibility in load
19 transfers. During winter and storm season, smaller projects or I&M inspections provide
20 work that requires little switching and can easily be put on hold during foul weather or
21 outage restorations.

22

1 **Q. Please discuss Citizens' vegetation management program.**

2 A. Our vegetation management program has become much more intensive following the
3 spread of the Emerald Ash Borer in the area over the past decade. Our territory has
4 experienced a significant increase in the number of priority trees, particularly ash trees,
5 which are poised to fall onto the overhead lines, resulting in unnecessary outages and
6 damage to facilities. There also has been enhanced tree growth due to consecutive wet
7 growing seasons. Citizens' has been very vigilant and cost conscious when designating
8 "priority tree" removals, with an increased focus on identifying and resolving off right-of-
9 way priority trees as encouraged by the Commission's Reliability and Emergency
10 Preparedness Section of the Bureau of Technical Utility Services ("TUS"). Another
11 significant issue is limited, qualified vegetation contractor interest due to the relatively
12 small size of our contracts.

13 **Q. Are Citizens' operations, maintenance and replacement practices resulting in safe,**
14 **adequate and reliable service to customers?**

15 A. Yes. Citizens' traditionally has among the best SAIDI (System Average Interruption
16 Duration Index – measures average outage duration time for every customer served), SAIFI
17 (System Average Interruption Frequency Index – measures average frequency of
18 interruptions for every customer), and CAIDI (Customer Average Interruption Duration
19 Index – measures average restoration time for every customer who lost power) among
20 Pennsylvania electric utilities. As documented in the Company's 2021 Fourth Quarter
21 Reliability Report, Citizens' achieved a SAIFI of 0.27 outages, a SAIDI of 25.6 minutes,
22 and a CAIDI of 94.1 minutes. Historically, Citizens' has ranked among the best performers

1 in the Commonwealth. Mr. Kelchner's testimony also discusses our reliability performance
2 and includes our 2021 Fourth Quarter Reliability Report as an exhibit.

3 **PROPOSED TARIFF CHANGES**

4 **Q. What changes does Citizens' propose to make to its Tariff as part of this filing?**

5 A. In preparation for this filing, the Citizens' management and staff reviewed each provision
6 in the tariff to determine where updates or changes may be appropriate. Many of the
7 changes are typographical, such as hyphenating appropriate terms and phrases. Other
8 changes are updating tariff language to reflect current operations and terminology. The
9 substantive modifications are explained below.

10 **Q. Please start with the change to the definition of "customer's installation" on page 5.**

11 A. We updated this definition to reflect the current equipment that is used in customer
12 installations. Specifically, we replaced "cut-outs" with "meter sockets" and "breaker or
13 fuse panels."

14 **Q. Why is the Company changing Rules 3, 28, 29, 33 and 34?**

15 A. Rules 3, 28, 29, 33 and 34 address the installation of services for consumers and developers.
16 In Rule 3, we are modifying the length of an ordinary service connection to reflect the
17 typical practical maximum length.

18 In Rule 28(A)(3), we replace the term "pole line" with the term "distribution line" to clarify
19 that the rule applies to both overhead and underground installations.

20 In Rules 29, 33 and 34, we are clarifying the requirements applicable when a customer or
21 developer requests an underground facility.

1 **Q. Why is Citizens' changing Rule 5 on page 9?**

2 A. In Rule 5, we are proposing to update the source for the standard safety requirements for
3 wiring and electrical equipment. The current source is the National Electrical Code.

4 **Q. Please explain the change to Rule 6.**

5 A. Rule 6 addresses situations where the Company may provide assistance to the Customer
6 with Customer-owned equipment. We are clarifying that the assistance is at the Company's
7 discretion and is not required as part of its utility service.

8 **Q. What changes does Citizens' propose regarding Electric Vehicle (EV) charging?**

9 A. We are proposing two new provisions regarding EV charging. First, we are proposing to
10 add a statement in Rule 9 that a third-party owning an EV charging station is not engaged
11 in the redistribution of electric service. Second, we are adding a new Rule 37 to address
12 customers that plan to install charging facilities. The new rule states:

13 Customer, who may be either the owner, operator, or host of third-party electric
14 vehicle charging services, shall notify the Company of a planned installation of
15 electric vehicle charging facilities at least one hundred twenty (120) days in
16 advance of the planned installation date. Company shall evaluate the planned
17 installation to confirm whether the installation can be accommodated by the
18 existing electric distribution system and metering. Customer shall provide
19 Company with all information necessary to conduct this analysis. Customer may
20 be required to install an additional metering point for the EV charging facilities as
21 determined by the Company. If the EV charging facilities require multi-phase
22 service, then the requirements in Rule 28 shall apply.
23

24 We believe this is a reasonable rule to ensure that the Company can plan for the potential
25 system impacts of charging facilities, which can use large amounts of energy at times.

26 **Q. Is Citizens' eliminating any provisions that are outdated?**

27 A. Yes. We are proposing to eliminate the following provisions that are no longer applicable
28 or are otherwise outdated:

- 29 • Rule 14: Residential Building Energy Conservation Standards

- 1 • Rule 17(e): Reference to Advanced Meters
- 2 • Rule 31(g): Reference to automatic water heater control program
- 3 **Q. Does this conclude your Direct Testimony?**
- 4 **A. Yes.**

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-_____**
 :
Citizens' Electric Company of Lewisburg, PA :

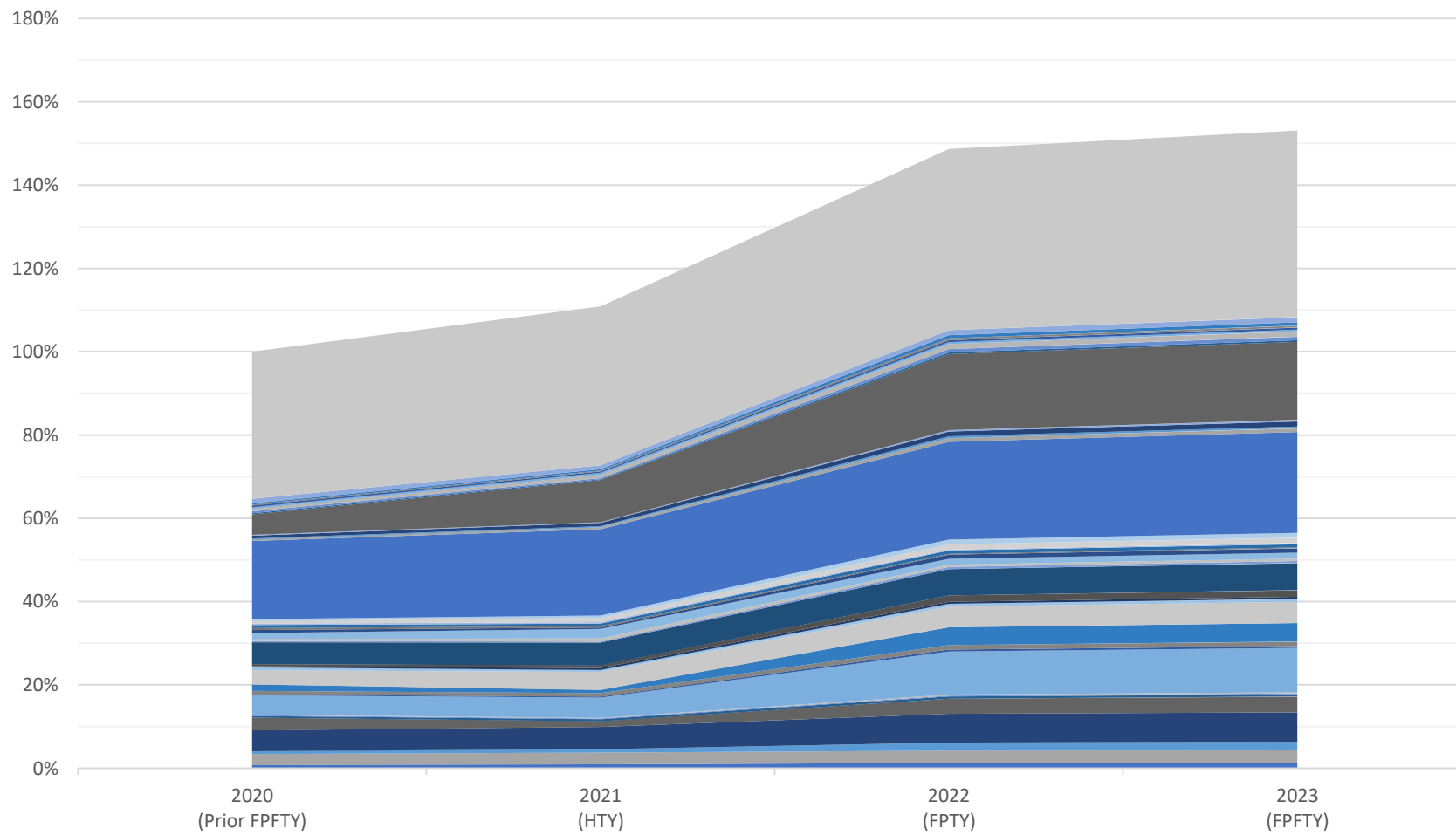
EXHIBITS
OF
NATHAN JOHNSON

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

APRIL 29, 2022

Material Cost Increase (as % of 2020)

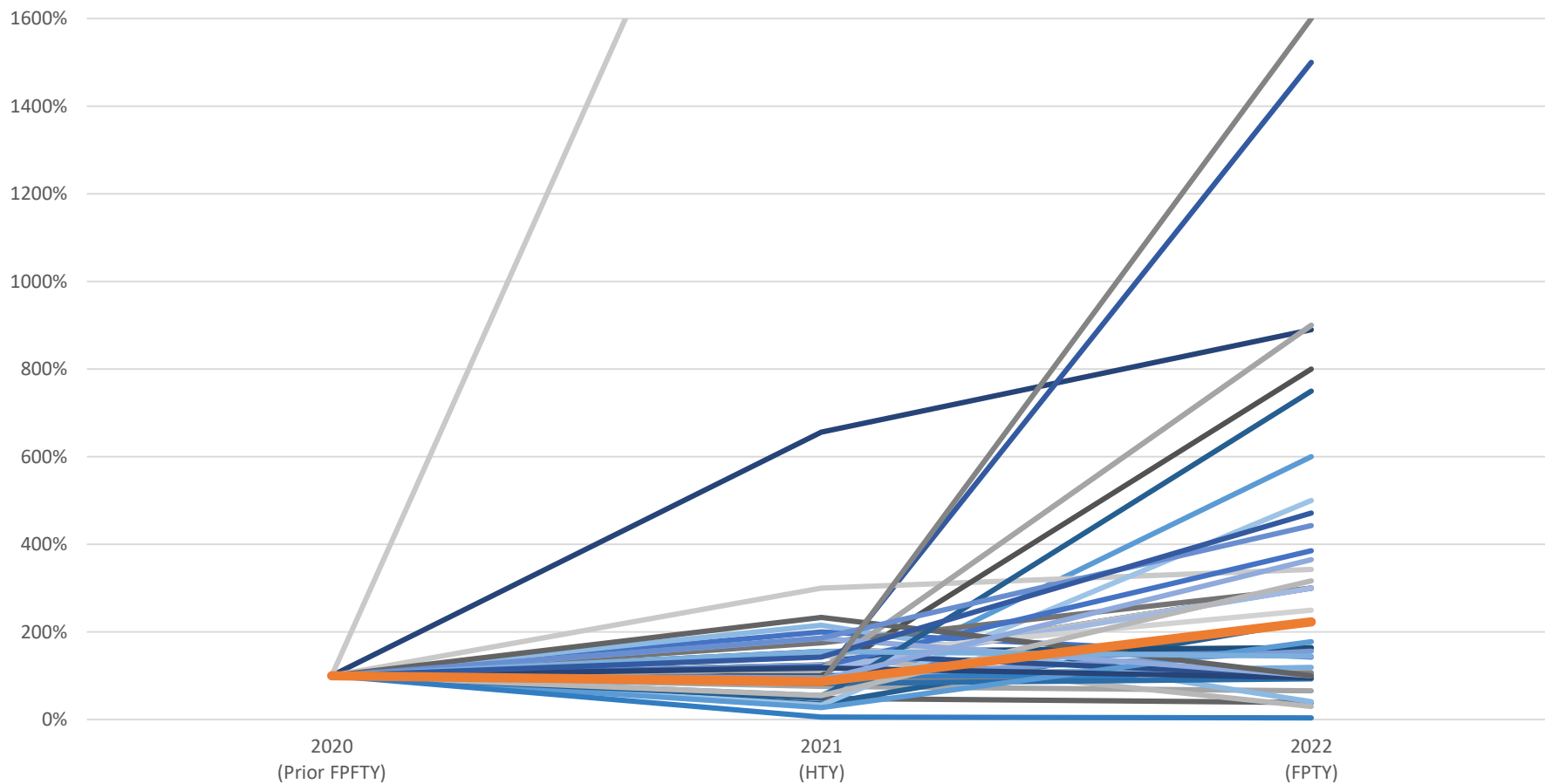


Representative Material Sample:

- | | | | | | | | | | | |
|----------|-----------|-----------|-----------|---------|---------|---------|------------|-------------|---------|-----------|
| ■ AN8 | ■ AROH | ■ ATC-B | ■ CO1LB | ■ DECA | ■ AT458 | ■ WC40 | ■ GRC | ■ W4/0TPXUG | ■ AT448 | ■ FGS1 |
| ■ ATS474 | ■ W1/0TPX | ■ AT5586 | ■ AT283-3 | ■ ATC-Y | ■ CO1 | ■ MB12 | ■ AT403 | ■ SV | ■ AS4/2 | ■ AT283-1 |
| ■ GW | ■ AT283 | ■ AT283-5 | ■ ATC | ■ W2CIC | ■ AT411 | ■ AT466 | ■ GR | ■ GWM | ■ PVC3 | ■ AT283-4 |
| ■ SB | ■ ATC-W | ■ PI | ■ LS | ■ AT446 | ■ SB2GP | ■ SI | ■ W336ACSR | | | |

Quoted Lead Times

(as % of 2020)



Representative Material Sample:

- | | | | | | | |
|---------|-----------|-------|---------|---------|----------|----------------|
| AN8 | AROH | ATC-B | CO1LB | DECA | AT458 | WC40 |
| GRC | W4/0TPXUG | AT448 | FGSI | ATS474 | W1/0TPX | ATS586 |
| AT283-3 | ATC-Y | CO1 | MB12 | AT403 | SV | AS4/2 |
| AT283-1 | GW | AT283 | AT283-5 | ATC | W2CIC | AT411 |
| AT466 | GR | GWM | PVC3 | AT283-4 | SB | ATC-W |
| PI | LS | AT446 | SB2GP | SI | W336ACSR | Sample Average |

Material Item		Vendor Diversity						VENDOR COUNT:	
		5110	4679	5199	4934	4772	5183		4677
AN8	Anchor, Screw 8"		X						1
AROH	Arrestor, Overhead	X	X	X	X	X			5
ATC-B	Amp Cartridge, 69338-1, Blue	X		X					2
CO1LB	Cutout, Fused, 100 Amp, LB	X	X			X			3
DECA	Dead End Clamp Al, #2-336 ACSR	X	X	X	X				4
AT458	Ampact Tap, 600458	X		X					2
WC40	Wedge Clamp, W-40, 1/0 - 4/0		X		X	X			3
GRC	Ground Rod Clamp	X	X	X	X				4
W4/OTPXUG	Wire, 4/0 Tpx URD, "SWEETBRIER"		X		X				2
AT448	Ampact Tap, 600448			X					1
FGSI	Fbg, Guy Strain Insulator	X	X						2
ATS474	Ampact Stirrup, 600474	X							1
W1/OTPX	Wire, 1/0 Tpx, "NERITINA"	X	X			X			3
ATS586	Ampact Stirrup, 602586			X					1
AT283-3	Ampact Tap, 602283-3	X		X					2
ATC-Y	Amp Cartridge, 69338-4, Yellow	X		X					2
CO1	Cutout, Polymer/Silicone, Fused 100 Amp		X	X	X				3
MB12	Machine Bolt 5/8" x 12"		X	X	X				3
AT403	Ampact Tap, 600403	X		X					2
SV	Strand Vise, 3/8"	X			X	X			3
AS4/2	Automatic Splice For # 4 - 2 ACSR	X		X	X	X			4
AT283-1	Ampact Tap, 602283-1	X		X					2
GW	Guy Wire	X	X		X	X			4
AT283	Ampact Tap, 602283	X		X					2
AT283-5	Ampact Tap, 602283-5	X		X					2
ATC	Amp Cover, 602080, Medium	X		X					2
W2CIC	Wire, #2 CIC Primary URD /15KV		X						1
AT411	Ampact Tap, 600411	X		X					2
AT466	Ampact Tap, 600466	X		X					2
GR	Ground Rod	X		X	X				3
GWM	Ground Wire Molding	X		X					2

Material Item		Vendor ID:						VENDOR COUNT:	
		5110	4679	5199	4934	4772	5183		4677
PVC3	PVC Conduit, 3"						X	X	2
AT283-4	Ampact Tap, 602283-4			X					1
SB	Spool Bolt, Neutral		X	X					2
ATC-W	Amp Cartridge, 69338-5, White	X		X					2
PI	Pin Insulator		X						1
LS	Lag, Small - for U-Guard	X	X			X			3
AT446	Ampact Tap, 600446	X		X					2
SB2GP	Split Bolt/Bug), #2 Str. G.P.	X		X	X				3
SI	Suspension Insulator	X		X		X			3
W336ACSR	Wire, 336.4 ACSR,Bare,"LINNET"	X	X		X				3
Material Count:		29	17	27	13	9	1	1	

**CITIZENS' ELECTRIC COMPANY
CAPITAL BUDGET
2022**

PROJECT NAME	MATERIAL	LABOR	OVERHEAD	TRUCK	TOTAL
GENERAL CONST.	\$ 259,413	\$ 411,766	\$ 463,336	\$ 67,106	\$ 1,201,621
NEW TRANSFORMERS	\$ 77,000	\$ 9,084	\$ 10,222	\$ 2,139	\$ 98,445
NEW METERS	\$ 92,238	\$ 25,462	\$ 28,650	\$ 8,299	\$ 154,649
Beagle Club Reconductor	\$ 22,395	\$ 32,764	\$ 36,868	\$ 5,340	\$ 97,367
Valley View UG	\$ 82,530	\$ 11,626	\$ 13,082	\$ 1,895	\$ 109,133
Rt 45 Neutral Reconductor Ph 1	\$ 5,717	\$ 15,377	\$ 17,303	\$ 2,506	\$ 40,902
Single Phase Recloser Pilot	\$ 6,930	\$ 612	\$ 689	\$ 100	\$ 8,330
Battery Operated Crimper/Cutter	\$ 2,850	\$ -	\$ -	\$ -	\$ 2,850
Door Security	\$ 25,000	\$ -	\$ -	\$ -	\$ 25,000
IT Replacements and Enhancements	\$ 95,072	\$ -	\$ -	\$ -	\$ 95,072
Gravel along west edge of parking lot	\$ 4,500	\$ -	\$ -	\$ -	\$ 4,500
Warehouse Lighting	\$ 7,300	\$ 918	\$ 1,033	\$ 150	\$ 9,400
Warehouse Insulation (Ph 1)	\$ 6,750	\$ 1,224	\$ 1,377	\$ 199	\$ 9,550
Vinyl Siding Replacement	\$ 8,500	\$ -	\$ -	\$ -	\$ 8,500
SUV	\$ 45,000	\$ -	\$ -	\$ -	\$ 45,000
SUV	\$ 45,000	\$ -	\$ -	\$ -	\$ 45,000
Pickup	\$ 55,000	\$ -	\$ -	\$ -	\$ 55,000
Pickup w/ plow	\$ 57,500	\$ -	\$ -	\$ -	\$ 57,500
CONTINGENCY	\$ 20,000				\$ 20,000
Sub Total	\$ 918,695	\$ 508,833	\$ 572,559	\$ 87,733	\$ 2,087,820
Reimbursables	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 918,695	\$ 508,833	\$ 572,559	\$ 87,733	\$ 2,087,820

**CITIZENS' ELECTRIC COMPANY
FIVE YEAR CAPITAL PLAN
2022 THRU 2026**

(000's)

PROJECT NAME	2022	2023	2024	2025	2026
General Construction	\$ 1,202	\$ 1,336	\$ 1,246	\$ 1,292	\$ 1,340
New Transformers	\$ 98	\$ 101	\$ 104	\$ 108	\$ 111
New Meters	\$ 155	\$ 31	\$ 32	\$ 32	\$ 33
Major Construction Projects	\$ 256	\$ 165	\$ 300	\$ 300	\$ 300
Special One-Time Projects and Equipment	\$ 155	\$ 147	\$ 63	\$ 72	\$ 60
Capital Vehicle Lease	\$ 203	\$ 270	\$ 260	\$ 260	\$ 240
Contingency	\$ 20	\$ 20	\$ 20	\$ 20	\$ 20
Sub Total	\$ 2,088	\$ 2,070	\$ 2,025	\$ 2,084	\$ 2,104
Reimbursables	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 2,088	\$ 2,070	\$ 2,025	\$ 2,084	\$ 2,104



McNees Wallace & Nurick LLC
100 Pine Street
P.O. Box 1166
Harrisburg, PA 17108-1166

Adeolu A. Bakare
Direct Dial: 717.237.5290
Direct Fax: 717.260.1744
abakare@mcneeslaw.com

July 11, 2022

VIA E-MAIL

Administrative Law Judge Eranda Vero
Administrative Law Judge Charece Z. Collins
Pennsylvania Public Utility Commission
801 Market Street, Suite 4063
Philadelphia, PA 19107

RE: Citizens' Electric Company of Lewisburg, PA – Supplement No. 152 to Tariff Electric – Pa. P.U.C. No. 14; Docket No. R-2022-3032369

Your Honors:

Attached please find Citizens' Statement No. 1 (CU) – Corrections and Updates Testimony and Exhibits of Howard S. Gorman on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens") in the above-referenced proceeding.

As shown by the attached Certificate of Service, all parties to this proceeding are being duly served via email.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adeolu A. Bakare', written over a horizontal line.

Adeolu A. Bakare
MCNEES WALLACE & NURICK LLC

c: Rosemary Chiavetta, Secretary (Letter and Certificate of Service only)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I am this day serving a true copy of the foregoing document upon the participants listed below in accordance with the requirements of Section 1.54 (relating to service by a participant).

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Adeolu A. Bakare

Counsel to Citizens' Electric Company of
Lewisburg, PA

Dated this 11th day of July, 2022, in Harrisburg, Pennsylvania.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**CORRECTIONS AND UPDATES
TESTIMONY
AND EXHIBITS
OF
HOWARD S. GORMAN**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

JULY 11, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

CORRECTIONS AND UPDATES TESTIMONY OF HOWARD S. GORMAN ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

1 **Q. Please state your name and on whose behalf you are testifying.**

2 A. My name is Howard Gorman. I am testifying on behalf of the petitioner, Citizens' Electric
3 Company of Lewisburg, PA ("Citizens" or "Company"). Citizens' Statement No. 1 in this
4 filing was my Direct Testimony. The terms defined in my Direct Testimony have the same
5 meanings here.

6 **Q. Please state the purposes of your testimony today.**

7 A. The purpose of this Corrections and Updates (CU) testimony is to provide corrections to
8 the testimony, exhibits and workpapers previously submitted. For the sake of completeness
9 and ease, all of the testimony, exhibits and workpapers in Exhibit__(HSG-1) are replaced
10 in their entirety by the information submitted herewith.

11 **Q. Please summarize the corrections that are being made.**

12 A. In preparing Citizens' Operating budgets and Capital budgets for the Future Test Year
13 ("FTY") 2022 and Fully-Projected Future Test Year ("FPFTY") 2023, the allocation
14 percentage of labor between Operations and Capital was not updated. The results of

1 updating this percentage, in order to correct the error, are presented in the schedules
2 submitted today.

3 The changes to the Operating Budget are on Exhibit__(HSG-1), Workpaper 3 to
4 Schedule C (CU), page 6 and page 12. The three columns on the left show FTY O&M
5 expense for each account as originally filed, the corrected amount (CU) and the change.
6 The three columns on the right show the same information for the FPFTY. For the FTY,
7 Operations and Maintenance ("O&M") expense increased by \$217,323 over the original
8 filing. For the FPFTY, the increase was \$81,120.

9 The changes to the Capital Budget are on Exhibit__(HSG-1), Schedule C-3 (CU), page 7.
10 The three columns on the left show FTY Capital spending for each account as originally
11 filed, the corrected amount (CU) and the change. The three columns on the right show the
12 same information for the FPFTY. For the FTY, Capital spending decreased by \$158,612
13 from the original filing. For the FPFTY, the decrease was \$166,665.

14 **Q. Is Citizens' changing the amount of its requested increase, the allocation of the**
15 **revenue increase or any of the proposed rates?**

16 **A.** No. There are no changes proposed to any of those items.

17 The effect of the changes is to increase the revenue requirement needed to produce the rate
18 of return of 7.76% supported by Company witness Mr. D'Ascendis, from \$1,134,250 in the
19 original filing, to \$1,225,678. Exhibit__(HSG-1), Schedule C1 (CU).

20 Citizens' request for an increase of just under \$1,000,000 (proposed rates would produce
21 an increase of \$999,270), an increase of 19.5%, has not changed; this increase produces a
22 return of 6.65% in the FPFTY. Exhibit__(HSG-1), Schedule C1 (CU).

Citizens' Statement No. 1 (CU)

1 The results of the ACOS are also similar to the original filing, with RS, SH and MBL
2 classes still producing below average returns, and GLP-1, GLP-3 and OL producing above
3 average returns. Accordingly, the same increases and the same revenue is proposed herein
4 for each class as in the original filing, and the same rates are also proposed herein. For
5 most classes, this produces slightly better progress toward unity than the original filing
6 (compare Exhibit__(HSG-1), Schedule B 6-4 (CU), lines 33-34) and slightly better
7 Reductions in Subsidy (compare Exhibit__(HSG-1), Schedule B 6-4 (CU), lines 44-45).

8 **Q. Do the proposed rates produce the required revenue?**

9 A. Yes. Schedule B6-3 (CU), line 29 shows the proposed rates produce FPPTY total
10 distribution revenue of \$6,129,090 (excluding Other revenue), equal to Schedule C1 (CU),
11 line 6. This is an increase of just under \$1,000,000, and produces a return of 6.65%,

12 **Q. Are you submitting any exhibits with your testimony today?**

13 A. Yes. I am submitting an updated Exhibit__(HSG-1) (CU), which includes updated
14 versions of the schedules and workpapers that were originally provided with my Direct
15 Testimony.

16 **Q. Does this conclude your Corrections and Updates Testimony?**

17 A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**CORRECTIONS AND UPDATES
EXHIBITS

OF

HOWARD S. GORMAN**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

JULY 11, 2022

A (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
INDEX TO SCHEDULES**

Line	DESCRIPTION	PERIOD
1	A (CU) Index To Schedules	
2		
3	RATES AND REVENUE	
4	B (CU) Operating Revenues at Present Rates	12/31/2021, 12/31/2022 and 12/31/2023
5	B1 (CU) Summary Of Electric Sales, Customers And Revenue At Present Rates	Historic Year 2021
6	B1-1 (CU) Billing Units, Rates And Revenue At Present Rates	Historic Year 2021
7	B2 (CU) Summary Of Electric Sales, Customers And Revenue At Present Rates	Future Test Year 2022
8	B2-1 (CU) Billing Units, Rates And Revenue At Present Rates	Future Test Year 2022
9	B3 (CU) Summary Of Electric Sales, Customers And Revenue At Present Rates	Fully Projected Future Test Year 2023
10	B3-1 (CU) Billing Units, Rates And Revenue At Present Rates	Fully Projected Future Test Year 2023
11	B4 (CU) Distribution Revenue at Present Rates- Bill Analysis and Financial Statements	Historic Year 2021
12	B5 (CU) Number of Customers Served Whose Bills Will be Increased	12/31/2021, 12/31/2022 and 12/31/2023
13		
14	B6 (CU) Operating Revenue Under Present Rates and Proposed Rates	12/31/2021, 12/31/2022 and 12/31/2023
15	B6-1 (CU) Summary Of Proposed Increase to Distribution Revenue	Fully Projected Future Test Year 2023
16	B6-2 (CU) Summary Of Electric Sales, Customers And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
17	B6-3 (CU) Billing Units, Rates And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
18	B6-4 (CU) Proposed Revenue Allocation	FPPTY 2023
19		
20	TARIFF RATES	
21	B7 (CU) Summary Of Present And Proposed Rates	Fully Projected Future Test Year 2023
22	B8 (CU) Bill Comparisons (including GSSR present rate)	Fully Projected Future Test Year 2023
23	B8-1 (CU) Bill Comparisons (excluding GSSR)	Fully Projected Future Test Year 2023
24	B8-2 (CU) Bill Comparisons (including GSSR effective June 1, 2022)	Fully Projected Future Test Year 2023
25		

A (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

INDEX TO SCHEDULES

Line	DESCRIPTION	PERIOD
26	NET OPERATING INCOME AND RATES OF RETURN	
27	C1 (CU) Net Operating Income And Rates of Return	HY 2021, FTY 2022 and FPFTY 2023
28	C1-1 (CU) Net Operating Income And Rates of Return- Support Sheet No. 1- Operating Expense and Going-Level Adjustments	HY 2021, FTY 2022 and FPFTY 2023
29	C1-2 (CU) Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure	12/31/2022 and 12/31/2023
30	C1-3 (CU) Net Operating Income And Rates of Return- Support Sheet No. 3- Taxes Other Than Income	HY 2021, FTY 2022 and FPFTY 2023
31	C1-4 (CU) Net Operating Income And Rates of Return- Support Sheet No. 4- Income Tax Calculations	HY 2021, FTY 2022 and FPFTY 2023
32	C1-5 (CU) Net Operating Income And Rates of Return- Support Sheet No. 5- Pension and OPEB	HY 2021, FTY 2022 and FPFTY 2023
33	C1-6 (CU) Net Operating Income And Rates of Return- Support Sheet No. 6- Computation of Rate Base	HY 2021, FTY 2022 and FPFTY 2023
34	C1-7 (CU) Extraordinary Coronavirus Pandemic Costs	
35		
36	C2 (CU) Balance Sheets	12/31/2021, 12/31/2022 and 12/31/2023
37	C3 (CU) Original Cost of Utility Plant in Service	12/31/2021, 12/31/2022 and 12/31/2023
38	C4 (CU) Reserve for Depreciation of Utility Plant	12/31/2021, 12/31/2022 and 12/31/2023
39		
40	C5 (CU) Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates	HY 2021, FTY 2022 and FPFTY 2023
41	C5-1 (CU) Comparison to Prior Rate Case	Prior Rate Case and FPFTY 2023
42		
43	DEVELOPMENT OF ALLOCATORS FOR CLASS COST OF SERVICE	
44	D (CU) Summary of Allocator Values	
45	D1 (CU) Distribution System Functionalization and Classification	
46	D2 (CU) NCP- Sum of Customers' Usage	
47	D3 (CU) Transformers Classification	
48	D4 (CU) Service Costs	
49	D5 (CU) Meter Costs	
50	D6 (CU) Customer Deposits and Advances; Uncollectible Accounts	
51		
52	CLASS COST OF SERVICE	
53	E (CU) Class Cost of Service Study	See separate index
54		
55	WORKPAPERS	
56	WP Workpapers	See separate index

B (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Operating Revenues at Present Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[2]

				Present Rates	Present Rates	
		HY 2021 Revenue Per Bill Analysis	HY 2021 GSSR and other eliminations	HY 2021 Distribution Only	FTY 2022 Distribution Only	FPFTY 2023 Distribution Only
<u>Customer Type</u>		<u>B1 (CU)</u>	<u>B1 (CU)</u>	<u>B2-1 (CU)</u>	<u>B3-1 (CU)</u>	
1						
2	Residential	\$3,142,482		\$3,142,482	\$3,131,540	\$3,138,434
3	Commercial and Industrial	1,948,167		1,948,167	1,887,403	1,885,726
4	Lighting	105,660		105,660	105,660	105,660
5		5,196,309	0	5,196,309	5,124,603	5,129,820
6						
7	Forfeited Discounts	23,994		23,994	23,994	23,994
8	Rent from Electric Property	38,680		38,680	59,227	59,227
9	Other electric revenue	4,140		4,140	4,140	4,140
10	GSSR billed	8,277,817	(8,277,817)	0		
11	GSSR over/ under	219,998	(219,998)	0		
12	Unbilled revenue	(86,706)	86,706	0		
13	TCJA billed	85,787	(85,787)	0		
14	STAS billed	(596)	596	0		
15	Rounding	(285)	285	0		
16	Total Operating Revenues	\$13,759,137	(\$8,496,014)	\$5,263,123	\$5,211,964	\$5,217,181
17						
18	<u>kWh Delivered</u>					
19	Residential	87,771,999			87,259,977	87,452,069
20	Commercial and Industrial	78,419,521			70,731,429	70,401,072
21	Lighting	363,864			363,864	363,864
22		<u>166,555,384</u>			<u>158,355,270</u>	<u>158,217,004</u>

B1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Historic Year 2021**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,771,999	5,892	\$919,217	\$2,223,265	\$0	\$3,142,482
3		87,771,999	5,892	919,217	2,223,265	0	3,142,482
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	27,656,853	1,111	199,920	245,869	547,655	993,445
7	GLP 3	50,226,631	40	24,429	85,390	823,531	933,351
8	SH	536,037	11	2,358	19,013	0	21,372
9		78,419,521	1,161	226,707	350,273	1,371,187	1,948,167
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	166,555,384	7,093	\$1,251,584	\$2,573,538	\$1,371,187	\$5,196,309

B1-1 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Billing Units, Rates And Revenue At Present Rates
Historic Year 2021

Table with columns: Residential, Space Heating, GLP-1, GLP-3, Municipal Boulevard, Outdoor Lighting, Total. Rows include Billing Units, Rates and Charges, Tariff Rates, and Computation of Revenue.

B2 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Future Test Year 2022**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	Distribution Total
1	<u>Residential Customers</u>						
2	RS	87,259,977	5,905	\$921,245	\$2,210,295	\$0	\$3,131,540
3		87,259,977	5,905	921,245	2,210,295	0	3,131,540
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,797,192	1,118	201,180	238,227	547,655	987,062
7	GLP 3	43,276,801	40	24,429	78,811	771,423	874,663
8	SH	657,436	11	2,358	23,319	0	25,678
9		70,731,429	1,168	227,967	340,357	1,319,078	1,887,403
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	158,355,270	7,113	\$1,254,872	\$2,550,653	\$1,319,078	\$5,124,603

B2-1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Billing Units, Rates And Revenue At Present Rates
Future Test Year 2022**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
	BILLING UNITS						
1 kWh Sales	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
2							
3							
4 Number of Bills	70,865	127	13,412	479	144	324	85,351
5 Average Monthly Bills	5,905	11	1,118	40	12	27	7,113
6							
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021						
8 Rate 1				MBL- Meter	12		
9 Rate 2				MBL- Post	535		
10 Rate 3				Monthly revenue	1,710	7,095	
11 Rate 4							
12	RATES AND CHARGES						
13	Tariff Rates						
14 Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84	Average	
15					\$3.11	\$15.00	
16 Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697		Count	
17 Energy Block 2				\$0.000947		473	
18 Reservation Chge				\$2.30			
19 Voltage Discount				(\$0.214725)			
20 Block 1 kWh = Demand X				30			
21 Demand Block 1			\$3.45	\$4.92			
22							
23							
24	COMPUTATION OF REVENUE						
25 Customer Charge Revenue	921,245	2,358	201,180	24,429	20,519	85,141	1,254,872
26							
27 Distribution kWh Revenue	2,210,295	23,319	238,227	78,811			2,550,653
28 Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29 Total Distribution Revenue	2,210,295	23,319	785,882	850,234	0	0	3,869,730
30 Total Distribution Revenue	\$3,131,540	\$25,678	\$987,062	\$874,663	\$20,519	\$85,141	\$5,124,603
31 HTY 2021 Actual	3,142,482	21,372	993,445	933,351	20,519	85,141	5,196,309

B3 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$923,273	\$2,215,161	\$0	\$3,138,434
3		87,452,069	5,918	923,273	2,215,161	0	3,138,434
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	202,440	235,290	547,655	985,385
7	GLP 3	43,276,801	40	24,429	78,811	771,423	874,663
8	SH	657,436	11	2,358	23,319	0	25,678
9		70,401,072	1,175	229,227	337,420	1,319,078	1,885,726
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	158,217,004	7,133	\$1,258,160	\$2,552,581	\$1,319,078	\$5,129,820

B3-1 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
1	BILLING UNITS							
2	kWh Sales	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
3								
4	Number of Bills	71,021	127	13,496	479	144	324	85,591
5	Average Monthly Bills	5,918	11	1,125	40	12	27	7,133
6								
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021							
8	Rate 1				MBL- Meter	12		
9	Rate 2				MBL- Post	535		
10	Rate 3				Monthly revenue	1,710	7,095	
11	Rate 4							
12	RATES AND CHARGES							
13	Tariff Rates							
14	Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84		
15						\$3.11	Average	
16	Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697		\$15.00	
17	Energy Block 2				\$0.000947		Count	
18	Reservation Chge				\$2.30		473	
19	Voltage Discount				(\$0.214725)			
20	Block 1 kWh = Demand X				30			
21	Demand Block 1			\$3.45	\$4.92			
22								
23								
24	COMPUTATION OF REVENUE							
25	Customer Charge Revenue	923,273	2,358	202,440	24,429	20,519	85,141	1,258,160
26								
27	Distribution kWh Revenue	2,215,161	23,319	235,290	78,811			2,552,581
28	Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29	<i>Total Distribution Revenue</i>	2,215,161	23,319	782,945	850,234	0	0	3,871,659
30	Total Distribution Revenue	\$3,138,434	\$25,678	\$985,385	\$874,663	\$20,519	\$85,141	\$5,129,820
31	<i>FTY 2022</i>	<i>3,131,540</i>	<i>25,678</i>	<i>987,062</i>	<i>874,663</i>	<i>20,519</i>	<i>85,141</i>	<i>5,124,603</i>

B3-1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
32	BILLING UNITS- DETAIL							
33	kWh Sales 2022	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
34	Block 1 kWh added (lost)	192,091		178,642				370,734
35	Block 2 kWh added (lost)			(509,000)				(509,000)
36		87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
37								
38	Block 1 kWh 2021				4,882,485			
39	Block 1 kWh added (lost)				0			
40	Block 1 kWh 2020				4,882,485			
41	Block 2 kWh 2020				38,394,316			
42								
43	Demand kW		158,741		142,794			301,535
44	Reservation kW- monthly				5,000			5,000
45	Reservation (CR-kW)- annual				(24,840)			
46	Voltage Discount- kW				55,856			55,856
47	Block 1 kWh				3,500			3,500

B4 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Distribution Revenue at Present Rates- Bill Analysis and Financial Statements
Historic Year 2021**

B1

**Per Financials
12/31/2021**

	Customer Type	Bill Analysis Revenue	GSSR	TCJA and STAS in Revenue	Unbilled and GSSR Over/ Under)	Revenue per Financial Statements	Revenue
1	Residential	\$3,142,482	\$5,935,389	\$53,582	\$42,393	\$9,173,846	\$9,173,846
2	Commercial and Industrial	1,948,167	2,318,658	31,614	89,010	4,387,448	4,387,448
3	Lighting	105,660	23,770	(5)	1,395	130,820	130,820
4							
5	Forfeited Discounts					23,994	23,994
6	Rent from Electric Property					38,680	38,680
7	Other electric revenue					4,140	4,140
8	Rounding					209	209
9		<u>5,196,309</u>	<u>8,277,817</u>	<u>85,191</u>	<u>132,798</u>	<u>13,759,137</u>	<u>13,759,137</u>
10							

B5 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Number of Customers Served Whose Bills Will be Increased
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[3]**

	<u>Customer Type</u>	<u>Average Number of Customers During the Year Ended</u>		
		<u>12/31/2021</u>	<u>12/31/2022</u>	<u>12/31/2023</u>
1				
2	Residential	5,892	5,905	5,918
3	Commercial and Industrial (GLP-1, SH)	1,121	1,128	1,135
4	Commercial and Industrial (GLP-3)	40	40	40
5	Lighting	39	39	39
6	Total Customers Served	7,093	7,113	7,133
7				

B6 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Operating Revenue Under Present Rates and Proposed Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[4]**

Total	Distribution Only
--------------	--------------------------

Line	Description	HY 2021 Total Revenue	HY 2021	FTY 2022 PRESENT Rates	FPFTY 2023 PRESENT Rates	FPFTY 2023 PROPOSED Rates
1	Operating Revenues	<u>B (CU)</u>	<u>B (CU)</u>	<u>B (CU)</u>	<u>B (CU)</u>	<u>B6-1 (CU)</u>
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434	\$3,902,075
3	Commercial and Industrial	1,948,167	1,948,167	1,887,403	1,885,726	2,103,783
4	Lighting	105,660	105,660	105,660	105,660	123,231
5	Subtotal	<u>5,196,309</u>	<u>5,196,309</u>	<u>5,124,603</u>	<u>5,129,820</u>	<u>6,129,090</u>
6						
7	Forfeited Discounts	23,994	23,994	23,994	23,994	23,994
8	Rent from Electric Property	38,680	38,680	59,227	59,227	59,227
9	Other electric revenue	4,140	4,140	4,140	4,140	4,140
10	GSSR billed	8,277,817				
11	GSSR over/ under	219,998				
12	Unbilled revenue	(86,706)				
13	TCJA/ STAS	85,191				
14	Rounding	(285)				
15	Total Operating Revenues	<u>\$13,759,137</u>	<u>\$5,263,123</u>	<u>\$5,211,964</u>	<u>\$5,217,181</u>	<u>\$6,216,451</u>
16						
17	kWh					
18	Residential	87,771,999		87,259,977	87,452,069	
19	Commercial and Industrial	78,419,521		70,731,429	70,401,072	
20	Lighting	363,864		363,864	363,864	
21		<u>166,555,384</u>		<u>158,355,270</u>	<u>158,217,004</u>	

B6-1 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Summary Of Proposed Increase to Distribution Revenue
Fully Projected Future Test Year 2023

Line	Description	Sales (kWh)	Average Customers	Distribution Total- Present Rates	Distribution - Proposed Increase	Distribution Total- Proposed Rates	% Increase Proposed
1	<u>Residential Customers</u>	<u>B3</u>	<u>B3</u>	<u>B3</u>		<u>B6-3</u>	
2	RS	87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
3		87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	985,385	112,720	1,098,105	11.4%
7	GLP 3	43,276,801	40	874,663	99,340	974,003	11.4%
8	SH	657,436	11	25,678	5,998	31,675	23.4%
9		70,401,072	1,175	1,885,726	218,058	2,103,783	11.6%
10							
11	MBL	102,962	12	20,519	5,971	26,490	29.1%
12	OL	260,902	27	85,141	11,601	96,742	13.6%
13	Lighting	363,864	39	105,660	17,572	123,231	16.6%
14							
15	TOTAL	158,217,004	7,133	\$5,129,820	\$999,270	\$6,129,090	19.48%

B6-2 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Summary Of Electric Sales, Customers And Revenue At Proposed Rates
Fully Projected Future Test Year 2023

Line	Description	Sales (kWh)	Average Customers	Revenue - Proposed Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$994,294	\$2,907,781	\$0	\$3,902,075
3		87,452,069	5,918	994,294	2,907,781	0	3,902,075
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	215,936	264,668	617,501	1,098,105
7	GLP 3	43,276,801	40	26,345	87,082	860,576	974,003
8	SH	657,436	11	2,794	28,881	0	31,675
9		70,401,072	1,175	245,075	380,631	1,478,077	2,103,783
10							
11	MBL	102,962	12	26,490	0	0	26,490
12	OL	260,902	27	96,742	0	0	96,742
13	Lighting	363,864	39	123,231	0	0	123,231
14							
15	TOTAL	158,217,004	7,133	\$1,362,600	\$3,288,412	\$1,478,077	\$6,129,090

B6-3 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Billing Units, Rates And Revenue At Proposed Rates
Fully Projected Future Test Year 2023

Table with columns: Residential, Space Heating, GLP-1, GLP-3, Municipal Boulevard Lighting, Outdoor Lighting, Total. Rows include: BILLING UNITS, kWh Sales, Number of Bills, Average Monthly Bills, Annual Billing Units- Public Lighting and Street Lighting HY 2021, PROPOSED RATES AND CHARGES, Tariff Rates, COMPUTATION OF REVENUE, and BILLING UNITS- DETAIL.

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Proposed Revenue Allocation
FPFTY 2023**

Line	Account	Balance	Residential	Space Heating	GLP-1	GLP-3	MBL	OL	
PRESENT RATES									
1	Distribution Revenue	5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141	
2	Forfeited Disc / Other Rev	87,361	54,938	514	14,512	16,626	168	602	
3	Total Revenue	5,217,181	3,193,372	26,192	999,898	891,289	20,687	85,742	
4	Expenses	4,979,556	3,270,684	26,666	824,616	750,938	37,922	68,731	
5	Net income	237,625	(77,312)	(474)	175,282	140,351	(17,234)	17,011	
6	Rate Base	13,630,593	8,845,231	73,034	2,067,914	1,893,104	294,124	457,186	
7	Return on Rate Base	1.74%	(0.87%)	(0.65%)	8.48%	7.41%	(5.86%)	3.72%	
8	Relative Return	1.00 x	(0.50) x	(0.37) x	4.86 x	4.25 x	(3.36) x	2.13 x	
FULLY ALLOCATED COST OF SERVICE									
10	Distribution Revenue	6,129,105	4,079,993	33,277	961,817	878,846	67,403	107,769	
11	Forfeited Disc / Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
12	Revenue Requirement	6,216,466	4,134,931	33,791	976,329	895,473	67,571	108,371	
13									
14	Operating expenses	4,608,526	3,085,517	25,151	730,451	670,485	36,711	60,211	
15	GRT	361,659	240,672	1,963	56,803	51,896	3,967	6,358	
16	Income taxes	340,037	220,659	1,822	51,587	47,227	7,337	11,405	
17	Net income	906,244	588,084	4,856	137,487	125,865	19,555	30,396	
18	Return on Rate Base	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%	
19	Revenue Increase Required	999,285	941,559	7,599	(23,568)	4,184	46,883	22,628	
20	Revenue Increase %	19.48%	30.00%	29.59%	(2.39%)	0.48%	228.49%	26.58%	
21									
22	PROPOSED REVENUE ALLOCATION								
23	Distribution Revenue	6,129,667	3,902,414	31,678	1,097,836	974,478	26,513	96,747	
24	Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
25	Revenue Requirement	6,217,028	3,957,352	32,193	1,112,349	991,105	26,681	97,349	
26									
27	Operating expenses	4,608,526	3,085,517	25,151	730,451	670,485	36,711	60,211	
28	GRT	361,650	230,242	1,869	64,772	57,494	1,564	5,708	
29	Income taxes	340,193	175,053	1,411	86,525	71,791	(3,163)	8,575	
30	Net income	906,659	466,540	3,762	230,600	191,334	(8,431)	22,854	
31	Return on Rate Base	6.65%	5.27%	5.15%	11.15%	10.11%	(2.87%)	5.00%	
32	Relative Return	1.00 x	0.79 x	0.77 x	1.68 x	1.52 x	(0.43) x	0.75 x	
33	Progress toward unity	86%	84%	84%	84%	84%	67%	122%	
34	<i>Progress toward unity- Original</i>		81%	79%	76%	78%	59%	156%	
35	Proposed Distribution Increase	999,847	763,980	6,001	112,451	99,815	5,994	11,606	
36	Revenue Increase %	19.5%	24.3%	23.4%	11.4%	11.4%	29.2%	13.6%	
37	Total Bill Revenue Increase (a)	5.9%	8.0%	8.1%	3.8%	2.4%	21.3%	11.1%	
38									
39	Relative Increase	1.00 x	1.25 x	1.20 x	0.59 x	0.59 x	1.50 x	0.70 x	
40									
41	Subsidy given (received)								
42	Present rates	0	(231,513)	(1,747)	139,232	107,349	(22,362)	9,041	
43	Proposed revenue allocation	(0)	(121,814)	(1,096)	93,050	65,411	(27,995)	(7,556)	
44	Reduction in subsidy		47%	37%	33%	39%	(25%)	184%	
45	<i>Reduction in subsidy- Original</i>		41%	35%	27%	32%	(25%)	271%	

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Summary Of Present And Proposed Rates
Fully Projected Future Test Year 2023**

Line	Description	Present Rates (excl GSSR)	GSSR	Present Rates (incl GSSR)	Proposed Rates (excl GSSR)	GSSR	Proposed Rates (incl GSSR)	Proposed Increase (excl GSSR)	Proposed Increase (incl GSSR)
1	Schedule RS- Residential Service								
2	Customer Charge per Bill	\$13.00		\$13.00	\$14.00		\$14.00	7.7%	
3									
4	Energy Charge, per kWh- All	\$0.02533	\$0.073990	\$0.09932	\$0.03325	\$0.073990	\$0.10724	31.3%	8.0%
5	Schedule SH- Space Heating								
6	Customer Charge per Bill	\$18.57		\$18.57	\$22.00		\$22.00	18.5%	
7	Energy Charge, per kWh- All	\$0.03547	\$0.07399	\$0.10946	\$0.04393	\$0.07399	\$0.11792	23.9%	7.7%
8	Schedule GLP-1								
9	Customer Charge per Bill	\$15.00		\$15.00	\$16.00		\$16.00	6.7%	
10									
11	Energy Charge, All kWh	\$0.008890	\$0.073990	\$0.08288	\$0.010000	\$0.073990	\$0.08399	12.5%	1.3%
12									
13	Demand Charge, per kW-Mth	\$3.45		\$3.45	\$3.89		\$3.89	12.8%	12.8%
14	Schedule GLP-3								
15	Customer Charge per Bill	\$51.00		\$51.00	\$55.00		\$55.00	7.8%	
16									
17	<u>Energy Charge, per kWh</u>								
18	First 30 kWh X Billed Demand kW	\$0.008697	\$0.073990	\$0.0827	\$0.009500	\$0.073990	\$0.08349	9.2%	1.0%
19	Additional kWh	\$0.000947	\$0.073990	\$0.0749	\$0.001060	\$0.073990	\$0.07505	12.0%	0.2%
20	Reservation Charge per kW-Mth	\$2.30		\$2.30	\$2.56		\$2.56	11.3%	11.3%
21	Voltage Discount per kWh	(\$0.214725)		(\$0.214725)	(\$0.239450)		(\$0.239450)	11.5%	11.5%
22	Demand Charge, per kW-Mth	\$4.92		\$4.92	\$5.49		\$5.49	11.6%	11.6%
23	Schedule MBL								
24	MBL- Meter	\$3.84			\$3.84				
25	MBL- Post	\$3.11			\$4.04				
26	Schedule OL								
27	OL 175W MV OH Open	\$17.31	37		\$19.67				
28	OL 175W MV UG	\$17.31	20		\$19.67				
29	OL 100W HPS OH	\$17.31	31		\$19.67				
30	OL 100W HPS UG	\$17.31	30		\$19.67				
31	OL 100W HPS Colonial	\$17.31	0		\$19.67				
32	OL 400W HPS OH	\$17.31	6		\$19.67				
33	LED 15K Lum OH Cobra	\$12.85	12		\$14.60				
34	LED 5K Lum OH Cobra	\$10.22	127		\$11.61				
35	LED 5K Lum UG Colonial	\$21.04	56		\$23.91				
36	LED 5K Lum UG Cobra	\$14.90	140		\$16.93				
37	LED 20K Lum OH Cobra	\$16.22	10		\$18.43				
38	LED 20K Lum UG Cobra	\$20.88	0		\$23.73				
39	LED 15K Lum UG Cobra	\$17.51	4		\$19.90				
40	Average	\$15.00	473		\$17.04				
	Monthly \$	\$85,141			\$96,742				

B8 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
28							
29							
30							
31	7 kW	0	39.15	43.23		4.08	10.4%
32	Load factor 10%	511	81.50	86.15	0.16859	4.65	5.7%
33	Load factor 20%	1,022	123.85	129.07	0.12629	5.21	4.2%
34	Load factor 35%	1,789	187.38	193.45	0.10816	6.07	3.2%
35	Load factor 50%	2,555	250.91	257.82	0.10091	6.92	2.8%
36	Load factor 60%	3,066	293.26	300.74	0.09809	7.48	2.6%
37	Load factor 75%	3,833	356.79	365.12	0.09527	8.33	2.3%
38							
39	10 kW Demand	0	49.50	54.90		5.40	10.9%
40	Load factor 10%	730	110.00	116.21	0.15920	6.21	5.7%
41	Load factor 20%	1,460	170.50	177.53	0.12159	7.02	4.1%
42	Load factor 35%	2,555	261.26	269.49	0.10548	8.24	3.2%
43	Load factor 50%	3,650	352.01	361.46	0.09903	9.45	2.7%
44	Load factor 60%	4,380	412.51	422.78	0.09652	10.26	2.5%
45	Load factor 75%	5,475	503.27	514.75	0.09402	11.48	2.3%
46							
47	25 kW Demand	0	101.25	113.25		12.00	11.9%
48	Load factor 10%	1,825	252.51	266.53	0.14604	14.03	5.6%
49	Load factor 20%	3,650	403.76	419.81	0.11502	16.05	4.0%
50	Load factor 35%	6,388	630.65	649.74	0.10172	19.09	3.0%
51	Load factor 50%	9,125	857.53	879.66	0.09640	22.13	2.6%
52	Load factor 60%	10,950	1,008.79	1,032.94	0.09433	24.15	2.4%
53	Load factor 75%	13,688	1,235.67	1,262.86	0.09226	27.19	2.2%
54							
55	40 kW Demand	0	153.00	171.60		\$18.60	12.2%
56	Load factor 10%	2,920	395.01	416.85	0.14276	21.84	5.5%
57	Load factor 20%	5,840	637.02	662.10	0.11337	25.08	3.9%
58	Load factor 35%	10,220	1,000.03	1,029.98	0.10078	29.94	3.0%
59	Load factor 50%	14,600	1,363.05	1,397.85	0.09574	34.81	2.6%
60	Load factor 60%	17,520	1,605.06	1,643.10	0.09378	38.05	2.4%
61	Load factor 75%	21,900	1,968.07	2,010.98	0.09183	42.91	2.2%

B8 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023**

		Schedule GLP-3						
		Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
62								
63								
64								
65	Sales (kWh)							
66	Monthly Minimum	\$789.00		\$878.50		89.50	11.3%	
67	150 kW Demand							
68	Load Factors Minimum	\$789.00		\$878.50		89.50	11.3%	
69	30%	32,850	3,285.55	0.10002	3,381.87	0.10295	96.33	2.9%
70	40%	43,800	4,106.10	0.09375	4,203.67	0.09597	97.57	2.4%
71	50%	54,750	4,926.66	0.08998	5,025.47	0.09179	98.81	2.0%
72	60%	65,700	5,747.22	0.08748	5,847.27	0.08900	100.05	1.7%
73	75%	82,125	6,978.05	0.08497	7,079.96	0.08621	101.91	1.5%
74								
75	400 kW Demand							
76	Load Factors Minimum	\$2,019.00		\$2,251.00		232.00	11.5%	
77	30%	87,600	8,676.46	0.09905	8,926.66	0.10190	250.20	2.9%
78	40%	116,800	10,864.61	0.09302	11,118.12	0.09519	253.51	2.3%
79	50%	146,000	13,052.76	0.08940	13,309.58	0.09116	256.82	2.0%
80	60%	175,200	15,240.91	0.08699	15,501.04	0.08848	260.13	1.7%
81	75%	219,000	18,523.14	0.08458	18,788.23	0.08579	265.09	1.4%
82								
83	750 kW Demand							
84	Load Factors Minimum	\$3,741.00		\$4,172.50		431.50	11.5%	
85	30%	164,250	16,223.74	0.09877	16,689.36	0.10161	465.63	2.9%
86	40%	219,000	20,326.52	0.09282	20,798.35	0.09497	471.83	2.3%
87	50%	273,750	24,429.30	0.08924	24,907.34	0.09099	478.03	2.0%
88	60%	328,500	28,532.09	0.08686	29,016.33	0.08833	484.24	1.7%
89	75%	410,625	34,686.27	0.08447	35,179.81	0.08567	493.54	1.4%
90								
91	1500 kW Demand							
92	Load Factors Minimum	\$7,431.00		\$8,290.00		859.00	11.6%	
93	30%	328,500	32,396.47	0.09862	33,323.73	0.10144	927.25	2.9%
94	40%	438,000	40,602.04	0.09270	41,541.70	0.09484	939.66	2.3%
95	50%	547,500	48,807.61	0.08915	49,759.68	0.09089	952.07	2.0%
96	60%	657,000	57,013.18	0.08678	57,977.65	0.08825	964.47	1.7%
97	75%	821,250	69,321.53	0.08441	70,304.61	0.08561	983.08	1.4%

B8-1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023**

		Schedule GLP-1					
		Present Rates		Proposed Rates		Proposed Increase	
	Sales (kWh)	Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
28							
29							
30							
31	7 kW	0	39.15	43.23		4.08	10.4%
32	Load factor 10%	511	43.69	48.34	0.09460	4.65	10.6%
33	Load factor 20%	1,022	48.24	53.45	0.05230	5.21	10.8%
34	Load factor 35%	1,789	55.05	61.12	0.03417	6.07	11.0%
35	Load factor 50%	2,555	61.86	68.78	0.02692	6.92	11.2%
36	Load factor 60%	3,066	66.41	73.89	0.02410	7.48	11.3%
37	Load factor 75%	3,833	73.22	81.56	0.02128	8.33	11.4%
38							
39	10 kW Demand	0	49.50	54.90		5.40	10.9%
40	Load factor 10%	730	55.99	62.20	0.08521	6.21	11.1%
41	Load factor 20%	1,460	62.48	69.50	0.04760	7.02	11.2%
42	Load factor 35%	2,555	72.21	80.45	0.03149	8.24	11.4%
43	Load factor 50%	3,650	81.95	91.40	0.02504	9.45	11.5%
44	Load factor 60%	4,380	88.44	98.70	0.02253	10.26	11.6%
45	Load factor 75%	5,475	98.17	109.65	0.02003	11.48	11.7%
46							
47	25 kW Demand	0	101.25	113.25		12.00	11.9%
48	Load factor 10%	1,825	117.47	131.50	0.07205	14.03	11.9%
49	Load factor 20%	3,650	133.70	149.75	0.04103	16.05	12.0%
50	Load factor 35%	6,388	158.03	177.13	0.02773	19.09	12.1%
51	Load factor 50%	9,125	182.37	204.50	0.02241	22.13	12.1%
52	Load factor 60%	10,950	198.60	222.75	0.02034	24.15	12.2%
53	Load factor 75%	13,688	222.93	250.13	0.01827	27.19	12.2%
54							
55	40 kW Demand	0	153.00	171.60		\$18.60	12.2%
56	Load factor 10%	2,920	178.96	200.80	0.06877	21.84	12.2%
57	Load factor 20%	5,840	204.92	230.00	0.03938	25.08	12.2%
58	Load factor 35%	10,220	243.86	273.80	0.02679	29.94	12.3%
59	Load factor 50%	14,600	282.79	317.60	0.02175	34.81	12.3%
60	Load factor 60%	17,520	308.75	346.80	0.01979	38.05	12.3%
61	Load factor 75%	21,900	347.69	390.60	0.01784	42.91	12.3%

B8-1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023**

		Schedule GLP-3						
		Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
62								
63								
64								
65	Sales (kWh)							
66	Monthly Minimum	\$789.00		\$878.50		89.50	11.3%	
67	150 kW Demand							
68	Load Factors	Minimum	\$789.00	\$878.50		89.50	11.3%	
69	30%	32,850	854.98	0.02603	951.30	0.02896	96.33	11.3%
70	40%	43,800	865.34	0.01976	962.91	0.02198	97.57	11.3%
71	50%	54,750	875.71	0.01599	974.52	0.01780	98.81	11.3%
72	60%	65,700	886.07	0.01349	986.12	0.01501	100.05	11.3%
73	75%	82,125	901.62	0.01098	1,003.53	0.01222	101.91	11.3%
74								
75	400 kW Demand							
76	Load Factors	Minimum	\$2,019.00	\$2,251.00		232.00	11.5%	
77	30%	87,600	2,194.93	0.02506	2,445.14	0.02791	250.20	11.4%
78	40%	116,800	2,222.58	0.01903	2,476.09	0.02120	253.51	11.4%
79	50%	146,000	2,250.22	0.01541	2,507.04	0.01717	256.82	11.4%
80	60%	175,200	2,277.87	0.01300	2,537.99	0.01449	260.13	11.4%
81	75%	219,000	2,319.33	0.01059	2,584.42	0.01180	265.09	11.4%
82								
83	750 kW Demand							
84	Load Factors	Minimum	\$3,741.00	\$4,172.50		431.50	11.5%	
85	30%	164,250	4,070.88	0.02478	4,536.51	0.02762	465.63	11.4%
86	40%	219,000	4,122.71	0.01883	4,594.54	0.02098	471.83	11.4%
87	50%	273,750	4,174.54	0.01525	4,652.58	0.01700	478.03	11.5%
88	60%	328,500	4,226.37	0.01287	4,710.61	0.01434	484.24	11.5%
89	75%	410,625	4,304.12	0.01048	4,797.66	0.01168	493.54	11.5%
90								
91	1500 kW Demand							
92	Load Factors	Minimum	\$7,431.00	\$8,290.00		859.00	11.6%	
93	30%	328,500	8,090.76	0.02463	9,018.01	0.02745	927.25	11.5%
94	40%	438,000	8,194.42	0.01871	9,134.08	0.02085	939.66	11.5%
95	50%	547,500	8,298.08	0.01516	9,250.15	0.01690	952.07	11.5%
96	60%	657,000	8,401.75	0.01279	9,366.22	0.01426	964.47	11.5%
97	75%	821,250	8,557.24	0.01042	9,540.33	0.01162	983.08	11.5%

B8-2 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
28								
29								
30								
31	7 kW	0	39.15	43.23		4.08	10.4%	
32	Load factor 10%	511	91.55	0.17916	96.20	0.18826	4.65	5.1%
33	Load factor 20%	1,022	143.96	0.14086	149.17	0.14596	5.21	3.6%
34	Load factor 35%	1,789	222.56	0.12444	228.63	0.12783	6.07	2.7%
35	Load factor 50%	2,555	301.17	0.11787	308.08	0.12058	6.92	2.3%
36	Load factor 60%	3,066	353.57	0.11532	361.05	0.11776	7.48	2.1%
37	Load factor 75%	3,833	432.17	0.11277	440.51	0.11494	8.33	1.9%
38								
39	10 kW Demand	0	49.50	54.90		5.40	10.9%	
40	Load factor 10%	730	124.36	0.17036	130.57	0.17887	6.21	5.0%
41	Load factor 20%	1,460	199.22	0.13645	206.24	0.14126	7.02	3.5%
42	Load factor 35%	2,555	311.52	0.12192	319.75	0.12515	8.24	2.6%
43	Load factor 50%	3,650	423.81	0.11611	433.26	0.11870	9.45	2.2%
44	Load factor 60%	4,380	498.67	0.11385	508.93	0.11619	10.26	2.1%
45	Load factor 75%	5,475	610.96	0.11159	622.44	0.11369	11.48	1.9%
46								
47	25 kW Demand	0	101.25	113.25		12.00	11.9%	
48	Load factor 10%	1,825	288.40	0.15803	302.43	0.16571	14.03	4.9%
49	Load factor 20%	3,650	475.56	0.13029	491.61	0.13469	16.05	3.4%
50	Load factor 35%	6,388	756.29	0.11840	775.38	0.12139	19.09	2.5%
51	Load factor 50%	9,125	1,037.02	0.11365	1,059.15	0.11607	22.13	2.1%
52	Load factor 60%	10,950	1,224.17	0.11180	1,248.33	0.11400	24.15	2.0%
53	Load factor 75%	13,688	1,504.90	0.10995	1,532.10	0.11193	27.19	1.8%
54								
55	40 kW Demand	0	153.00	171.60		\$18.60	12.2%	
56	Load factor 10%	2,920	452.45	0.15495	474.29	0.16243	21.84	4.8%
57	Load factor 20%	5,840	751.89	0.12875	776.97	0.13304	25.08	3.3%
58	Load factor 35%	10,220	1,201.06	0.11752	1,231.01	0.12045	29.94	2.5%
59	Load factor 50%	14,600	1,650.23	0.11303	1,685.04	0.11541	34.81	2.1%
60	Load factor 60%	17,520	1,949.68	0.11128	1,987.72	0.11345	38.05	2.0%
61	Load factor 75%	21,900	2,398.85	0.10954	2,441.75	0.11150	42.91	1.8%

B8-2 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023**

		Schedule GLP-3						
		Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
62								
63								
64								
65	Sales (kWh)							
66	Monthly Minimum	\$789.00		\$878.50		89.50	11.3%	
67	150 kW Demand							
68	Load Factors	Minimum	\$789.00	\$878.50		89.50	11.3%	
69	30%	32,850	3,931.71	0.11969	4,028.03	0.12262	96.33	2.5%
70	40%	43,800	4,967.65	0.11342	5,065.22	0.11564	97.57	2.0%
71	50%	54,750	6,003.59	0.10965	6,102.40	0.11146	98.81	1.7%
72	60%	65,700	7,039.54	0.10715	7,139.58	0.10867	100.05	1.4%
73	75%	82,125	8,593.45	0.10464	8,695.36	0.10588	101.91	1.2%
74								
75	400 kW Demand							
76	Load Factors	Minimum	\$2,019.00		\$2,251.00		232.00	11.5%
77	30%	87,600	10,399.55	0.11872	10,649.75	0.12157	250.20	2.4%
78	40%	116,800	13,162.07	0.11269	13,415.58	0.11486	253.51	1.9%
79	50%	146,000	15,924.58	0.10907	16,181.40	0.11083	256.82	1.6%
80	60%	175,200	18,687.10	0.10666	18,947.22	0.10815	260.13	1.4%
81	75%	219,000	22,830.87	0.10425	23,095.96	0.10546	265.09	1.2%
82								
83	750 kW Demand							
84	Load Factors	Minimum	\$3,741.00		\$4,172.50		431.50	11.5%
85	30%	164,250	19,454.53	0.11844	19,920.16	0.12128	465.63	2.4%
86	40%	219,000	24,634.25	0.11249	25,106.08	0.11464	471.83	1.9%
87	50%	273,750	29,813.97	0.10891	30,292.00	0.11066	478.03	1.6%
88	60%	328,500	34,993.68	0.10653	35,477.92	0.10800	484.24	1.4%
89	75%	410,625	42,763.26	0.10414	43,256.80	0.10534	493.54	1.2%
90								
91	1500 kW Demand							
92	Load Factors	Minimum	\$7,431.00		\$8,290.00		859.00	11.6%
93	30%	328,500	38,858.07	0.11829	39,785.32	0.12111	927.25	2.4%
94	40%	438,000	49,217.50	0.11237	50,157.16	0.11451	939.66	1.9%
95	50%	547,500	59,576.93	0.10882	60,529.00	0.11056	952.07	1.6%
96	60%	657,000	69,936.37	0.10645	70,900.84	0.10792	964.47	1.4%
97	75%	821,250	85,475.52	0.10408	86,458.60	0.10528	983.08	1.2%

C1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]**

Line	Description	Present Rates HY		Present Rates	Present Rates	Full Revenue	Proposed Rates	ORIGINAL
		12/31/2021	12/31/2021	FTY 12/31/2022	FPFTY 12/31/2023	Requirement FPFTY 12/31/2023	FPFTY 12/31/2023	Proposed Rates FPFTY 12/31/2023
		Per Books	Distribution Only	Distribution Only	Distribution Only	Distribution Only	Distribution Only	Distribution Only
1	REVENUE							
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434		\$3,902,075	\$3,902,075
3	Comm and indus	1,948,167	1,948,167	1,887,403	1,885,726		2,103,783	2,103,783
4	Lighting	105,660	105,660	105,660	105,660		123,231	123,231
5	Rounding	0						
6	Electric operating revenue	5,196,309	5,196,309	5,124,603	5,129,820	6,355,498	6,129,090	6,129,090
7	Other revenue, net	66,814	66,814	87,361	87,361	87,361	87,361	87,361
8	GSSR	8,277,817						
9	Other, net	218,198						
10	Total Revenue	13,759,137	5,263,123	5,211,964	5,217,181	6,442,859	6,216,451	6,216,451
11	Annual kWh	166,555,384	166,555,384	158,355,270	158,217,004	158,217,004	158,217,004	158,217,004
12	EXPENSES							
13	Purchased electricity	7,890,338						
14	Distribution	1,254,145	1,254,145	1,324,325	1,364,311	1,364,311	1,364,311	1,252,545
15	Customer acct & coll	487,762	487,762	422,664	437,153	437,153	437,153	438,445
16	Admin & general	1,225,261	1,225,261	1,409,782	1,493,451	1,493,451	1,493,451	1,473,852
17	Total Operating expense	10,857,506	2,967,168	3,156,771	3,294,915	3,294,915	3,294,915	3,164,842
18								
19	Depreciation expense	1,098,301	1,098,301	1,081,435	1,234,398	1,234,398	1,234,398	1,244,116
20								
21	Taxes other than income	900,903	383,431	380,516	381,871	454,186	440,862	441,410
22								
23	Total Expenses	12,856,710	4,448,901	4,618,721	4,911,185	4,983,500	4,970,176	4,850,368
24								
25	Net operating income before income taxes	902,427	814,222	593,243	305,996	1,459,359	1,246,275	1,366,083
26								
27	Income tax expense	261,164	235,680	133,164	68,371	401,602	340,037	375,694
28	NET UTILITY OPERATING	\$641,262	\$578,542	\$460,078	\$237,625	\$1,057,757	\$906,238	\$990,389
29								
30	RATE BASE (B)	\$12,883,439	\$12,883,439	\$13,287,312	\$13,630,593	\$13,630,593	\$13,630,593	\$13,926,648
31	RATE OF RETURN ON RAI	4.98%	4.49%	3.46%	1.74%	7.76%	6.65%	7.11%

1-1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1] - Support Sheet No. 1
Support Sheet No. 1- Operating Expense and Going-Level Adjustments**

Line	Acct.	Account Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021 to Year 2022	Year 2022	Year 2022 to Year 2023	Year 2023
21		<u>Customer Accounting & Collection Expenses:</u>										
22	902	Meter Reading Expense	15,904	16,278	24,086	3,495	474	13,633	(11,939)	1,694	182	1,876
23	903	Customer Records & Collection	420,058	420,738	426,023	456,244	445,656	442,188	(41,218)	400,970	13,707	414,677
24	904	Uncollectible Accounts	4,671	15,412	19,728	28,030	19,118	31,941	(11,941)	20,000	600	20,600
25		<i>Total Customer Accting & Coll</i>	440,633	452,428	469,837	487,769	465,248	487,762	(65,098)	422,664	14,489	437,153
26												
27		<u>Administrative & General Expenses:</u>										
28	920	Administrative & General Salaries	590,270	584,877	595,872	572,162	638,160	607,671	97,310	704,981	33,813	738,794
29	921	Office Supplies & Expenses	170,574	169,478	171,711	185,132	194,507	206,061	(5,514)	200,547	6,016	206,563
30	923	Outside Services Employed	53,612	52,217	91,750	57,287	107,143	5,525	69,475	75,000	2,250	77,250
31	924	Property Insurance	7,467	9,877	10,082	10,381	10,798	11,112	527	11,639	349	11,988
32	925	Injuires & Damages	31,296	29,759	26,510	25,409	26,136	26,647	7,163	33,810	1,014	34,824
33	926	Employee Pensions & Benefits	8,302	9,987	29,513	453	(5,422)	1,756	21,244	23,000	690	23,690
34	928	Regulatory Commission	0	46,389	61,907	61,907	108,685	108,668	11,332	120,000	22,745	142,745
35	930	Miscellaneous General	81,453	85,875	91,647	91,414	89,661	94,585	(2,270)	92,315	2,769	95,084
36	932	Maintenance of General Property	122,305	121,835	149,126	137,967	146,298	163,236	(14,747)	148,489	14,023	162,512
37		<i>Total Administrative & General</i>	1,065,279	1,110,294	1,228,117	1,142,112	1,315,966	1,225,261	184,521	1,409,782	83,670	1,493,451
38												
39		Total O&M Expense	\$2,621,253	\$2,743,199	\$2,858,158	\$2,688,126	\$2,921,792	\$2,967,168	\$189,603	\$3,156,771	\$138,145	\$3,294,915
40												
41			Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021 to Year	Year 2022	Year 2022 to Year	Year 2023
42		Labor	843,879	858,090	899,053	885,646	940,691	932,724	34,550	967,274	30,144	997,418
43		Overhead	987,766	1,008,331	1,024,793	967,783	999,472	1,133,563	(45,148)	1,088,415	22,580	1,110,994
44		Transportation	70,104	61,697	51,116	45,621	47,554	62,379	16,323	78,702	(13,014)	65,688
45		Materials	719,504	815,081	883,197	789,075	934,076	838,502	183,878	1,022,380	98,435	1,120,815
46			2,621,253	2,743,199	2,858,158	2,688,126	2,921,792	2,967,168	189,603	3,156,771	138,145	3,294,915

C1-2 (CU)

**Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure
 12/31/2022 and 12/31/2023**

Line	Type of Capital	Ratios (1)	12/31/23	
			Cost Rate	Weighted Cost
1	Long-Term Debt (B)	50.47%	4.090%	2.06%
2	Preferred Stock			
3	Common Equity (A)	49.53%	11.50%	5.70%
4	Total	100.00%		7.76%
5			Using	7.76017%
6				
7	(A) Recommended hypothetical capital structure ratios as discussed in direct testimony.			

C1-3 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 3- Taxes Other Than Income**

Line	Description	HY 2021		Present Rates	Present Rates	Full Revenue	Proposed Rates
		Per Books	Distribution Only	FTY 12/31/2022	FPFTY 12/31/2023	Requirement FPFTY 12/31/2023	FPFTY 12/31/2023
1	<u>Taxes other than income:</u>						
2	Pennsylvania Use Tax	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145
3	PUC Assessment	48,804	48,804	48,804	48,804	48,804	48,804
4	Public Utility Realty Tax (including surcharge)	23,900	23,900	25,215	26,263	26,263	26,263
5	Pennsylvania Gross Receipts Tax	824,054	306,582	302,352	302,659	374,974	361,650
6		<u>\$900,903</u>	<u>\$383,431</u>	<u>\$380,516</u>	<u>\$381,871</u>	<u>\$454,186</u>	<u>\$440,862</u>
7							
8	<u>Gross Receipts Tax</u>						
9	Distribution revenue	\$5,196,309	\$5,196,309	\$5,124,603	\$5,129,820	\$6,355,498	\$6,129,667
10	GSSR, including over/under	8,497,815					
11	Gross Receipts Taxable	<u>\$13,694,123</u>	<u>\$5,196,309</u>	<u>\$5,124,603</u>	<u>\$5,129,820</u>	<u>\$6,355,498</u>	<u>\$6,129,667</u>
12	Gross Receipts Tax at Present Rate	5.90%	\$807,953	\$306,582	\$302,352	\$302,659	\$374,974
13	Rounding difference		16,101				
14	Gross Receipts Tax expense		<u>\$824,054</u>	<u>\$306,582</u>	<u>\$302,352</u>	<u>\$302,659</u>	<u>\$374,974</u>
15							
16	Normalized Rate case expense						
17	Estimated expenses				\$384,500		
18	Amortization period (years)				3.0		
19	Normalized Rate case expense				128,167		
20	Recovery of COVID extraordinary costs			Schedule C1-7 (CU)	14,578		
21	Normalized Rate case expense				<u>142,745</u>	142,745	<u>\$142,745</u>

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 6- Computation of Rate Base

Line	Description	Ref.	12/31/2017	HY 2021 Distribution Only	FTY 2022	FPFTY 2023
1	Utility Plant in Service					
2	Assets	Sch. C3 (CU), line 28		\$ 27,031,762	\$ 28,550,801	\$ 30,044,161
3	Less: Accumulated Depreciation	Sch. C3 (CU), line 28		(13,401,719)	(14,170,682)	(15,066,561)
4				13,630,043	14,380,119	14,977,599
5	Construction work in progress	Sch. C2 (CU), line 4		914	914	914
6	Less: Accumulated deferred income taxes (ADIT)	Line 32		(414,300)	(790,988)	(1,061,004)
7	Less: Excess deferred income taxes (EDIT)	Line 39		(52,440)	(46,613)	(40,787)
8	Less: Customer deposits	Sch. C2 (CU), line 52		(228,657)	(228,657)	(228,657)
9	Accrued Pension / OPEB Liability	Line 46		(621,869)	(621,869)	(621,869)
10	Materials & Supplies	Sch. C2 (CU), line 23		202,480	202,480	202,480
11				12,516,171	12,895,385	13,228,677
12	Cash Working Capital Allowance	Line 25		367,268	391,927	401,916
13	RATE BASE			\$ 12,883,439	\$ 13,287,312	\$ 13,630,593
14						
15	Cash Working Capital Allowance:					
16	Operating Expenses	Sch. C1 (CU), line 23		\$ 4,448,901	\$ 4,618,721	\$ 4,911,185
17						
18	Deductions:					
19	Taxes Other Than Income	Sch. C1-3 (CU), line 6		380,516	381,871	440,862
20	Uncollectible accounts	Sch. C1-1 (CU), line 24		31,941	20,000	20,600
21	Depreciation Expense	Sch. C1 (CU), line 19		1,098,301	1,081,435	1,234,398
22	Total Deductions			1,510,758	1,483,306	1,695,860
23	Cash Operating Expenses			2,938,142	3,135,415	3,215,324
24	Cash Operating Expenses Ratio			1/8	1/8	1/8
25	Cash Working Capital Allowance (A plus B)			\$ 367,268	\$ 391,927	\$ 401,916
26						
27	<u>Regulatory Accumulated deferred income tax:</u>					
28	Accumulated depreciation based on tax expense borne by ratepayers			19,527,118	20,074,397	20,624,803
29	Accumulated depreciation based on taxes paid by company			21,499,973	23,841,008	25,677,201
30	(Excess) depreciation taken by company			(1,972,855)	(3,766,611)	(5,052,398)
31	Federal tax rate			21.00%	21.00%	21.00%
32	Regulatory Accumulated deferred income tax (liability)			(414,300)	(790,988)	(1,061,004)
33						
34	<u>Excess deferred income tax:(EDIT)</u>					
35	Accumulated depreciation based on tax expense borne by ratepayers		18,162,547			
36	Accumulated depreciation based on taxes paid by company		18,610,753			
37	(Excess) depreciation taken by company		(448,206)			
38	Change in Federal tax rate		13.00%			
39	Excess deferred income tax:(EDIT)		(58,267)	(52,440)	(46,613)	(40,787)
40	Annual Accretion	10		(5,827)	(5,827)	(5,827)
41						
42	<u>Accrued Pension and OPEB Liability / OPEB asset, net</u>					
43	Accrued postretirement cost			(873,669)	(873,669)	(873,669)
44	Regulatory asset- OPEB			0	0	0
45	Deferred tax asset related to OPEB			251,800	251,800	251,800
46				(621,869)	(621,869)	(621,869)
47						
48	OPEB Expense (for future rate cases)			2,213	14,820	14,820

C1-7 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

Extraordinary Coronavirus Pandemic Costs

<u>Line</u>	<u>Description</u>	<u>Amount</u>		
1	Carrying charge on Excess AR, 2021	7.231%	9,631	
2	Carrying charge on Excess AR, 2022	7.231%	10,327	
3	Extraordinary costs		16,494	
4	Carrying charge on costs		1,280	
5	Total Costs to 12/31/2022		<u>37,732</u>	
6	Carrying rate and Recovery period, years	7.760%	3.0	
7	Annual amount	To Schedule C1-3 (	14,578	
8				
9		2022	2020-21	2019
10	January	1,193,056	889,104	
11	February	1,439,942	1,031,241	
12	March		924,821	
13	April		1,040,156	
14	May		927,177	
15	June		824,591	
16	July		951,848	
17	August		992,371	
18	September		901,635	
19	October		744,136	
20	November		800,607	
21	December		1,052,163	
22	January		1,386,915	1,002,128
23	February		1,514,233	1,322,304
24	March		1,039,936	1,049,531
25	April		800,324	905,204
26	May		756,301	686,364
27	June		798,700	628,669
28	July		769,072	644,118
29	August		820,445	656,653
30	September		794,603	584,390
31	October		564,971	479,824
32	November		630,786	642,678
33	December		928,121	777,902
34	Next January		1,193,056	889,104
35				
36	Average		923,093	789,913
37	Excess AR		133,180	

C2 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
1	Assets and Other Debits			
2	<u>Utility Plant</u>			
3	Electric plant in service	\$27,031,762	\$28,550,801	\$30,044,161
4	Construction work in progress	914	914	914
5				
6	Accumulated depreciation	(13,401,719)	(14,170,682)	(15,066,561)
7	<i>Total utility plant</i>	13,630,957	14,381,033	14,978,513
8				
9	<u>Other Property and Investments:</u>			
10	Non-utility property, SV Life nsurance, other	265,674	265,674	265,674
11	Regulatory asset	211,675	211,675	211,675
12	Regulatory asset- RS Plan	88,277	88,277	88,277
13	Goodwill, net	3,978,203	3,978,203	3,978,203
14	<i>Total other property and investments</i>	4,543,829	4,543,829	4,543,829
15				
16	<u>Current Assets:</u>			
17	Cash	253,241	253,241	253,241
18	Customer accounts receivable	985,770	985,770	985,770
19	Provison for uncollectible accounts		0	0
20	Accrued utility revenues	826,569	826,569	826,569
21	Other accounts receivable	65,545	65,545	65,545
22	Advances to affiliates	90,700	90,700	90,700
23	Inventories	202,480	202,480	202,480
24	Prepayments	53,143	53,143	53,143
25	Under collected power costs	623,973	623,973	623,973
26	Deferred income taxes		0	0
27	<i>Total current assets</i>	3,101,421	3,101,421	3,101,421
28				
29	Total Assets and Other Debits	\$21,276,207	\$22,026,283	\$22,623,763
30				

C2 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
31	Liabilities and Other Credits			
32	<u>Proprietary Capital:</u>			
33	Preferred stock		\$0	\$0
34	Common stock Issued	1,394,720	1,394,720	1,394,720
35	Retained earnings	11,130,367	11,590,445	11,086,626
36	Paid-in Capital, less Treasury Stock	859,338	859,338	859,338
37	<i>Total proprietary capital</i>	13,384,425	13,844,503	13,340,684
38				
39	<u>Long-Term Debt:</u>			
40	Long term debt	1,935,261	1,112,538	1,922,926
41	Capitalized Lease Obligations	256,832	89,194	0
42	<i>Total long-term debt</i>	2,192,093	1,201,732	1,922,926
43				
44	<u>Current and Accrued Liabilities:</u>			
45	Line of Credit	\$1,200,000	\$2,480,359	\$2,860,464
46	Current maturities of long-term debt	192,004	192,004	192,004
47	Current maturities of capitalized leases	58,678	58,678	58,678
48	Accounts payable	384,320	384,320	384,320
49	Due for purchased electricity	634,407	634,407	634,407
50	Accrued expenses	230,488	230,488	230,488
51	Accrued taxes	96,321	96,321	96,321
52	Customer deposits	228,657	228,657	228,657
53	<i>Total current and accrued liabilities</i>	3,024,875	4,305,234	4,685,339
54				
55	<u>Deferred Credits and Other Liabilities:</u>			
56	Deferred income taxes	1,742,800	1,742,800	1,742,800
57	Accrued postretirement cost	821,439	821,439	821,439
58	Other liabilities	110,575	110,575	110,575
59	<i>Total deferred credits</i>	2,674,814	2,674,814	2,674,814
60				
61	Total Liabilities and Other Credits	\$21,276,207	\$22,026,283	\$22,623,763

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Original Cost

Original Cost

Line	Acct No.	Account Title	Original Cost		Original Cost		Balance 12/31/2019		
			Balance 12/31/2017	Year 2018	Balance 12/31/2018	Year 2019			
			Additions	Retire					
					Additions	Retire			
1		Depreciable Plant:							
2		<i>Distribution Plant.</i>							
3	360	Land & Land Rights	14,115	176	14,291	512	14,804		
4	361	Structures and improvements	0		0		0		
5	362	Station Equipment	657,380		657,380		657,380		
6	362.01	Station Equipment- Fully depr.	134,900		134,900		134,900		
7	364	Poles, Tower & Fixtures	3,470,243	116,723	(12,699)	228,993	(21,606)	3,781,653	
8	365	Overhead Conductors & Devices	5,892,060	554,611	(77,789)	415,538	(98,554)	6,685,866	
9	366	Underground Conduit	2,758,775	188,372	(1,500)	92,202	(1,758)	3,036,091	
10	368	Line Transformers	2,544,597	58,193	(15,059)	70,336	(35,660)	2,622,407	
11	369	Services	3,085,416	158,071	(8,886)	285,031	(34,187)	3,485,444	
12	370	Meters	1,451,761	74,402	(106,392)	179,438	(206,947)	1,392,262	
13	373	Street Lighting & Signal Systems	554,687	50,593	(44,389)	45,400	(35,920)	570,372	
14		Total Distribution Plant	20,563,934	1,201,141	(266,715)	21,498,360	1,317,450	(434,632)	22,381,179
15									
16		<i>General Plant</i>							
17	390.1	Structures & Improvements, office	576,375	27,595			(10,800)	593,170	
18	391	Office Furniture & Equipment	206,628	55,847	(32,438)	230,036	40,730	270,767	
19	390X	General- Fully depreciated	764,864					764,864	
20	392	Transportation Equipment	587,924	56,709	(28,757)	615,876		615,876	
21	394	Tools, Shop & Garage Equipment	29,409			29,409	20,417	49,826	
22	395	Laboratory & Stores Equipment	65,669					65,669	
23	397	Communication Equipment	272,313					272,313	
24	398	Miscellaneous Equipment	10,631					10,631	
25	301	Intangible plant, EDI	319,218					319,218	
26		Total General Plant	2,833,031	140,150	(61,196)	2,911,986	61,147	(10,800)	2,962,333
27									
28		Total Plant in Service	\$23,396,965	\$1,341,292	(\$327,911)	\$24,410,346	\$1,378,597	(\$445,432)	\$25,343,511

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost		
			Year 2020		Balance	Year 2021		Balance
			Additions	Retire	12/31/2020	Additions	Retire	12/31/2021
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	394		15,197	573		15,770
4	361	Structures and improvements			0			0
5	362	Station Equipment			657,380			657,380
6	362.01	Station Equipment- Fully depr.			134,900			134,900
7	364	Poles, Tower & Fixtures	145,344	(9,050)	3,917,947	151,932	(15,282)	4,054,597
8	365	Overhead Conductors & Devices	405,855	(86,007)	7,005,714	386,527	(108,877)	7,283,364
9	366	Underground Conduit	105,205	(3,342)	3,137,954	83,664	(1,622)	3,219,995
10	368	Line Transformers	56,291	(25,739)	2,652,959	58,739	(29,117)	2,682,581
11	369	Services	131,487	(17,677)	3,599,254	219,141	(20,397)	3,797,998
12	370	Meters	148,815	(137,294)	1,403,783	152,823	(185,312)	1,371,294
13	373	Street Lighting & Signal Systems	39,810	(22,960)	587,222	60,297	(30,066)	617,452
14		Total Distribution Plant	1,033,201	(302,070)	23,112,309	1,113,696	(390,674)	23,835,332
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	37,209		630,379	6,784		637,162
18	391	Office Furniture & Equipment	23,493	(2,224)	292,036	15,103	0	307,139
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	57,756	(28,950)	644,682	238,777	(141,880)	741,579
21	394	Tools, Shop & Garage Equipment	8,292		58,118	11,314		69,432
22	395	Laboratory & Stores Equipment	5,300		70,969	0		70,969
23	397	Communication Equipment			272,313			272,313
24	398	Miscellaneous Equipment	7,479	(4,357)	13,754	0	0	13,754
25	301	Intangible plant, EDI			319,218			319,218
26		Total General Plant	139,531	(35,531)	3,066,333	271,977	(141,880)	3,196,431
27								
28		Total Plant in Service	\$1,172,732	(\$337,601)	\$26,178,642	\$1,385,673	(\$532,553)	\$27,031,762

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost		Original Cost				
			FTY 2022		FPFTY 2023				
			Additions	Retire	Additions	Retire			
1		Depreciable Plant:							
2		<i>Distribution Plant.</i>							
3	360	Land & Land Rights	549		16,319		565	16,884	
4	361	Structures and improvements			0			0	
5	362	Station Equipment			657,380			657,380	
6	362.01	Station Equipment- Fully depr.			134,900			134,900	
7	364	Poles, Tower & Fixtures	206,216	(14,539)	4,246,274		212,402	(14,539)	4,444,137
8	365	Overhead Conductors & Devices	607,218	(87,965)	7,802,617		625,434	(87,965)	8,340,086
9	366	Underground Conduit	111,365	(4,327)	3,327,033		114,706	(4,327)	3,437,412
10	368	Line Transformers	99,508	(23,688)	2,758,401		102,493	(23,688)	2,837,206
11	369	Services	276,294	(20,013)	4,054,279		284,583	(20,013)	4,318,849
12	370	Meters	157,627	(128,394)	1,400,526		30,590	(128,394)	1,302,722
13	373	Street Lighting & Signal Systems	92,839	(26,789)	683,502		95,624	(26,789)	752,337
14		Total Distribution Plant	1,551,615	(305,716)	25,081,231		1,466,398	(305,716)	26,241,913
15									
16		<i>General Plant</i>							
17	390.1	Structures & Improvements, office	57,889	(10,800)	684,251		53,511	(10,800)	726,962
18	391	Office Furniture & Equipment	104,384	(15,422)	396,102		96,489	(15,422)	477,169
19	390X	General- Fully depreciated			764,864				764,864
20	392	Transportation Equipment	202,500	(75,421)	868,658		270,000	(75,421)	1,063,236
21	394	Tools, Shop & Garage Equipment	9,740		79,172		12,507		91,678
22	395	Laboratory & Stores Equipment	1,290	(662)	71,597		1,656		73,253
23	397	Communication Equipment			272,313				272,313
24	398	Miscellaneous Equipment	1,820	(2,178)	13,396		2,337	(2,178)	13,554
25	301	Intangible plant, EDI			319,218				319,218
26		Total General Plant	377,623	(104,484)	3,469,570		436,500	(103,822)	3,802,248
27									
28		Total Plant in Service	\$1,929,238	#####	\$28,550,801		\$1,902,898	(\$409,538)	\$30,044,161

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Depreciation Rate	Balance 12/31/2017	Accumulated Depreciation		Accumulated Depreciation		Balance 12/31/2019	
					Year 2018		Year 2019			
					Additions	Remove	Additions	Remove		
1		Depreciable Plant:								
2		<i>Distribution Plant.</i>								
3	360	Land & Land Rights	0.00%	0	0	0	0	0	0	
4	361	Structures and improvements	4.00%	0	0	0	0	0	0	
5	362	Station Equipment	4.00%	608,536	26,295	634,831	9,919	644,750		
6	362.01	Station Equipment- Fully depr.		134,900	0	134,900	0	134,900		
7	364	Poles, Tower & Fixtures	4.125%	2,378,349	145,293	(26,108)	2,497,534	151,716	(41,791)	2,607,460
8	365	Overhead Conductors & Devices	4.00%	1,454,473	245,219	(170,377)	1,529,314	261,095	(204,248)	1,586,161
9	366	Underground Conduit	4.00%	1,430,169	114,088	(3,030)	1,541,228	119,635	(3,722)	1,657,141
10	368	Line Transformers	4.00%	1,747,738	102,647	(15,059)	1,835,326	104,203	(35,660)	1,903,869
11	369	Services	4.00%	1,175,655	126,400	(18,569)	1,283,487	134,401	(64,211)	1,353,677
12	370	Meters	4.00%	445,801	57,431	(117,429)	385,803	56,241	(194,897)	247,147
13	373	Street Lighting & Signal Systems	4.00%	166,025	22,312	(75,224)	113,113	22,625	(74,477)	61,261
14		Total Distribution Plant		9,541,647	839,685	(425,796)	9,955,536	859,834	(619,005)	10,196,365
15										
16		<i>General Plant</i>								
17	390.1	Structures & Improvements, office	3.00%	532,594	17,705		550,299	17,957	(10,800)	557,456
18	391	Office Furniture & Equipment	8.00%	112,982	17,467	(32,438)	98,011	20,032		118,043
19	390X	General- Fully depreciated		764,864			764,864			764,864
20	392	Transportation Equipment	12.50%	373,690	52,322	(33,907)	392,105	76,984		469,089
21	394	Tools, Shop & Garage Equipment	10.00%	14,739	2,941		17,680	3,962		21,641
22	395	Laboratory & Stores Equipment	6.666%	14,688	4,377		19,065	4,377		23,443
23	397	Communication Equipment	6.666%	149,710	18,152		167,862	18,152		186,015
24	398	Miscellaneous Equipment	6.666%	4,973	709		5,682	709		6,391
25	301	Intangible plant, EDI	14.28%	65,701	45,584		111,285	45,584		156,869
26		Total General Plant		2,033,940	159,258	(66,346)	2,126,852	187,758	(10,800)	2,303,810
27										
28		Total Plant in Service		\$11,575,587	\$998,943	(\$492,141)	\$12,082,388	\$1,047,592	(\$629,805)	\$12,500,175

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation		
			Year 2020		Balance	Year 2021		Balance
			Additions	Remove	12/31/2020	Additions	Remove	12/31/2021
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	0		0		0	
4	361	Structures and improvements	0		0		0	
5	362	Station Equipment	0		644,750		644,750	
6	362.01	Station Equipment- Fully depr.	0		134,900		134,900	
7	364	Poles, Tower & Fixtures	158,804	(28,894)	2,737,370	164,434	(37,967)	2,863,836
8	365	Overhead Conductors & Devices	273,832	(195,914)	1,664,079	285,782	(239,923)	1,709,938
9	366	Underground Conduit	123,481	(6,348)	1,774,273	127,159	(3,027)	1,898,405
10	368	Line Transformers	105,507	(25,840)	1,983,537	106,711	(29,939)	2,060,308
11	369	Services	141,694	(39,336)	1,456,035	147,945	(58,345)	1,545,635
12	370	Meters	55,921	(138,426)	164,643	55,502	(189,477)	30,667
13	373	Street Lighting & Signal Systems	33,216	(50,969)	43,507	37,821	(55,690)	25,639
14		Total Distribution Plant	892,455	(485,727)	10,603,093	925,353	(614,368)	10,914,078
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	18,353		575,809	19,013		594,822
18	391	Office Furniture & Equipment	16,654	(2,224)	132,473	18,109		150,582
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	78,785	(33,307)	514,567	72,436	(141,880)	445,124
21	394	Tools, Shop & Garage Equipment	5,397		27,039	6,377		33,416
22	395	Laboratory & Stores Equipment	4,554		27,997	4,731		32,728
23	397	Communication Equipment	18,152		204,167	5,780		209,947
24	398	Miscellaneous Equipment	813		7,203	917		8,120
25	301	Intangible plant, EDI	45,584		202,454	45,584		248,038
26		Total General Plant	188,293	(35,531)	2,456,572	172,948	(141,880)	2,487,641
27								
28		Total Plant in Service	\$1,080,748	(\$521,258)	\$13,059,665	\$1,098,301	(\$756,248)	\$13,401,719

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation				
			FTY 2022		Balance	FPFTY 2023		Balance		
			Additions	Remove	12/31/2022	Additions	Remove	12/31/2023		
1		Depreciable Plant:								
2		<i>Distribution Plant.</i>								
3	360	Land & Land Rights	0	0	0	0	0	0	0	0
4	361	Structures and improvements	0	0	0	0	0	0	0	0
5	362	Station Equipment	26,295	0	671,045	0	0	671,045		
6	362.01	Station Equipment- Fully depr.	0	0	134,900	0	0	134,900		
7	364	Poles, Tower & Fixtures	151,392	(14,539)	3,000,689	179,240	(14,539)	3,165,389		
8	365	Overhead Conductors & Devices	265,140	(87,965)	1,887,113	322,854	(87,965)	2,122,002		
9	366	Underground Conduit	119,967	(4,327)	2,014,045	135,289	(4,327)	2,145,006		
10	368	Line Transformers	105,026	(23,688)	2,141,646	111,912	(23,688)	2,229,870		
11	369	Services	134,510	(20,013)	1,660,132	167,463	(20,013)	1,807,582		
12	370	Meters	57,375	(30,667)	57,375	54,065	(57,375)	54,065		
13	373	Street Lighting & Signal Systems	23,757	(26,789)	22,606	28,717	(26,789)	24,534		
14		Total Distribution Plant	883,461	(207,989)	11,589,551	999,539	(234,697)	12,354,393		
15										
16		<i>General Plant</i>								
17	390.1	Structures & Improvements, office	18,825	(10,800)	602,848	21,168	(10,800)	613,216		
18	391	Office Furniture & Equipment	21,961	(15,422)	157,121	34,931	(15,422)	176,630		
19	390X	General- Fully depreciated	0	0	764,864	0	0	764,864		
20	392	Transportation Equipment	84,927	(75,421)	454,629	120,743	(75,421)	499,951		
21	394	Tools, Shop & Garage Equipment	3,428	0	36,844	8,542	0	45,386		
22	395	Laboratory & Stores Equipment	4,398	(662)	36,464	4,828	0	41,292		
23	397	Communication Equipment	18,152	0	228,100	18,152	0	246,252		
24	398	Miscellaneous Equipment	697	(2,178)	6,639	898	(2,178)	5,358		
25	301	Intangible plant, EDI	45,584	0	293,622	25,596	0	319,218		
26		Total General Plant	197,973	(104,484)	2,581,131	234,859	(103,822)	2,712,168		
27										
28		Total Plant in Service	\$1,081,435	(\$312,472)	\$14,170,682	\$1,234,398	(\$338,519)	\$15,066,561		

3 (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

			2022 Capital Additions			2023 Capital Additions		
Line	Acct No.	Account Title	Original C-3	C-3 (CU)	Change	Original C-3	C-3 (CU)	Change
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	618	549	(69)	636	565	(71)
4	361	Structures and improvements	0	0	0	0	0	0
5	362	Station Equipment	0	0	0	0	0	0
6	362.01	Station Equipment- Fully depr.	0	0	0	0	0	0
7	364	Poles, Tower & Fixtures	232,162	206,216	(25,946)	239,127	212,402	(26,725)
8	365	Overhead Conductors & Devices	683,618	607,218	(76,401)	704,127	625,434	(78,693)
9	366	Underground Conduit	125,377	111,365	(14,012)	129,138	114,706	(14,432)
10	368	Line Transformers	98,445	99,508	1,063	101,398	102,493	1,094
11	369	Services	311,058	276,294	(34,764)	320,389	284,583	(35,807)
12	370	Meters	154,649	157,627	2,978	30,590	30,590	0
13	373	Street Lighting & Signal Systems	104,520	92,839	(11,681)	107,656	95,624	(12,032)
14		Total Distribution Plant	1,710,448	1,551,615	(158,833)	1,633,063	1,466,398	(166,665)
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	57,810	57,889	79	53,511	53,511	0
18	391	Office Furniture & Equipment	104,242	104,384	142	96,489	96,489	0
19	390X	General- Fully depreciated	0	0	0	0	0	0
20	392	Transportation Equipment	202,500	202,500	0	270,000	270,000	0
21	394	Tools, Shop & Garage Equipment	9,740	9,740	0	12,507	12,507	0
22	395	Laboratory & Stores Equipment	1,290	1,290	0	1,656	1,656	0
23	397	Communication Equipment	0	0	0	0	0	0
24	398	Miscellaneous Equipment	1,820	1,820	0	2,337	2,337	0
25	301	Intangible plant, EDI	0	0	0	0	0	0
26		Total General Plant	377,402	377,623	221	436,500	436,500	0
27								
28		Total Plant in Service	\$2,087,850	\$1,929,238	(\$158,612)	\$2,069,563	\$1,902,898	(\$166,665)

C4 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)**

**Reserve for Depreciation of Utility Plant
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[4]**

	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
1	Reserve for Depreciation	\$12,082,388	\$14,170,682	\$15,066,561

C5 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[5]

<u>Account Title</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>[Per Books]</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2022</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2023</u> <u>Distribution Only</u>
1 Operating revenue	\$13,759,137	\$5,263,123	\$5,211,964	\$5,217,181
2				
3 <u>Operating revenue deductions:</u>				
4 Operating expenses	10,857,506	2,967,168	3,156,771	3,294,915
5 Depreciation expense	1,098,301	1,098,301	1,081,435	1,234,398
6 Taxes other than income tax	900,903	383,431	380,516	381,871
7 Rate case expense amortization	0	0	0	0
8 Total Operating revenue deductions	12,856,710	4,448,901	4,618,721	4,911,185
9				
10 Net operating income before income taxes	902,427	814,222	593,243	305,996
11				
12 Income tax expense	261,164	235,680	133,164	68,371
13				
14 Net utility operating income	\$641,262	\$578,542	\$460,078	\$237,625

C5-1 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Comparison to Prior Rate Case
Prior Rate Case and FPFTY 2023

	Description	FPFTY 2023	R-2019-3008212, Order	Difference- Needs Higher (Lower) Revenue
1	Revenue	5,217,181	5,398,587	181,407
2				
3	<i>kWh</i>	<i>158,217,004</i>	<i>166,467,451</i>	
4				
5	O&M	3,294,915	2,613,736	681,179
6	Taxes other than income, Rate Case	381,871	497,242	(115,371)
7	Depreciation	1,234,398	1,029,328	205,071
8	Income tax	401,602	330,855	70,746
9				
10	Rate Base	\$13,630,593	12,825,060	
11	Required Return	7.76%	7.23%	
12	Target Return	1,057,757	927,252	130,505
13				
14	Income Tax Expense			
15	Subtotal			1,153,537
16	Gross-Up for GRT			1.0627
17				1,225,863
18	Rounding difference			(185)
19	Revenue Increase Required at Recommended Return			1,225,678
20	Per Schedule C1 (CU)			1,225,678

D1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Distribution System Functionalization and Classification**

Primary / Secondary Split for OH ad UG Conductors
--

Line	Conductor Type	Circuit Miles	Line Miles (Circuit Miles X # of conductors)	Description
1	OH Primary (1 Ph)	87.89	175.79	1 phase wire, 1 neutral wire
2	OH Primary (2Ph)	5.02	15.07	2 phase wires, 1 neutral wire
3	OH Primary (3 Ph)	67.63	270.50	3 phase wires, 1 neutral wire
4	OH Secondary	82.38	82.38	1 triplexed conductor
5	UG Primary (1 Ph)	54.33	54.33	1 cable with concentric neutral
6	UG Primary (2 Ph)	0.49	0.98	2 cables with concentric neutral
7	UG Primary (3 Ph)	4.67	14.00	3 cables with concentric neutral
8	UG Secondary	66.25	66.25	1 multiplexed (UG SL, MBL)
9		368.66	679.30	
10				
11	Totals			
12	OH Primary	160.54	461.36	
13	OH Secondary	82.38	82.38	
14	OH Total	242.93	543.74	
15				
16	UG Primary	59.48	69.31	
17	UG Secondary	66.25	66.25	
18	UG Total	125.73	135.55	
19				
20	Totals			Average
21	OH Primary	66.09%	84.85%	75.47%
22	OH Secondary	33.91%	15.15%	24.53%
23	OH Total	100.00%	100.00%	100.00%
24				
25	UG Primary	47.31%	51.13%	49.22%
26	UG Secondary	52.69%	48.87%	50.78%
27	UG Total	100.00%	100.00%	100.00%
28				

D1 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Distribution System Functionalization and Classification**

Zero-Load Components for Secondary			
Average %	Poles	Overhead Conductors	Underground Conductors
Zero-Load Component	78.6%	76.8%	58.4%
Material	21.4%	23.2%	41.6%
Total Cost	100.0%	100.0%	100.0%
	1,278,748	6,218,084	1,292,405
2022 Rate Case			
	Poles	Overhead Conductors	Underground Conductors
Labor	35.4%	34.0%	20.0%
Overhead	38.4%	39.4%	21.6%
Vehicle	17.1%	9.1%	4.0%
Zero-Load Component	90.8%	82.5%	45.6%
Material	9.2%	17.5%	54.4%
Total Cost	100.0%	100.0%	100.0%
2019 Rate Case			
	Poles	Overhead Conductors	Underground Conductors
Labor	34.3%	30.6%	23.8%
Overhead	38.5%	33.0%	24.6%
Vehicle	11.9%	10.3%	3.8%
Zero-Load Component	84.7%	73.9%	52.2%
Material	15.3%	26.1%	47.8%
Total Cost	100.0%	100.0%	100.0%
2016 Rate Case			
	Poles	Overhead Conductors	Underground Conductors
Labor	36.9%	24.6%	40.0%
Overhead	14.9%	19.7%	5.3%
Vehicle	10.5%	30.9%	22.6%
Zero-Load Component	62.3%	75.2%	67.9%
Material	37.7%	24.8%	32.1%
Total Cost	100.0%	100.0%	100.0%
2010 Rate Case			
	Poles	Overhead Conductors	Underground Conductors
Labor	27.7%	30.8%	25.3%
Overhead	32.3%	32.3%	32.3%
Vehicle	16.7%	12.4%	10.5%
Zero-Load Component	76.7%	75.5%	68.1%
Material	23.3%	24.5%	31.9%
Total Cost	100.0%	100.0%	100.0%

D3 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Transformers Classification**

Transformers Minimum Size Component						
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	Minimum Size	Cost for Minimum Size	Number	Total Cost Minimum Size	Replacement Cost	Minimum Size Component
1	Line	TPD50 X 1/4	1,940	1,283,182	2,834,287	45.3%
2	Pad-Mount	TPD50 X 1/4	650	429,932	2,069,610	20.8%
3			<u>2,590</u>	<u>1,713,114</u>	<u>4,903,898</u>	34.9%

Transformers Unit Costs				
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	Part #	Description	Total Cost	Count	Extended
7	TPM15	Transformer, 15KVA, Pole	\$1,109	738	\$818,547
8	TPM25	Transformer, 25KVA, Pole	\$1,307	593	775,136
9	TPM50	Transformer, 50KVA, Pole	\$1,752	493	863,806
10	TPM100	Transformer, 100KVA, Pole	\$3,118	107	333,641
11	TPM167/480	Transformer, 167KVA/480, Pole	\$4,795	9	43,156
12				<u>1,940</u>	<u>2,834,287</u>
14	TPD25	Transformer, 25KVA, Pad	\$2,276	235	534,798
15	TPD50	Transformer, 50KVA, Pad	\$2,646	347	918,070
16	TPD50 X 1/4	Transformer, 50KVA, Pad X 1/4	\$661		
17	TPD100	Transformer, 100KVA, Pad	\$3,944	32	126,200
18	TPD150/208	Transformer, 150KVA/208, Pad	\$8,591	8	68,726
19	TPD300	Transformer, 300KVA, Pad	\$12,699	11	139,686
20	TPD500/480	Transformer, 500KVA/480, Pad	\$13,130	8	105,038
21	TPD1000/480	Transformer, 1000KVA/480, Pad	\$19,040	8	152,318
22	TPD1500/480	Transformer, 1500KVA/480, Pad	\$24,775	1	24,775
23				<u>650</u>	<u>2,069,610</u>
24				<u>2,590</u>	<u>4,903,898</u>

Total	4,903,898
Average	\$1,893
Minimum Component	34.9%

D4 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)

Service Costs

Line	Rate Class	Type	Replacement Cost	Services	Services Cost
1	Residential Overhead	Sec-OH-1Ph	\$812	3,439	2,791,544
2	Residential Overhead	Sec-OH-3Ph	\$862	19	16,373
3	Residential Underground	Sec-UG-1Ph	\$987	2,366	2,334,750
4	Residential Underground	Sec-UG-3Ph	\$1,067	109	116,289
5	Residential Total			5,933	5,258,956
6	Residential in FPFTY	Average	\$886	5,918	5,246,029
7					
8	SH Overhead	Sec-OH-1Ph	\$812	2	1,623
9	SH Overhead	Sec-OH-3Ph	\$862	5	4,309
10	SH Underground	Sec-UG-1Ph	\$987	2	1,974
11	SH Underground	Sec-UG-3Ph	\$1,067	2	2,134
12	SH Total	Average		11	10,040
13	SH in FPFTY		\$913	11	9,659
14					
15	GLP1 Overhead	Sec-OH-1Ph	\$812	591	479,733
16	GLP1 Overhead	Sec-OH-3Ph	\$862	100	86,176
17	GLP1 Underground	Sec-UG-1Ph	\$987	284	280,249
18	GLP1 Underground	Sec-UG-3Ph	\$1,067	133	141,893
19	GLP1 Total	Average		1,108	988,052
20	GLP1 in FPFTY		\$892	1,125	1,002,914
21					
22	GLP3 Overhead	Sec-OH-1Ph	\$812	1	812
23	GLP3 Overhead	Sec-OH-3Ph	\$862	5	4,309
24	GLP3 Underground	Sec-UG-1Ph	\$987	0	0
25	GLP3 Underground	Sec-UG-3Ph	\$1,067	29	30,939
26	GLP3 Total	Average		35	36,060
27	GLP3 in FPFTY		\$1,030	40	41,125
28					
29	MBL Overhead	Sec-OH-1Ph	\$812	2	1,623
30	MBL Overhead	Sec-OH-3Ph	\$862	0	0
31	MBL Underground	Sec-UG-1Ph	\$987	10	9,868
32	MBL Underground	Sec-UG-3Ph	\$1,067	0	0
33	MBL Total	Average		12	11,491
34	MBL in FPFTY		\$958	12	11,491
35	Total Service Cost			7,106	6,311,219

D5 (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Meter Costs**

Line	Meter Types	Description	Total Cost Per Meter	Number Installed						Material	Labor / OH	Truck
				RS	SH	GLP1	GLP3	MBL	Total			
1	M2S200T	Meter 2s, CI 200, 240V, 1 Ph	\$ 222.27	5,462	4	797		12	6,275	\$ 170.00	\$ 44.04	\$ 8.23
2	M2S200T-RD	Meter 2s, CI 200, 240V, 1 Ph	\$ 332.27	22		5			27	\$ 280.00	\$ 44.04	\$ 8.23
3	M2S320T	Meter 2s, CI 320, 240V, 1 Ph	\$ 312.27	292	1	68			361	\$ 260.00	\$ 44.04	\$ 8.23
4	M3S20T	Meter, 3S CI 20, 240V, 1 Ph	\$ 302.27	8	1	8			17	\$ 250.00	\$ 44.04	\$ 8.23
5	M4S20T	Meter, 4S CI 20, 240V, 1 Ph	\$ 302.27	8		18			26	\$ 250.00	\$ 44.04	\$ 8.23
6	M8/9S20T	Meter 8S/9S, CI 20, AXS4E	\$ 652.27	2	4	114	42		162	\$ 600.00	\$ 44.04	\$ 8.23
7	M12S200T	Meter, Form 12S Class 200	\$ 312.27	106		16			122	\$ 260.00	\$ 44.04	\$ 8.23
8	M15/16S20T	Meter, Form 15S/16S Class 200	\$ 652.27	1	3	99			103	\$ 600.00	\$ 44.04	\$ 8.23
9												
10	CT600/5	C.T., Ratio 600:5 (600V)	\$ 167.27	30		389	75		494	\$115.00	\$ 44.04	\$ 8.23
11	CT1200/5	C.T., Ratio 1200:5 (600V)	\$ 172.27				24		24	\$120.00	\$ 44.04	\$ 8.23
12	CT2000/5	C.T., Ratio 2000:5 (600V)	\$ 172.27				6		6	\$120.00	\$ 44.04	\$ 8.23
13	CTHV200/5	C.T., Ratio 200:5 (7200V)	\$ 802.27				18		18	\$750.00	\$ 44.04	\$ 8.23
14	CTHV1000/5	C.T., Ratio 1000:5 (7200V)	\$ 852.27				3		3	\$800.00	\$ 44.04	\$ 8.23
15												
16	PTHV	P.T., H.V. (7200), RATIO 60:1	\$ 986.77				21		21	\$934.50	\$ 44.04	\$ 8.23
17	PT2.4	P.T., L.V. (600), RATIO 2.4:1	\$ 217.27			63	54		117	\$165.00	\$ 44.04	\$ 8.23
18	PT2.5	P.T., L.V. (600), RATIO 2.5:1	\$ 217.27						0	\$165.00	\$ 44.04	\$ 8.23
19	VTPack2.4 1.1.1	VTPack 2.4 1.1.1	\$ 651.80						0	\$495.00	#####	\$ 24.68
20												
21	Total Cost		1,891,335	1,357,446	6,070	430,591	94,561	2,667				
22	Customers above		7,093	5,901	13	1,125	42	12				
23	Average per Customer		266.65	230.04	466.89	382.75	2,251.46	222.27				
24	Customers in Future Year 2023		7,106	5,918	11	1,125	40	12				
25	Meter Cost for Class			1,361,453	4,941	430,463	89,871	2,667	1,889,395			

2022 Average Crew Rate:/ hc
With Adder For OH #####
2022 Truck Rate:/ hour

D6 (CU)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Customer Deposits and Advances; Uncollectible Accounts

Line	Class	Revenue	Deposits	Net Write-offs		
1	Residential	3,142,482	15,966	58,237		
2	Space Heating	21,372	109	396		
3	GLP-1	993,445	29,241	3,401		
4	GLP-3	933,351	27,472	3,195		
5		<u>5,090,649</u>	<u>72,788</u>	<u>65,229</u>		
6						
7	Residential / Res plus SH)	99.3%				
8	GLP1 / GLP1 plus GLP3)	51.6%				
9						
10	Net Write-Offs		Total	2021	2020	2019
11	Residential- Net		58,633	16,138	25,496	16,999
12	CI- Net		6,596	2,291	(6,726)	11,032
13			<u>65,229</u>	<u>18,429</u>	<u>18,770</u>	<u>28,030</u>
14	Residential %		89.9%	87.6%	135.8%	60.6%
15						
16	Residential- Number		290	93	100	97
17	CI- Number		29	4	4	21
18			<u>319</u>	<u>97</u>	<u>104</u>	<u>118</u>
19	Residential %		90.9%	95.9%	96.2%	82.2%
20						
21	Deposits					
22	Residential		16,075			
23	Non-residential		56,713			
24			<u>72,788</u>			
25						

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Index to Class Cost of Service Study**

Index (CU)

Line	SCHEDULE	DESCRIPTION
1	E (CU)	Index to Class Cost of Service Study
2	E-1 (CU)	Summary of Results
3	E-1A (CU)	Class Allocations- Total
4	E-1B (CU)	Revenue Requirement By Functional Classification
5	E-1C (CU)	Customer-Related Costs In Revenue Requirement
6	E-2 (CU)	Funtionalization
7	E-3 (CU)	Classification
8	E-4A (CU)	Class Allocation- Primary Demand
9	E-4B (CU)	Class Allocation- Secondary Demand
10	E-4C (CU)	Class Allocation- Secondary Customer
11	E-4D (CU)	Class Allocation- Billing Customer
12	E-5A (CU)	Allocator Assignments
13	E-5B (CU)	Functionalization Factors
14	E-5C (CU)	Classification Factors
15	E-5D (CU)	Class Allocation Factors

Sum
Summary of Results
Tot
E-1 (

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Summary of Results

Line	Account	No.	Balance	RS	SH	GLP-1	GLP-3	MBL	OL
1	Distribution Revenue		5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141
2	Forfeited Discounts		23,994	14,680	120	4,609	4,091	96	398
3	Other Revenue	302	63,367	40,258	394	9,903	12,535	72	203
4	Total Revenue	303	<u>5,217,181</u>	<u>3,193,372</u>	<u>26,192</u>	<u>999,898</u>	<u>891,289</u>	<u>20,687</u>	<u>85,742</u>
5									
6	Expenses		4,979,556	3,270,684	26,666	824,616	750,938	37,922	68,731
7	Net income		<u>237,625</u>	<u>(77,312)</u>	<u>(474)</u>	<u>175,282</u>	<u>140,351</u>	<u>(17,234)</u>	<u>17,011</u>
8									
9	Rate Base		<u>13,630,593</u>	<u>8,845,231</u>	<u>73,034</u>	<u>2,067,914</u>	<u>1,893,104</u>	<u>294,124</u>	<u>457,186</u>
10									
11	Return on Rate Base		<u>1.74%</u>	<u>(0.87%)</u>	<u>(0.65%)</u>	<u>8.48%</u>	<u>7.41%</u>	<u>(5.86%)</u>	<u>3.72%</u>
12									
13	Revenue Requirement		6,216,466	4,134,931	33,791	976,329	895,473	67,571	108,371
14									
15	Operating expenses		3,225,511	2,193,525	16,513	509,120	451,799	20,382	34,172
16	Depreciation expense		1,234,398	796,684	7,813	197,709	196,547	13,784	21,861
17	Regulatory Commission Expenses		48,804	31,670	261	7,404	6,778	1,053	1,637
18	General taxes / Other		79,212	51,034	461	12,261	11,848	1,409	2,199
19	Uncollectibles expense		20,600	12,603	103	3,957	3,512	82	342
20	GRT		361,659	240,672	1,963	56,803	51,896	3,967	6,358
21			<u>4,970,185</u>	<u>3,326,188</u>	<u>27,114</u>	<u>787,254</u>	<u>722,381</u>	<u>40,678</u>	<u>66,569</u>
22	Pre-tax income		1,246,281	808,743	6,678	189,075	173,091	26,893	41,802
23	Income taxes		340,037	220,659	1,822	51,587	47,227	7,337	11,405
24	Net income		<u>906,244</u>	<u>588,084</u>	<u>4,856</u>	<u>137,487</u>	<u>125,865</u>	<u>19,555</u>	<u>30,396</u>
25									
26	Return on Rate Base		6.65%	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%
27									
28	Revenue Increase Required		999,285	941,559	7,599	(23,568)	4,184	46,883	22,628
29	Revenue Increase %		19.48%	30.00%	29.59%	(2.39%)	0.48%	228.49%	26.58%

Total
Class Allocations- Total
Tot
E-1A

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	319,218	.	264,878	474	50,334	1,786	537	1,208
32	Transmission Plant	108.5	0	.	0	0	0	0	0	0
33	Station Equipment	108.5	805,945	.	471,485	5,952	121,962	204,410	609	1,526
34	Poles, Towers and Fixtures	108.6	3,165,389	.	2,016,246	19,964	486,779	632,223	2,979	7,198
35	OH Conductors and Devices	108.6	2,122,002	.	1,350,153	13,451	326,490	425,108	1,989	4,810
36	UG Conduits and Conductors	108.6	2,145,006	.	1,451,631	12,603	339,248	333,860	2,265	5,399
37	Line Transformers	108.6	2,229,870	.	835,741	47,846	452,462	874,444	5,529	13,847
38	Services	108.6	1,807,582	.	1,502,503	2,767	287,242	11,779	3,291	0
39	Meters	108.6	54,065	.	39,013	142	12,335	2,575	0	0
40	Street Lighting	108.6	24,534	.	0	0	0	0	9,632	14,902
41	General Plant	108.6	2,392,950	.	1,648,287	11,477	381,748	312,362	14,530	24,546
35	Total DEPRECIATION RESERVE	108	15,066,561	.	9,579,938	114,675	2,458,601	2,798,549	41,361	73,437
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	401,916	.	272,968	2,059	63,489	56,366	2,625	4,410
45	CWIP	131	914	.	582	6	146	152	11	17
45	Materials & Supplies	255	202,480	.	137,518	1,037	31,985	28,396	1,322	2,222
46	Customer Deposits		(228,657)	.	(50,157)	(341)	(91,858)	(86,301)	0	0
47	ADIT / EDIT	154	(1,101,790)	.	(701,640)	(7,216)	(175,976)	(183,705)	(12,886)	(20,368)
48	Accrued Pension / OPEB	182	(621,869)	.	(428,349)	(2,983)	(99,207)	(81,175)	(3,776)	(6,379)
49	Total OTHER RATE BASE ITEMS	131-283	(1,347,006)	.	(769,078)	(7,438)	(271,421)	(266,267)	(12,704)	(20,099)
50										
51	TOTAL RATE BASE		<u>13,630,593</u>	.	<u>8,845,231</u>	<u>73,034</u>	<u>2,067,914</u>	<u>1,893,104</u>	<u>294,124</u>	<u>457,186</u>

52

Total
 Class Allocations- Total
 Tot
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	.	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0	.	0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	109,435	.	71,381	611	17,900	17,426	800	1,317
60	Station Expenses	582	10,050	.	5,879	74	1,521	2,549	8	19
61	OH Line Expenses	583	191,237	.	121,677	1,212	29,424	38,311	179	433
62	Street Lighting Expenses	585	6,405	.	0	0	0	0	2,515	3,890
63	Meter Expenses	586	34,407	.	24,828	90	7,850	1,639	0	0
64	Customer Installation Expenses	587	40,257	.	33,404	60	6,348	225	68	152
65	Misc. Distribution Expenses	588	344,186	.	223,463	2,268	54,300	63,038	326	791
66	Rents	589	505	.	347	3	81	72	1	1
67	Maint Supv & Engineering	590	0	.	0	0	0	0	0	0
68	Maint of Station Equip	592	8,399	.	4,914	62	1,271	2,130	6	16
69	Maint of OH Lines	593	594,613	.	378,331	3,769	91,487	119,121	557	1,348
70	Maint of UG Lines	594	5,760	.	3,898	34	911	896	6	14
71	Maint of Line Transformers	595	10,278	.	3,852	221	2,086	4,031	25	64
72	Maint of Lighting	596	8,383	.	0	0	0	0	3,291	5,092
73	Maint of Misc. Plant	599	398	.	265	2	61	57	5	8
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,364,311	.	872,239	8,406	213,238	249,495	7,787	13,146
75	Distribution Expense		1,364,311	.	872,239	8,406	213,238	249,495	7,787	13,146
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	.	0	0	0	0	0	0
78	Meter Reading Exp	902	1,876	.	1,353	5	428	89	0	0
79	Customer Records & Coll	903	414,677	.	344,088	615	65,386	2,321	698	1,570
80	Uncollectible Accounts	904	20,600	.	12,603	103	3,957	3,512	82	342
81	Subtotal - Customer Accounts Exp.	901-905	437,153	.	358,044	723	69,771	5,922	780	1,912
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153	.	358,044	723	69,771	5,922	780	1,912
83										

Total
Class Allocations- Total
Tot
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.6486%		6.6486%	6.6486%	6.6486%	6.6486%	6.6486%	6.6486%
162										
163	Rate Base		13,630,593	.	8,845,231	73,034	2,067,914	1,893,104	294,124	457,186
164										
165	Operating expenses		3,225,511	.	2,193,525	16,513	509,120	451,799	20,382	34,172
166	Uncollectibles expense		20,600	.	12,603	103	3,957	3,512	82	342
167	Depreciation expense		1,234,398	.	796,684	7,813	197,709	196,547	13,784	21,861
168	Regulatory Commission Expenses		48,804	.	31,670	261	7,404	6,778	1,053	1,637
169	General taxes / Other		79,212	.	51,034	461	12,261	11,848	1,409	2,199
170	Subtotal- Operating Costs to recover		4,608,526	.	3,085,517	25,151	730,451	670,485	36,711	60,211
171										
172	Target Return on Rate Base- After taxes		906,244		588,084	4,856	137,487	125,865	19,555	30,396
173										
174	Income taxes to recover		340,037	.	220,659	1,822	51,587	47,227	7,337	11,405
175										
176	Subtotal- Rev Req before GRT		5,854,806	.	3,894,259	31,828	919,526	843,577	63,603	102,013
177	GRT needed		361,659	.	240,672	1,963	56,803	51,896	3,967	6,358
178	TOTAL REVENUE REQUIREMENT		<u>6,216,466</u>	.	<u>4,134,931</u>	<u>33,791</u>	<u>976,329</u>	<u>895,473</u>	<u>67,571</u>	<u>108,371</u>
179										
180	Revenue at Present rates		5,217,181		3,193,372	26,192	999,898	891,289	20,687	85,742
181	Revenue Excess (Deficiency)		<u>(999,285)</u>		<u>(941,559)</u>	<u>(7,599)</u>	<u>23,568</u>	<u>(4,184)</u>	<u>(46,883)</u>	<u>(22,628)</u>

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**Citizens Electric Company of Lewisburg
 Embedded Cost of Service Study (ECOSS) (CU)
 FPFTY Ending December 31, 2023**

Revenue Requirement By Functional Classification

Account Description	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1 Demand-related							
2 Primary	2,791,117	1,634,348	20,565	422,379	705,179	2,607	6,039
3 Secondary	609,326	344,319	8,070	112,664	140,909	987	2,376
4	<u>3,400,443</u>	<u>1,978,667</u>	<u>28,635</u>	<u>535,043</u>	<u>846,088</u>	<u>3,594</u>	<u>8,415</u>
5 NCP-Primary	1	1	0	0	0	0	0
6 Per kW / month-Demand	\$283,370.24	\$281,857.39	\$323,114.09	\$294,637.39	\$277,994.93	\$396,025.95	\$370,294.13
7							
8 kWh-Meter	158,217,004	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902
9 Per kWh-Meter	\$0.02149	\$0.02263	\$0.04356	\$0.02022	\$0.01955	\$0.03490	\$0.03225
10							
11 Customer-related							
12 Secondary	1,375,539	1,019,521	1,920	194,691	9,763	58,898	90,746
13 Billing	1,440,484	1,136,742	3,236	246,596	39,622	5,079	9,209
14	<u>2,816,023</u>	<u>2,156,263</u>	<u>5,156</u>	<u>441,286</u>	<u>49,385</u>	<u>63,977</u>	<u>99,956</u>
15 Number of Bills	85,591	71,021	127	13,496	479	144	324
16 Per bill	\$32.90	\$30.36	\$40.60	\$32.70	\$103.10	\$444.28	\$308.50
17							
18 Total revenue requirement	<u>6,216,466</u>	<u>4,134,931</u>	<u>33,791</u>	<u>976,329</u>	<u>895,473</u>	<u>67,571</u>	<u>108,371</u>
Secondary Per kW / month-Demand	\$50,777.16	\$49,047.61	\$91,063.41	\$62,041.87	\$46,297.80	\$108,751.57	\$104,564.07

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023**

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Customer-Related Costs In Revenue Requirement

Account Description	FERC	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1 Services, cost	Acct 369	4,318,849	3,589,926	6,610	686,307	28,143	7,864	0
2 Services, Acc Depr	Portion Acct 108	(1,807,582)	(1,502,503)	(2,767)	(287,242)	(11,779)	(3,291)	0
3 Meters, cost	Acct 370	1,302,722	940,037	3,412	297,220	62,053	0	0
4 Meters, Acc Depr	Portion Acct 108	(54,065)	(39,013)	(142)	(12,335)	(2,575)	0	0
5 Transformers, cost	Acct 368	2,837,206	1,063,367	60,877	575,696	1,112,611	7,035	17,619
6 Transformers, Acc Depr	Portion Acct 108	(2,229,870)	(835,741)	(47,846)	(452,462)	(874,444)	(5,529)	(13,847)
7 ADIT	Portion Acct 154	(237,964)	(192,278)	(406)	(41,288)	(3,681)	(310)	0
8 Service / Meter/ Trnsf Rate Base		4,129,296	3,023,794	19,739	765,896	310,327	5,768	3,772
9 Rate of return on rate base		6.65%	6.65%	6.65%	6.65%	6.65%	6.65%	6.65%
10 Return on Service / Meter rate base		274,540	201,040	1,312	50,921	20,632	383	251
11 Income tax gross-up		103,012	75,433	492	19,107	7,742	144	94
12 GRT gross-up		23,324	17,087	111	4,326	1,746	33	21
13 Customer-charge return component		400,876	293,560	1,916	74,354	30,120	560	366
14								
15 Meter expenses	Acct 586	34,407	24,828	90	7,850	1,639	0	0
16 Customer installatins expense	Acct 587	40,257	33,404	60	6,348	225	68	152
17 Meter reading expenses	Acct 902	1,876	1,353	5	428	89	0	0
18 Customer records and collection	Acct 903	414,677	344,088	615	65,386	2,321	698	1,570
19 Service / Meter / EDI depreciation exp	Portion Acct 403	247,123	199,450	436	42,982	3,810	348	97
20 Labor-related		161,761	132,649	238	26,572	1,287	318	697
21 Customer-charge expense component		900,101	735,772	1,444	149,566	9,371	1,432	2,516
22								
23 Customer-charge expense component		1,300,977	1,029,332	3,360	223,920	39,490	1,992	2,883
24								
25 Number of Bills		85,591	71,021	127	13,496	479	144	324
26								
27 Customer-charge Components		\$15.20	\$14.49	\$26.45	\$16.59	\$82.44	\$13.83	\$8.90
28								
29 Distribution Plant in Service- Cost		26,241,913	16,530,224	177,968	4,191,953	4,501,478	326,504	513,786
30 Services / Meters % of Distribution Plant		21.4%	27.4%	5.6%	23.5%	2.0%	2.4%	0.0%
31 ADIT		(1,101,790)	(701,640)	(7,216)	(175,976)	(183,705)	(12,886)	(20,368)
32								
33 Income tax gross-up		37.52%	37.52%	37.52%	37.52%	37.52%	37.52%	37.52%
34 GRT gross-up		6.18%	6.18%	6.17%	6.18%	6.15%	6.24%	6.23%

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %
30	II. DEPRECIATION RESERVE								
31	Intangible Plant	108.3	319,218	IntanPt	0	0	319,218	-	
32	Transmission Plant	108.5	0	Tran	0	0	0	-	
33	Station Equipment	108.5	805,945	Prim	805,945	0	0	-	
34	Poles, Towers and Fixtures	108.6	3,165,389	OH_Cond	2,388,853	776,536	0	-	
35	OH Conductors and Devices	108.6	2,122,002	OH_Cond	1,601,430	520,571	0	-	
36	UG Conduits and Conductors	108.6	2,145,006	UG_Cond	1,055,752	1,089,255	0	-	
37	Line Transformers	108.6	2,229,870	Trans	0	2,229,870	0	-	
38	Services	108.6	1,807,582	Sec	0	1,807,582	0	-	
39	Meters	108.6	54,065	Bill	0	0	54,065	-	
40	Street Lighting	108.6	24,534	Sec	0	24,534	0	-	
41	General Plant	108.6	2,392,950	GenPtXL	1,060,804	482,982	849,164	-	
35	Total DEPRECIATION RESERVE	108	15,066,561		6,912,784	6,931,330	1,222,447	-	
42									
43	III. OTHER RATE BASE ITEMS								
44	Cash Working Capital	131	401,916	OpExp_Dist	180,757	89,807	131,352	-	
45	CWIP	131	914	Plant	421	415	78	-	
45	Materials & Supplies	255	202,480	OpExp_Dist	91,063	45,244	66,173	-	
46	Customer Deposits		(228,657)	Bill	0	0	(228,657)	-	
47	ADIT / EDIT	154	(1,101,790)	Plant	(507,549)	(500,141)	(94,100)	-	
48	Accrued Pension / OPEB	182	(621,869)	Labor	(275,677)	(125,515)	(220,677)	-	
49	Total OTHER RATE BASE ITEMS	131-283	(1,347,006)		(510,984)	(490,191)	(345,831)	-	
50									
51	TOTAL RATE BASE		13,630,593		6,269,283	6,071,658	1,289,652	-	
52			13,630,593						

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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPPTY Ending December 31, 2023
Funtionalization

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %	
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	Tran	0	0	0	-	0	
56	Total TRANSMISSION Expense		0		0	0	0			
57										
58	C. DISTRIBUTION OPER. & MAINT. EXPENSE									
59	Ops Supv & Engineering	580	109,435	D-Labor-Op	58,397	28,511	22,527	-	51,770	47.31%
60	Station Expenses	582	10,050	Prim	10,050	0	0	-	4,462	44.40%
61	OH Line Expenses	583	191,237	OH_Cond	144,323	46,914	0	-	92,263	48.25%
62	Street Lighting Expenses	585	6,405	Sec	0	6,405	0	-	2,700	42.15%
63	Meter Expenses	586	34,407	Bill	0	0	34,407	-	34,407	100.00%
64	Customer Installation Expenses	587	40,257	Bill	0	0	40,257	-	15,896	39.49%
65	Misc. Distribution Expenses	588	344,186	OH_UG	204,787	139,398	0	-	94,645	27.50%
66	Rents	589	505	DistPt	234	246	25	-	0	0.00%
67	Maint Supv & Engineering	590	0	None	0	0	0	-	0	0.00%
68	Maint of Station Equip	592	8,399	Prim	8,399	0	0	-	3,502	41.70%
69	Maint of OH Lines	593	594,613	OH_Cond	448,742	145,871	0	-	125,475	21.10%
70	Maint of UG Lines	594	5,760	UG_Cond	2,835	2,925	0	-	2,457	42.66%
71	Maint of Line Transformers	595	10,278	Trans	0	10,278	0	-	4,143	40.31%
72	Maint of Lighting	596	8,383	Sec	0	8,383	0	-	3,832	45.71%
73	Maint of Misc. Plant	599	398	DistPt	184	194	20	-	186	46.77%
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,364,311		877,952	389,125	97,235	-	435,738	
75	Distribution Expense		1,364,311		877,952	389,125	97,235	-		
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	None	0	0	0	-	0	0.00%
78	Meter Reading Exp	902	1,876	Bill	0	0	1,876	-	883	47.08%
79	Customer Records & Coll	903	414,677	Bill	0	0	414,677	-	144,292	34.80%
80	Uncollectible Accounts	904	20,600	Bill	0	0	20,600	-	0	0.00%
81	Subtotal - Customer Accounts Exp.	901-905	437,153		0	0	437,153	-	145,175	
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153		0	0	437,153	-	145,175	
83									580,912	

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
1	I. ELECTRIC PLANT IN SERVICE					
2	INTANGIBLE PLANT					
3	Organization	302	0	Sec-Pt	0	0
4	EDI Software	303	0	Customer	0	0
5	Total INTANGIBLE Plant		0		0	0
6						
7	C. TRANSMISSION PLANT					
8	Transmission Plant	361	0	None	0	0
9	Total TRANSMISSION Plant	350-359	0		0	0
10						
11	D. DISTRIBUTION PLANT					
12	Land and Land Rights	360	0	None	0	0
13	Station Equipment	362	0	None	0	0
14	Poles, Towers and Fixtures	364	1,090,240	PTF-Sec-Z	233,071	857,169
15	OH Conductors and Devices	365	2,045,997	OH-Sec-Z	475,389	1,570,608
16	UG Conduits and Conductors	366	1,745,550	UG-Sec-Z	725,592	1,019,958
17	Line Transformers	368	2,837,206	Demand	2,837,206	0
18	Services	369	4,318,849	Customer	0	4,318,849
19	Meters	370	0	None	0	0
20	Street Lighting	373	752,337	Customer	0	752,337
21	Total DISTRIBUTION Plant	360-373	12,790,180		4,271,258	8,518,922
22						
23	E. GENERAL PLANT					
24	General Plant	389	648,036	Sec-Lab	240,545	407,491
25	Communication Equip	398	54,962	Sec-Lab	20,402	34,561
26	Total GENERAL Plant	389-399	702,999		260,947	442,052
27						
28	TOTAL UTILITY PLANT		13,493,179		4,532,205	8,960,974
29						

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
30	II. DEPRECIATION RESERVE					
31	Intangible Plant	108.3	0	Sec-Pt	0	0
32	Transmission Plant	108.5	0	None	0	0
33	Station Equipment	108.5	0	None	0	0
34	Poles, Towers and Fixtures	108.6	776,536	PTF-Sec-Z	166,008	610,529
35	OH Conductors and Devices	108.6	520,571	OH-Sec-Z	120,955	399,616
36	UG Conduits and Conductors	108.6	1,089,255	UG-Sec-Z	452,782	636,472
37	Line Transformers	108.6	2,229,870	Demand	2,229,870	0
38	Services	108.6	1,807,582	Customer	0	1,807,582
39	Meters	108.6	0	None	0	0
40	Street Lighting	108.6	24,534	Customer	0	24,534
41	General Plant	108.6	482,982	Sec-GenPt	179,279	303,703
35	Total DEPRECIATION RESERVE	108	6,931,330		3,148,894	3,782,436
42						
43	III. OTHER RATE BASE ITEMS					
44	Cash Working Capital	131	89,807	Sec-OpExp	32,859	56,948
45	CWIP	131	415	Sec-Pt	139	276
45	Materials & Supplies	255	45,244	Sec-OpExp	16,554	28,690
46	Customer Deposits		0	None	0	0
47	ADIT / EDIT	154	(500,141)	Sec-Pt	(167,992)	(332,149)
48	Accrued Pension / OPEB	182	(125,515)	Sec-Lab	(46,590)	(78,925)
49	Total OTHER RATE BASE ITEMS	131-283	(490,191)		(165,029)	(325,161)
50						
51	TOTAL RATE BASE		<u>6,071,658</u>		<u>1,218,281</u>	<u>4,853,377</u>
52						
53	I. OPERATING AND MAINTENANCE EXPENSE					

Line	Account	No.	Secondary	Allocator	Demand	Customer
54	B. TRANSMISSION EXPENSE					
55	Transmission Expense		0	None	0	0
56	Total TRANSMISSION Expense		0		0	0
57						
58	C. DISTRIBUTION OPER. & MAINT. EXP.					
59	Ops Supv & Engineering	580	28,511	Sec-Lab	10,583	17,928
60	Station Expenses	582	0	None	0	0
61	OH Line Expenses	583	46,914	OH-Sec-Z	10,901	36,014
62	Street Lighting Expenses	585	6,405	Customer	0	6,405
63	Meter Expenses	586	0	None	0	0
64	Customer Installation Expenses	587	0	None	0	0
65	Misc. Distribution Expenses	588	139,398	Sec-OH_UG	77,866	61,532
66	Rents	589	246	Sec-Pt	83	163
67	Maint Supv & Engineering	590	0	Sec-Lab	0	0
68	Maint of Station Equip	592	0	None	0	0
69	Maint of OH Lines	593	145,871	OH-Sec-Z	33,893	111,978
70	Maint of UG Lines	594	2,925	UG-Sec-Z	1,216	1,709
71	Maint of Line Transformers	595	10,278	Demand	10,278	0
72	Maint of Lighting	596	8,383	Customer	0	8,383
73	Maint of Misc. Plant	599	194	Sec-Pt	65	129
74	Total DISTR. OPER. & MAINT. EXP.	500-599	389,125		144,885	244,240
75	Distribution Expense		389,125		144,885	244,240
76	D. CUSTOMER ACCOUNTS AND SERVICE					
77	Supervision	901	0	None	0	0
78	Meter Reading Exp	902	0	None	0	0
79	Customer Records & Coll	903	0	None	0	0
80	Uncollectible Accounts	904	0	None	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0
83						

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
84	E. ADMINISTRATIVE AND GENERAL					
85	Administrative & General Salaries	920	149,115	Sec-Lab	55,350	93,765
86	Office Supplies & Expenses	921	41,692	Sec-Lab	15,476	26,216
87	Outside Services Employed	923	25,329	Sec-LabPt	8,955	16,374
88	Property Insurance	924	5,442	Sec-Pt	1,828	3,614
89	Injuries and Damages	925	15,808	Sec-Pt	5,310	10,498
90	Employee Pensions & Benefits	926	4,781	Sec-Lab	1,775	3,007
91	Regulatory Commission Expense	928	0	Sec-Pt	0	0
92	Miscellaneous General Expense	930	31,177	Sec-LabPt	11,022	20,155
89	Maint General Property	932	73,770	Sec-Pt	24,778	48,991
93	Total A&G Expense	920-932	347,114		124,494	222,620
94						
95	TOTAL OPERATING EXPENSES		736,239		269,379	466,860
96						
97	II. DEPRECIATION EXPENSE					
98	Intangible Plant		0	None	0	0
99	Station Equipment	361/362	0	None	0	0
100	Poles, Towers and Fixtures	364	43,971	PTF-Sec-Z	9,400	34,571
101	OH Conductors and Devices	364	79,203	OH-Sec-Z	18,403	60,800
102	UG Conduits and Conductors	364	68,701	UG-Sec-Z	28,558	40,143
103	Line Transformers	364	111,912	Demand	111,912	0
104	Services	364	167,463	Customer	0	167,463
105	Meters	364	0	None	0	0
106	Street Lighting	364	28,717	Customer	0	28,717
107	General Plant	364	42,237	Sec-GenPt	15,678	26,559
101	Total DEPRECIATION Expense	403	542,203		183,951	358,253
108						
109	III. TAXES and OTHER					
110	A. GENERAL TAXES					
111	Payroll related	408	0	None	0	0
112	PURTA, Real estate	408.16	11,922	Sec-Pt	4,004	7,917
113	PUC Assessment		21,739	Sec-RB	4,362	17,377
114	PA Use Tax	408	1,882	Sec-Pt	632	1,250
115	Subtotal - General Taxes		35,543		8,998	26,544
116						
117	B. GROSS RECEIPTS TAX					
118	Gross Receipts tax		95,559	Sec-Rev	29,754	65,805
119	Subtotal- Gross Receipts tax		95,559		29,754	65,805
120						

Line	Account	No.	Secondary	Allocator	Demand	Customer
121	B. FEDERAL / STATE INCOME TAXES					
122	State Income Tax Expense		10,893	Sec-StaTax	844	10,049
123	Federal Income Tax Expense		31,239	Sec-FedTax	2,421	28,818
124	Subtotal - Federal / State Income Taxes	409-411	42,132		3,265	38,867
125	Total TAXES	408-411	173,234		42,018	131,216
126						
127	TOTAL EXPENSES		<u>1,451,676</u>		<u>495,347</u>	<u>956,329</u>
128						
129	IV. OPERATING REVENUES at Present Rates					
130	Distribution Revenue		1,627,225	Sec-RetRRPF	506,665	1,120,559
131	Forfeited Discounts		0	Sec-RetRRPF	0	0
132	Rent For Electric Property		14,530	PTF-Sec-Z	3,106	11,423
133	Other Electric Revenues		1,313	Sec-RetRRPF	409	904
134	Total REVENUES		1,643,068		510,180	1,132,887
135						
136	TOTAL EXPENSES		<u>1,451,676</u>		<u>495,347</u>	<u>956,329</u>
137	V. NET INCOME at Present Rates		<u>191,391</u>		<u>14,833</u>	<u>176,558</u>
138						
139	SUMMARY REPORT					
140	OPERATING REVENUES					
141	Utility Revenues	440-446	1,627,225		506,665	1,120,559
142	Other Operating Revenues	450-456	15,843		3,515	12,328
143	Total Operating Revenues		1,643,068		510,180	1,132,887
144						
145	OPERATING EXPENSES					
146	Distribution / Transmission	580-599	389,125		144,885	244,240
147	Customer Acctg & Service	901-919	0		0	0
148	Admin & General	920-932	347,114		124,494	222,620
149	Total Operating Expenses		736,239		269,379	466,860
150						
151	Depreciation Expense	403	542,203		183,951	358,253
152	Taxes Other Than Income Tax / Other	408	131,102		38,752	92,349
153	INCOME BEFORE INCOME TAXES		233,524		18,099	215,425
154	Income Taxes	409-411	42,132		3,265	38,867
155	NET INCOME		<u>191,391</u>		<u>14,833</u>	<u>176,558</u>
156						
157	RATE BASE		<u>6,071,658</u>		<u>1,218,281</u>	<u>4,853,377</u>
158	Return on Rate Base					

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
159						
160	REVENUE REQUIREMENTS					
161	Target Rate of Return		6.6486%		6.6486%	6.6486%
162						
163	Rate Base		6,071,658		1,218,281	4,853,377
164						
165	Operating expenses		714,499		265,017	449,483
166	Uncollectibles expense		0	None	0	0
167	Depreciation expense		542,203		183,951	358,253
168	Regulatory Commission Expenses		21,739	Sec-Pt	4,362	17,377
169	General taxes / Other		35,543		8,998	26,544
170	Subtotal- Operating Costs to recover		<u>1,313,985</u>		<u>462,328</u>	<u>851,657</u>
171						
172	Target Return on Rate Base- After taxes		403,680		80,999	322,682
173						
174	Income taxes to recover	37.52%	151,467		30,392	121,075
175						
176	Subtotal- Rev Req before GRT		1,869,132		573,718	1,295,414
177	GRT needed	6.24%	115,733		35,608	80,125
178	TOTAL REVENUE REQUIREMENT		<u><u>1,984,865</u></u>		<u><u>609,326</u></u>	<u><u>1,375,539</u></u>
179						

PrimDem
 Class Allocation- Primary Demand
 CAI
 E-4A

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Primary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.6486%		6.6486%	6.6486%	6.6486%	6.6486%	6.6486%	6.6486%
162										
163	Rate Base		6,269,283		3,667,584	46,300	948,719	1,590,067	4,741	11,873
164										
165	Operating expenses		1,459,406		852,330	10,824	220,841	372,722	636	2,053
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		538,275		314,895	3,975	81,456	136,522	407	1,019
168	Regulatory Commission Expenses		22,447	PriD-Pt	14,566	120	3,405	3,118	484	753
169	General taxes / Other		36,455		22,761	224	5,525	6,670	495	779
170	Subtotal- Operating Costs to recover		2,056,583		1,204,553	15,143	311,227	519,032	2,023	4,605
171										
172	Target Return on Rate Base- After taxes		416,820		243,843	3,078	63,077	105,717	315	789
173										
174	Income taxes to recover		156,397	37.52%	91,494	1,155	23,667	39,667	118	296
175										
176	Subtotal- Rev Req before GRT		2,629,800		1,539,890	19,376	397,971	664,416	2,456	5,691
177	GRT needed		161,317	6.24%	94,458	1,189	24,408	40,763	151	348
178	TOTAL REVENUE REQUIREMENT		<u>2,791,117</u>		<u>1,634,348</u>	<u>20,565</u>	<u>422,379</u>	<u>705,179</u>	<u>2,607</u>	<u>6,039</u>
179										
180	Revenue at Present rates		2,336,491		1,428,272	11,802	446,994	402,100	9,201	38,122
181	Revenue Excess (Deficiency)		<u>(454,626)</u>		<u>(206,076)</u>	<u>(8,763)</u>	<u>24,615</u>	<u>(303,079)</u>	<u>6,594</u>	<u>32,083</u>

SecnDem
Class Allocation- Secondary Demand
CAI
E-4B

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	0	NCP-Sec	0	0	0	0	0	0
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	0	None	0	0	0	0	0	0
34	Poles, Towers and Fixtures	108.6	166,008	NCP-Sec	112,148	1,416	29,010	22,926	145	363
35	OH Conductors and Devices	108.6	120,955	NCP-Sec	81,712	1,032	21,137	16,704	106	265
36	UG Conduits and Conductors	108.6	452,782	NCP-Sec	305,881	3,861	79,124	62,530	395	990
37	Line Transformers	108.6	2,229,870	NCP-Ltr	835,741	47,846	452,462	874,444	5,529	13,847
38	Services	108.6	0	None	0	0	0	0	0	0
39	Meters	108.6	0	None	0	0	0	0	0	0
40	Street Lighting	108.6	0	None	0	0	0	0	0	0
41	General Plant	108.6	179,279	SecD-Lab	115,313	1,778	31,872	29,658	188	470
35	Total DEPRECIATION RESERVE	108	3,148,894		1,450,795	55,933	613,606	1,006,262	6,363	15,935
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	32,859	SecD-OpExp	20,481	354	5,903	5,988	38	95
45	CWIP	131	139	SecD-Pt	68	2	27	42	0	1
45	Materials & Supplies	255	16,554	SecD-OpExp	10,318	178	2,974	3,017	19	48
46	Customer Deposits		0	None	0	0	0	0	0	0
47	ADIT / EDIT	154	(167,992)	SecD-Pt	(81,545)	(2,806)	(32,347)	(50,181)	(317)	(795)
48	Accrued Pension / OPEB	182	(46,590)	SecD-Lab	(29,967)	(462)	(8,283)	(7,707)	(49)	(122)
49	Total OTHER RATE BASE ITEMS	131-283	(165,029)		(80,645)	(2,733)	(31,727)	(48,842)	(309)	(773)
50										
51	TOTAL RATE BASE		1,218,281		668,555	17,030	227,358	298,720	1,889	4,730

52

SecnDem
 Class Allocation- Secondary Demand
 CA1
 E-4B

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.6486%		6.6486%	6.6486%	6.6486%	6.6486%	6.6486%	6.6486%
162										
163	Rate Base		1,218,281		668,555	17,030	227,358	298,720	1,889	4,730
164										
165	Operating expenses		265,017		165,077	2,879	47,730	48,483	216	631
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		183,951		90,103	3,037	35,344	54,263	343	859
168	Regulatory Commission Expenses		4,362	SecD-Pt	2,831	23	662	606	94	146
169	General taxes / Other		8,998		5,081	101	1,555	1,991	103	168
170	Subtotal- Operating Costs to recover		462,328		263,092	6,041	85,291	105,343	756	1,805
171										
172	Target Return on Rate Base- After taxes		80,999		44,450	1,132	15,116	19,861	126	315
173										
174	Income taxes to recover		30,392	37.52%	16,678	425	5,672	7,452	47	118
175										
176	Subtotal- Rev Req before GRT		573,718		324,219	7,598	106,079	132,656	929	2,237
177	GRT needed		35,608	6.24%	20,100	473	6,586	8,253	58	139
178	TOTAL REVENUE REQUIREMENT		<u>609,326</u>		<u>344,319</u>	<u>8,070</u>	<u>112,664</u>	<u>140,909</u>	<u>987</u>	<u>2,376</u>
179										
180	Revenue at Present rates		510,180		312,327	2,565	97,947	86,888	2,031	8,423
181	Revenue Excess (Deficiency)		<u>(99,146)</u>		<u>(31,992)</u>	<u>(5,506)</u>	<u>(14,718)</u>	<u>(54,021)</u>	<u>1,044</u>	<u>6,047</u>

SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	0	SecC-IntPt	0	0	0	0	0	0
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	0	None	0	0	0	0	0	0
34	Poles, Towers and Fixtures	108.6	610,529	Avg-Cust	506,599	906	96,268	3,417	1,027	2,311
35	OH Conductors and Devices	108.6	399,616	Avg-Cust	331,590	593	63,012	2,236	672	1,513
36	UG Conduits and Conductors	108.6	636,472	Avg-Cust	528,127	944	100,359	3,562	1,071	2,409
37	Line Transformers	108.6	0	Avg-Cust-Sec	0	0	0	0	0	0
38	Services	108.6	1,807,582	Services_Cost	1,502,503	2,767	287,242	11,779	3,291	0
39	Meters	108.6	0	None	0	0	0	0	0	0
40	Street Lighting	108.6	24,534	StLgt-Cost	0	0	0	0	9,632	14,902
41	General Plant	108.6	303,703	SecC-Lab	226,755	405	43,090	1,529	12,406	19,517
35	Total DEPRECIATION RESERVE	108	3,782,436		3,095,575	5,615	589,971	22,523	28,100	40,652
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	56,948	SecC-OpExp	43,416	78	8,255	297	1,908	2,994
45	CWIP	131	276	SecC-Pt	209	0	40	2	10	15
45	Materials & Supplies	255	28,690	SecC-OpExp	21,873	39	4,159	150	961	1,508
46	Customer Deposits		0	CustDeposits	0	0	0	0	0	0
47	ADIT / EDIT	154	(332,149)	SecC-Pt	(251,339)	(457)	(47,914)	(1,841)	(12,124)	(18,475)
48	Accrued Pension / OPEB	182	(78,925)	SecC-Lab	(58,928)	(105)	(11,198)	(397)	(3,224)	(5,072)
49	Total OTHER RATE BASE ITEMS	131-283	(325,161)		(244,769)	(444)	(46,659)	(1,790)	(12,469)	(19,029)
50										
51	TOTAL RATE BASE		<u>4,853,377</u>		<u>3,440,466</u>	<u>6,256</u>	<u>656,036</u>	<u>25,351</u>	<u>286,518</u>	<u>438,750</u>

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SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	None	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0		0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	17,928	SecC-Lab	13,386	24	2,544	90	732	1,152
60	Station Expenses	582	0	None	0	0	0	0	0	0
61	OH Line Expenses	583	36,014	Avg-Cust	29,883	53	5,679	202	61	136
62	Street Lighting Expenses	585	6,405	StLgt-Cost	0	0	0	0	2,515	3,890
63	Meter Expenses	586	0	None	0	0	0	0	0	0
64	Customer Installation Expenses	587	0	None	0	0	0	0	0	0
65	Misc. Distribution Expenses	588	61,532	Avg-Cust	51,057	91	9,702	344	104	233
66	Rents	589	163	Avg-Cust	136	0	26	1	0	1
67	Maint Supv & Engineering	590	0	SecC-Lab	0	0	0	0	0	0
68	Maint of Station Equip	592	0	None	0	0	0	0	0	0
69	Maint of OH Lines	593	111,978	Avg-Cust	92,916	166	17,657	627	188	424
70	Maint of UG Lines	594	1,709	Avg-Cust	1,418	3	269	10	3	6
71	Maint of Line Transformers	595	0	Avg-Cust-Sec	0	0	0	0	0	0
72	Maint of Lighting	596	8,383	StLgt-Cost	0	0	0	0	3,291	5,092
73	Maint of Misc. Plant	599	129	SecC-Pt	97	0	19	1	5	7
74	Total DISTR. OPER. & MAINT. EXP.	500-599	244,240		188,893	338	35,895	1,274	6,898	10,942
75	Distribution Expense		244,240		188,893	338	35,895	1,274	6,898	10,942
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	None	0	0	0	0	0	0
78	Meter Reading Exp	902	0	None	0	0	0	0	0	0
79	Customer Records & Coll	903	0	None	0	0	0	0	0	0
80	Uncollectible Accounts	904	0	None	0	0	0	0	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0	0	0	0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0	0	0	0	0
83										

SecnCus
 Class Allocation- Secondary Customer
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.6486%		6.6486%	6.6486%	6.6486%	6.6486%	6.6486%	6.6486%
162										
163	Rate Base		4,853,377		3,440,466	6,256	656,036	25,351	286,518	438,750
164										
165	Operating expenses		449,483		344,652	545	65,038	23	15,264	23,962
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		358,253		271,474	493	51,748	1,983	12,892	19,662
168	Regulatory Commission Expenses		17,377	SecC-Pt	11,277	93	2,636	2,413	375	583
169	General taxes / Other		26,544		18,213	106	3,959	2,464	710	1,093
170	Subtotal- Operating Costs to recover		851,657		645,616	1,237	123,380	6,884	29,240	45,300
171										
172	Target Return on Rate Base- After taxes		322,682		228,743	416	43,617	1,685	19,049	29,171
173										
174	Income taxes to recover		121,075	37.52%	85,828	156	16,366	632	7,148	10,945
175										
176	Subtotal- Rev Req before GRT		1,295,414		960,187	1,809	183,363	9,202	55,437	85,416
177	GRT needed		80,125	6.24%	59,335	112	11,327	561	3,460	5,330
178	TOTAL REVENUE REQUIREMENT		<u>1,375,539</u>		<u>1,019,521</u>	<u>1,920</u>	<u>194,691</u>	<u>9,763</u>	<u>58,898</u>	<u>90,746</u>
179										
180	Revenue at Present rates		1,132,887		695,593	5,631	217,223	191,280	4,505	18,656
181	Revenue Excess (Deficiency)		<u>(242,652)</u>		<u>(323,929)</u>	<u>3,710</u>	<u>22,532</u>	<u>181,517</u>	<u>(54,393)</u>	<u>(72,090)</u>

BillCus
 Class Allocation- Billing Customer
 CA1
 E-4D

Citizens Electric Company of Lewisburg
 Embedded Cost of Service Study (ECOSS) (CU)
 FPFTY Ending December 31, 2023
 Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	None	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0		0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	22,527	Bill-DxLab	17,025	51	4,638	774	12	27
60	Station Expenses	582	0	None	0	0	0	0	0	0
61	OH Line Expenses	583	0	None	0	0	0	0	0	0
62	Street Lighting Expenses	585	0	StLgt-Cost	0	0	0	0	0	0
63	Meter Expenses	586	34,407	Meter_Cost	24,828	90	7,850	1,639	0	0
64	Customer Installation Expenses	587	40,257	Avg-Cust	33,404	60	6,348	225	68	152
65	Misc. Distribution Expenses	588	0	Avg-Cust	0	0	0	0	0	0
66	Rents	589	25	Bill-Pt	19	0	5	1	0	0
67	Maint Supv & Engineering	590	0	None	0	0	0	0	0	0
68	Maint of Station Equip	592	0	None	0	0	0	0	0	0
69	Maint of OH Lines	593	0	None	0	0	0	0	0	0
70	Maint of UG Lines	594	0	None	0	0	0	0	0	0
71	Maint of Line Transformers	595	0	None	0	0	0	0	0	0
72	Maint of Lighting	596	0	StLgt-Cost	0	0	0	0	0	0
73	Maint of Misc. Plant	599	20	Avg-Cust	16	0	3	0	0	0
74	Total DISTR. OPER. & MAINT. EXP.	500-599	97,235		75,292	201	18,843	2,639	80	179
75	Distribution Expense		97,235		75,292	201	18,843	2,639	80	179
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	Avg-Cust	0	0	0	0	0	0
78	Meter Reading Exp	902	1,876	Meter_Cost	1,353	5	428	89	0	0
79	Customer Records & Coll	903	414,677	Avg-Cust	344,088	615	65,386	2,321	698	1,570
80	Uncollectible Accounts	904	20,600	Write-Offs	12,603	103	3,957	3,512	82	342
81	Subtotal - Customer Accounts Exp.	901-905	437,153		358,044	723	69,771	5,922	780	1,912
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153		358,044	723	69,771	5,922	780	1,912
83										

BillCus
 Class Allocation- Billing Customer
 CA1
 E-4D

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.6486%		6.6486%	6.6486%	6.6486%	6.6486%	6.6486%	6.6486%
162										
163	Rate Base		1,289,652		1,068,626	3,448	235,801	(21,034)	977	1,833
164										
165	Operating expenses		1,051,606		831,467	2,265	175,512	30,570	4,266	7,526
166	Uncollectibles expense		20,600	Write-Offs	12,603	103	3,957	3,512	82	342
167	Depreciation expense		153,920		120,211	307	29,161	3,779	142	320
168	Regulatory Commission Expenses		4,618	Bill-Pt	2,996	25	701	641	100	155
169	General taxes / Other		7,215		4,979	30	1,222	723	101	159
170	Subtotal- Operating Costs to recover		1,237,958		972,256	2,730	210,553	39,226	4,692	8,501
171										
172	Target Return on Rate Base- After taxes		85,744		71,049	229	15,677	(1,398)	65	122
173										
174	Income taxes to recover		32,172	37.52%	26,659	86	5,882	(525)	24	46
175										
176	Subtotal- Rev Req before GRT		1,355,874		1,069,963	3,046	232,113	37,303	4,781	8,669
177	GRT needed		84,609	6.24%	66,779	190	14,483	2,319	298	540
178	TOTAL REVENUE REQUIREMENT		<u>1,440,484</u>		<u>1,136,742</u>	<u>3,236</u>	<u>246,596</u>	<u>39,622</u>	<u>5,079</u>	<u>9,209</u>
179										
180	Revenue at Present rates		1,237,622		757,180	6,195	237,734	211,021	4,950	20,541
181	Revenue Excess (Deficiency)		<u>(202,862)</u>		<u>(379,562)</u>	<u>2,959</u>	<u>(8,861)</u>	<u>171,400</u>	<u>(129)</u>	<u>11,332</u>

Clas: **Citizens Electric Company of Lewisburg**
 Clas: **Embedded Cost of Service Study (ECOSS) (CU)**
 Fac: **FPFTY Ending December 31, 2023**
 E-5C Classification Factors

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
1	None		0			
2		FALSE	0.00%	0.00%	0.00%	0.00%
3						
4	Demand		1	1		
5		TRUE	100.00%	100.00%	0.00%	0.00%
6						
7	Commodity		1		1	
8		TRUE	100.00%	0.00%	100.00%	0.00%
9						
10	Customer		1			1
11		TRUE	100.00%	0.00%	0.00%	100.00%
12						
13	PTF-Sec-Z		100.00%	21.38%	0.00%	78.62%
14		TRUE	100.00%	21.38%	0.00%	78.62%
15						
16	OH-Sec-Z		100.00%	23.24%	0.00%	76.76%
17		TRUE	100.00%	23.24%	0.00%	76.76%
18						
19	UG-Sec-Z		100.00%	41.57%	0.00%	58.43%
20		TRUE	100.00%	41.57%	0.00%	58.43%
21						
22	Trans-Min		100.00%	65.07%	0.00%	34.93%
23		TRUE	100.00%	65.07%	0.00%	34.93%
24						
25	Sec_RB		6,071,658	1,218,281	-	4,853,377
26		TRUE	100.00%	20.07%	0.00%	79.93%
27						
28	Sec-Pt		13,493,179	4,532,205	-	8,960,974
29		TRUE	100.00%	33.59%	0.00%	66.41%
30						
31	Sec-RB		6,071,658	1,218,281	-	4,853,377
32		TRUE	100.00%	20.07%	0.00%	79.93%
33						
34	Sec-OH_UG		20,300,821	11,339,847	-	8,960,974
35		TRUE	100.00%	55.86%	0.00%	44.14%
36						

Clas: **Citizens Electric Company of Lewisburg**
 Clas: **Embedded Cost of Service Study (ECOSS) (CU)**
 Fac: **FPFTY Ending December 31, 2023**
 E-5C Classification Factors

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
37	Sec-GenPt		702,999	260,947	-	442,052
38		TRUE	100.00%	37.12%	0.00%	62.88%
39						
40	Sec-OpExp		736,239	269,379	-	466,860
41		TRUE	100.00%	36.59%	0.00%	63.41%
42						
43	Sec-DiPt		12,790,180	4,271,258	-	8,518,922
44		TRUE	100.00%	33.39%	0.00%	66.61%
45						
46	Sec-Lab		117,249	43,522	-	73,727
47		TRUE	100.00%	37.12%	0.00%	62.88%
48						
49	Sec-Rev		1,627,225	506,665	-	1,120,559
50		TRUE	100.00%	31.14%	0.00%	68.86%
51						
52	Sec-LabPt		200.00%	70.71%	0.00%	129.29%
53		TRUE	100.00%	35.35%	0.00%	64.65%
54						
55	Sec-PreTax		233,524	18,099	-	215,425
56		TRUE	100.00%	7.75%	0.00%	92.25%
57						
55	Sec-StaTax		233,524	18,099	-	215,425
58		TRUE	100.00%	7.75%	0.00%	92.25%
59						
58	Sec-FedTax		222,631	17,254	-	205,377
60		TRUE	100.00%	7.75%	0.00%	92.25%
61						
58	Sec-RetRRPF		1,915,387	596,390	-	1,318,997
62		TRUE	100.00%	31.14%	0.00%	68.86%
63						

WP (CU)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
INDEX TO WORKPAPERS (CU)**

Line	WORKPAPER	DESCRIPTION	PERIOD
INDEX TO WORKPAPERS			
1	INDEX TO WORKPAPERS (CU)		
2	Workpaper 1 to Schedule B (CU)	Sales Recap	Period Ending December 31, 2021
3	Workpaper 2 to Schedule B (CU)	Monthly Billing Units, Rates And Revenue	Period Ending December 31, 2021
4	Workpaper 3 to Schedule B (CU)	Monthly Customers	Period Ending December 31, 2021
5	Workpaper 1 to Schedule C (CU)	Historic O&M	Historic Periods
6	Workpaper 2 to Schedule C (CU)	Historic O&M- Details	Historic Periods
7	Workpaper 3 to Schedule C (CU)	Forecast O&M	Years 2018-2023
8	Workpaper 4 to Schedule C (CU)	Accumulated Deferred Income Taxes	Years 2017 through 2023
9	Workpaper 1 to Schedule D (CU)	Components of Capital Projects- Zero Load Analysis	HY 2021
10	Workpaper 2 to Schedule D (CU)	Transformer Costs and Replacements	HY 2021
11	Workpaper 3 to Schedule D (CU)	Services Costs	HY 2021

WP1_B (CU) Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (CU)
Workpaper 1 to Schedule B (CU)
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	January	February	March	April	May	June	July
1	RS - KWH	440.10	KWH	RS	(93,495)	(97,446)	(80,932)	(68,417)	(59,130)	(68,875)	(81,071)
2	RS - Facility	440.20	Facility	RS	(40,773)	(40,822)	(40,804)	(40,884)	(40,865)	(40,849)	(40,869)
3	RS - STAS	440.40	STAS	RS	17	15	12	10	7	11	14
4	RS - KWHGEN	440.50	Gen	RS	(260,352)	(233,652)	(194,036)	(163,683)	(141,598)	(192,934)	(226,708)
5	RSH - KWH	441.10	KWH	RS	(170,035)	(185,218)	(143,308)	(101,120)	(79,200)	(78,747)	(83,301)
6	RSH - Facility	441.20	Facility	RS	(35,628)	(35,651)	(35,667)	(35,747)	(35,740)	(35,794)	(35,839)
7	RSH - STAS	441.40	STAS	RS	34	33	26	20	15	15	16
8	RSH - KWHGEN	441.50	Gen	RS	(475,940)	(444,384)	(344,112)	(242,565)	(190,003)	(220,481)	(233,237)
9	GLP1 - KWH2	442.10	KWH	GLP1	(69,013)	(71,306)	(68,409)	(63,022)	(60,429)	(63,336)	(65,145)
10	GLP1 - Facility	442.20	Facility	GLP1	(16,534)	(16,558)	(16,595)	(16,600)	(16,668)	(16,647)	(16,626)
11	GLP1 - KW2	442.30	KW	GLP1	(1,450)	(1,767)	(2,121)	(1,747)	(1,987)	(2,035)	2,034
12	GLP1 - STAS	442.40	STAS	GLP1	11	11	10	8	7	9	10
13	GLP1 - KWHGEN	442.50	Gen	GLP1	(153,860)	(150,817)	(132,971)	(112,984)	(99,704)	(126,170)	(145,559)
14	GLP3 - KWH3	443.10	KWH	GLP3	(2,742)	(2,877)	(2,710)	(2,566)	(2,025)	(1,928)	(2,176)
15	GLP3 - KW AND KW2	443.20	KW	GLP3	(28,136)	(28,779)	(28,856)	(27,572)	(27,695)	(27,162)	(27,269)
16	GLPP - KWH3	443.21	KWH	GLP3	(2,247)	(2,231)	(2,116)	(2,460)	(2,933)	(2,967)	(3,468)
17	GLPP - KWWD	443.22	KW	GLP3	676	653	658	778	819	863	983
18	GLPP - KW	443.23	KW	GLP3	(16,301)	(15,952)	(15,879)	(19,652)	(25,785)	(26,794)	(28,928)
19	GLPP - Facility	443.25	Facility	GLP3	(204)	(204)	(204)	(204)	(204)	(204)	(204)
20	GLPP - STAS	443.26	STAS	GLP3	1	1	1	1	1	1	2
21	GLP3 - KWHGEN	443.30	Gen	GLP3	(29,988)	(29,550)	(27,592)	(26,500)	(24,550)	(31,666)	(32,609)
22	GLP3 - Facility	443.40	Facility	GLP3	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)	(1,683)
23	GLP3 - STAS	443.50	STAS	GLP3	4	4	4	4	4	8	5
24	RS - KWH	440.10	TCJA	RS	(5,782)	(6,145)	(5,107)	(4,136)	(3,602)	(3,813)	(4,092)
25	GLP1 - KWH2	442.10	TCJA	GLP1	(1,546)	(1,599)	(1,531)	(1,405)	(1,347)	(1,389)	(1,458)
26	GLPP - KW	443.23	TCJA	GLP3	(315)	(310)	(304)	(372)	(479)	(498)	(550)
27	GLP3 - KWH3	443.10	TCJA	GLP3	(559)	(575)	(571)	(547)	(839)	(958)	(743)
28	GPL3 - RTP - KWH3	443.71	KWH	GLP3	(233)	(228)	(213)	(241)	(267)	(2,936)	(461)
29	GPL3 - RTP - KW KW	443.73	KW	GLP3	(1,391)	(1,311)	(1,327)	(1,759)	(19,996)	(24,910)	(14,514)
30	GPL3 - RTP - GEN	443.74	Gen	GLP3	(8,895)	(8,844)	(10,529)	(8,896)	(8,723)	(66,956)	(14,153)
31	GPL3 - RTP - Facility	443.75	Facility	GLP3	(102)	(102)	(102)	(102)	(102)	(102)	(102)
32	PubStHwy Base	444.10	Facility	OL	(3,055)	(2,974)	(2,888)	(2,859)	(2,882)	(2,470)	(2,795)
33	LED - KWH	444.11	Facility	OL	(4,453)	(4,549)	(4,658)	(4,728)	(4,867)	(4,979)	(5,063)
34	MBL - KWHGEN	444.22	Gen	MBL	(906)	(719)	(542)	(454)	(390)	(414)	(374)
35	MBL - Facility	444.23	Facility	MBL	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)
36	MBL - STAS	444.24	STAS	MBL	0	0	0	0	0	0	0
37	SL Only - STAS	444.40	STAS	OL	0	0	0	0	0	0	0
38	PubSt&Hwy Ltg-Gen	444.50	Gen	OL	(907)	(974)	(941)	(911)	(886)	(759)	(945)
39	LED - KWHGEN	444.51	Gen	OL	(548)	(484)	(494)	(499)	(513)	(564)	(572)
40	SH - KWH	445.10	KWH	SH	(3,126)	(3,453)	(3,114)	(1,791)	(959)	(610)	(762)
41	SH - KWHGEN	445.20	Gen	SH	(6,466)	(5,922)	(5,342)	(3,071)	(1,644)	(1,221)	(1,525)
42	SH - Facility	445.30	Facility	SH	(204)	(204)	(204)	(204)	(204)	(186)	(186)
43	SH - STAS	445.40	STAS	SH	0	0	0	0	0	0	0
44	Reservation Charge	449.00	BU	GLP3	(11,500)	(11,500)	(11,500)	(11,379)	(2,911)	(692)	(5,638)
45	Totals				(1,449,335)	(1,409,781)	(1,188,360)	(971,647)	(861,662)	(1,052,532)	(1,077,270)

Line	Customer Class	Acct. #	Type	Class	January	February	March	April	May	June	July
46											
47	Distribution	kWH			340,890	362,758	300,802	239,616	204,942	219,400	236,385
48	Facility	Facility			104,346	104,458	104,515	104,721	104,925	104,624	105,076
49	Demand	kW			46,601	47,156	47,525	49,952	74,644	80,038	67,695
50	Reservation Charge	BU			11,500	11,500	11,500	11,379	2,911	692	5,638
51	Total Distribution				503,337	525,872	464,343	405,668	387,422	404,754	414,794
52	Generation	Gen			937,863	875,345	716,559	559,563	468,009	641,165	655,681
53	STAS	STAS			(67)	(65)	(54)	(44)	(36)	(44)	(47)
54	TCJA	TCJA			8,203	8,629	7,513	6,460	6,267	6,658	6,843
55					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270
56											
57	kWh Generation				January	February	March	April	May	June	July
58	RS				3,669,929	3,842,312	3,190,865	2,691,734	2,328,542	2,713,690	3,194,404
59	RSH				6,708,865	7,307,781	5,660,613	3,988,918	3,124,565	3,106,680	3,286,401
60	GLP1				2,168,825	2,480,130	2,186,673	1,857,980	1,636,424	1,777,783	2,030,795
61	GLP3				422,728	485,956	453,760	435,788	403,744	446,192	459,488
62	GLP3 - RTP				176,231	174,981	158,354	178,533	179,960	1,857,490	232,038
63	GLPP				-	-	-	-	-	-	-
64	PL/SL				30,866	25,570	24,720	20,485	18,541	15,908	17,148
65	MBL				12,731	11,829	8,916	7,443	6,382	5,838	5,270
66	SH				88,117	97,360	87,788	50,480	27,025	17,207	21,496
67	Totals				13,278,292	14,425,919	11,771,689	9,231,361	7,725,183	9,940,788	9,247,040
68											
69	RS/RSH				339,931	359,137	300,711	246,169	214,935	224,266	241,079
70	GLP1				86,997	89,631	87,125	81,369	79,084	82,018	79,738
71	GLP3				63,862	64,213	63,932	66,839	82,781	88,515	83,461
72	SH				3,330	3,658	3,318	1,995	1,163	796	948
73	MBL				1,710	1,710	1,710	1,710	1,710	1,710	1,710
74	OL				7,508	7,523	7,546	7,587	7,749	7,448	7,858
75					503,337	525,872	464,343	405,668	387,422	404,754	414,794
76	Generation				937,863	875,345	716,559	559,563	468,009	641,165	655,681
77	STAS				(67)	(65)	(54)	(44)	(36)	(44)	(47)
78	TCLA				8,203	8,629	7,513	6,460	6,267	6,658	6,843
79					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270
80											
81	Excess Demand GLP	\$3.45			420	512	615	506	576	590	(589)
82											
83	RS				1,081,955	1,043,270	843,927	656,524	550,116	641,468	705,086
84	SH				9,796	9,579	8,659	5,066	2,806	2,017	2,473
85	GLP1				242,392	242,036	221,617	195,748	180,128	209,568	226,744
86	GLP3				103,614	103,487	102,924	103,148	117,366	188,584	131,510
87	MBL				2,616	2,429	2,252	2,164	2,099	2,124	2,084
88	OL				8,963	8,981	8,981	8,997	9,147	8,771	9,375
89					1,449,335	1,409,781	1,188,360	971,647	861,662	1,052,532	1,077,270

WP1_B (CU) Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year
Workpaper 1 to Schedule B (CU)
Sales Recap
Period Ending December 31, 2021

Line	Customer Class	Acct. #	Type	Class	August	September	October	November	December	Totals
1	RS - KWH	440.10	KWH	RS	(84,411)	(84,478)	(62,060)	(67,024)	(80,646)	(927,984)
2	RS - Facility	440.20	Facility	RS	(40,785)	(40,782)	(40,785)	(40,743)	(40,739)	(489,701)
3	RS - STAS	440.40	STAS	RS	15	15	9	10	15	151
4	RS - KWHGEN	440.50	Gen	RS	(236,031)	(236,185)	(172,869)	(187,385)	(241,201)	(2,486,633)
5	RSH - KWH	441.10	KWH	RS	(85,753)	(85,959)	(62,286)	(90,029)	(130,492)	(1,295,448)
6	RSH - Facility	441.20	Facility	RS	(35,936)	(35,857)	(35,838)	(35,938)	(35,916)	(429,551)
7	RSH - STAS	441.40	STAS	RS	16	17	11	18	28	248
8	RSH - KWHGEN	441.50	Gen	RS	(240,094)	(240,656)	(174,386)	(252,140)	(390,758)	(3,448,757)
9	GLP1 - KWH2	442.10	KWH	GLP1	(65,210)	(63,033)	(60,205)	(62,906)	(65,251)	(777,265)
10	GLP1 - Facility	442.20	Facility	GLP1	(16,687)	(16,667)	(16,692)	(16,699)	(16,691)	(199,662)
11	GLP1 - KW2	442.30	KW	GLP1	(1,788)	(1,618)	(1,738)	(1,002)	(937)	(16,156)
12	GLP1 - STAS	442.40	STAS	GLP1	10	9	8	9	11	113
13	GLP1 - KWHGEN	442.50	Gen	GLP1	(151,752)	(142,600)	(124,242)	(127,164)	(153,656)	(1,621,478)
14	GLP3 - KWH3	443.10	KWH	GLP3	(2,561)	(2,588)	(2,062)	(1,827)	(2,395)	(28,457)
15	GLP3 - KW AND KW2	443.20	KW	GLP3	(28,905)	(29,959)	(27,858)	(27,453)	(28,354)	(337,997)
16	GLPP - KWH3	443.21	KWH	GLP3	(3,553)	(3,608)	(3,184)	(3,017)	(2,702)	(34,487)
17	GLPP - KWWD	443.22	KW	GLP3	953	911	835	793	699	9,621
18	GLPP - KW	443.23	KW	GLP3	(28,227)	(27,348)	(25,778)	(24,834)	(22,874)	(278,352)
19	GLPP - Facility	443.25	Facility	GLP3	(204)	(204)	(204)	(204)	(204)	(2,448)
20	GLPP - STAS	443.26	STAS	GLP3	1	1	1	1	1	15
21	GLP3 - KWHGEN	443.30	Gen	GLP3	(39,591)	(40,156)	(35,237)	(34,085)	(46,776)	(398,301)
22	GLP3 - Facility	443.40	Facility	GLP3	(1,797)	(1,785)	(1,785)	(1,802)	(1,775)	(20,725)
23	GLP3 - STAS	443.50	STAS	GLP3	5	6	6	6	6	62
24	RS - KWH	440.10	TCJA	RS	(4,243)	(4,247)	(3,413)	(4,215)	(5,186)	(53,981)
25	GLP1 - KWH2	442.10	TCJA	GLP1	(1,448)	(1,450)	(1,378)	(1,498)	(1,558)	(17,606)
26	GLPP - KW	443.23	TCJA	GLP3	(543)	(531)	(490)	(496)	(460)	(5,348)
27	GLP3 - KWH3	443.10	TCJA	GLP3	(641)	(762)	(929)	(1,023)	(706)	(8,852)
28	GPL3 - RTP - KWH3	443.71	KWH	GLP3	(461)	(1,051)	(1,436)	(1,719)	(262)	(9,505)
29	GPL3 - RTP - KW KW	443.73	KW	GLP3	(7,288)	(12,207)	(22,865)	(25,992)	(8,289)	(141,850)
30	GPL3 - RTP - GEN	443.74	Gen	GLP3	(15,545)	(33,787)	(27,919)	(39,922)	(18,831)	(263,000)
31	GPL3 - RTP - Facility	443.75	Facility	GLP3	(102)	(102)	(102)	(102)	(102)	(1,224)
32	PubStHwy Base	444.10	Facility	OL	(2,727)	(2,157)	(2,576)	(2,505)	(2,387)	(32,274)
33	LED - KWH	444.11	Facility	OL	(5,129)	(5,181)	(5,256)	(5,316)	(5,430)	(59,609)
34	MBL - KWHGEN	444.22	Gen	MBL	(400)	(443)	(482)	(543)	(805)	(6,470)
35	MBL - Facility	444.23	Facility	MBL	(1,710)	(1,710)	(1,710)	(1,710)	(1,710)	(20,519)
36	MBL - STAS	444.24	STAS	MBL	0	0	0	0	0	1
37	SL Only - STAS	444.40	STAS	OL	0	0	0	0	0	3
38	PubSt&Hwy Ltg-Gen	444.50	Gen	OL	(926)	(787)	(878)	(856)	(799)	(10,569)
39	LED - KWHGEN	444.51	Gen	OL	(578)	(588)	(595)	(600)	(696)	(6,731)
40	SH - KWH	445.10	KWH	SH	(856)	(949)	(554)	(758)	(2,082)	(19,013)
41	SH - KWHGEN	445.20	Gen	SH	(1,712)	(1,899)	(1,108)	(1,516)	(4,453)	(35,878)
42	SH - Facility	445.30	Facility	SH	(186)	(186)	(186)	(186)	(205)	(2,340)
43	SH - STAS	445.40	STAS	SH	0	0	0	0	0	3
44	Reservation Charge	449.00	BU	GLP3	(8,994)	(6,676)	(1,652)	(151)	(8,276)	(80,868)
45	Totals				<u>(1,115,772)</u>	<u>(1,127,234)</u>	<u>(919,867)</u>	<u>(1,062,519)</u>	<u>(1,322,842)</u>	<u>(13,558,821)</u>

Line	Customer Class	Acct. #	Type	Class	August	September	October	November	December	Totals
46										
47	Distribution		kWH		242,804	241,666	191,786	227,279	283,830	3,092,159
48	Facility		Facility		105,262	104,631	105,134	105,204	105,157	1,258,052
49	Demand		kW		65,255	70,221	77,404	78,488	59,755	764,734
50	Reservation Charge		BU		8,994	6,676	1,652	151	8,276	80,868
51	Total Distribution				422,316	423,193	375,976	411,122	457,018	5,195,813
52	Generation		Gen		686,630	697,101	537,716	644,210	857,975	8,277,817
53	STAS		STAS		(48)	(49)	(36)	(45)	(61)	(596)
54	TCJA		TCJA		6,875	6,989	6,211	7,231	7,909	85,787
55					1,115,772	1,127,234	919,867	1,062,519	1,322,842	13,558,821
56										
57	kWh Generation				August	September	October	November	December	Totals
58	RS				3,325,778	3,327,954	2,435,796	2,640,335	3,178,280	36,539,619
59	RSH				3,383,037	3,390,957	2,457,179	3,552,764	5,149,000	51,116,760
60	GLP1				2,118,067	2,087,045	1,730,446	1,771,596	2,007,685	23,853,449
61	GLP3				557,860	565,800	496,504	480,280	616,344	5,824,444
62	GLP3 - RTP				241,066	500,887	374,944	517,946	179,329	4,771,759
63	GLPP				-	-	-	-	-	-
64	PL/SL				18,807	20,755	24,025	25,014	26,703	268,542
65	MBL				5,627	6,250	6,791	7,632	10,613	95,322
66	SH				24,122	26,762	15,620	21,365	58,695	536,037
67	Totals				9,674,364	9,926,410	7,541,305	9,016,932	11,226,649	123,005,932
68										
69	RS/RSH				246,885	247,076	200,969	233,734	287,793	3,142,684
70	GLP1				83,685	81,317	78,635	80,607	82,879	993,083
71	GLP3				81,139	84,617	86,090	86,307	74,534	926,290
72	SH				1,041	1,135	740	944	2,287	21,354
73	MBL				1,710	1,710	1,710	1,710	1,710	20,519
74	OL				7,856	7,338	7,832	7,820	7,817	91,883
75					422,316	423,193	375,976	411,122	457,018	5,195,813
76	Generation				686,630	697,101	537,716	644,210	857,975	8,277,817
77	STAS				(48)	(49)	(36)	(45)	(61)	(596)
78	TCLA				6,875	6,989	6,211	7,231	7,909	85,787
79					1,115,772	1,127,234	919,867	1,062,519	1,322,842	13,558,821
80										
81	Excess Demand GLP	\$3.45			518	469	504	291	272	4,683
82										
83	RS				727,221	728,132	551,617	677,446	924,894	9,131,655
84	SH				2,753	3,034	1,848	2,459	6,740	57,229
85	GLP1				236,874	225,358	204,247	209,260	238,082	2,632,055
86	GLP3				137,453	159,845	150,659	161,825	141,300	1,601,715
87	MBL				2,109	2,153	2,192	2,252	2,514	26,988
88	OL				9,360	8,713	9,305	9,276	9,311	109,179
89					1,115,772	1,127,234	919,867	1,062,519	1,322,842	13,558,821

/P2_B (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 2 to Schedule B (CU)
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
33	Monthly Billing Units- Public Lighting and Street Lighting HY 2021						
34	Rate 1			MBL- Meter Coun	12		
35	Rate 2			MBL- Post Count	535		
36	Rate 3			Mth revenue	\$1,709.93	\$7,095.06	
37	RATES AND CHARGES						
38	Tariff Rates						
39	Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84	
40					MBL- Meter		
41							
42					MBL- Post	Average	
43	Energy Block 1	\$0.025330	\$0.035470	\$0.008890	\$0.008697	\$3.11	\$15.00
44							
45	Energy Block 2				\$0.000947	Count	
46						473	
47	Reservation Chge				\$2.30		
48							
49	Voltage Discount				(\$0.214725)		
50	Block 1 kWh				3,500		
51	Demand Block 1			\$3.45	\$4.92		
52							
53	Block 1 Energy = Demand X				30		
54	GSSR Rate	\$0.075850	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000
55							
56	STAS Rate	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%	0.00000%
57							

/P2_B (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 2 to Schedule B (CU)
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
151			GLP-1 Month	GLP-1 Excess	GLP-1 Total	GLP-3	
152	Jan-21	13,136	420	13,556	9,265		36,376
153	Feb-21	13,218	512	13,730	9,304		36,764
154	Mar-21	13,173	615	13,788	9,308		36,885
155	Apr-21	12,900	506	13,406	9,920		36,732
156	May-21	12,455	576	13,031	14,861		40,923
157	Jun-21	12,927	590	13,517	15,936		42,971
158	Jul-21	13,053	(589)	12,464	14,333		39,261
159	Aug-21	12,516	518	13,034	13,074		39,142
160	Sep-21	12,661	469	13,130	14,082		40,341
161	Oct-21	12,171	504	12,675	15,452		40,802
162	Nov-21	12,899	291	13,190	15,803		42,183
163	Dec-21	12,948	272	13,220	12,047		38,486
164		154,057	4,684	158,741	153,386		470,867
165		154,057			153,386		
166							

/P2_B (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 2 to Schedule B (CU)
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
167	GLP3 kWh		GLP3 kW	GLP3 Volt Disc	GLP3 Res Chge	GLP3 Total	GLP3 kWVD
168							
169	Jan-21	3,829,943	45,583	(701)	11,500	56,382	3,263
170	Feb-21	3,956,857	45,777	(685)	11,500	56,592	3,188
171	Mar-21	3,638,362	45,796	(681)	11,500	56,615	3,173
172	Apr-21	3,715,029	48,808	(850)	11,379	59,337	3,959
173	May-21	3,659,964	73,116	(1,110)	2,911	74,917	5,168
174	Jun-21	5,381,634	78,407	(1,149)	692	77,949	5,353
175	Jul-21	4,212,174	70,518	(1,254)	5,638	74,902	5,840
176	Aug-21	4,554,618	64,322	(1,228)	8,994	72,089	5,717
177	Sep-21	5,019,687	69,283	(1,183)	6,676	74,775	5,512
178	Oct-21	4,261,724	76,024	(1,104)	1,652	76,572	5,143
179	Nov-21	4,219,114	77,752	(1,061)	151	76,842	4,940
180	Dec-21	3,777,525	59,270	(988)	8,276	66,559	4,599
181		50,226,631	754,657	(11,994)	80,868	823,531	55,856
182		50,226,631					55,856

In GLP-RTP

Line	GLP3 kWh	GLP3 - Customer kWh	GLP3 - EvH kWh	GLP3 - Customer kWh	Res Charge \$	Res CrkW kW	ResCedit \$
187	Jan-21	2,081,712	176,231	1,572,000	0	11,500	0
188	Feb-21	2,209,276	174,981	1,572,600	0	11,500	0
189	Mar-21	2,024,408	158,354	1,455,600	0	11,500	0
190	Apr-21	1,910,496	178,533	1,626,000	77	11,500	53
191	May-21	1,651,804	179,960	1,828,200	2,513	11,500	3,734
192	Jun-21	1,705,544	1,857,490	1,818,600	1,663,516	11,500	4,699
193	Jul-21	1,751,736	232,038	2,228,400	19,151	11,500	2,549
194	Aug-21	1,965,152	241,066	2,348,400	18,218	11,500	1,090
195	Sep-21	2,061,800	500,887	2,457,000	274,636	11,500	2,098
196	Oct-21	1,787,380	374,944	2,099,400	178,118	11,500	4,282
197	Nov-21	1,727,768	517,946	1,973,400	330,764	11,500	4,934
198	Dec-21	1,874,396	179,329	1,723,800	3,358	11,500	1,402
199		22,751,472	4,771,759	22,703,400	2,490,351	138,000	24,840
200		22,751,472	4,771,759	22,703,400	2,490,351	24,840	(57,132)
201							\$ (2.30)

202

/P2_B (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 2 to Schedule B (CU)
 Monthly Billing Units, Rates And Revenue
 Period Ending December 31, 2021

Line	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total			
203										
204	MBL				kWh- POL	kWh- MBL	kWh- PL. SL, MBL			
205	Jan-21				27,333	16,264	43,597			
206	Feb-21				22,984	14,415	37,399			
207	Mar-21				22,984	10,652	33,636			
208	Apr-21				19,257	8,671	27,928			
209	May-21				17,704	7,219	24,923			
210	Jun-21				15,530	6,216	21,746			
211	Jul-21				17,083	5,335	22,418			
212	Aug-21				18,946	5,488	24,434			
213	Sep-21				20,810	6,195	27,005			
214	Oct-21				24,537	6,279	30,816			
215	Nov-21				25,780	6,866	32,646			
216	Dec-21				27,954	9,362	37,316			
217					260,902	102,962	363,864			
218										
219	Watts per Lamp				200	130	500	100	280	300.95
220	POL kWh				175 W MV	100 W HPS	400 W HPS	5K LED	15K LED	20K LED
	Hours				kWh/Month	kWh/Month	kWh/Month	kWh/Month	kWh/Month	kWh/Month
221	Jan-21	440	88	57	220	44	123	132		
222	Feb-21	370	74	48	185	37	104	111		
223	Mar-21	370	74	48	185	37	104	111		
224	Apr-21	310	62	40	155	31	87	93		
225	May-21	285	57	37	143	29	80	86		
226	Jun-21	250	50	33	125	25	70	75		
227	Jul-21	275	55	36	138	28	77	83		
228	Aug-21	305	61	40	153	31	85	92		
229	Sep-21	335	67	44	168	34	94	101		
230	Oct-21	395	79	51	198	40	111	119		
231	Nov-21	415	83	54	208	42	116	125		
232	Dec-21	450	90	59	225	45	126	135		
233		4,200	840	546	2,100	420	1,176	1,264		
234										
235	POL Lamps	473	57	61	6	323	16	10		

WP3_B (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 3 to Schedule B (CU)
 Monthly Customers
 Period Ending December 31, 2021

Line		RS	RSH	RSD	RSHD	RS Total	GLP1	GLP1D	GLP1 Total	OL	MBL	SH
1	1/1/2021	3,135	3	2,739	2	5,879	1,067	36	1,103	27	12	11
2	2/1/2021	3,139	3	2,744	2	5,888	1,068	36	1,104	27	12	11
3	3/1/2021	3,140	3	2,749	2	5,894	1,070	36	1,106	27	12	11
4	4/1/2021	3,141	4	2,748	2	5,895	1,073	36	1,109	27	12	11
5	5/1/2021	3,140	4	2,750	2	5,896	1,075	36	1,111	27	12	11
6	6/1/2021	3,131	2	2,755	2	5,890	1,080	35	1,115	27	12	10
7	7/1/2021	3,132	2	2,757	2	5,893	1,076	35	1,111	27	12	10
8	8/1/2021	3,130	2	2,758	2	5,892	1,079	33	1,112	27	12	10
9	9/1/2021	3,133	2	2,757	2	5,894	1,082	33	1,115	27	12	10
10	10/1/2021	3,134	2	2,759	2	5,897	1,081	33	1,114	27	12	10
11	11/1/2021	3,130	2	2,762	2	5,896	1,081	33	1,114	27	12	11
12	12/1/2021	3,131	-	2,764	-	5,895	1,078	36	1,114	27	12	11
13	Total Bills	37,616	29	33,042	22	70,709	12,910	418	13,328	324	144	127

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	GLP3	GLP3D	GLP5D	GLPPD	G3B	G3D	GLP3 Total	Tot al
17	1/1/2021	11	21	1	4	1	39	7,071
18	2/1/2021	12	20	1	4	1	39	7,081
19	3/1/2021	12	20	1	4	1	39	7,089
20	4/1/2021	12	20	1	4	1	39	7,093
21	5/1/2021	12	20	1	4	1	39	7,096
22	6/1/2021	12	20	1	4	1	39	7,093
23	7/1/2021	13	20	1	4	1	40	7,093
24	8/1/2021	13	21	1	4	1	41	7,094
25	9/1/2021	14	20	1	4	1	41	7,099
26	10/1/2021	14	20	1	4	1	41	7,101
27	11/1/2021	17	17	1	4	1	41	7,101
28	12/1/2021	18	16	1	4	1	41	7,100
29	Total Bills	160	235	12	48	12	479	85,111

/P1_C (CU) Citizens' Electric Company of Lewisburg

Rate Case with Fully Projected Future Test Year 2023 (CU)

Workpaper 1 to Schedule C (CU)

Historic O&M

Historic Periods

Line			2016	2017	2016	2017
1	555.00-Power Purchases		9,042,721	7,929,291	9,042,721	7,929,291
2	Total Power Purchased		9,042,721	7,929,291	9,042,721	7,929,291
3						
4	580.1-Oper.Superv. Eng-Labor	Labor	52,005	51,962		
5	580.2-Oper.Superv. Eng-OH	OH	61,732	60,741		
6	580.3-Oper.Superv. Eng-Transp	Trans			113,737	112,703
7	582.1-Station Exp-Labor	Labor	2,009	4,757		
8	582.2-Station Exp-OH	OH	2,379	5,495		
9	582.3-Station Exp-Transp	Trans	250			
10	582.4-Station Exp-Matl	Mat	53	2,096	4,691	12,348
11	583.1-OH Line Exp-Labor	Labor	93,242	70,659		
12	583.2-OH Line Exp-OH	OH	108,037	79,420		
13	583.3-OH Line Exp-Transp	Trans	22,188	12,421		
14	583.4-OH Line Exp-Matl	Mat	748	2,661		
15	583.97-OH Line Exp-Capitalized OH	Other	(33,721)	(16,884)	190,494	148,277
16	584.1-URD-Labor	Labor	18,603	27,653		
17	584.2-URD-OH	OH	21,635	32,070		
18	584.3-URD-Transp	Trans	3,041	3,625		
19	584.4-URD-Matl	Mat	4,149	1,564	47,428	64,912
20	585.1-Street/Signal Light-Labor	Labor	3,168	3,359		
21	585.2-Street/Signal Light-OH	OH	3,506	3,828		
22	585.3-Street/Signal Light-Transp	Trans	678	968		
23	585.4-Street/Signal Light-Matl	Mat	333	177	7,685	8,332
24	586.1-Meter Exp-Labor	Labor	31,018	29,885		
25	586.2-Meter Exp-OH	OH	35,278	34,712		
26	586.3-Meter Exp-Transp	Trans	2,374	1,902		
27	586.4-Meter Exp-Matl	Mat	1,143	3,306		
28	586.98-Meter Exp-Transferred to Plt	Other	(22,048)	(23,996)	47,765	45,809
29	587.1-Cust Install Exp-Labor	Labor	1,430	4,030		
30	587.2-Cust Install Exp-OH	OH	1,584	4,644		
31	587.3-Cust Install Exp-Transp	Trans	134	883		
32	587.4-Cust Install Exp-Matl	Mat			3,148	9,557

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Line			2016	2017	2016	2017
33	588.01-Misc Distribution Exp-Labor	Labor	50,967	61,375		
34	588.2-Misc Distribution Exp-OH	OH	60,063	73,714		
35	588.3-Misc Distribution Exp-Transp	Trans	2,895	2,868		
36	588.4-Misc Distribution Exp-Matl	Mat	13,593	12,720		
37	588.81-Misc Dist Exp-Mapping-Labor	Labor	11,820	11,227		
38	588.82-Misc Dist Exp-Mapping-OH	OH	14,347	13,191		
39	588.83-Misc Dist Exp-General Mtg-Transp	Trans	34			
40	588.84-Misc Dist Exp-Mapping Matl	Mat	12,561	10,916		
41	588.1-Misc Dist Exp-Retiree OH	Other	7,676	9,240		
42	588.6-Misc Dist Exp-Travel	Other	6,101	4,623		
43	588.71-Misc Dist Exp-Sft Mtg Train-Labor	Labor	18,830	10,418		
44	588.72-Misc Dist Exp-Sft Mtg Train-OH	OH	21,720	12,615		
45	588.73-Misc Dist Exp-Sft Mtg Train-Trans	Trans	-	-		
46	588.74-Misc Dist Exp-Sft/Train Matl	Other	40,981	23,373	261,588	246,280
47	589-Distribution rents	Other	452	461	452	461
48						
49	Total Ops		676,988	648,679	676,988	648,679
50						
51	590.1-Maint, Supv & Eng-Labor	Labor	-			
52	590.2-Maint, Supv & Eng-OH	OH	-			
53	590.3-Maint, Supv & Eng-Trans	Trans	-		-	-
54	591.1-Maint of Structures-Labor	Labor	-			
55	591.2-Maint of Structures-OH	OH	-			
56	591.3-Maint of Structures-Transp	Trans	-		-	-
57	592.1-Maint of Station Equip-Labor	Labor	2,910	5,927		
58	592.2-Maint of Station Equip-OH	OH	3,516	6,380		
59	592.3-Maint of Station Equip-Transp	Trans	767	416		
60	592.4-Maint of Station Equip-Matl	Mat	11,116	1,351	18,309	14,074

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Historic Periods

Line			2016	2017	2016	2017
61	593.1-Maint of OH Lines-Labor	Labor	81,815	105,738		
62	593.2-Maint of OH Lines-OH	OH	94,271	126,859		
63	593.3-Maint of OH Lines-Transp	Trans	23,759	30,233		
64	593.4-Maint of OH Lines-Matl	Mat	13,070	9,207		
65	593.54-Maint O/H Line-Brush Contrs	Contr	149,615	174,962		
66	593.51-VEG MGMT-Labor	Labor	8,737	7,043		
67	593.52-VEG MGMT-OH	OH	10,422	8,982		
68	593.53-VEG MGMT-Transp	Trans	776	306		
69	593.61-OH Line Insp-In House-Labor	Labor	1,101	1,124		
70	593.62-OH Line Insp-In House-OH	OH	1,112	1,246		
71	593.63-OH Line Insp-In House-Transp	Trans	36	3,198		
72	593.64-OH Line Insp-In House-Contrs	Mat	19,158	29,944	403,872	498,842
73	594.1-Maint of UG Lines-Labor	Labor	864	714		
74	594.2-Maint of UG Lines-OH	OH	885	851		
75	594.3-Maint of UG Lines-Transp	Trans	182	64		
76	594.4-Maint of UG Lines-Matl	Mat	602	2,097	2,533	3,726
77	595.1-Maint of Line Transformers-Labor	Labor	4,875	3,902		
78	595.2-Maint of Line Transformers-OH	OH	5,261	4,093		
79	595.3-Maint of Line Transformers-Transp	Trans	558	1,181		
80	595.4-Maint Line Transformers-Matl	Mat	1,402	3,450	12,096	12,626
81	596.1-Maint of Street Lights-Labor	Labor	623	1,127		
82	596.2-Maint of Street Lights-OH	OH	687	1,065		
83	596.3-Maint of Street Lights-Transp	Trans	219	271		
84	596.4-Maint of Street Lights-Matl	Mat	14	34	1,543	2,497
85	597.1-Maint of Meters-Labor	Labor				
86	597.2-Maint of Meters-OH	OH				
87	597.3-Maint of Meters-Transp	Trans	-	33		
88	597.4-Maint of Meters-Matl	Mat			-	33
89						
90	Total Maint		438,353	531,798	438,353	531,798
91						
92	Total distribution Exp		1,115,341	1,180,477	1,115,341	1,180,477
93						

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Historic Periods

Line			2016	2017	2016	2017
94	CustS ACCOUNTING & COLLECTING Exp					
95	901.0-Supv-General Accounting-Labor	Labor	-			
96	902.1-Meter Reading Exp-Labor	Labor	1,234	884		
97	902.2-Meter Reading Exp-OH	OH	1,420	1,063		
98	902.3-Meter Reading Exp-Transp	Trans	146	47		
99	902.4-Meter Reading Exp-Matl	Mat	13,104	14,284	15,904	16,278
100	903.1-Cust Records & Collect Exp-Labor	Labor	141,591	143,084		
101	903.2-Cust Records & Collect Exp-OH	OH	167,298	171,003		
102	903.3-Cust Records & Collect Exp-Transp	Trans	852	590		
103	903.4-Cust Records Exp-Matl	Mat	110,317	106,061	420,058	420,738
104	904.4-Uncollectable Accounts	Other	4,671	15,412	4,671	15,412
105						
106	Total Cust accounting & collecting		440,633	452,428	440,633	452,428
107						
108	SALES PROMOTION Exp					
109	908.0-Cust Exp-Misc	Other				
110	908.1-Cust Exp-Load Control	Other			-	-
111	909.1-Cust Service Info-Advertising	Other			-	-
112	913.0-Advertising Exp	Other				
113						
114	Total Sales Promotion Exp		-	-	-	-
115						
116	ADMINISTRATIVE & GENERAL Exp					
117	920.1-Administrative & General Salaries-Labor	Labor	270,891	268,800		
118	920.2-Administrative & General Salaries-OH	OH	319,379	316,077	590,270	584,877
119	921.0-Office Supplies & Exp	Other	88,668	88,615		
120	921.1-Office Supplies & Exp-Travel	Other	7,927	12,905		
121	921.2-Office Exp-Communications Exp	Other	21,295	23,930		
122	921.3-Office Supplies & Exp-Call Center	Other	41,603	41,409		
123	921.4-Office Exp-Transp	Trans	11,081	2,619		
124	921.9-Office Exp-Working Capital Claim	Other	-	-	170,574	169,478
125	923.0-Outside Services Employed	Other	53,612	52,217	53,612	52,217
126	924.0-Property Insurance	Other	7,467	9,877	7,467	9,877
127	925.4-Injuries & Damages	Other	31,296	29,759	31,296	29,759
128	926.0-Employee Pensions & Benefits	Other	8,302	9,987		
129	926.01-Employee Pen Ben-CEO Life Insu	Other	2,447	(7,131)	10,749	2,856

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Historic O&M

Historic Periods

Line			2016	2017	2016	2017
130	928.0-Regulatory Commission Exp	Other	-	46,389	-	46,389
131	928.0-Rate Case Exp	Other	-		-	-
132	930.1-General Advertising	Other	240	240		
133	930.2-Miscellaneous Exps	Other	70,256	72,515		
134	930.3-Director Special/Committee Mtgs.	Other	10,957	13,120	81,453	85,875
135	931.0-Rents	Other				
136	932.1-Maint of General Property-Labor	Labor	46,146	44,422		
137	932.2-Maint of General Property-OH	OH	53,234	50,282		
138	932.3-Maint of General Property-Transp	Trans	134	72		
139	932.4-Maint of General Property-Matl	Mat	22,791	27,059	122,305	121,835
140						
141	Total Administrative & General Exp		1,067,726	1,103,163	1,067,726	1,103,163
142						
143	Total Operating Exp		2,623,700	2,736,068	2,623,700	2,736,068
144			2,623,700	2,736,068	2,623,700	2,736,068
145	Less: CEO Life Insurance	Other	(2,447)	7,131	(2,447)	7,131
146	Less: Rate case amortization				0	0
147	Exps in O^M		2,621,253	2,743,199	2,621,253	2,743,199
148						
149	From C1-1					
150	Difference					
151						
152			2016	2017		
153		Labor	843,879	858,090		
154		OH	987,766	1,008,331		
155		Trans	70,104	61,697		
156		Mat	224,154	226,927		
157		Other	345,735	413,192		
158		Contr	149,615	174,962		
159			2,621,253	2,743,199		
160			2,621,253	2,743,199		
161						

Rate Case with Fully Projected Future Test Year 2023 (CU)

Workpaper 2 to Schedule C (CU)

Historic O&M- Details

Historic Periods

Line	Acct.	Account Description	Year 2016	Year 2017	Year 2016	Year 2017	Year 2016	Year 2017	Year 2016	Year 2017
27		<u>Customer Accounting & Collection Expenses:</u>								
28	902	Meter Reading Exp	1,234	884	1,420	1,063	13,250	14,331		
29	903	Cust Records & Coll Exp	141,591	143,084	167,298	171,003	111,169	106,651		
30	904	Uncollectible Accounts							4,671	15,412
31		<i>Total Cust Acct & Coll Exp</i>	142,825	143,968	168,718	172,066	124,419	120,982	4,671	15,412
32										
33										
34	908-913	Safety and Communications							0	0
35										
36		<u>Administrative & General Expenses:</u>								
37	920	A&G Salaries	270,891	268,800	319,379	316,077				
38	921	Office Supplies & Exps					11,081	2,619	159,493	166,859
39	923	Outside Services							53,612	52,217
40	924	Property Insurance							7,467	9,877
41	925	Injuries and damage							31,296	29,759
42	926	Empl Pens&Benefits							8,302	9,987
43	928	Reg Comm Exp							0	46,389
44	930	Misc General Exp							81,453	85,875
45	931	Rents							0	0
46	932	Maint General plant	46,146	44,422	53,234	50,282	22,925	27,131		
47		<i>Total A&G Exps</i>	317,037	313,222	372,613	366,359	34,006	29,750	341,623	400,963
48										
49		Total Operating & Maint	\$843,879	\$858,090	\$987,766	\$1,008,331	\$294,258	\$288,624	\$495,350	\$588,154

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			Total	Total	Total	Total	Total	Total
1	Ops Exp Eng	580	166,699	116,120	118,988	131,110	197,084	109,435
1	Station Exp	582	7,340	9,650	5,349	13,239	9,114	10,050
2	OH. Line Exp	583	163,900	88,612	130,678	160,687	138,778	149,258
3	OH. Line Contra (to Plant)	583.97	(18,212)	(16,688)	(8,914)	(13,995)	(22,988)	(23,677)
4	URD Line Exp	584	54,276	65,357	52,376	60,830	60,500	65,656
5	Dusk to Dawn Lgts Exp	585DD	2,573	1,630	3,725	4,705	3,661	3,910
6	St Lgt & Signal Exp	585SLS	1,769	1,923	744	3,019	2,324	2,495
7	Meter Exp	586	76,961	74,532	57,430	76,442	77,635	84,407
8	Meter Contra (to Plant)	586.98	(23,651)	(53,705)	(52,358)	(57,430)	(95,747)	(50,000)
9	Customer Inst Exp	587	22,588	50,305	20,848	60,744	38,298	40,257
10	Misc. Distribution Exp	588	147,046	142,011	234,065	159,381	146,426	159,594
11	Tools	588.5	0	0	0	0	9,316	9,596
12	Travel	588.6	0	0	0	0	25,000	25,750
13	Safety & Training	588.7	58,942	55,660	39,273	42,041	62,401	66,414
14	Mapping	588.8	47,350	66,989	38,617	92,059	45,394	48,349
15	Retiree Non Alloc BC+SERP	588.1	0	0	9,886	0	33,478	34,482
16	Rents	589	471	480	490	490	490	505
17	Total Ops		708,052	602,875	651,195	733,322	731,166	736,481
18								
19	Maint. Sub-Station Exp	592	10,099	271	13,430	5,435	7,660	8,399
20	Maint. OH. Line Exp	593	214,942	251,243	238,705	275,309	263,750	282,842
21	Veg Mgmt	593.5	153,585	143,368	173,498	175,634	256,526	267,769
22	Pole Insp Mgmt	593.6	32,947	33,566	37,261	30,970	42,542	44,003
23	Maint. URD Line Exp	594	16,522	3,312	2,873	4,246	5,286	5,760
24	Maint. Line Xfmr	595	10,769	14,888	14,149	18,983	9,387	10,278
25	Maint. Dusk to Dawn Lgts	596DD	1,234	2,663	7,473	3,244	2,397	2,647
26	Maint. St Lgt & Signal Exp	596SLS	10,739	6,059	1,996	6,635	5,252	5,735
27	Maint. of Meter Exp	597	1,317	0	0	367	360	398
28	Total Maintenance		452,153	455,369	489,384	520,823	593,159	627,830
29								
30	Meter Reading Exp	902	24,086	3,495	474	13,633	1,694	1,876
31	Customer Records Exp	903	426,023	456,244	445,656	442,188	400,970	414,677
32	Uncollectibles	904	19,728	28,030	19,118	31,941	20,000	20,600
33	Total Customer Accounts		469,837	487,769	465,248	487,762	422,664	437,153

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			Labor	Labor	Labor	Labor	Labor	Labor
1	Ops Exp Eng	580	79,137	55,353	58,155	60,413	92,735	51,770
1	Station Exp	582	3,090	4,308	1,075	5,379	4,006	4,462
2	OH. Line Exp	583	69,798	36,545	50,112	62,340	57,420	63,969
3	OH. Line Contra (to Plant)	583.97						
4	URD Line Exp	584	22,270	28,468	22,536	25,222	25,397	28,294
5	Dusk to Dawn Lgts Exp	585DD	1,062	692	1,227	1,952	1,470	1,638
6	St Lgt & Signal Exp	585SLS	355	832	730	1,396	953	1,062
7	Meter Exp	586	35,371	34,857	25,394	32,739	33,057	36,828
8	Meter Contra (to Plant)	586.98						
9	Customer Inst Exp	587	8,972	22,343	9,430	24,994	14,269	15,896
10	Misc. Distribution Exp	588	55,872	48,094	94,000	66,276	62,465	69,590
11	Tools	588.5						
12	Travel	588.6						
13	Safety & Training	588.7	10,512	8,333	8,525	8,944	12,893	14,364
14	Mapping	588.8	14,795	25,623	7,336	8,120	9,596	10,691
15	Retiree Non Alloc BC+SERP	588.1						
16	Rents	589					0	0
17	Total Ops		301,235	265,446	278,519	297,775	314,261	298,564
18								
19	Maint. Sub-Station Exp	592	4,529	97	2,702	2,250	3,143	3,502
20	Maint. OH. Line Exp	593	85,028	104,419	106,489	114,614	104,628	116,563
21	Veg Mgmt	593.5	5,851	8,760	6,890	6,503	5,815	7,780
22	Pole Insp Mgmt	593.6	1,274	864	944	1,011	1,000	1,132
23	Maint. URD Line Exp	594	6,871	942	1,275	1,713	2,206	2,457
24	Maint. Line Xfmr	595	3,344	4,518	4,812	5,256	3,719	4,143
25	Maint. Dusk to Dawn Lgts	596DD	526	1,090	3,089	1,616	1,113	1,240
26	Maint. St Lgt & Signal Exp	596SLS	4,799	2,756	777	2,733	2,327	2,592
27	Maint. of Meter Exp	597	586	0	0	184	167	186
28	Total Maintenance		112,807	123,445	126,977	135,880	124,118	139,595
29								
30	Meter Reading Exp	902	1,231	1,567	218	41	792	883
31	Customer Records Exp	903	150,677	166,392	165,926	153,897	138,411	144,292
32	Uncollectibles	904					0	0
33	Total Customer Accounts		151,908	167,959	166,144	153,938	139,203	145,175

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			OH	OH	OH	OH	OH	OH
1	Ops Exp Eng	580	87,563	60,767	60,833	70,697	104,349	57,665
1	Station Exp	582	3,525	4,766	1,108	6,890	4,508	4,970
2	OH. Line Exp	583	79,606	46,197	69,143	84,631	64,611	71,253
3	OH. Line Contra (to Plant)	583.97						
4	URD Line Exp	584	25,573	30,622	24,491	29,988	28,578	31,516
5	Dusk to Dawn Lgts Exp	585DD	1,151	763	1,419	2,417	1,654	1,825
6	St Lgt & Signal Exp	585SLS	416	818	0	1,431	1,072	1,183
7	Meter Exp	586	39,217	37,004	26,423	37,237	37,197	41,022
8	Meter Contra (to Plant)	586.98						
9	Customer Inst Exp	587	9,450	24,410	9,850	29,853	16,056	17,706
10	Misc. Distribution Exp	588	64,005	49,256	88,450	72,919	70,288	77,514
11	Tools	588.5						
12	Travel	588.6						
13	Safety & Training	588.7	11,971	9,135	9,273	9,413	14,508	16,000
14	Mapping	588.8	16,739	28,185	7,955	49,226	10,798	11,908
15	Retiree Non Alloc BC+SERP	588.1						
16	Rents	589					0	0
17	Total Ops		339,215	291,924	298,947	394,702	353,619	332,562
18								
19	Maint. Sub-Station Exp	592	5,136	108	9,723	2,601	3,537	3,901
20	Maint. OH. Line Exp	593	105,764	113,297	106,316	130,795	117,732	129,836
21	Veg Mgmt	593.5	6,920	9,170	6,454	7,140	6,543	8,666
22	Pole Insp Mgmt	593.6	1,301	916	1,070	1,235	1,125	1,261
23	Maint. URD Line Exp	594	7,569	1,057	1,420	1,980	2,482	2,737
24	Maint. Line Xfmr	595	2,943	5,427	5,049	6,069	4,185	4,615
25	Maint. Dusk to Dawn Lgts	596DD	653	1,370	3,412	1,563	1,252	1,381
26	Maint. St Lgt & Signal Exp	596SLS	5,114	3,128	886	3,240	2,618	2,887
27	Maint. of Meter Exp	597	696	0	0	180	188	207
28	Total Maintenance		136,095	134,472	134,330	154,803	139,663	155,491
29								
30	Meter Reading Exp	902	1,311	1,753	246	47	891	984
31	Customer Records Exp	903	170,852	183,666	174,858	180,245	155,746	160,722
32	Uncollectibles	904					0	0
33	Total Customer Accounts		172,163	185,419	175,104	180,292	156,637	161,706

Line	Account	Acct No	2018 Transp	2019 Transp	2020 Transp	2021 Transp	2022 Transp	2023 Transp
1	Ops Exp Eng	580					0	0
1	Station Exp	582				0	0	0
2	OH. Line Exp	583	14,196	5,620	9,757	13,837	16,447	13,727
3	OH. Line Contra (to Plant)	583.97						
4	URD Line Exp	584	4,789	3,355	2,946	3,093	4,479	3,739
5	Dusk to Dawn Lgts Exp	585DD				336	537	448
6	St Lgt & Signal Exp	585SLS				183	299	250
7	Meter Exp	586	216	118	236	4,008	5,352	4,467
8	Meter Contra (to Plant)	586.98						
9	Customer Inst Exp	587	144	58	42	5,897	7,973	6,655
10	Misc. Distribution Exp	588	2,432	2,542	2,424	7,104	8,154	6,806
11	Tools	588.5						
12	Travel	588.6						
13	Safety & Training	588.7	4,166	3,541	1,571	0	0	0
14	Mapping	588.8	3,607	1,543	3,759	173	0	0
15	Retiree Non Alloc BC+SERP	588.1						
16	Rents	589					0	0
17	Total Ops		29,551	16,778	20,735	34,631	43,242	36,091
18								
19	Maint. Sub-Station Exp	592	332	32	1,004	40	67	56
20	Maint. OH. Line Exp	593	16,447	24,795	23,591	24,123	31,684	26,445
21	Veg Mgmt	593.5	568	816	372	693	870	726
22	Pole Insp Mgmt	593.6	53	51	22	60	98	82
23	Maint. URD Line Exp	594	2,010	104	83	348	253	211
24	Maint. Line Xfmr	595	378	1,218	78	67	37	31
25	Maint. Dusk to Dawn Lgts	596DD	55	202	776	65	31	26
26	Maint. St Lgt & Signal Exp	596SLS	826	176	334	662	307	256
27	Maint. of Meter Exp	597	35	0	0	3	5	4
28	Total Maintenance		20,706	27,394	26,258	26,061	33,353	27,838
29								
30	Meter Reading Exp	902	135	175	10	7	11	9
31	Customer Records Exp	903	724	1,275	550	1,507	1,814	1,514
32	Uncollectibles	904					0	0
33	Total Customer Accounts		859	1,450	561	1,514	1,824	1,523

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			Material	Material	Material	Material	Material	Material
1	Ops Exp Eng	580					0	0
1	Station Exp	582	724	576	3,166	970	600	618
2	OH. Line Exp	583	300	249	1,666	(121)	300	309
3	OH. Line Contra (to Plant)	583.97	(18,212)	(16,688)	(8,914)	(13,995)	(22,988)	(23,677)
4	URD Line Exp	584	1,643	2,912	2,402	2,527	2,046	2,108
5	Dusk to Dawn Lgts Exp	585DD	360	175	1,079	0	0	0
6	St Lgt & Signal Exp	585SLS	998	272	14	9	0	0
7	Meter Exp	586	2,156	2,553	5,376	2,458	2,029	2,090
8	Meter Contra (to Plant)	586.98	(23,651)	(53,705)	(52,358)	(57,430)	(95,747)	(50,000)
9	Customer Inst Exp	587	4,022	3,494	1,525	0	0	0
10	Misc. Distribution Exp	588	24,737	42,119	49,191	13,082	5,519	5,684
11	Tools	588.5					9,316	9,596
12	Travel	588.6					25,000	25,750
13	Safety & Training	588.7	32,293	34,651	19,904	23,684	35,000	36,050
14	Mapping	588.8	12,209	11,639	19,567	34,540	25,000	25,750
15	Retiree Non Alloc BC+SERP	588.1			9,886		33,478	34,482
16	Rents	589	471	480	490	490	490	505
17	Total Ops		38,050	28,728	52,993	6,214	20,044	69,264
18								
19	Maint. Sub-Station Exp	592	102	35	0	544	913	941
20	Maint. OH. Line Exp	593	7,703	8,732	2,309	5,777	9,706	9,998
21	Veg Mgmt	593.5	140,245	124,622	159,782	161,298	243,298	250,597
22	Pole Insp Mgmt	593.6	30,319	31,735	35,225	28,664	40,318	41,528
23	Maint. URD Line Exp	594	73	1,209	95	205	344	354
24	Maint. Line Xfmr	595	4,104	3,725	4,210	7,591	1,446	1,489
25	Maint. Dusk to Dawn Lgts	596DD			197	0	0	0
26	Maint. St Lgt & Signal Exp	596SLS				0	0	0
27	Maint. of Meter Exp	597				0	0	0
28	Total Maintenance		182,546	170,059	201,819	204,079	296,026	304,907
29								
30	Meter Reading Exp	902	21,408	0	0	13,538	0	0
31	Customer Records Exp	903	103,769	104,911	104,322	106,539	105,000	108,150
32	Uncollectibles	904	19,728	28,030	19,118	31,941	20,000	20,600
33	Total Customer Accounts		144,906	132,941	123,440	152,018	125,000	128,750

Line	Account	Acct No	Original (CU)			Original (CU)		
			2022 Total	2022 Total	2022 Total	2023 Total	2023 Total	2023 Total
			WP3_C	WP3_C (CU)	Change	WP3_C	WP3_C (CU)	Change
1	Ops Exp Eng	580	171,605	197,084	25,479	123,139	109,435	(13,704)
1	Station Exp	582	7,836	9,114	1,278	8,606	10,050	1,445
2	OH. Line Exp	583	117,354	138,778	21,423	128,543	149,258	20,715
3	OH. Line Contra (to Plant)	583.97	(18,843)	(22,988)	(4,145)	(23,677)	(23,677)	0
4	URD Line Exp	584	51,554	60,500	8,946	56,493	65,656	9,163
5	Dusk to Dawn Lgts Exp	585DD	3,345	3,661	315	3,380	3,910	531
6	St Lgt & Signal Exp	585SLS	1,964	2,324	360	2,150	2,495	345
7	Meter Exp	586	66,083	77,635	11,553	72,480	84,407	11,927
8	Meter Contra (to Plant)	586.98	(52,075)	(95,747)	(43,672)	(50,000)	(50,000)	0
9	Customer Inst Exp	587	32,238	38,298	6,060	34,698	40,257	5,559
10	Misc. Distribution Exp	588	122,132	146,426	24,294	137,059	159,594	22,536
11	Tools	588.5	9,316	9,316	0	9,596	9,596	0
12	Travel	588.6	25,000	25,000	0	25,750	25,750	0
13	Safety & Training	588.7	58,291	62,401	4,110	61,762	66,414	4,652
14	Mapping	588.8	42,336	45,394	3,058	44,887	48,349	3,462
15	Retiree Non Alloc BC+SERP	588.1	33,478	33,478	0	34,482	34,482	0
16	Rents	589	490	490	0	505	505	0
17	Total Ops		672,105	731,166	59,060	669,851	736,481	66,630
18								
19	Maint. Sub-Station Exp	592	7,734	7,660	(75)	7,265	8,399	1,134
20	Maint. OH. Line Exp	593	149,071	263,750	114,679	245,093	282,842	37,749
21	Veg Mgmt	593.5	256,441	256,526	85	265,152	267,769	2,616
22	Pole Insp Mgmt	593.6	42,537	42,542	5	43,803	44,003	200
23	Maint. URD Line Exp	594	4,689	5,286	596	4,964	5,760	795
24	Maint. Line Xfmr	595	8,750	9,387	636	8,937	10,278	1,341
25	Maint. Dusk to Dawn Lgts	596DD	2,036	2,397	361	2,246	2,647	401
26	Maint. St Lgt & Signal Exp	596SLS	4,452	5,252	801	4,896	5,735	839
27	Maint. of Meter Exp	597	306	360	54	337	398	61
28	Total Maintenance		476,016	593,159	117,143	582,694	627,830	45,137
29								
30	Meter Reading Exp	902	1,374	1,694	320	1,521	1,876	355
31	Customer Records Exp	903	402,520	400,970	(1,550)	416,324	414,677	(1,647)
32	Uncollectibles	904	20,000	20,000	0	20,600	20,600	0
33	Total Customer Accounts		423,894	422,664	(1,230)	438,445	437,153	(1,292)

Line	Account	Acct No	2018 Total	2019 Total	2020 Total	2021 Total	2022 Total	2023 Total
34								
35	Administrative	920	595,872	572,162	638,160	607,671	704,981	738,794
36	Misc Admin	921	86,588	93,508	91,147	99,605	90,000	92,700
37	Misc Admin- Travel	921.1	16,575	9,249	5,468	10,663	11,000	11,330
38	Misc Admin- Comm	921.2	24,379	24,206	29,068	25,671	29,000	29,870
39	Misc Admin- Call Center	921.3	43,970	54,117	57,553	60,197	58,547	60,303
40	Misc Admin- Transp	921.4	199	4,052	11,271	9,925	12,000	12,360
41	Outside Services	923	91,750	57,287	107,143	5,525	75,000	77,250
42	Property Insurance	924	10,082	10,381	10,798	11,112	11,639	11,988
43	Injury & Damage Exp	925	26,510	25,409	26,136	26,647	33,810	34,824
44	CEO Insurance	926.01	19,014	(13,711)	(14,072)	(10,988)	10,000	10,300
45	Benefits	926.00	10,499	14,164	8,649	12,744	13,000	13,390
46	Reg Commission Exp	928	61,907	61,907	108,685	108,668	120,000	142,745
47	General Advertising	930.1	240	465	373	433	315	324
48	Misc. General Exp	930.2	76,892	77,464	76,753	81,221	80,000	82,400
49	Director's Committee	930.3	14,514	13,485	12,535	12,931	12,000	12,360
50	Misc. General Plant	932.4	149,126	137,967	146,298	163,236	148,489	162,512
51	Total General Labor		1,228,117	1,142,112	1,315,966	1,225,261	1,409,782	1,493,451
52								
53	Subtotal		2,858,158	2,688,126	2,921,792	2,967,168	3,156,771	3,294,915
54			0	0	0	0	0	0
55	Capital		402,754	0	0	0	2,045,495	2,063,968
56	Misc. A/R		0	0	0	0	0	0
57	Truck		5,188	0	0	0	0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P		244,985	0	0	0	216,244	225,538
59								
60	Total		3,511,085	2,688,126	2,921,792	2,967,168	5,418,509	5,584,422

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			Labor	Labor	Labor	Labor	Labor	Labor
34								
35	Administrative	920	279,278	273,874	309,026	279,642	331,718	349,498
36	Misc Admin	921						
37	Misc Admin- Travel	921.1						
38	Misc Admin- Comm	921.2						
39	Misc Admin- Call Center	921.3						
40	Misc Admin- Transp	921.4						
41	Outside Services	923						
42	Property Insurance	924						
43	Injury & Damage Exp	925	0	0	0	0		
44	CEO Insurance	926.01						
45	Benefits	926.00						
46	Reg Commission Exp	928						
47	General Advertising	930.1						
48	Misc. General Exp	930.2						
49	Director's Committee	930.3						
50	Misc. General Plant	932.4	53,824	54,922	60,025	65,489	57,973	64,586
51	Total General Labor		333,102	328,796	369,051	345,131	389,691	414,084
52								
53	Subtotal		899,053	885,646	940,691	932,724	967,274	997,418
54								
55	Capital		402,754	0	0	0	508,833	508,833
56	Misc. A/R		0	0	0	0	0	0
57	Truck		5,188	0	0	0	0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P		244,985	0	0	0	216,244	225,538
59								
60	Total		1,551,980	885,646	940,691	932,724	1,692,350	1,731,789

Line	Account	Acct No	2018 OH	2019 OH	2020 OH	2021 OH	2022 OH	2023 OH
34								
35	Administrative	920	316,594	298,288	329,134	328,029	373,263	389,296
36	Misc Admin	921						
37	Misc Admin- Travel	921.1						
38	Misc Admin- Comm	921.2						
39	Misc Admin- Call Center	921.3						
40	Misc Admin- Transp	921.4						
41	Outside Services	923						
42	Property Insurance	924						
43	Injury & Damage Exp	925						
44	CEO Insurance	926.01						
45	Benefits	926.00						
46	Reg Commission Exp	928						
47	General Advertising	930.1						
48	Misc. General Exp	930.2						
49	Director's Committee	930.3						
50	Misc. General Plant	932.4	60,725	57,681	61,957	75,737	65,234	71,940
51	Total General Labor		377,320	355,969	391,091	403,766	438,496	461,236
52								
53	Subtotal		1,024,793	967,783	999,472	1,133,563	1,088,415	1,110,994
54								
55	Capital						578,606	675,306
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P.						0	0
59								
60	Total		1,024,793	967,783	999,472	1,133,563	1,667,021	1,786,300

Line	Account	Acct No	2018 Transp	2019 Transp	2020 Transp	2021 Transp	2022 Transp	2023 Transp
34								
35	Administrative	920					0	0
36	Misc Admin	921						
37	Misc Admin- Travel	921.1						
38	Misc Admin- Comm	921.2						
39	Misc Admin- Call Center	921.3						
40	Misc Admin- Transp	921.4						
41	Outside Services	923						
42	Property Insurance	924						
43	Injury & Damage Exp	925						
44	CEO Insurance	926.01						
45	Benefits	926.00						
46	Reg Commission Exp	928						
47	General Advertising	930.1						
48	Misc. General Exp	930.2						
49	Director's Committee	930.3						
50	Misc. General Plant	932.4				173	283	236
51	Total General Labor		0	0	0	173	283	236
52								
53	Subtotal		51,116	45,621	47,554	62,379	78,702	65,688
54								
55	Capital						75,397	0
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P						0	0
59								
60	Total		51,116	45,621	47,554	62,379	154,098	65,688

Line	Account	Acct No	2018	2019	2020	2021	2022	2023
			Material	Material	Material	Material	Material	Material
34								
35	Administrative	920					0	0
36	Misc Admin	921	86,588	93,508	91,147	99,605	90,000	92,700
37	Misc Admin- Travel	921.1	16,575	9,249	5,468	10,663	11,000	11,330
38	Misc Admin- Comm	921.2	24,379	24,206	29,068	25,671	29,000	29,870
39	Misc Admin- Call Center	921.3	43,970	54,117	57,553	60,197	58,547	60,303
40	Misc Admin- Transp	921.4	199	4,052	11,271	9,925	12,000	12,360
41	Outside Services	923	91,750	57,287	107,143	5,525	75,000	77,250
42	Property Insurance	924	10,082	10,381	10,798	11,112	11,639	11,988
43	Injury & Damage Exp	925	26,510	25,409	26,136	26,647	33,810	34,824
44	CEO Insurance	926.01	19,014	(13,711)	(14,072)	(10,988)	10,000	10,300
45	Benefits	926.00	10,499	14,164	8,649	12,744	13,000	13,390
46	Reg Commission Exp	928	61,907	61,907	108,685	108,668	120,000	142,745
47	General Advertising	930.1	240	465	373	433	315	324
48	Misc. General Exp	930.2	76,892	77,464	76,753	81,221	80,000	82,400
49	Director's Committee	930.3	14,514	13,485	12,535	12,931	12,000	12,360
50	Misc. General Plant	932.4	34,576	25,365	24,317	21,837	25,000	25,750
51	Total General Labor		517,695	457,348	555,824	476,191	581,311	617,895
52								
53	Subtotal		883,197	789,075	934,076	838,502	1,022,380	1,120,815
54								
55	Capital						882,659	879,829
56	Misc. A/R						0	0
57	Truck						0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P.						0	0
59								
60	Total		883,197	789,075	934,076	838,502	1,905,040	2,000,645

Line	Account	Acct No	Original (CU)			Original (CU)		
			2022 Total WP3_C	2022 Total WP3_C (CU)	2022 Total Change	2023 Total WP3_C	2023 Total WP3_C (CU)	2023 Total Change
34								
35	Administrative	920	709,521	704,981	(4,540)	740,110	738,794	(1,316)
36	Misc Admin	921	90,000	90,000	0	92,700	92,700	0
37	Misc Admin- Travel	921.1	11,000	11,000	0	11,330	11,330	0
38	Misc Admin- Comm	921.2	29,000	29,000	0	29,870	29,870	0
39	Misc Admin- Call Center	921.3	58,547	58,547	0	60,303	60,303	0
40	Misc Admin- Transp	921.4	12,000	12,000	0	12,360	12,360	0
41	Outside Services	923	75,000	75,000	0	77,250	77,250	0
42	Property Insurance	924	11,639	11,639	0	11,988	11,988	0
43	Injury & Damage Exp	925	33,810	33,810	0	34,824	34,824	0
44	CEO Insurance	926.01	10,000	10,000	0	10,300	10,300	0
45	Benefits	926.00	13,000	13,000	0	13,390	13,390	0
46	Reg Commission Exp	928	120,000	120,000	0	142,745	142,745	0
47	General Advertising	930.1	315	315	0	324	324	0
48	Misc. General Exp	930.2	80,000	80,000	0	82,400	82,400	0
49	Director's Committee	930.3	12,000	12,000	0	12,360	12,360	0
50	Misc. General Plant	932.4	129,955	148,489	18,534	141,597	162,512	20,915
51	Total General Labor		1,395,787	1,409,782	13,994	1,473,852	1,493,451	19,600
52								
53	Subtotal		2,967,803	3,156,771	188,967	3,164,842	3,294,915	130,074
54								
55	Capital		2,017,139	2,045,495	28,356	2,112,922	2,063,968	(48,954)
56	Misc. A/R		0	0	0	0	0	0
57	Truck		0	0	0	0	0	0
58	OH. Labor(Vac,Hol,Sick,Funeral,Supp P		216,244	216,244	0	225,538	225,538	0
59								
60	Total		5,201,186	5,418,509	217,323	5,503,302	5,584,422	81,120

/P1_D (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 1 to Schedule D (CU)
 Components of Capital Projects- Zero Load Analysis
 HY 2021

Line	POLEs			OVERHEAD CONDUCTORS			UNDERGROUND CONDUCTORS		
	Category	Amounts	% of Total	Category	Amounts	% of Total	Category	Amounts	% of Total
	Pole	Total \$	%	OH Conductor	Total \$	%	UG Conductor	Total \$	%
	Summary			Summary			Summary		
1	Labor	15,418.69	35.40%	Labor	67,085.33	33.98%	Labor	30,815.31	19.98%
2	Overheads	16,706.14	38.35%	Overheads	77,821.32	39.42%	Overheads	33,350.61	21.62%
3	Transportation	7,439.13	17.08%	Transportation	17,919.28	9.08%	Transportation	6,100.55	3.96%
4	Materials	3,996.44	9.17%	Materials	34,599.45	17.53%	Materials	83,957.54	54.44%
5	Totals	<u>43,560.40</u>	<u>100.00%</u>	Totals	<u>197,425.38</u>	<u>100.00%</u>	Totals	<u>154,224.01</u>	<u>100.00%</u>
6									
7	Work Order 202006-PR02- Pole			Work Order 20200102- OH Cond			Work Order 20210101- UG Cond		
8	CECO Replace R-74-1			Rt 15 Reconductor - Wyndham Hills OH			Linntown UG - 2021		
9	Labor	2,852.13	36.53%	Labor	41,542.49	35.71%	Labor	17,396.97	14.93%
10	Overheads	3,176.38	40.68%	Overheads	44,088.52	37.90%	Overheads	17,784.44	15.26%
11	Transportation	755.20	9.67%	Transportation	11,890.79	10.22%	Transportation	3,534.87	3.03%
12	Materials	1,024.80	13.12%	Materials	18,805.99	16.17%	Materials	77,798.20	66.77%
13	Totals	<u>7,808.51</u>	<u>100.00%</u>	Totals	<u>116,327.79</u>	<u>100.00%</u>	Totals	<u>116,514.48</u>	<u>100.00%</u>
14									
15	Work Order 20201201- Pole			Work Order 20210102- OH Cond			Work Order 20201001- UG Cond		
16	CECO Replace Pole			Wolfland Rd Relocation			Svc Upgrade K-35-FR		
17	Labor	1,407.81	19.56%	Labor	9,630.79	30.07%	Labor	3,163.69	37.64%
18	Overheads	1,114.70	15.49%	Overheads	15,325.83	47.86%	Overheads	3,169.10	37.71%
19	Transportation	3,889.27	54.04%	Transportation	1,333.26	4.16%	Transportation	404.76	4.82%
20	Materials	785.14	10.91%	Materials	5,733.13	17.90%	Materials	1,666.58	19.83%
21	Totals	<u>7,196.92</u>	<u>100.00%</u>	Totals	<u>32,023.01</u>	<u>100.00%</u>	Totals	<u>8,404.13</u>	<u>100.00%</u>
22									
23	Work Order 2021-RJP07- Pole			Work Order 20200401- OH Cond (3ph Ext)			Work Order 20210407- UG Cond		
24	CECO Replace T-19-14-14			3ph Ext from T-19-14-17-3-2			New Svc to 285 Sunnyside Dr		
25	Labor	1,629.13	35.74%	Labor	9,239.95	32.58%	Labor	839.56	33.79%
26	Overheads	1,989.91	43.66%	Overheads	10,295.25	36.31%	Overheads	1,019.93	41.05%
27	Transportation	366.08	8.03%	Transportation	3,197.41	11.28%	Transportation	103.54	4.17%
28	Materials	572.55	12.56%	Materials	5,624.67	19.84%	Materials	521.69	21.00%
29	Totals	<u>4,557.67</u>	<u>100.00%</u>	Totals	<u>28,357.28</u>	<u>100.00%</u>	Totals	<u>2,484.72</u>	<u>100.00%</u>

/P1_D (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 1 to Schedule D (CU)
 Components of Capital Projects- Zero Load Analysis
 HY 2021

	POLEs			OVERHEAD CONDUCTORS			UNDERGROUND CONDUCTORS		
	Category	Amounts	% of Total	Category	Amounts	% of Total	Category	Amounts	% of Total
30	<hr/>								
31	Work Order 20210204- Pole			Work Order 20210509-OH Cond (1 Ph Ext)			Work Order 20200110- UG Cond (1ph Ext)		
32	Replace Burnt Pole U-92			Svc to Construction Trailer			Svc Ext from U-197		
33	Labor	7,155.07	41.53%	Labor	1,585.96	30.87%	Labor	5,635.60	32.83%
34	Overheads	7,954.77	46.17%	Overheads	1,926.68	37.51%	Overheads	6,528.18	38.03%
35	Transportation	1,308.17	7.59%	Transportation	271.39	5.28%	Transportation	1,669.10	9.72%
36	Materials	811.07	4.71%	Materials	1,352.99	26.34%	Materials	3,331.80	19.41%
37	Totals	<u>17,229.08</u>	<u>100.00%</u>	Totals	<u>5,137.02</u>	<u>100.00%</u>	Totals	<u>17,164.68</u>	<u>100.00%</u>
38	<hr/>								
39	Work Order 20210501- Pole			Work Order 20210901- OH Cond			Work Order 20210409- UG Cond		
40	Pole Hit - Grove Road @ R-251-11-3-5-9			New pole & 3ph Svc			OH to UG Reloc 30 S 17th		
41	Labor	1,405.61	33.77%	Labor	4,626.24	32.55%	Labor	784.30	38.66%
42	Overheads	1,489.95	35.80%	Overheads	5,627.49	39.60%	Overheads	1,042.90	51.41%
43	Transportation	825.90	19.84%	Transportation	1,062.19	7.47%	Transportation	57.98	2.86%
44	Materials	440.58	10.59%	Materials	2,895.63	20.38%	Materials	143.32	7.07%
45	Totals	<u>4,162.04</u>	<u>100.00%</u>	Totals	<u>14,211.55</u>	<u>100.00%</u>	Totals	<u>2,028.50</u>	<u>100.00%</u>
46	<hr/>								
47	Work Order 20220101- Pole			Work Order 20210503- OH Cond			Work Order 20211104- UG Cond		
48	New SL V-8-40-5 - 125 Paul L			New Svc to Garage 7028 Old Turnpike			Repl Failed UG Svc - 34 James Rd		
49	Labor	968.94	37.18%	Labor	459.90	33.60%	Labor	2,995.19	39.27%
50	Overheads	980.43	37.62%	Overheads	557.55	40.73%	Overheads	3,806.06	49.90%
51	Transportation	294.51	11.30%	Transportation	164.24	12.00%	Transportation	330.30	4.33%
52	Materials	362.30	13.90%	Materials	187.04	13.67%	Materials	495.95	6.50%
53	Totals	<u>2,606.18</u>	<u>100.00%</u>	Totals	<u>1,368.73</u>	<u>100.00%</u>	Totals	<u>7,627.50</u>	<u>100.00%</u>

WP2_D (CU) **Citizens' Electric Company of Lewisburg**
Rate Case with Fully Projected Future Test Year 2023 (CU)
Workpaper 2 to Schedule D (CU)
Transformer Costs and Replacements
HY 2021

Line	Configure	kV Rating	Phase Code	Count	Replace-ment
1	OH 1Ph	5	1	5	TPM15
2	OH 1Ph	10	1	206	TPM15
3	OH 1Ph	15	1	527	TPM15
4	OH 1Ph	25	1	593	TPM25
5	OH 1Ph	37.5	1	75	TPM50
6	OH 1Ph	50	1	418	TPM50
7	OH 1Ph	75	1	27	TPM100
8	OH 1Ph	100	1	80	TPM100
9	OH 1Ph	167	1	9	TPM167
10					
11	UG 1Ph	15	4	10	TPD25
12	UG 1Ph	25	4	225	TPD25
13	UG 1Ph	50	4	347	TPD50
14	UG 1Ph	100	4	32	TPD100
15					
16	UG 3Ph	150	5	8	TPD150
17	UG 3Ph	300	5	11	TPD300
18	UG 3Ph	500	5	8	TPD500
19	UG 3Ph	1000	5	8	TPD1000
20	UG 3Ph	1500	5	1	TPD1500
21				<u>2,590</u>	
22	Check=			<u>2,590</u>	
23					

/P3_D (CU) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (CU)
 Workpaper 3 to Schedule D (CU)
 Services Costs
 HY 2021

Line	Volt	OHUG	Phase	RS	RSH	SH	GLP1	GLP1D	GLP3	MBL	Inactive	Total
1	SEC	OH	1	2,357	1,082	2	582	9	1	2	6	4,041
2	SEC	OH	3	13	6	5	93	7	5	-	-	129
3	SEC	UG	1	799	1,567	2	275	9	-	10	11	2,673
4	SEC	UG	3	3	106	2	125	8	29	-	2	275
5	PRI	OH	1	-	-	-	-	-	-	-	-	-
6	PRI	OH	3	-	-	-	-	-	4	-	-	4
7	PRI	UG	1	-	-	-	-	-	-	-	-	-
8	PRI	UG	3	-	-	-	-	-	2	-	-	2
9				3,172	2,761	11	1,075	33	41	12	19	7,124

7,124

11	Class	Volt	Volt	Phase	Count	Material/ Labor	Truck Hours	Truck	Total Cost	Total Cost
12	Res	SEC	OH	1	3,439	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 2,791,544
13	Res	SEC	OH	3	19	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 16,373
14	Res	SEC	UG	1	2,366	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 2,334,750
15	Res	SEC	UG	3	109	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 116,289
16	SH	SEC	OH	1	2	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 1,623
17	SH	SEC	OH	3	5	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 4,309
18	SH	SEC	UG	1	2	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 1,974
19	SH	SEC	UG	3	2	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 2,134
20	GLP1	SEC	OH	1	591	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 479,733
21	GLP1	SEC	UG	3	100	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 86,176
22	GLP1	SEC	OH	1	284	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 280,249
23	GLP1	SEC	UG	3	133	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 141,893
24	GLP3	SEC	UG	1	1	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 812
25	GLP3	SEC	OH	3	5	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ 4,309
26	GLP3	SEC	OH	1	-	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ -
27	GLP3	SEC	UG	3	29	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ 30,939
28	MBL	SEC	UG	1	2	\$ 765.12	2.8	\$ 46.61	\$ 811.73	\$ 1,623
29	MBL	SEC	OH	3	-	\$ 804.87	3.5	\$ 56.89	\$ 861.76	\$ -
30	MBL	SEC	OH	1	10	\$ 932.50	3.3	\$ 54.29	\$ 986.79	\$ 9,868
31	MBL	SEC	UG	3	-	\$ 1,001.07	4.0	\$ 65.80	\$ 1,066.87	\$ -
32			Active Secondary:		7,099				\$	6,304,598
33			Primary:		6					
34			Company/ Inactive/ Future:		19					

7,124



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August 16, 2022

Administrative Law Judge Eranda Vero
Administrative Law Judge Charece Z. Collins
Pennsylvania Public Utility Commission
801 Market Street, Suite 4063
Philadelphia, PA 19107

VIA E-MAIL

RE: Citizens' Electric Company of Lewisburg, PA – Supplement No. 152 to Tariff Electric – Pa. P.U.C. No. 14; Docket No. R-2022-3032369

Your Honors:

Attached please find the following Rebuttal Testimony on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens") in the above-referenced proceeding:

Citizens' Statement No. 1R: Rebuttal Testimony and Exhibits of Howard S. Gorman
Citizens' Statement No. 2R: Rebuttal Testimony and Exhibits of Dylan W. D'Ascendis
Citizens' Statement No. 3R: Rebuttal Testimony and Exhibit of Melissa Sullivan
Citizens' Statement No. 4R: Rebuttal Testimony and Exhibits of John Kelchner
Citizens' Statement No. 5R: Rebuttal Testimony and Exhibits of Kathy Stauder

As shown by the attached Certificate of Service, all parties to this proceeding are being duly served via email.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adeolu A. Bakare'.

Adeolu A. Bakare
MCNEES WALLACE & NURICK LLC

c: Rosemary Chiavetta, Secretary (Letter and Certificate of Service only)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I am this day serving a true copy of the foregoing document upon the participants listed below in accordance with the requirements of Section 1.54 (relating to service by a participant).

VIA E-MAIL

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Adeolu A. Bakare

Counsel to Citizens' Electric Company of
Lewisburg, PA

Dated this 16th day of August, 2022, in Harrisburg, Pennsylvania.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**REBUTTAL TESTIMONY
AND EXHIBITS
OF
HOWARD S. GORMAN**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R- R-2022-3032369**
 :
Citizens' Electric Company of Lewisburg, PA :

**REBUTTAL TESTIMONY OF HOWARD S. GORMAN
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

Q. Please state your name, occupation and business address.

A. My name is Howard Gorman. I am the President of HSG Group, Inc., a consulting firm specializing in utility rate and regulatory matters, located in Great Neck, NY.

Q. Are you the same Howard Gorman that provided direct testimony on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens'" or "Company")?

A. Yes. Terms defined in my direct testimony have the same meaning in this rebuttal testimony.

Q. What is the purpose of your testimony today?

A. The purpose of my testimony is to rebut the testimony of the following witnesses:

- Bureau of Investigation and Enforcement ("I&E") Witness Walker (I&E St. 1)
- Office of Consumer Advocate ("OCA") Witness Mugrace (OCA St. 1)
- I&E Witness Sakaya (I&E St. 3)
- OCA Witness Pavlovic (OCA St. 4)
- Office of Small Business Advocate ("OSBA") Witness Knecht (OSBA St. 1)
- I&E Witness Spadaccio (I&E St. 2) and OCA Witness DeAngelo (OCA St. 2) regarding their opposition to size and performance adjustments for Returns on Equity

Q. Are you sponsoring any exhibits today?

A. Yes, I am sponsoring Exhibit___(HSG-1R), which includes an index on Schedule A (R). The Company is supporting an increase of \$1,210,040, compared to \$1,134,250 in its original filing and \$1,225,678 in its Corrections and Updates (CU) filing. The change from the CU to this Rebuttal is due reducing the PA Corporate Income Tax rate in FPFTY 2023 from 9.99% to 8.99%, and removing CWIP from Rate Base.

Q. Has the Company changed the increase that it is requesting?

A. No, the Company continues to request an increase of just under \$1,000,000, which is well below the \$1,210,040 increase it has supported. The total revenue (including Other revenue) requested is \$6,215,483. The revenue that the Company is requesting would produce a return on rate base of 6.71%.

If the Commission's Final Order results in a revenue requirement increase greater than \$1 million, the Company will continue to limit its rate request to the amount requested herein.

Q. Have you updated the allocated cost of service ("ACOS"), revenue allocation and rates that Citizens' is proposing to recover its revenue requirement?

A. Yes. The results of the ACOS, and the class revenue required to produce a 6.71% return, are on Schedule B6-4 (R), lines 1-20. The only change to the ACOS was to classify a portion of Transformers, account 368, as customer-related using the "Trans-Min" allocator developed on Schedule D3, and to allocate those costs using the allocator "Avg-Cust-Sec". In the original and CU filings, Transformers were classified Demand-only due to an inadvertent error.

The proposed revenue allocation, presented on Schedule B6-4 (R), lines 22-45 including metrics, was updated to move the OL class closer to unity by allocating a higher increase,

and to reduce the increases for GLP-1 and GLP-3. This responds to I&E's testimony regarding the allocations to OL, GLP-1 and GLP-3. The revised proposed revenue allocation meets the goals stated in my direct testimony and balances the interests of the parties.

The proposed rates, which produce the revenue target for each class as well as the overall revenue target, are developed on Schedule B6-3 (R), with bill impacts on Schedules B8 (R) and 8-1 (R).

I will discuss the scaleback methodology later in this testimony.

I&E Witness Walker

Q. What adjustments did Mr. Walker propose, and what are your responses?

A. Mr. Walker proposed the following:

- **Remove \$28,050 of expenses that he believes are Charitable Contributions, and adjust Cash Working Capital (“CWC”) accordingly-** The Company's filing does not include any amounts for Charitable Contributions. The Company records these items in account 426.1, and the Company's filing has no dollars in that account. The Company's response to I&E-RE-32 should have included such a statement. Therefore, Mr. Walker's adjustment for Charitable Contributions and the related CWC adjustment are not needed
- **Reduce the PA Corporate Income Tax rate in FPFTY 2023 from 9.99% to 8.99%.** This change is reflected in the Company's Rebuttal filing.
- **Deferred COVID Costs.** Mr. Walker noted that the Company's full revenue requirement includes recovery of deferred COVID costs, and once these are full

Citizens' Statement No. 1-R

recovered, that amount should be removed from rates. I agree with Mr. Walker that recovery should not extend beyond the three-year amortization period, however because the requested increase is well below the total revenue supported, it is debatable whether the Company is actually recovering these costs at all. The Company will agree to not include any of these costs in a future rate case.

OCA Witness Mugrace

Q. What adjustments to O&M costs did Mr. Mugrace propose, and what are your responses?

A. Mr. Mugrace proposed several adjustments to O&M costs, totaling \$186,657 (Exhibit DM-4, line 8). These are presented in Table HSG-1 below.

Line	Description	OCA St. 1, Page	OCA Exhibit	OCA Rationale	OCA Adjustment	Company Response
1	Shared Services	15	DM-4	Use Company average for HTY, FTY, FPFTY	(18,575)	Reject- Company supported FPFTY \$
2	Labor OH- Payroll / PR Tax- Dist	22	DM-11/12		2,002	
3	Labor OH- Payroll / PR Tax- Maint	22	DM-11/12		(1,903)	
4	Labor OH- Payroll / PR Tax- Cust Acct	23	DM-11/13		1,008	
5	Labor OH- Payroll / PR Tax- A&G	25	DM-11/14		(31,822)	
6	A&G Office Supplies	26	DM-14		(2,173)	
7	A&G Outside Services	26	DM-14		(24,658)	
8	Imjuries & Damages	27			(3,064)	
9	Property Insurance	30	DM-14		(408)	
10						
11	Rate Case expense	30	DM-14	Average past 5 rate cases	(47,313)	Reject- Compay supported its costs
12	COVID Extraordinary	31	DM-14	Remove carrying costs	(9,081)	Reject- Compay followed Order
13	Employee Recognition	26	DM-14	Ratepayers should not pay	(13,690)	Reject- Important part of compensation
14	Inflation	21	DM-4	Not known and measurable	(8,930)	Reject- Company supported its FPFTY \$; duplicates other adjustments
15	Charitable, Dues, Subscriptions	28		Ratepayers should not pay	(28,050)	Not in Revenue Requirement
16						
17					(186,657)	

Citizens' Statement No. 1-R

- Various O&M costs, lines 1-9- For these adjustments, Mr. Mugrace rejected the amounts the Company had developed for FPFTY 2023, and substituted an average of the amounts in the HTY, FTY and FPFTY. He supported his adjustments by claiming that costs fluctuate for these items. It is true that some of these costs may fluctuate, but the Company has supported the amounts its needs for the FPFTY in its direct testimony and also its responses to over 100 Data Requests from OCA and others. Mr. Mugrace even acknowledges, “I do not have any adjustments related to the Company’s base compensation increases” (OCA St. 1, p. 16), yet he still has “adjustments related to the overall Salary and Wage balance included in the filing”. This is inconsistent and undermines his adjustments. Mr. Mugrace found no fault with the Company’s projected costs, which were developed in great detail, he simply chose to substitute a lower set of costs. His proposed adjustments are unsupported and arbitrary and must be rejected; the Company’s costs are well-supported and should be accepted by the Commission. Citizens’ Witnesses Kelchner, Stauder and Sullivan will address specific accounts.
- Rate Case expense, line 11- I will discuss this item immediately below.
- COVID-19 Extraordinary costs, line 12- Mr. Mugrace proposes to remove the Company’s claim for carrying costs on the higher Accounts Receivable it had for two years, and on unrecovered expenses. The Company believes that these carrying costs are “incremental expenses incurred above those embedded in rates resulting from the directives contained in” the Commission’s various Orders that prohibited the Company from terminating customers for non-payment during the COVID-19 pandemic. *See Public Utility Service Termination Moratorium; COVID-19 Cost Tracking and*

Creation of Regulatory Asset, Docket Nos. M-2020-3019244 & M-2020-3019775, Order entered July 15, 2021, p. 4. Therefore the Company rejects this adjustment.

- Employee Recognition, line 13- Mr. Mugrace proposes to remove costs for employee recognition. These costs are an important part of employee retention, and should be included in the Company's claim. Mr. Kelchner will address this item in detail.
- Inflation, line 14- Mr. Mugrace proposes to remove inflation because it is not known and measurable. This adjustment clearly duplicates, at least partially, his other proposed adjustments where he averages costs over three years. In addition, the Company has provided support for its claimed FPFTY increase, in both discovery and testimony. Mr. Mugrace's proposed adjustment is duplicative and ignores the support the Company has provided; it must be rejected; the Company's costs are well-supported and should be accepted by the Commission.
- Charitable, Dues, Subscriptions, line 15- As discussed above with regard to Mr. LaTorre's proposed adjustments, the Company's filing does not include any amounts for these items. Therefore, the adjustment is not needed.

Q. Please discuss Mr. Mugrace's proposed adjustment to Rate Case expense.

A. Mr. Mugrace proposed to use the average rate case expense the Company incurred in its last five rate cases, since 2008. The proposal to use the average actual expense from prior cases is fundamentally unsound and unfair, and would be a significant departure from precedent in the Commonwealth. Citizens' properly claimed its projected witness, legal and other costs to develop, file and litigate the current filing, consistent with many years of PUC practice and procedure on this cost item. Mr. Mugrace's proposed adjustment also fails to recognize that costs have increased over the last 14 years, and that only one of these

cases was litigated (the Company's claim reflects a fully litigated case, which is customary in computing the revenue requirement). It also fails to recognize that the first two cases he cited did not include an Allocated Cost Study while the others did.

In its Interrogatories to OCA, Set II-2, Citizens' asked OCA to "provide citations to all Pennsylvania Public Utility Commission decisions that have approved Mr. Mugrace's proposed method of determining rate case expense by averaging rate case expense from prior rate cases". COA's response states "Mr. Mugrace is aware of the following case but has not reviewed other cases in the preparation of this interrogatory" and identified PA PUC v. PECO Energy Company – Gas Division, R-2020-3018929, Order (June 22, 2021). Mr. Mugrace is incorrect, the Order he cited does not address the amount of rate case expense, only the normalization period that is used to develop the annual recovery amount in the new rates set in that proceeding. In fact, it is not even clear that OCA raised the averaging issue in the PECO case; the Order notes only that OCA proposed to reduce rate case expense by \$208,000 which is the difference between normalizing the \$1.6 million rate case expense over three years (PECO's position) and five years (OCA's position). Thus Mr. Mugrace has not provided any Commission precedent for his position.

Mr. Mugrace's proposed adjustment is unsupported and arbitrary, both as to the amount of rate case expense and the normalization period, and must be rejected. The Company's costs are well-supported and consistent with Commission precedent and should be accepted by the Commission.

Q. Did Mr. Mugrace propose any other adjustments?

A. Yes. Mr. Mugrace proposed the following additional adjustments:

- Rate Base- Mr. Mugrace proposed to remove CWIP from Rate Base. The Company accepts this adjustment and it is reflected on Schedules C1-6 (R) and C1 (R).
- Rate of Return- Mr. Mugrace uses the Rate of Return advocated by OCA Witness M. DeAngelo. In determining the full revenue requirement (as opposed to the Company's request, which is lower) the Company continues to use the rate of return supported by D'Ascendis in his direct and rebuttal testimony, 7.76%.
- CWC, PA GRT and Income Tax expense- Rate Base- Mr. Mugrace recomputes these items using his proposed revenue requirement. The Company recomputes these items using the full revenue requirement it is presenting in rebuttal, and also using the proposed revenue, both as presented on Schedule C1 (R).

I&E Witness Sakaya

Q. What are Mr. Sakaya's recommendations on the Company's ACOS and its proposed revenue allocation, and your responses?

A. Mr. Sakaya accepted the Company's ACOS. He generally accepted the Company's revenue allocation, except that he recommended OL be increased by \$12,000 more than the Company had proposed, and GLP-1 decreased by the same amount. The Company has amended its proposed revenue allocation to give OL an increase equal to 1.25X the average increase, which generates an additional \$9,053, and to reduce GLP-1 and GLP-3 by \$4,500 each. Schedule B6-4 (R) presents the Company's updated proposed revenue allocation,

together with metrics such as relative increases, relative returns, progress toward unity and change in subsidy.

Q. What are Mr. Sakaya's recommendations on scale back, and your responses?

A. Mr. Sakaya recommended that if the increase the Commission orders is less than the amount requested by the Company, then:

- Mr. Sakaya proposes that first \$200,060 of reductions below the nearly \$1,000,000 requested by the should eliminate the increases for GLP-1 and GLP-3. While the Company agrees that the most relief should go to the classes producing the highest return at current rates, this would cause some classes to have increases more than 1.50X the average. The Company supports providing first-dollar relief to GLP-1 and GLP-2 *provided that* no class is increased more than 1.5X the average.
- Mr. Sakaya proposes that for RS any reduction be applied to the kWh charge, and for SH any reduction be applied to the monthly fixed customer charge. The Company accepts these recommendations.

OCA Witness Pavlovic

Q. What are Mr. Pavlovic's recommendations on the Company's ACOS?

A. Mr. Pavlovic appears to accept the ACOS, *except for* the classification of Secondary portions of distribution plant (accounts 364, 365, 366) and Transformers (account 368). He claims these items have no customer component. In support, he cites Bonbright's definition that distribution customer costs are "those operating and capital costs found to vary with the number of customers regardless ... of power consumption" and the costs that meet this definition are "the minimum service, metering, accounting, etc. costs of connecting another customer or the savings in costs of not connecting the customer." Mr.

Pavlovic also relies on what even Bonbright calls “causal empiricism”, supported by a single statistical study conducted in 1980, that the number of customers does not drive distribution costs because “an increase in number of customers does not necessarily betoken any increase whatever in the costs of a minimum-sized system”. At the same time, he asserts that Bonbright has “debunked” the NARUC Manual’s assertion that “the number of poles, conductors, transformers, services and meters are directly related to the number of customers on the utility’s system”.

Mr. Paqylovic also claims the Company has offered no empirical quantitative evidence to support the claim that distribution costs vary with the number of customers.

Q. Do you agree with Mr. Pavlovic’s objections to the Company’s ACOS?

A. No. It has been well-established that the cost of Secondary distribution plant is partly driven by the number of customers; the same is true for Transformers, which are even closer to the customer than Secondary plant.

Bonbright acknowledges his claim that the number of customers does not drive costs is “causal empiricism” and cites to a single statistical study conducted in 1980 as support.

In addition, Bonbright is directly contradicted by the NARUC Manual.

With regard to the Company, the endpoints of its distribution system connect to customers, usually though a transformer. It is incorrect that there is no direct relationship between the number of customers and the size and cost of the distribution system. The purpose of the distribution system is to move energy from the transmission system to customer locations; it is a tautology that the investment in distribution system, especially the Secondary system, is directly related to the number of customers.

Regarding Transformers, the Company uses the rule of thumb that one 50kVA transformer serves four residential customers (Schedule D3), establishing a direct relationship between this particular component and the number of customers.

The Commission must reject Mr. Pavlovic's criticism of the Company's ACOS.

Q. What did Mr. Pavlovic recommend regarding revenue allocation and rate design?

A. Mr. Pavlovic prepared his own ACOS in which he failed to recognize any customer component of the Secondary distribution system. This is a fatal flaw. He relied on his ACOS for revenue allocation and rate design. Because Mr. Pavlovic's ACOS is fatally flawed, the Commission should reject it, and should also reject his recommendations as to revenue allocation and rate design because they rely on the flawed ACOS.

OSBA Witness Knecht

Q. What are Mr. Knecht's recommendations on the Company's ACOS?

A. Mr. Knecht had the following recommendations and observations:

- Mr. Knecht noted that in the original and CU filings, Transformers were classified Demand-only. He is correct; this was due to an inadvertent error. In the Company's Rebuttal ACOS, the results of which are summarized on Schedule B6-4 (R), a portion of Transformers was classified as customer-related using the "Trans-Min" allocator developed on Schedule D3; the allocator "Avg-Cust-Sec" was used for these costs.
- Mr. Knecht opined that there is a Customer component of Primary plant. He cited recent decisions by the Commission and claimed support from the NARUC Manual. The NARUC Manual is not prescriptive on this issue, it suggests classification approaches (e.g., Customer component of Primary system) to be considered; "The

classification depends upon the analyst's evaluation of how the costs in these accounts were incurred. In making this determination, supporting data may be more important than theoretical considerations." The determination of whether a meaningful portion of the cost of a utility's Primary distribution varies with the number of customers depends on how that system is designed and operated. The Company believes that is not the case for its system, but will examine this issue the next time it prepares an ACOS as part of a rate case.

- Mr. Knecht opined that allocating the Demand-related portion of Transformers using sum of individual customer demands, would be more appropriate than "the NCP method used by the Company". In fact, the Company allocated Demand-related Transformers using an allocator that is based on NCP, adjusted to reflect the load-carrying capacity of the minimum Transformer. Mr. Knecht's suggestion deserves consideration, but would require a large amount of data and time for what is likely to be a small effect.

Mr. Knecht submitted his own ACOS, with the only change from the Company's being to correct the classification of Transformers. The Company made this change in its Rebuttal ACOS. Mr. Knecht also stated, "I do not believe that the Company's methods are outside the range of industry practice". Therefore the Commission should accept the Company's Rebuttal ACOS for use in Revenue Allocation and rate design.

Q. What are Mr. Knecht's recommendations on the Company's proposed revenue allocation?

A. Mr. Knecht stated, "The Company's revenue allocation proposal is (mostly) directionally consistent with its ACOS results". However he proposes smaller increases than the

Company for GLP-1 and GLP-3, and much larger increases for all other classes. His proposed increases for RS would cause the average residential customer (1,250 kWh per month) to see an increase of 29.3% on their distribution bill, and higher usage customers to see increases greater than 30%. Given the overall increase of 19.5%, these increases are clearly unacceptable. I recommend the Commission reject Mr. Knecht's proposed revenue allocation, and accept the Company's Rebuttal revenue allocation.

Q. Did Mr. Knecht have any other recommendations?

A. Yes, he recommended the Company simplify its GLP-3 rate design, which has a structure similar to a load factor rate which rewards high load factor customers. Due to the time needed to design and evaluate such a change and to educate customers about it, I recommend the Company commit to present such an evaluation in its next rate case.

I&E Witness Spadaccio and OCA Witness DeAngelo

Q. Please discuss Mr. D'Ascendis' proposed size and performance adjustments to Return on Equity ("ROE").

A. Mr. D'Ascendis has proposed adjustments to the ROE for both Citizens' and its affiliated utility Valley, in their current proceedings. These adjustments were opposed by I&E and OCA witnesses. Mr. D'Ascendis Rebuttal Testimony provides the primary response to I&E and OCA on these adjustments, and my testimony and Mr. Kelchner's will supplement that. In this response I note that the adjustments were proposed by Mr. D'Ascendis for both Citizens' and Valley, and that similar adjustments were authorized by the Commission in prior cases for each utility, to emphasize the Commission's consistent treatment and to urge that it be continued.

In their 2019 rate cases, the Commission authorized ROEs for Citizens' and for Valley equal to one standard deviation above the mean / median for the respective DCF proxy groups. In doing so, the Commission explicitly recognized that smaller companies require additional resources to meet the risks they face, such as loss of customers or sales, variability in costs and plant investment needs. Consistent with the Commission's 2019 Orders, Mr. D'Ascendis recommended size premiums for both Citizens' and Valley in the current proceedings.

Citizens' and Valley are still very small utilities, and as Mr. D'Ascendis testified, still require higher returns to provide the resources to handle significant events. In addition, both utilities still perform very well on the measures of management effectiveness discussed in the Commission's Orders in their last rate cases.

It is critically important that the Commission consistently apply its criteria for authorizing size and performance adjustments. Mr. Kelchner and Mr. Rogers testify that insufficient ROE will affect investment decisions and planning for future financial activities, including the timing of rate cases. As a policy matter, a consistent policy that provides adequate resources is critical to avoiding rate shock, so that a significant event can be managed by the utility. If the utility does not have the resources available, then a significant event, and

even the possibility of such event, could require immediate and substantial rate relief and could potentially jeopardize operations, investment and financial planning.

Q. Does this conclude your rebuttal testimony today?

A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

EXHIBITS
OF
HOWARD S. GORMAN

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

A (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

INDEX TO SCHEDULES

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5	B1 (R) Summary Of Electric Sales, Customers And Revenue At Present Rates	Historic Year 2021
6	B1-1 (R) Billing Units, Rates And Revenue At Present Rates	Historic Year 2021
7	B2 (R) Summary Of Electric Sales, Customers And Revenue At Present Rates	Future Test Year 2022
8	B2-1 (R) Billing Units, Rates And Revenue At Present Rates	Future Test Year 2022
9	B3 (R) Summary Of Electric Sales, Customers And Revenue At Present Rates	Fully Projected Future Test Year 2023
10	B3-1 (R) Billing Units, Rates And Revenue At Present Rates	Fully Projected Future Test Year 2023
11	B4 (R) Distribution Revenue at Present Rates- Bill Analysis and Financial Statements	Historic Year 2021
12	B5 (R) Number of Customers Served Whose Bills Will be Increased	12/31/2021, 12/31/2022 and 12/31/2023
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14	B6 (R) Operating Revenue Under Present Rates and Proposed Rates	12/31/2021, 12/31/2022 and 12/31/2023
15	B6-1 (R) Summary Of Proposed Increase to Distribution Revenue	Fully Projected Future Test Year 2023
16	B6-2 (R) Summary Of Electric Sales, Customers And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
17	B6-3 (R) Billing Units, Rates And Revenue At Proposed Rates	Fully Projected Future Test Year 2023
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22	B8 (R) Bill Comparisons (including GSSR present rate)	Fully Projected Future Test Year 2023
23	B8-1 (R) Bill Comparisons (excluding GSSR)	Fully Projected Future Test Year 2023
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25		

A (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
INDEX TO SCHEDULES

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28	C1-1 (R) Net Operating Income And Rates of Return- Support Sheet No. 1- Operating Expense and Going-Level Adjustments	HY 2021, FTY 2022 and FPFTY 2023
29	C1-2 (R) Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure	12/31/2022 and 12/31/2023
30	C1-3 (R) Net Operating Income And Rates of Return- Support Sheet No. 3- Taxes Other Than Income	HY 2021, FTY 2022 and FPFTY 2023
31	C1-4 (R) Net Operating Income And Rates of Return- Support Sheet No. 4- Income Tax Calculations	HY 2021, FTY 2022 and FPFTY 2023
32	C1-5 (R) Net Operating Income And Rates of Return- Support Sheet No. 5- Pension and OPEB	HY 2021, FTY 2022 and FPFTY 2023
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38	C4 (R) Reserve for Depreciation of Utility Plant	12/31/2021, 12/31/2022 and 12/31/2023
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40	C5 (R) Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates	HY 2021, FTY 2022 and FPFTY 2023
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44	D (R) Summary of Allocator Values	
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B (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Operating Revenues at Present Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[2]

				Present Rates	Present Rates	
		HY 2021 Revenue Per Bill Analysis	HY 2021 GSSR and other eliminations	HY 2021 Distribution Only	FTY 2022 Distribution Only	FPFTY 2023 Distribution Only
<u>Customer Type</u>		<u>B1 (R)</u>	<u>B1 (R)</u>	<u>B2-1 (R)</u>	<u>B3-1 (R)</u>	
1						
2	Residential	\$3,142,482		\$3,142,482	\$3,131,540	\$3,138,434
3	Commercial and Industrial	1,948,167		1,948,167	1,887,403	1,885,726
4	Lighting	105,660		105,660	105,660	105,660
5		5,196,309	0	5,196,309	5,124,603	5,129,820
6						
7	Forfeited Discounts	23,994		23,994	23,994	23,994
8	Rent from Electric Property	38,680		38,680	59,227	59,227
9	Other electric revenue	4,140		4,140	4,140	4,140
10	GSSR billed	8,277,817	(8,277,817)	0		
11	GSSR over/ under	219,998	(219,998)	0		
12	Unbilled revenue	(86,706)	86,706	0		
13	TCJA billed	85,787	(85,787)	0		
14	STAS billed	(596)	596	0		
15	Rounding	(285)	285	0		
16	Total Operating Revenues	\$13,759,137	(\$8,496,014)	\$5,263,123	\$5,211,964	\$5,217,181
17						
18	<u>kWh Delivered</u>					
19	Residential	87,771,999			87,259,977	87,452,069
20	Commercial and Industrial	78,419,521			70,731,429	70,401,072
21	Lighting	363,864			363,864	363,864
22		<u>166,555,384</u>			<u>158,355,270</u>	<u>158,217,004</u>

B1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Historic Year 2021**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,771,999	5,892	\$919,217	\$2,223,265	\$0	\$3,142,482
3		87,771,999	5,892	919,217	2,223,265	0	3,142,482
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	27,656,853	1,111	199,920	245,869	547,655	993,445
7	GLP 3	50,226,631	40	24,429	85,390	823,531	933,351
8	SH	536,037	11	2,358	19,013	0	21,372
9		78,419,521	1,161	226,707	350,273	1,371,187	1,948,167
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	166,555,384	7,093	\$1,251,584	\$2,573,538	\$1,371,187	\$5,196,309

B1-1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Billing Units, Rates And Revenue At Present Rates
Historic Year 2021**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total
BILLING UNITS							
1 kWh Sales	87,771,999	536,037	27,656,853	50,226,631	102,962	260,902	166,555,384
Number of Bills	70,709	127	13,328	479	144	324	85,111
Average Monthly Bills	5,892	11	1,111	40	12	27	7,093
Annual Billing Units- Public Lighting and Street Lighting HY 2021							
Rate 1				MBL- Meter	12		
Rate 2				MBL- Post	535		
Rate 3				Monthly revenue	1,710	7,095	
Rate 4							
RATES AND CHARGES							
Tariff Rates							
Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84		
					\$3.11	<u>Average</u>	
Energy Block 1	\$0.025330	\$0.035470	\$0.008890	\$0.008697			\$15.00
Energy Block 2				\$0.000947			
Reservation Chge				\$2.30		<u>Count</u>	
Voltage Discount				(\$0.214725)		473	
Block 1 kWh = Demand X				30			
Demand Block 1			\$3.45	\$4.92			
COMPUTATION OF REVENUE							
Customer Charge Revenue	919,217	2,358	199,920	24,429	20,519	85,141	1,251,584
Distribution kWh Revenue	2,223,265	19,013	245,869	85,390			2,573,538
Distribution Demand Revenue	0	0	547,655	823,531			1,371,187
<i>Total Distribution Revenue</i>	<u>2,223,265</u>	<u>19,013</u>	<u>793,525</u>	<u>908,922</u>	<u>0</u>	<u>0</u>	<u>3,944,724</u>
Total Distribution Revenue	\$3,142,482	\$21,372	\$993,445	\$933,351	\$20,519	\$85,141	\$5,196,309
BILLING UNITS- DETAIL							
Block 1 kWh Sales	87,771,999	536,037	27,656,853	4,882,485	102,962	260,902	121,211,238
Block 2 kWh Sales				45,344,146			45,344,146
Billed Demand kW			158,741	153,386			312,126
Reserved kW- per month				5,000			5,000
Reservation (CR-kW)- annual				(24,840)			
Voltage Discount kW				55,856			55,856
Block 1 kWh				3,500			3,500

B2 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Summary Of Electric Sales, Customers And Revenue At Present Rates
Future Test Year 2022

Table with 8 columns: Line, Description, Sales (kWh), Average Customers, Fixed Customer Charge, Variable Distribution-Energy, Variable Distribution-Demand, Distribution Total. Rows include Residential Customers (RS), Commercial and Industrial Customers (GLP 1, GLP 3, SH, MBL, OL, Lighting), and a TOTAL row.

B2-1 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Billing Units, Rates And Revenue At Present Rates
Future Test Year 2022

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
BILLING UNITS							
1 kWh Sales	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
2							
3							
4 Number of Bills	70,865	127	13,412	479	144	324	85,351
5 Average Monthly Bills	5,905	11	1,118	40	12	27	7,113
6							
Annual Billing Units- Public Lighting and Street Lighting HY 2021							
7							
8 Rate 1				MBL- Meter	12		
9 Rate 2				MBL- Post	535		
10 Rate 3				Monthly revenue	1,710	7,095	
11 Rate 4							
12							
RATES AND CHARGES							
Tariff Rates							
13							
14 Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84	Average	
15					\$3.11	\$15.00	
16 Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697		Count	
17 Energy Block 2				\$0.000947		473	
18 Reservation Chge				\$2.30			
19 Voltage Discount				(\$0.214725)			
20 Block 1 kWh = Demand X				30			
21 Demand Block 1			\$3.45	\$4.92			
22							
23							
COMPUTATION OF REVENUE							
24							
25 Customer Charge Revenue	921,245	2,358	201,180	24,429	20,519	85,141	1,254,872
26							
27 Distribution kWh Revenue	2,210,295	23,319	238,227	78,811			2,550,653
28 Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29 <i>Total Distribution Revenue</i>	2,210,295	23,319	785,882	850,234	0	0	3,869,730
30 Total Distribution Revenue	\$3,131,540	\$25,678	\$987,062	\$874,663	\$20,519	\$85,141	\$5,124,603
31 <i>HTY 2021 Actual</i>	3,142,482	21,372	993,445	933,351	20,519	85,141	5,196,309

B3 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Summary Of Electric Sales, Customers And Revenue At Present Rates
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Revenue - Present Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$923,273	\$2,215,161	\$0	\$3,138,434
3		87,452,069	5,918	923,273	2,215,161	0	3,138,434
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	202,440	235,290	547,655	985,385
7	GLP 3	43,276,801	40	24,429	78,811	771,423	874,663
8	SH	657,436	11	2,358	23,319	0	25,678
9		70,401,072	1,175	229,227	337,420	1,319,078	1,885,726
10							
11	MBL	102,962	12	20,519	0	0	20,519
12	OL	260,902	27	85,141	0	0	85,141
13	Lighting	363,864	39	105,660	0	0	105,660
14							
15	TOTAL	158,217,004	7,133	\$1,258,160	\$2,552,581	\$1,319,078	\$5,129,820

B3-1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
1	BILLING UNITS							
2	kWh Sales	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
3								
4	Number of Bills	71,021	127	13,496	479	144	324	85,591
5	Average Monthly Bills	5,918	11	1,125	40	12	27	7,133
6								
7	Annual Billing Units- Public Lighting and Street Lighting HY 2021							
8	Rate 1				MBL- Meter	12		
9	Rate 2				MBL- Post	535		
10	Rate 3				Monthly revenue	1,710	7,095	
11	Rate 4							
12	RATES AND CHARGES							
13	Tariff Rates							
14	Customer Charge	\$13.00	\$18.57	\$15.00	\$51.00	\$3.84		
15						\$3.11	Average	
16	Energy Block 1	\$0.02533	\$0.03547	\$0.00889	\$0.008697		\$15.00	
17	Energy Block 2				\$0.000947		Count	
18	Reservation Chge				\$2.30		473	
19	Voltage Discount				(\$0.214725)			
20	Block 1 kWh = Demand X				30			
21	Demand Block 1			\$3.45	\$4.92			
22								
23								
24	COMPUTATION OF REVENUE							
25	Customer Charge Revenue	923,273	2,358	202,440	24,429	20,519	85,141	1,258,160
26								
27	Distribution kWh Revenue	2,215,161	23,319	235,290	78,811			2,552,581
28	Distribution Demand Revenue	0	0	547,655	771,423			1,319,078
29	<i>Total Distribution Revenue</i>	2,215,161	23,319	782,945	850,234	0	0	3,871,659
30	Total Distribution Revenue	\$3,138,434	\$25,678	\$985,385	\$874,663	\$20,519	\$85,141	\$5,129,820
31	<i>FTY 2022</i>	<i>3,131,540</i>	<i>25,678</i>	<i>987,062</i>	<i>874,663</i>	<i>20,519</i>	<i>85,141</i>	<i>5,124,603</i>

B3-1 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Billing Units, Rates And Revenue At Present Rates
Fully Projected Future Test Year 2023

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard	Outdoor Lighting	Total	
32	BILLING UNITS- DETAIL							
33	kWh Sales 2022	87,259,977	657,436	26,797,192	43,276,801	102,962	260,902	158,355,270
34	Block 1 kWh added (lost)	192,091		178,642				370,734
35	Block 2 kWh added (lost)			(509,000)				(509,000)
36		87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
37								
38	Block 1 kWh 2021			4,882,485				
39	Block 1 kWh added (lost)			0				
40	Block 1 kWh 2020			4,882,485				
41	Block 2 kWh 2020			38,394,316				
42								
43	Demand kW		158,741	142,794				301,535
44	Reservation kW- monthly			5,000				5,000
45	Reservation (CR-kW)- annual			(24,840)				
46	Voltage Discount- kW			55,856				55,856
47	Block 1 kWh			3,500				3,500

B4 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Distribution Revenue at Present Rates- Bill Analysis and Financial Statements
Historic Year 2021**

						Per Financials 12/31/2021
	<u>B1</u>					
	Bill Analysis Revenue	GSSR	TCJA and STAS in Revenue	Unbilled and GSSR Over/ Under)	Revenue per Financial Statements	Revenue
Customer Type						
1 Residential	\$3,142,482	\$5,935,389	\$53,582	\$42,393	\$9,173,846	\$9,173,846
2 Commercial and Industrial	1,948,167	2,318,658	31,614	89,010	4,387,448	4,387,448
3 Lighting	105,660	23,770	(5)	1,395	130,820	130,820
4						
5 Forfeited Discounts					23,994	23,994
6 Rent from Electric Property					38,680	38,680
7 Other electric revenue					4,140	4,140
8 Rounding					209	209
9	<u>5,196,309</u>	<u>8,277,817</u>	<u>85,191</u>	<u>132,798</u>	<u>13,759,137</u>	<u>13,759,137</u>
10						

B5 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Number of Customers Served Whose Bills Will be Increased
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[3]**

		Average Number of Customers During the Year Ended		
		12/31/2021	12/31/2022	12/31/2023
1	Customer Type			
2	Residential	5,892	5,905	5,918
3	Commercial and Industrial (GLP-1, SH)	1,121	1,128	1,135
4	Commercial and Industrial (GLP-3)	40	40	40
5	Lighting	39	39	39
6	Total Customers Served	7,093	7,113	7,133
7				

B6 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Operating Revenue Under Present Rates and Proposed Rates
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 b[4]**

Total	Distribution Only
--------------	--------------------------

Line	Description	HY 2021 Total Revenue	HY 2021	FTY 2022 PRESENT Rates	FPPTY 2023 PRESENT Rates	FPPTY 2023 PROPOSED Rates
1	Operating Revenues	<u>B (R)</u>	<u>B (R)</u>	<u>B (R)</u>	<u>B (R)</u>	<u>B6-1 (R)</u>
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434	\$3,902,075
3	Commercial and Industrial	1,948,167	1,948,167	1,887,403	1,885,726	2,095,326
4	Lighting	105,660	105,660	105,660	105,660	132,301
5	Subtotal	<u>5,196,309</u>	<u>5,196,309</u>	<u>5,124,603</u>	<u>5,129,820</u>	<u>6,129,703</u>
6						
7	Forfeited Discounts	23,994	23,994	23,994	23,994	23,994
8	Rent from Electric Property	38,680	38,680	59,227	59,227	59,227
9	Other electric revenue	4,140	4,140	4,140	4,140	4,140
10	GSSR billed	8,277,817				
11	GSSR over/ under	219,998				
12	Unbilled revenue	(86,706)				
13	TCJA/ STAS	85,191				
14	Rounding	(285)				
15	Total Operating Revenues	<u>\$13,759,137</u>	<u>\$5,263,123</u>	<u>\$5,211,964</u>	<u>\$5,217,181</u>	<u>\$6,217,064</u>
16						
17	<u>kWh</u>					
18	Residential	87,771,999		87,259,977	87,452,069	
19	Commercial and Industrial	78,419,521		70,731,429	70,401,072	
20	Lighting	363,864		363,864	363,864	
21		<u>166,555,384</u>		<u>158,355,270</u>	<u>158,217,004</u>	

B6-1 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Summary Of Proposed Increase to Distribution Revenue
Fully Projected Future Test Year 2023

Line	Description	Sales (kWh)	Average Customers	Distribution Total- Present Rates	Distribution - Proposed Increase	Distribution Total- Proposed Rates	% Increase Proposed
1	<u>Residential Customers</u>	<u>B3</u>	<u>B3</u>	<u>B3</u>		<u>B6-3</u>	
2	RS	87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
3		87,452,069	5,918	3,138,434	763,641	3,902,075	24.3%
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	985,385	108,487	1,093,872	11.0%
7	GLP 3	43,276,801	40	874,663	95,117	969,779	10.9%
8	SH	657,436	11	25,678	5,998	31,675	23.4%
9		70,401,072	1,175	1,885,726	209,601	2,095,326	11.1%
10							
11	MBL	102,962	12	20,519	5,971	26,490	29.1%
12	OL	260,902	27	85,141	20,671	105,811	24.3%
13	Lighting	363,864	39	105,660	26,641	132,301	25.2%
14							
15	TOTAL	158,217,004	7,133	\$5,129,820	\$999,883	\$6,129,703	19.49%

B6-2 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Summary Of Electric Sales, Customers And Revenue At Proposed Rates
Fully Projected Future Test Year 2023**

Line	Description	Sales (kWh)	Average Customers	Revenue - Proposed Rates			Distribution Total
				Fixed Customer Charge	Variable Distribution-Energy	Variable Distribution-Demand	
1	<u>Residential Customers</u>						
2	RS	87,452,069	5,918	\$994,294	\$2,907,781	\$0	\$3,902,075
3		87,452,069	5,918	994,294	2,907,781	0	3,902,075
4							
5	<u>Commercial and Industrial Customers</u>						
6	GLP 1	26,466,835	1,125	215,936	263,610	614,326	1,093,872
7	GLP 3	43,276,801	40	26,345	87,430	856,004	969,779
8	SH	657,436	11	2,794	28,881	0	31,675
9		70,401,072	1,175	245,075	379,921	1,470,331	2,095,326
10							
11	MBL	102,962	12	26,490	0	0	26,490
12	OL	260,902	27	105,811	0	0	105,811
13	Lighting	363,864	39	132,301	0	0	132,301
14							
15	TOTAL	158,217,004	7,133	\$1,371,670	\$3,287,702	\$1,470,331	\$6,129,703

B6-3 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Billing Units, Rates And Revenue At Proposed Rates
Fully Projected Future Test Year 2023**

	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	Total
	BILLING UNITS						
1 kWh Sales	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902	158,217,004
Number of Bills	71,021	127	13,496	479	144	324	85,591
Average Monthly Bills	5,918	11	1,125	40	12	27	7,133
	Annual Billing Units- Public Lighting and Street Lighting HY 2021						
Rate 1				MBL- Meter	12		
Rate 2				MBL- Post	535		
Rate 3				Monthly revenue	2,207	8,818	
Rate 4							
	PROPOSED RATES AND CHARGES						
	Tariff Rates						
Customer Charge	\$14.00	\$22.00	\$16.00	\$55.00	\$3.84		
					\$4.04	<u>Average</u>	
Energy Block 1	\$0.03325	\$0.04393	\$0.00996	\$0.00965			\$18.64
Energy Block 2				\$0.00105		<u>Count</u>	
Reservation Chge				\$2.55			473
Voltage Discount				(\$0.23831)			
Block 1 kWh = Demand X				30			
Demand Block 1			\$3.87	\$5.46			
	COMPUTATION OF REVENUE						
Customer Charge Revenue	994,294	2,794	215,936	26,345	26,490	105,811	1,371,670
Distribution kWh Revenue	2,907,781	28,881	263,610	87,430			3,287,702
Distribution Demand Revenue	0	0	614,326	856,004			1,470,331
<i>Total Distribution Revenue</i>	<i>2,907,781</i>	<i>28,881</i>	<i>877,936</i>	<i>943,434</i>	<i>0</i>	<i>0</i>	<i>4,758,033</i>
Total Distribution Revenue	\$3,902,075	\$31,675	\$1,093,872	\$969,779	\$26,490	\$105,811	\$6,129,703
Target Revenue Target	3,902,414	31,678	1,093,336	969,978	26,513	105,800	6,129,719
	BILLING UNITS- DETAIL						
Block 1 kWh	87,452,069	657,436	26,466,835	4,882,485	102,962	260,902	119,822,688
Block 2 kWh				38,394,316			38,394,316
Demand kW			158,741	142,794			301,535
Reservation kW- monthly				5,000			5,000
Reservation (CR-kW)- annual				(24,840)			
Voltage Discount- kW				55,856			55,856
Block 1 kWh				3,500			3,500

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Proposed Revenue Allocation
FPPTY 2023

Line	Account	Balance	Residential	Space Heating	GLP-1	GLP-3	MBL	OL	
PRESENT RATES									
1	Distribution Revenue	5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141	
2	Forfeited Disc / Other Rev	87,361	54,938	514	14,512	16,626	168	602	
3	Total Revenue	5,217,181	3,193,372	26,192	999,898	891,289	20,687	85,742	
4	Expenses	4,978,158	3,298,719	25,552	819,221	728,444	37,886	68,337	
5	Net income	239,023	(105,347)	640	180,677	162,846	(17,198)	17,406	
6	Rate Base	13,629,678	8,926,779	69,427	2,059,503	1,823,257	293,973	456,739	
7	Return on Rate Base	1.75%	(1.18%)	0.92%	8.77%	8.93%	(5.85%)	3.81%	
8	Relative Return	1.00 x	(0.67) x	0.53 x	5.00 x	5.09 x	(3.34) x	2.17 x	
FULLY ALLOCATED COST OF SERVICE									
10	Distribution Revenue	6,129,276	4,117,870	31,619	958,027	846,799	67,356	107,605	
11	Forfeited Disc / Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
12	Revenue Requirement	6,216,637	4,172,808	32,134	972,540	863,425	67,524	108,207	
13									
14	Operating expenses	4,608,526	3,113,551	23,919	727,616	646,675	36,675	60,089	
15	GRT	361,659	242,891	1,865	56,579	50,011	3,964	6,348	
16	Income taxes	331,382	217,039	1,688	50,073	44,329	7,147	11,105	
17	Net income	915,069	599,326	4,661	138,271	122,410	19,737	30,665	
18	Return on Rate Base	6.71%	6.71%	6.71%	6.71%	6.71%	6.71%	6.71%	
19	Revenue Increase Required	999,456	979,436	5,942	(27,358)	(27,864)	46,837	22,464	
20	Revenue Increase %	19.48%	31.21%	23.14%	(2.78%)	(3.19%)	228.26%	26.38%	
21									
22	PROPOSED REVENUE ALLOCATION								
23	Distribution Revenue	6,129,719	3,902,414	31,678	1,093,336	969,978	26,513	105,800	
24	Other Revenue	87,361	54,938	514	14,512	16,626	168	602	
25	Revenue Requirement	6,217,080	3,957,352	32,192	1,107,848	986,604	26,681	106,402	
26									
27	Operating expenses	4,608,526	3,113,551	23,919	727,616	646,675	36,675	60,089	
28	GRT	361,653	230,242	1,869	64,507	57,229	1,564	6,242	
29	Income taxes	331,502	163,121	1,703	83,939	75,159	(3,073)	10,653	
30	Net income	915,399	450,437	4,702	231,786	207,542	(8,485)	29,417	
31	Return on Rate Base	6.72%	5.05%	6.77%	11.25%	11.38%	(2.89%)	6.44%	
32	Relative Return	1.00 x	0.75 x	1.01 x	1.67 x	1.69 x	(0.43) x	0.96 x	
33	Progress toward unity	85%	102%	83%	83%	67%	104%	104%	
34	<i>Progress toward unity- Original</i>		81%	79%	76%	78%	59%	156%	
35	Proposed Distribution Increase	999,899	763,980	6,000	107,951	95,315	5,994	20,659	
36	Revenue Increase %	19.5%	24.3%	23.4%	11.0%	10.9%	29.2%	24.3%	
37	Total Bill Revenue Increase (a)	5.9%	8.0%	8.1%	3.7%	2.3%	21.3%	19.8%	
38									
39	Relative Increase	1.00 x	1.25 x	1.20 x	0.56 x	0.56 x	1.50 x	1.25 x	
40									
41	Subsidy given (received)								
42	Present rates	(0)	(261,895)	(578)	144,560	130,871	(22,354)	9,396	
43	Proposed revenue allocation	0	(149,105)	39	93,466	85,088	(28,229)	(1,258)	
44	Reduction in subsidy		43%	107%	35%	35%	(26%)	113%	
45	<i>Reduction in subsidy- Original</i>		41%	35%	27%	32%	(25%)	271%	

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Summary Of Present And Proposed Rates
Fully Projected Future Test Year 2023**

Line	Description	Present Rates (excl GSSR)	GSSR	Present Rates (incl GSSR)	Proposed Rates (excl GSSR)	GSSR	Proposed Rates (incl GSSR)	Proposed Increase (excl GSSR)	Proposed Increase (incl GSSR)
Schedule RS- Residential Service									
1									
2	Customer Charge per Bill	\$13.00		\$13.00	\$14.00		\$14.00	7.7%	
3									
4	Energy Charge, per kWh- All	\$0.02533	\$0.073990	\$0.09932	\$0.03325	\$0.073990	\$0.10724	31.3%	8.0%
Schedule SH- Space Heating									
6	Customer Charge per Bill	\$18.57		\$18.57	\$22.00		\$22.00	18.5%	
7	Energy Charge, per kWh- All	\$0.03547	\$0.07399	\$0.10946	\$0.04393	\$0.07399	\$0.11792	23.9%	7.7%
Schedule GLP-1									
9	Customer Charge per Bill	\$15.00		\$15.00	\$16.00		\$16.00	6.7%	
10									
11	Energy Charge, All kWh	\$0.008890	\$0.073990	\$0.08288	\$0.009960	\$0.073990	\$0.08395	12.0%	1.3%
12									
13	Demand Charge, per kW-Mth	\$3.45		\$3.45	\$3.87		\$3.87	12.2%	12.2%
Schedule GLP-3									
15	Customer Charge per Bill	\$51.00		\$51.00	\$55.00		\$55.00	7.8%	
16									
17	<u>Energy Charge, per kWh</u>								
18	First 30 kWh X Billed Demand kW	\$0.008697	\$0.073990	\$0.0827	\$0.009650	\$0.073990	\$0.08364	11.0%	1.2%
19	Additional kWh	\$0.000947	\$0.073990	\$0.0749	\$0.001050	\$0.073990	\$0.07504	10.9%	0.1%
20	Reservation Charge per kW-Mth	\$2.30		\$2.30	\$2.55		\$2.55	10.9%	10.9%
21	Voltage Discount per kWh	(\$0.214725)		(\$0.214725)	(\$0.238310)		(\$0.238310)	11.0%	11.0%
22	Demand Charge, per kW-Mth	\$4.92		\$4.92	\$5.46		\$5.46	11.0%	11.0%
Schedule MBL									
24	MBL- Meter	\$3.84			\$3.84				
25	MBL- Post	\$3.11			\$4.04				
Schedule OL									
27	OL 175W MV OH Open	\$17.31	37		\$21.51				
28	OL 175W MV UG	\$17.31	20		\$21.51				
29	OL 100W HPS OH	\$17.31	31		\$21.51				
30	OL 100W HPS UG	\$17.31	30		\$21.51				
31	OL 100W HPS Colonial	\$17.31	0		\$21.51				
32	OL 400W HPS OH	\$17.31	6		\$21.51				
33	LED 15K Lum OH Cobra	\$12.85	12		\$15.97				
34	LED 5K Lum OH Cobra	\$10.22	127		\$12.70				
35	LED 5K Lum UG Colonial	\$21.04	56		\$26.15				
36	LED 5K Lum UG Cobra	\$14.90	140		\$18.52				
37	LED 20K Lum OH Cobra	\$16.22	10		\$20.16				
38	LED 20K Lum UG Cobra	\$20.88	0		\$25.95				
39	LED 15K Lum UG Cobra	\$17.51	4		\$21.76				
40	Average	\$15.00	473		\$18.64				
	Monthly \$	\$85,141			\$105,811				

B8 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023

Table with columns: Sales (kWh), Present Rates (Monthly Bill, Cost per kWh), Proposed Rates (Monthly Bill, Cost per kWh), Proposed Increase (\$ per Monthly Bill, %). Rows include demand levels (7 kW, 10 kW, 25 kW, 40 kW) and load factors (10%, 20%, 35%, 50%, 60%, 75%).

B8 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (including GSSR present rate)
Fully Projected Future Test Year 2023

Table with columns: Sales (kWh), Present Rates (Monthly Bill, Cost per kWh), Proposed Rates (Monthly Bill, Cost per kWh), Proposed Increase (\$ per Monthly Bill, %). Rows include Monthly Minimum, 150 kW Demand, 400 kW Demand, 750 kW Demand, and 1500 kW Demand, each with a Minimum and Load Factors (30%, 40%, 50%, 60%, 75%).

B8-1 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023

Table with columns: Average, Sales (kWh), Present Rates (Monthly Bill, Cost per kWh), Proposed Rates (Monthly Bill, Cost per kWh), Proposed Increase (\$ per Monthly Bill, %). Includes sections for Schedule RS- Residential Service and Schedule SH- Space Heating.

B8-1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023**

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
28								
29								
30								
31	7 kW	0	39.15	43.09		3.94	10.1%	
32	Load factor 10%	511	43.69	0.08550	48.18	0.09428	4.49	10.3%
33	Load factor 20%	1,022	48.24	0.04720	53.27	0.05212	5.03	10.4%
34	Load factor 35%	1,789	55.05	0.03078	60.90	0.03405	5.85	10.6%
35	Load factor 50%	2,555	61.86	0.02421	68.54	0.02682	6.67	10.8%
36	Load factor 60%	3,066	66.41	0.02166	73.63	0.02401	7.22	10.9%
37	Load factor 75%	3,833	73.22	0.01911	81.26	0.02120	8.04	11.0%
38								
39	10 kW Demand	0	49.50	54.70		5.20	10.5%	
40	Load factor 10%	730	55.99	0.07670	61.97	0.08489	5.98	10.7%
41	Load factor 20%	1,460	62.48	0.04279	69.24	0.04743	6.76	10.8%
42	Load factor 35%	2,555	72.21	0.02826	80.15	0.03137	7.93	11.0%
43	Load factor 50%	3,650	81.95	0.02245	91.05	0.02495	9.11	11.1%
44	Load factor 60%	4,380	88.44	0.02019	98.32	0.02245	9.89	11.2%
45	Load factor 75%	5,475	98.17	0.01793	109.23	0.01995	11.06	11.3%
46								
47	25 kW Demand	0	101.25	112.75		11.50	11.4%	
48	Load factor 10%	1,825	117.47	0.06437	130.93	0.07174	13.45	11.5%
49	Load factor 20%	3,650	133.70	0.03663	149.10	0.04085	15.41	11.5%
50	Load factor 35%	6,388	158.03	0.02474	176.37	0.02761	18.33	11.6%
51	Load factor 50%	9,125	182.37	0.01999	203.64	0.02232	21.26	11.7%
52	Load factor 60%	10,950	198.60	0.01814	221.81	0.02026	23.22	11.7%
53	Load factor 75%	13,688	222.93	0.01629	249.08	0.01820	26.15	11.7%
54								
55	40 kW Demand	0	153.00	170.80		\$17.80	11.6%	
56	Load factor 10%	2,920	178.96	0.06129	199.88	0.06845	20.92	11.7%
57	Load factor 20%	5,840	204.92	0.03509	228.97	0.03921	24.05	11.7%
58	Load factor 35%	10,220	243.86	0.02386	272.59	0.02667	28.74	11.8%
59	Load factor 50%	14,600	282.79	0.01937	316.22	0.02166	33.42	11.8%
60	Load factor 60%	17,520	308.75	0.01762	345.30	0.01971	36.55	11.8%
61	Load factor 75%	21,900	347.69	0.01588	388.92	0.01776	41.23	11.9%

B8-1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (excluding GSSR)
Fully Projected Future Test Year 2023**

		Schedule GLP-3						
		Present Rates		Proposed Rates		Proposed Increase		
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%	
62								
63								
64								
65	Sales (kWh)							
66	Monthly Minimum	\$789.00		\$874.00		85.00	10.8%	
67	150 kW Demand							
68	Load Factors	Minimum	\$789.00	\$874.00		85.00	10.8%	
69	30%	32,850	854.98	0.02603	947.19	0.02883	92.22	10.8%
70	40%	43,800	865.34	0.01976	958.69	0.02189	93.35	10.8%
71	50%	54,750	875.71	0.01599	970.19	0.01772	94.48	10.8%
72	60%	65,700	886.07	0.01349	981.69	0.01494	95.61	10.8%
73	75%	82,125	901.62	0.01098	998.93	0.01216	97.31	10.8%
74								
75	400 kW Demand							
76	Load Factors	Minimum	\$2,019.00	\$2,239.00		220.00	10.9%	
77	30%	87,600	2,194.93	0.02506	2,434.18	0.02779	239.25	10.9%
78	40%	116,800	2,222.58	0.01903	2,464.84	0.02110	242.26	10.9%
79	50%	146,000	2,250.22	0.01541	2,495.50	0.01709	245.28	10.9%
80	60%	175,200	2,277.87	0.01300	2,526.16	0.01442	248.29	10.9%
81	75%	219,000	2,319.33	0.01059	2,572.15	0.01174	252.82	10.9%
82								
83	750 kW Demand							
84	Load Factors	Minimum	\$3,741.00	\$4,150.00		409.00	10.9%	
85	30%	164,250	4,070.88	0.02478	4,515.96	0.02749	445.08	10.9%
86	40%	219,000	4,122.71	0.01883	4,573.45	0.02088	450.74	10.9%
87	50%	273,750	4,174.54	0.01525	4,630.94	0.01692	456.40	10.9%
88	60%	328,500	4,226.37	0.01287	4,688.43	0.01427	462.05	10.9%
89	75%	410,625	4,304.12	0.01048	4,774.66	0.01163	470.53	10.9%
90								
91	1500 kW Demand							
92	Load Factors	Minimum	\$7,431.00	\$8,245.00		814.00	11.0%	
93	30%	328,500	8,090.76	0.02463	8,976.93	0.02733	886.17	11.0%
94	40%	438,000	8,194.42	0.01871	9,091.90	0.02076	897.48	11.0%
95	50%	547,500	8,298.08	0.01516	9,206.88	0.01682	908.79	11.0%
96	60%	657,000	8,401.75	0.01279	9,321.85	0.01419	920.10	11.0%
97	75%	821,250	8,557.24	0.01042	9,494.31	0.01156	937.07	11.0%

B8-2 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023

Table with 9 columns: Average, Sales (kWh), Present Rates (Monthly Bill, Cost per kWh), Proposed Rates (Monthly Bill, Cost per kWh), Proposed Increase (\$ per Monthly Bill, %). It is divided into two sections: Schedule RS- Residential Service (rows 1-12) and Schedule SH- Space Heating (rows 13-27).

B8-2 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023**

Schedule GLP-1

	Sales (kWh)	Present Rates		Proposed Rates		Proposed Increase	
		Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
28							
29							
30							
31	7 kW	0	39.15	43.09		3.94	10.1%
32	Load factor 10%	511	91.55	96.04	0.18794	4.49	4.9%
33	Load factor 20%	1,022	143.96	148.99	0.14578	5.03	3.5%
34	Load factor 35%	1,789	222.56	228.41	0.12771	5.85	2.6%
35	Load factor 50%	2,555	301.17	307.84	0.12048	6.67	2.2%
36	Load factor 60%	3,066	353.57	360.79	0.11767	7.22	2.0%
37	Load factor 75%	3,833	432.17	440.21	0.11486	8.04	1.9%
38							
39	10 kW Demand	0	49.50	54.70		5.20	10.5%
40	Load factor 10%	730	124.36	130.34	0.17855	5.98	4.8%
41	Load factor 20%	1,460	199.22	205.99	0.14109	6.76	3.4%
42	Load factor 35%	2,555	311.52	319.45	0.12503	7.93	2.6%
43	Load factor 50%	3,650	423.81	432.91	0.11861	9.11	2.2%
44	Load factor 60%	4,380	498.67	508.56	0.11611	9.89	2.0%
45	Load factor 75%	5,475	610.96	622.02	0.11361	11.06	1.8%
46							
47	25 kW Demand	0	101.25	112.75		11.50	11.4%
48	Load factor 10%	1,825	288.40	301.86	0.16540	13.45	4.7%
49	Load factor 20%	3,650	475.56	490.96	0.13451	15.41	3.2%
50	Load factor 35%	6,388	756.29	774.62	0.12127	18.33	2.4%
51	Load factor 50%	9,125	1,037.02	1,058.28	0.11598	21.26	2.1%
52	Load factor 60%	10,950	1,224.17	1,247.39	0.11392	23.22	1.9%
53	Load factor 75%	13,688	1,504.90	1,531.05	0.11186	26.15	1.7%
54							
55	40 kW Demand	0	153.00	170.80		\$17.80	11.6%
56	Load factor 10%	2,920	452.45	473.37	0.16211	20.92	4.6%
57	Load factor 20%	5,840	751.89	775.94	0.13287	24.05	3.2%
58	Load factor 35%	10,220	1,201.06	1,229.80	0.12033	28.74	2.4%
59	Load factor 50%	14,600	1,650.23	1,683.65	0.11532	33.42	2.0%
60	Load factor 60%	17,520	1,949.68	1,986.22	0.11337	36.55	1.9%
61	Load factor 75%	21,900	2,398.85	2,440.08	0.11142	41.23	1.7%

B8-2 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Bill Comparisons (including GSSR effective June 1, 2022)
Fully Projected Future Test Year 2023**

Schedule GLP-3

	Sales (kWh)		Present Rates		Proposed Rates		Proposed Increase	
			Monthly Bill	Cost per kWh	Monthly Bill	Cost per kWh	\$ per Monthly Bill	%
62								
63								
64								
65								
66	Monthly Minimum		\$789.00		\$874.00		85.00	10.8%
67		150 kW Demand						
68	Load Factors	Minimum	\$789.00		\$874.00		85.00	10.8%
69	30%	32,850	3,931.71	0.11969	4,023.92	0.12249	92.22	2.4%
70	40%	43,800	4,967.65	0.11342	5,061.00	0.11555	93.35	1.9%
71	50%	54,750	6,003.59	0.10965	6,098.07	0.11138	94.48	1.6%
72	60%	65,700	7,039.54	0.10715	7,135.15	0.10860	95.61	1.4%
73	75%	82,125	8,593.45	0.10464	8,690.76	0.10582	97.31	1.1%
74								
75		400 kW Demand						
76	Load Factors	Minimum	\$2,019.00		\$2,239.00		220.00	10.9%
77	30%	87,600	10,399.55	0.11872	10,638.80	0.12145	239.25	2.3%
78	40%	116,800	13,162.07	0.11269	13,404.33	0.11476	242.26	1.8%
79	50%	146,000	15,924.58	0.10907	16,169.86	0.11075	245.28	1.5%
80	60%	175,200	18,687.10	0.10666	18,935.39	0.10808	248.29	1.3%
81	75%	219,000	22,830.87	0.10425	23,083.69	0.10540	252.82	1.1%
82								
83		750 kW Demand						
84	Load Factors	Minimum	\$3,741.00		\$4,150.00		409.00	10.9%
85	30%	164,250	19,454.53	0.11844	19,899.62	0.12115	445.08	2.3%
86	40%	219,000	24,634.25	0.11249	25,084.99	0.11454	450.74	1.8%
87	50%	273,750	29,813.97	0.10891	30,270.36	0.11058	456.40	1.5%
88	60%	328,500	34,993.68	0.10653	35,455.74	0.10793	462.05	1.3%
89	75%	410,625	42,763.26	0.10414	43,233.79	0.10529	470.53	1.1%
90								
91		1500 kW Demand						
92	Load Factors	Minimum	\$7,431.00		\$8,245.00		814.00	11.0%
93	30%	328,500	38,858.07	0.11829	39,744.24	0.12099	886.17	2.3%
94	40%	438,000	49,217.50	0.11237	50,114.98	0.11442	897.48	1.8%
95	50%	547,500	59,576.93	0.10882	60,485.73	0.11048	908.79	1.5%
96	60%	657,000	69,936.37	0.10645	70,856.47	0.10785	920.10	1.3%
97	75%	821,250	85,475.52	0.10408	86,412.59	0.10522	937.07	1.1%

C1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]**

Line	Description	Present Rates HY 12/31/2021		Present Rates FTY 12/31/2022	Present Rates FPFTY 12/31/2023	Full Revenue Requirement FPFTY 12/31/2023	Proposed Rates FPFTY 12/31/2023	Proposed Rates FPFTY 12/31/2023
		Per Books	Distribution Only	Distribution Only	Distribution Only	Distribution Only	Distribution Only	Distribution Only
					Increase	1,210,040	999,883	ORIGINAL 999,270
1	REVENUE							
2	Residential	\$3,142,482	\$3,142,482	\$3,131,540	\$3,138,434		\$3,902,075	\$3,902,075
3	Comm and indus	1,948,167	1,948,167	1,887,403	1,885,726		2,095,326	2,103,783
4	Lighting	105,660	105,660	105,660	105,660		132,301	123,231
5	Rounding	0						
6	Electric operating revenue	5,196,309	5,196,309	5,124,603	5,129,820	6,339,859	6,129,703	6,129,090
7	Other revenue, net	66,814	66,814	87,361	87,361	87,361	87,361	87,361
8	GSSR	8,277,817						
9	Other, net	218,198						
10	Total Revenue	13,759,137	5,263,123	5,211,964	5,217,181	6,427,220	6,217,064	6,216,451
11	Annual kWh	166,555,384	166,555,384	158,355,270	158,217,004	158,217,004	158,217,004	158,217,004
12	EXPENSES							
13	Purchased electricity	7,890,338						
14	Distribution	1,254,145	1,254,145	1,324,325	1,364,311	1,364,311	1,364,311	1,252,545
15	Customer acct & coll	487,762	487,762	422,664	437,153	437,153	437,153	438,445
16	Admin & general	1,225,261	1,225,261	1,409,782	1,493,452	1,493,452	1,493,452	1,473,852
17	Total Operating expense	10,857,506	2,967,168	3,156,771	3,294,916	3,294,916	3,294,916	3,164,842
18								
19	Depreciation expense	1,098,301	1,098,301	1,081,435	1,234,398	1,234,398	1,234,398	1,244,116
20								
21	Taxes other than income	900,903	383,431	380,516	381,871	453,264	440,865	441,410
22								
23	Total Expenses	12,856,710	4,448,901	4,618,721	4,911,185	4,982,578	4,970,179	4,850,368
24								
25	Net operating income before income taxes	902,427	814,222	593,243	305,995	1,444,643	1,246,885	1,366,083
26								
27	Income tax expense	261,164	235,680	133,164	66,973	386,957	331,382	375,694
28	NET UTILITY OPERATING	\$641,262	\$578,542	\$460,078	\$239,023	\$1,057,686	\$915,502	\$990,389
29								
30	RATE BASE (B)	\$12,882,525	\$12,882,525	\$13,286,398	\$13,629,678	\$13,629,678	\$13,629,678	\$13,926,648
31	RATE OF RETURN ON RAI	4.98%	4.49%	3.46%	1.75%	7.76%	6.72%	7.11%

C1-1 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1] - Support Sheet No. 1
Support Sheet No. 1- Operating Expense and Going-Level Adjustments**

Line	Acct.	Account Description	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021 to Year 2022	Year 2022	Year 2022 to Year 2023	Year 2023
21		<u>Customer Accounting & Collection Expenses:</u>										
22	902	Meter Reading Expense	15,904	16,278	24,086	3,495	474	13,633	(11,939)	1,694	182	1,876
23	903	Customer Records & Collection	420,058	420,738	426,023	456,244	445,656	442,188	(41,218)	400,970	13,707	414,677
24	904	Uncollectible Accounts	4,671	15,412	19,728	28,030	19,118	31,941	(11,941)	20,000	600	20,600
25		<i>Total Customer Accting & Coll</i>	440,633	452,428	469,837	487,769	465,248	487,762	(65,098)	422,664	14,489	437,153
26												
27		<u>Administrative & General Expenses:</u>										
28	920	Administrative & General Salaries	590,270	584,877	595,872	572,162	638,160	607,671	97,310	704,981	33,813	738,794
29	921	Office Supplies & Expenses	170,574	169,478	171,711	185,132	194,507	206,061	(5,514)	200,547	6,016	206,563
30	923	Outside Services Employed	53,612	52,217	91,750	57,287	107,143	5,525	69,475	75,000	2,250	77,250
31	924	Property Insurance	7,467	9,877	10,082	10,381	10,798	11,112	527	11,639	349	11,988
32	925	Injuires & Damages	31,296	29,759	26,510	25,409	26,136	26,647	7,163	33,810	1,014	34,824
33	926	Employee Pensions & Benefits	8,302	9,987	29,513	453	(5,422)	1,756	21,244	23,000	690	23,690
34	928	Regulatory Commission	0	46,389	61,907	61,907	108,685	108,668	11,332	120,000	22,745	142,745
35	930	Miscellaneous General	81,453	85,875	91,647	91,414	89,661	94,585	(2,270)	92,315	2,769	95,084
36	932	Maintenance of General Property	122,305	121,835	149,126	137,967	146,298	163,236	(14,747)	148,489	14,023	162,512
37		<i>Total Administrative & General</i>	1,065,279	1,110,294	1,228,117	1,142,112	1,315,966	1,225,261	184,521	1,409,782	83,670	1,493,452
38												
39		Total O&M Expense	\$2,621,253	\$2,743,199	\$2,858,158	\$2,688,126	\$2,921,792	\$2,967,168	\$189,603	\$3,156,771	\$138,145	\$3,294,916
40												
41			Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Year 2021	Year 2021 to Year	Year 2022	Year 2022 to Year	Year 2023
42		Labor	843,879	858,090	899,053	885,646	940,691	932,724	34,550	967,274	30,144	997,418
43		Overhead	987,766	1,008,331	1,024,793	967,783	999,472	1,133,563	(45,148)	1,088,415	22,580	1,110,994
44		Transportation	70,104	61,697	51,116	45,621	47,554	62,379	16,323	78,702	(13,014)	65,688
45		Materials	719,504	815,081	883,197	789,075	934,076	838,502	183,878	1,022,380	98,435	1,120,816
46			2,621,253	2,743,199	2,858,158	2,688,126	2,921,792	2,967,168	189,603	3,156,771	138,145	3,294,916

C1-2 (R)

**Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)**

**Cost of Capital and Fair Rate of Return Based upon Hypothetical Ratemaking Capital Structure
 12/31/2022 and 12/31/2023**

Line	Type of Capital	Ratios (1)	12/31/23	
			Cost Rate	Weighted Cost
1	Long-Term Debt (B)	50.47%	4.090%	2.06%
2	Preferred Stock			
3	Common Equity (A)	49.53%	11.50%	5.70%
4	Total	100.00%		7.76%
5			Using	7.76017%
6				
7	(A) Recommended hypothetical capital structure ratios as discussed in direct testimony.			

C1-3 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 3- Taxes Other Than Income**

Line	Description	HY 2021		Present Rates	Present Rates	Full Revenue	Proposed Rates
		Per Books	Distribution Only	FTY 12/31/2022	FPFTY 12/31/2023	Requirement FPFTY 12/31/2023	FPFTY 12/31/2023
1	<u>Taxes other than income:</u>						
2	Pennsylvania Use Tax	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145	\$4,145
3	PUC Assessment	48,804	48,804	48,804	48,804	48,804	48,804
4	Public Utility Realty Tax (including surcharge)	23,900	23,900	25,215	26,263	26,263	26,263
5	Pennsylvania Gross Receipts Tax	824,054	306,582	302,352	302,659	374,052	361,653
6		<u>\$900,903</u>	<u>\$383,431</u>	<u>\$380,516</u>	<u>\$381,871</u>	<u>\$453,264</u>	<u>\$440,865</u>
7							
8	<u>Gross Receipts Tax</u>						
9	Distribution revenue	\$5,196,309	\$5,196,309	\$5,124,603	\$5,129,820	\$6,339,859	\$6,129,719
10	GSSR, including over/under	8,497,815					
11	Gross Receipts Taxable	<u>\$13,694,123</u>	<u>\$5,196,309</u>	<u>\$5,124,603</u>	<u>\$5,129,820</u>	<u>\$6,339,859</u>	<u>\$6,129,719</u>
12	Gross Receipts Tax at Present Rate	5.90%	\$807,953	\$306,582	\$302,352	\$302,659	\$374,052
13	Rounding difference		16,101				
14	Gross Receipts Tax expense		<u>\$824,054</u>	<u>\$306,582</u>	<u>\$302,352</u>	<u>\$302,659</u>	<u>\$374,052</u>
15							
16	Normalized Rate case expense						
17	Estimated expenses				\$384,500		
18	Amortization period (years)				3.0		
19	Normalized Rate case expense				128,167		
20	Recovery of COVID extraordinary costs			Schedule C1-7 (R)	14,578		
21	Normalized Rate case expense				<u>142,745</u>	142,745	<u>\$142,745</u>

1-5 (F

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 5- Pension and OPEB**

Line	Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	FTY 12/31/2022	FPFTY 12/31/2023
1	Cash payments														
2	for OPEB	19,478	20,409	18,582	15,912	17,715	7,300	7,611	8,990	12,262	27,386	39,923	37,153	52,155	52,155
3	Accrued expense-														
4	Citizens'	84,100	78,800	57,300	51,200	44,800	40,200	55,500	42,100	20,400	(10,500)	(40,213)	(35,317)	(37,765)	(37,765)
5	Accrued expense-														
6	CT Shared														
7	services	5,028	2,200	147	5,393	3,414	2,484	2,436	7,740	6,723	7,585	483	377	430	430
8		<u>108,606</u>	<u>101,409</u>	<u>76,029</u>	<u>72,505</u>	<u>65,929</u>	<u>49,984</u>	<u>65,547</u>	<u>58,830</u>	<u>39,385</u>	<u>24,471</u>	<u>193</u>	<u>2,213</u>	<u>14,820</u>	<u>14,820</u>
9	Amount in rates	109,102	109,102	109,102	109,102	109,102	109,102	109,102	29,072	29,072	51,890	51,890	51,890	51,890	14,820
10	Difference														
11	Deferred asset														
12	(liability)	(496)	(7,693)	(33,073)	(36,597)	(43,173)	(59,118)	(43,555)	29,758	10,313	(27,419)	(51,697)	(49,677)	(37,070)	0
13	Cumulative														
14	Deferred asset														
15	(liability)	(496)	(8,189)	(41,262)	(77,859)	(121,032)	(180,150)	(223,705)	(193,947)	(183,634)	(211,052)	(262,750)	(312,426)	(349,496)	(349,496)

Net Operating Income And Rates of Return
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[1]
Support Sheet No. 6- Computation of Rate Base

Line	Description	Ref.	12/31/2017	HY 2021 Distribution Only	FTY 2022	FPFTY 2023
1	Utility Plant in Service					
2	Assets	Sch. C3 (R), line 28		\$ 27,031,762	\$ 28,550,801	\$ 30,044,161
3	Less: Accumulated Depreciation	Sch. C3 (R), line 28		(13,401,719)	(14,170,682)	(15,066,561)
4				13,630,043	14,380,119	14,977,599
5	Construction work in progress	Sch. C2 (R), line 4		Remove CWIP 0	0	0
6	Less: Accumulated deferred income taxes (ADIT)	Line 32		(414,300)	(790,988)	(1,061,004)
7	Less: Excess deferred income taxes (EDIT)	Line 39		(52,440)	(46,613)	(40,787)
8	Less: Customer deposits	Sch. C2 (R), line 52		(228,657)	(228,657)	(228,657)
9	Accrued Pension / OPEB Liability	Line 46		(621,869)	(621,869)	(621,869)
10	Materials & Supplies	Sch. C2 (R), line 23		202,480	202,480	202,480
11				12,515,257	12,894,471	13,227,763
12	Cash Working Capital Allowance	Line 25		367,268	391,927	401,915
13	RATE BASE			\$ 12,882,525	\$ 13,286,398	\$ 13,629,678
14						
15	Cash Working Capital Allowance:					
16	Operating Expenses	Sch. C1 (R), line 23		\$ 4,448,901	\$ 4,618,721	\$ 4,911,185
18	Deductions:					
19	Taxes Other Than Income	Sch. C1-3 (R), line 6		380,516	381,871	440,865
20	Uncollectible accounts	Sch. C1-1 (R), line 24		31,941	20,000	20,600
21	Depreciation Expense	Sch. C1 (R), line 19		1,098,301	1,081,435	1,234,398
22	Total Deductions			1,510,758	1,483,306	1,695,864
23	Cash Operating Expenses			2,938,142	3,135,415	3,215,322
24	Cash Operating Expenses Ratio			1/8	1/8	1/8
25	Cash Working Capital Allowance (A plus B)			\$ 367,268	\$ 391,927	\$ 401,915
26						
27	<u>Regulatory Accumulated deferred income tax:</u>					
28	Accumulated depreciation based on tax expense borne by ratepayers			19,527,118	20,074,397	20,624,803
29	Accumulated depreciation based on taxes paid by company			21,499,973	23,841,008	25,677,201
30	(Excess) depreciation taken by company			(1,972,855)	(3,766,611)	(5,052,398)
31	Federal tax rate			21.00%	21.00%	21.00%
32	Regulatory Accumulated deferred income tax (liability)			(414,300)	(790,988)	(1,061,004)
33						
34	<u>Excess deferred income tax:(EDIT)</u>					
35	Accumulated depreciation based on tax expense borne by ratepayers		18,162,547			
36	Accumulated depreciation based on taxes paid by company		18,610,753			
37	(Excess) depreciation taken by company		(448,206)			
38	Change in Federal tax rate		13.00%			
39	Excess deferred income tax:(EDIT)		(58,267)	(52,440)	(46,613)	(40,787)
40	Annual Accretion	10		(5,827)	(5,827)	(5,827)
41						
42	<u>Accrued Pension and OPEB Liability / OPEB asset, net</u>					
43	Accrued postretirement cost			(873,669)	(873,669)	(873,669)
44	Regulatory asset- OPEB			0	0	0
45	Deferred tax asset related to OPEB			251,800	251,800	251,800
46				(621,869)	(621,869)	(621,869)
47						
48	OPEB Expense (for future rate cases)			2,213	14,820	14,820

C1-7 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

Extraordinary Coronavirus Pandemic Costs

Line	Description		Amount	Original
1	Carrying charge on Excess AR, 2021	7.231%	9,631	9,631
2	Carrying charge on Excess AR, 2022	7.231%	10,327	10,327
3	Extraordinary costs		16,494	16,494
4	Carrying charge on costs		1,280	1,280
5	Total Costs to 12/31/2022		<u>37,732</u>	<u>37,732</u>
6	Carrying rate and Recovery period, years	7.760%	3.0	3.0
7	Annual amount	To Schedule C1-3 (	14,578	14,578
8				
9			2022	2020-21
10	January		1,193,056	889,104
11	February		1,439,942	1,031,241
12	March			924,821
13	April			1,040,156
14	May			927,177
15	June			824,591
16	July			951,848
17	August			992,371
18	September			901,635
19	October			744,136
20	November			800,607
21	December			1,052,163
22	January			1,386,915
23	February			1,514,233
24	March			1,039,936
25	April			800,324
26	May			756,301
27	June			798,700
28	July			769,072
29	August			820,445
30	September			794,603
31	October			564,971
32	November			630,786
33	December			928,121
34	Next January			1,193,056
35				
36	Average		923,093	789,913
37	Excess AR		133,180	

C2 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
1	Assets and Other Debits			
2	<u>Utility Plant</u>			
3	Electric plant in service	\$27,031,762	\$28,550,801	\$30,044,161
4	Construction work in progress	914	914	914
5				
6	Accumulated depreciation	(13,401,719)	(14,170,682)	(15,066,561)
7	<i>Total utility plant</i>	<u>13,630,957</u>	<u>14,381,033</u>	<u>14,978,513</u>
8				
9	<u>Other Property and Investments:</u>			
10	Non-utility property, SV Life nsurance, other	265,674	265,674	265,674
11	Regulatory asset	211,675	211,675	211,675
12	Regulatory asset- RS Plan	88,277	88,277	88,277
13	Goodwill, net	3,978,203	3,978,203	3,978,203
14	<i>Total other property and investments</i>	<u>4,543,829</u>	<u>4,543,829</u>	<u>4,543,829</u>
15				
16	<u>Current Assets:</u>			
17	Cash	253,241	253,241	253,241
18	Customer accounts receivable	985,770	985,770	985,770
19	Provison for uncollectible accounts		0	0
20	Accrued utility revenues	826,569	826,569	826,569
21	Other accounts receivable	65,545	65,545	65,545
22	Advances to affiliates	90,700	90,700	90,700
23	Inventories	202,480	202,480	202,480
24	Prepayments	53,143	53,143	53,143
25	Under collected power costs	623,973	623,973	623,973
26	Deferred income taxes		0	0
27	<i>Total current assets</i>	<u>3,101,421</u>	<u>3,101,421</u>	<u>3,101,421</u>
28				
29	Total Assets and Other Debits	<u>\$21,276,207</u>	<u>\$22,026,283</u>	<u>\$22,623,763</u>
30				

C2 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Balance Sheets
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[2]**

Line	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
31	Liabilities and Other Credits			
32	<u>Proprietary Capital:</u>			
33	Preferred stock		\$0	\$0
34	Common stock Issued	1,394,720	1,394,720	1,394,720
35	Retained earnings	11,130,367	11,590,445	11,088,043
36	Paid-in Capital, less Treasury Stock	859,338	859,338	859,338
37	<i>Total proprietary capital</i>	13,384,425	13,844,503	13,342,101
38				
39	<u>Long-Term Debt:</u>			
40	Long term debt	1,935,261	1,112,538	1,922,926
41	Capitalized Lease Obligations	256,832	89,194	0
42	<i>Total long-term debt</i>	2,192,093	1,201,732	1,922,926
43				
44	<u>Current and Accrued Liabilities:</u>			
45	Line of Credit	\$1,200,000	\$2,480,359	\$2,859,047
46	Current maturities of long-term debt	192,004	192,004	192,004
47	Current maturities of capitalized leases	58,678	58,678	58,678
48	Accounts payable	384,320	384,320	384,320
49	Due for purchased electricity	634,407	634,407	634,407
50	Accrued expenses	230,488	230,488	230,488
51	Accrued taxes	96,321	96,321	96,321
52	Customer deposits	228,657	228,657	228,657
53	<i>Total current and accrued liabilities</i>	3,024,875	4,305,234	4,683,922
54				
55	<u>Deferred Credits and Other Liabilities:</u>			
56	Deferred income taxes	1,742,800	1,742,800	1,742,800
57	Accrued postretirement cost	821,439	821,439	821,439
58	Other liabilities	110,575	110,575	110,575
59	<i>Total deferred credits</i>	2,674,814	2,674,814	2,674,814
60				
61	Total Liabilities and Other Credits	\$21,276,207	\$22,026,283	\$22,623,763

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost			
			Balance	Year 2018		Balance	Year 2019		Balance
			12/31/2017	Additions	Retire	12/31/2018	Additions	Retire	12/31/2019
1		Depreciable Plant:							
2		<i>Distribution Plant.</i>							
3	360	Land & Land Rights	14,115	176		14,291	512		14,804
4	361	Structures and improvements	0			0			0
5	362	Station Equipment	657,380			657,380			657,380
6	362.01	Station Equipment- Fully depr.	134,900			134,900			134,900
7	364	Poles, Tower & Fixtures	3,470,243	116,723	(12,699)	3,574,266	228,993	(21,606)	3,781,653
8	365	Overhead Conductors & Devices	5,892,060	554,611	(77,789)	6,368,882	415,538	(98,554)	6,685,866
9	366	Underground Conduit	2,758,775	188,372	(1,500)	2,945,647	92,202	(1,758)	3,036,091
10	368	Line Transformers	2,544,597	58,193	(15,059)	2,587,732	70,336	(35,660)	2,622,407
11	369	Services	3,085,416	158,071	(8,886)	3,234,601	285,031	(34,187)	3,485,444
12	370	Meters	1,451,761	74,402	(106,392)	1,419,771	179,438	(206,947)	1,392,262
13	373	Street Lighting & Signal Systems	554,687	50,593	(44,389)	560,891	45,400	(35,920)	570,372
14		Total Distribution Plant	20,563,934	1,201,141	(266,715)	21,498,360	1,317,450	(434,632)	22,381,179
15									
16		<i>General Plant</i>							
17	390.1	Structures & Improvements, office	576,375	27,595		603,970		(10,800)	593,170
18	391	Office Furniture & Equipment	206,628	55,847	(32,438)	230,036	40,730		270,767
19	390X	General- Fully depreciated	764,864			764,864			764,864
20	392	Transportation Equipment	587,924	56,709	(28,757)	615,876			615,876
21	394	Tools, Shop & Garage Equipment	29,409			29,409	20,417		49,826
22	395	Laboratory & Stores Equipment	65,669			65,669			65,669
23	397	Communication Equipment	272,313			272,313			272,313
24	398	Miscellaneous Equipment	10,631			10,631			10,631
25	301	Intangible plant, EDI	319,218			319,218			319,218
26		Total General Plant	2,833,031	140,150	(61,196)	2,911,986	61,147	(10,800)	2,962,333
27									
28		Total Plant in Service	\$23,396,965	\$1,341,292	(\$327,911)	\$24,410,346	\$1,378,597	(\$445,432)	\$25,343,511

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost			Original Cost		
			Year 2020		Balance	Year 2021		Balance
			Additions	Retire	12/31/2020	Additions	Retire	12/31/2021
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	394		15,197	573		15,770
4	361	Structures and improvements			0			0
5	362	Station Equipment			657,380			657,380
6	362.01	Station Equipment- Fully depr.			134,900			134,900
7	364	Poles, Tower & Fixtures	145,344	(9,050)	3,917,947	151,932	(15,282)	4,054,597
8	365	Overhead Conductors & Devices	405,855	(86,007)	7,005,714	386,527	(108,877)	7,283,364
9	366	Underground Conduit	105,205	(3,342)	3,137,954	83,664	(1,622)	3,219,995
10	368	Line Transformers	56,291	(25,739)	2,652,959	58,739	(29,117)	2,682,581
11	369	Services	131,487	(17,677)	3,599,254	219,141	(20,397)	3,797,998
12	370	Meters	148,815	(137,294)	1,403,783	152,823	(185,312)	1,371,294
13	373	Street Lighting & Signal Systems	39,810	(22,960)	587,222	60,297	(30,066)	617,452
14		Total Distribution Plant	1,033,201	(302,070)	23,112,309	1,113,696	(390,674)	23,835,332
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	37,209		630,379	6,784		637,162
18	391	Office Furniture & Equipment	23,493	(2,224)	292,036	15,103	0	307,139
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	57,756	(28,950)	644,682	238,777	(141,880)	741,579
21	394	Tools, Shop & Garage Equipment	8,292		58,118	11,314		69,432
22	395	Laboratory & Stores Equipment	5,300		70,969	0		70,969
23	397	Communication Equipment			272,313			272,313
24	398	Miscellaneous Equipment	7,479	(4,357)	13,754	0	0	13,754
25	301	Intangible plant, EDI			319,218			319,218
26		Total General Plant	139,531	(35,531)	3,066,333	271,977	(141,880)	3,196,431
27								
28		Total Plant in Service	\$1,172,732	(\$337,601)	\$26,178,642	\$1,385,673	(\$532,553)	\$27,031,762

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Original Cost		Original Cost			
			FTY 2022		FPFTY 2023			
			Additions	Retire	Additions	Retire		
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	549		565		16,884	
4	361	Structures and improvements		0			0	
5	362	Station Equipment		657,380			657,380	
6	362.01	Station Equipment- Fully depr.		134,900			134,900	
7	364	Poles, Tower & Fixtures	206,216	(14,539)	212,402	(14,539)	4,444,137	
8	365	Overhead Conductors & Devices	607,218	(87,965)	625,434	(87,965)	8,340,086	
9	366	Underground Conduit	111,365	(4,327)	114,706	(4,327)	3,437,412	
10	368	Line Transformers	99,508	(23,688)	102,493	(23,688)	2,837,206	
11	369	Services	276,294	(20,013)	284,583	(20,013)	4,318,849	
12	370	Meters	157,627	(128,394)	30,590	(128,394)	1,302,722	
13	373	Street Lighting & Signal Systems	92,839	(26,789)	95,624	(26,789)	752,337	
14		Total Distribution Plant	1,551,615	(305,716)	1,466,398	(305,716)	26,241,913	
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	57,889	(10,800)	53,511	(10,800)	726,962	
18	391	Office Furniture & Equipment	104,384	(15,422)	96,489	(15,422)	477,169	
19	390X	General- Fully depreciated		764,864			764,864	
20	392	Transportation Equipment	202,500	(75,421)	270,000	(75,421)	1,063,236	
21	394	Tools, Shop & Garage Equipment	9,740		12,507		91,678	
22	395	Laboratory & Stores Equipment	1,290	(662)	1,656		73,253	
23	397	Communication Equipment		272,313			272,313	
24	398	Miscellaneous Equipment	1,820	(2,178)	2,337	(2,178)	13,554	
25	301	Intangible plant, EDI		319,218			319,218	
26		Total General Plant	377,623	(104,484)	436,500	(103,822)	3,802,248	
27								
28		Total Plant in Service	\$1,929,238	#####	\$28,550,801	\$1,902,898	(\$409,538)	\$30,044,161

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Depreciation Rate	Balance 12/31/2017	Accumulated Depreciation		Accumulated Depreciation		Balance 12/31/2019	
					Year 2018		Year 2019			
					Additions	Remove	Additions	Remove		
1		Depreciable Plant:								
2		<i>Distribution Plant.</i>								
3	360	Land & Land Rights	0.00%	0	0	0	0	0	0	
4	361	Structures and improvements	4.00%	0	0	0	0	0	0	
5	362	Station Equipment	4.00%	608,536	26,295	634,831	9,919	644,750		
6	362.01	Station Equipment- Fully depr.		134,900	0	134,900	0	134,900		
7	364	Poles, Tower & Fixtures	4.125%	2,378,349	145,293	(26,108)	2,497,534	151,716	(41,791)	2,607,460
8	365	Overhead Conductors & Devices	4.00%	1,454,473	245,219	(170,377)	1,529,314	261,095	(204,248)	1,586,161
9	366	Underground Conduit	4.00%	1,430,169	114,088	(3,030)	1,541,228	119,635	(3,722)	1,657,141
10	368	Line Transformers	4.00%	1,747,738	102,647	(15,059)	1,835,326	104,203	(35,660)	1,903,869
11	369	Services	4.00%	1,175,655	126,400	(18,569)	1,283,487	134,401	(64,211)	1,353,677
12	370	Meters	4.00%	445,801	57,431	(117,429)	385,803	56,241	(194,897)	247,147
13	373	Street Lighting & Signal Systems	4.00%	166,025	22,312	(75,224)	113,113	22,625	(74,477)	61,261
14		Total Distribution Plant		9,541,647	839,685	(425,796)	9,955,536	859,834	(619,005)	10,196,365
15										
16		<i>General Plant</i>								
17	390.1	Structures & Improvements, office	3.00%	532,594	17,705		550,299	17,957	(10,800)	557,456
18	391	Office Furniture & Equipment	8.00%	112,982	17,467	(32,438)	98,011	20,032		118,043
19	390X	General- Fully depreciated		764,864			764,864			764,864
20	392	Transportation Equipment	12.50%	373,690	52,322	(33,907)	392,105	76,984		469,089
21	394	Tools, Shop & Garage Equipment	10.00%	14,739	2,941		17,680	3,962		21,641
22	395	Laboratory & Stores Equipment	6.666%	14,688	4,377		19,065	4,377		23,443
23	397	Communication Equipment	6.666%	149,710	18,152		167,862	18,152		186,015
24	398	Miscellaneous Equipment	6.666%	4,973	709		5,682	709		6,391
25	301	Intangible plant, EDI	14.28%	65,701	45,584		111,285	45,584		156,869
26		Total General Plant		2,033,940	159,258	(66,346)	2,126,852	187,758	(10,800)	2,303,810
27										
28		Total Plant in Service		\$11,575,587	\$998,943	(\$492,141)	\$12,082,388	\$1,047,592	(\$629,805)	\$12,500,175

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation		
			Year 2020		Balance	Year 2021		Balance
			Additions	Remove	12/31/2020	Additions	Remove	12/31/2021
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	0		0		0	
4	361	Structures and improvements	0		0		0	
5	362	Station Equipment	0		644,750		644,750	
6	362.01	Station Equipment- Fully depr.	0		134,900		134,900	
7	364	Poles, Tower & Fixtures	158,804	(28,894)	2,737,370	164,434	(37,967)	2,863,836
8	365	Overhead Conductors & Devices	273,832	(195,914)	1,664,079	285,782	(239,923)	1,709,938
9	366	Underground Conduit	123,481	(6,348)	1,774,273	127,159	(3,027)	1,898,405
10	368	Line Transformers	105,507	(25,840)	1,983,537	106,711	(29,939)	2,060,308
11	369	Services	141,694	(39,336)	1,456,035	147,945	(58,345)	1,545,635
12	370	Meters	55,921	(138,426)	164,643	55,502	(189,477)	30,667
13	373	Street Lighting & Signal Systems	33,216	(50,969)	43,507	37,821	(55,690)	25,639
14		Total Distribution Plant	892,455	(485,727)	10,603,093	925,353	(614,368)	10,914,078
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	18,353		575,809	19,013		594,822
18	391	Office Furniture & Equipment	16,654	(2,224)	132,473	18,109		150,582
19	390X	General- Fully depreciated			764,864			764,864
20	392	Transportation Equipment	78,785	(33,307)	514,567	72,436	(141,880)	445,124
21	394	Tools, Shop & Garage Equipment	5,397		27,039	6,377		33,416
22	395	Laboratory & Stores Equipment	4,554		27,997	4,731		32,728
23	397	Communication Equipment	18,152		204,167	5,780		209,947
24	398	Miscellaneous Equipment	813		7,203	917		8,120
25	301	Intangible plant, EDI	45,584		202,454	45,584		248,038
26		Total General Plant	188,293	(35,531)	2,456,572	172,948	(141,880)	2,487,641
27								
28		Total Plant in Service	\$1,080,748	(\$521,258)	\$13,059,665	\$1,098,301	(\$756,248)	\$13,401,719

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)
 Original Cost of Utility Plant in Service
 12/31/2021, 12/31/2022 and 12/31/2023
 Answer to 52 Pa. Code 53.52 c[3]

Line	Acct No.	Account Title	Accumulated Depreciation			Accumulated Depreciation		
			FTY 2022		Balance	FPFTY 2023		Balance
			Additions	Remove	12/31/2022	Additions	Remove	12/31/2023
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	0	0	0	0	0	0
4	361	Structures and improvements	0	0	0	0	0	0
5	362	Station Equipment	26,295	0	671,045	0	0	671,045
6	362.01	Station Equipment- Fully depr.	0	0	134,900	0	0	134,900
7	364	Poles, Tower & Fixtures	151,392	(14,539)	3,000,689	179,240	(14,539)	3,165,389
8	365	Overhead Conductors & Devices	265,140	(87,965)	1,887,113	322,854	(87,965)	2,122,002
9	366	Underground Conduit	119,967	(4,327)	2,014,045	135,289	(4,327)	2,145,006
10	368	Line Transformers	105,026	(23,688)	2,141,646	111,912	(23,688)	2,229,870
11	369	Services	134,510	(20,013)	1,660,132	167,463	(20,013)	1,807,582
12	370	Meters	57,375	(30,667)	57,375	54,065	(57,375)	54,065
13	373	Street Lighting & Signal Systems	23,757	(26,789)	22,606	28,717	(26,789)	24,534
14		Total Distribution Plant	883,461	(207,989)	11,589,551	999,539	(234,697)	12,354,393
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	18,825	(10,800)	602,848	21,168	(10,800)	613,216
18	391	Office Furniture & Equipment	21,961	(15,422)	157,121	34,931	(15,422)	176,630
19	390X	General- Fully depreciated	0	0	764,864	0	0	764,864
20	392	Transportation Equipment	84,927	(75,421)	454,629	120,743	(75,421)	499,951
21	394	Tools, Shop & Garage Equipment	3,428	0	36,844	8,542	0	45,386
22	395	Laboratory & Stores Equipment	4,398	(662)	36,464	4,828	0	41,292
23	397	Communication Equipment	18,152	0	228,100	18,152	0	246,252
24	398	Miscellaneous Equipment	697	(2,178)	6,639	898	(2,178)	5,358
25	301	Intangible plant, EDI	45,584	0	293,622	25,596	0	319,218
26		Total General Plant	197,973	(104,484)	2,581,131	234,859	(103,822)	2,712,168
27								
28		Total Plant in Service	\$1,081,435	(\$312,472)	\$14,170,682	\$1,234,398	(\$338,519)	\$15,066,561

C3 (R) Citizens' Electric Company of Lewisburg
 Rate Case with Fully Projected Future Test Year 2023 (R)

Original Cost of Utility Plant in Service

12/31/2021, 12/31/2022 and 12/31/2023

Answer to 52 Pa. Code 53.52 c[3]

			2022 Capital Additions			2023 Capital Additions		
Line	Acct No.	Account Title	Original C-3	C-3 (CU)	Change	Original C-3	C-3 (CU)	Change
1		Depreciable Plant:						
2		<i>Distribution Plant.</i>						
3	360	Land & Land Rights	618	549	(69)	636	565	(71)
4	361	Structures and improvements	0	0	0	0	0	0
5	362	Station Equipment	0	0	0	0	0	0
6	362.01	Station Equipment- Fully depr.	0	0	0	0	0	0
7	364	Poles, Tower & Fixtures	232,162	206,216	(25,946)	239,127	212,402	(26,725)
8	365	Overhead Conductors & Devices	683,618	607,218	(76,401)	704,127	625,434	(78,693)
9	366	Underground Conduit	125,377	111,365	(14,012)	129,138	114,706	(14,432)
10	368	Line Transformers	98,445	99,508	1,063	101,398	102,493	1,094
11	369	Services	311,058	276,294	(34,764)	320,389	284,583	(35,807)
12	370	Meters	154,649	157,627	2,978	30,590	30,590	0
13	373	Street Lighting & Signal Systems	104,520	92,839	(11,681)	107,656	95,624	(12,032)
14		Total Distribution Plant	1,710,448	1,551,615	(158,833)	1,633,063	1,466,398	(166,665)
15								
16		<i>General Plant</i>						
17	390.1	Structures & Improvements, office	57,810	57,889	79	53,511	53,511	0
18	391	Office Furniture & Equipment	104,242	104,384	142	96,489	96,489	0
19	390X	General- Fully depreciated	0	0	0	0	0	0
20	392	Transportation Equipment	202,500	202,500	0	270,000	270,000	0
21	394	Tools, Shop & Garage Equipment	9,740	9,740	0	12,507	12,507	0
22	395	Laboratory & Stores Equipment	1,290	1,290	0	1,656	1,656	0
23	397	Communication Equipment	0	0	0	0	0	0
24	398	Miscellaneous Equipment	1,820	1,820	0	2,337	2,337	0
25	301	Intangible plant, EDI	0	0	0	0	0	0
26		Total General Plant	377,402	377,623	221	436,500	436,500	0
27								
28		Total Plant in Service	\$2,087,850	\$1,929,238	(\$158,612)	\$2,069,563	\$1,902,898	(\$166,665)

C4 (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)**

**Reserve for Depreciation of Utility Plant
12/31/2021, 12/31/2022 and 12/31/2023
Answer to 52 Pa. Code 53.52 c[4]**

	Account Title	Per Books 12/31/2021	Pro Forma 12/31/2022	Pro Forma 12/31/2023
1	Reserve for Depreciation	\$12,082,388	\$14,170,682	\$15,066,561

C5 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Operating Income Setting Forth the Operating Revenues and Expenses at Present Rates
HY 2021, FTY 2022 and FPFTY 2023
Answer to 52 Pa. Code 53.52 c[5]

<u>Account Title</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>[Per Books]</u>	<u>Year Ended</u> <u>12/31/2021</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2022</u> <u>Distribution Only</u>	<u>Year Ended</u> <u>12/31/2023</u> <u>Distribution Only</u>
1 Operating revenue	\$13,759,137	\$5,263,123	\$5,211,964	\$5,217,181
2				
3 <u>Operating revenue deductions:</u>				
4 Operating expenses	10,857,506	2,967,168	3,156,771	3,294,916
5 Depreciation expense	1,098,301	1,098,301	1,081,435	1,234,398
6 Taxes other than income tax	900,903	383,431	380,516	381,871
7 Rate case expense amortization	0	0	0	0
8 Total Operating revenue deductions	12,856,710	4,448,901	4,618,721	4,911,185
9				
10 Net operating income before income taxes	902,427	814,222	593,243	305,995
11				
12 Income tax expense	261,164	235,680	133,164	66,973
13				
14 Net utility operating income	\$641,262	\$578,542	\$460,078	\$239,023

C5-1 (R)

Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)

Comparison to Prior Rate Case
Prior Rate Case and FPFTY 2023

	Description	FPFTY 2023	R-2019-3008212, Order	Difference- Needs Higher (Lower) Revenue
1	Revenue	5,217,181	5,398,587	181,407
2				
3	<i>kWh</i>	<i>158,217,004</i>	<i>166,467,451</i>	
4				
5	O&M	3,294,916	2,613,736	681,180
6	Taxes other than income, Rate Case	381,871	497,242	(115,371)
7	Depreciation	1,234,398	1,029,328	205,071
8	Income tax	386,957	330,855	56,101
9				
10	Rate Base	\$13,629,678	12,825,060	
11	Required Return	7.76%	7.23%	
12	Target Return	1,057,686	927,252	130,434
13				
14	Income Tax Expense			
15	Subtotal			1,138,822
16	Gross-Up for GRT			1.0627
17				1,210,225
18	Rounding difference			(185)
19	Revenue Increase Required at Recommended Return			1,210,040
20	Per Schedule C1 (R)			1,210,040

D (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
Summary of Allocator Values**

Units	Allocator Names	Total	Residential	Space Heating	GLP-1	GLP-3	Municipal Boulevard Lighting	Outdoor Lighting	
Class Allocators									
1	InputAlloc	ALLOCATION VALUES							
2	MWh	MWh-Meter	158,217,004	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902
3	MW	NCP-Prim	100.00%	58.50%	0.74%	15.13%	25.36%	0.08%	0.19%
4	MW	NCP-Sec	100.00%	67.56%	0.85%	17.48%	13.81%	0.09%	0.22%
5	MW	NCP-Ltr	14,079	5,277	302	2,857	5,521	35	87
6	MW	ICP	32,076	22,969	219	5,482	3,402	3	0
7	#	AVG-CUST	7,133	5,918	11	1,125	40	12	27
8	#	Services_Cost	6,311,219	5,246,029	9,659	1,002,914	41,125	11,491	
9	#	Meters	7,133	5,918	11	1,125	40	12	27
10	\$	Meter_Cost	1,886,728	1,361,453	4,941	430,463	89,871		
11	\$	Dist_Rev	5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141
12	\$	CustDeposits	72,788	15,966	109	29,241	27,472		
13	\$	Write-Offs	65,229	58,237	396	3,401	3,195		
14	\$	StLgt-Cost	617,453					242,410	375,043
15									
16	InputFunc	FUNCTIONAL ALLOCATORS				Total	Primary Dist	Secondary Dist	Billing
17		OH_Cond	100.00%			75.47%	24.53%		
18		UG_Cond	100.00%			49.22%	50.78%		
19		Trans	100.00%			0.00%	100.00%		
20									
21									
22	InputClass	CLASSIFICATIONS			Total	Demand	Commodity	Customer	
23		PTF-Sec-Z	100.00%	21.38%			78.62%		
24		OH-Sec-Z	100.00%	23.24%			76.76%		
25		UG-Sec-Z	100.00%	41.57%			58.43%		
26		Trans-Min	100.00%	65.07%			34.93%		
27									
28									

NOTE: There are no changes to Schedules D1 thru D6, from the (CU) schedules submitted with Corrections and Updates.

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (CU)
FPFTY Ending December 31, 2023
Index to Class Cost of Service Study**

Index (R)

Line	SCHEDULE	DESCRIPTION
1	E (R)	Index to Class Cost of Service Study
2	E-1 (R)	Summary of Results
3	E-1A (R)	Class Allocations- Total
4	E-1B (R)	Revenue Requirement By Functional Classification
5	E-1C (R)	Customer-Related Costs In Revenue Requirement
6	E-2 (R)	Funtionalization
7	E-3 (R)	Classification
8	E-4A (R)	Class Allocation- Primary Demand
9	E-4B (R)	Class Allocation- Secondary Demand
10	E-4C (R)	Class Allocation- Secondary Customer
11	E-4D (R)	Class Allocation- Billing Customer
12	E-5A (R)	Allocator Assignments
13	E-5B (R)	Functionalization Factors
14	E-5C (R)	Classification Factors
15	E-5D (R)	Class Allocation Factors

Sum
Summary of Results
Tot
E-1 (R)

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Summary of Results

Line	Account	No.	Balance	RS	SH	GLP-1	GLP-3	MBL	OL
1	Distribution Revenue		5,129,820	3,138,434	25,678	985,385	874,663	20,519	85,141
2	Forfeited Discounts		23,994	14,680	120	4,609	4,091	96	398
3	Other Revenue	302	63,367	40,258	394	9,903	12,535	72	203
4	Total Revenue	303	<u>5,217,181</u>	<u>3,193,372</u>	<u>26,192</u>	<u>999,898</u>	<u>891,289</u>	<u>20,687</u>	<u>85,742</u>
5									
6	Expenses		4,978,158	3,298,719	25,552	819,221	728,444	37,886	68,337
7	Net income		<u>239,023</u>	<u>(105,347)</u>	<u>640</u>	<u>180,677</u>	<u>162,846</u>	<u>(17,198)</u>	<u>17,406</u>
8									
9	Rate Base		<u>13,629,678</u>	<u>8,926,779</u>	<u>69,427</u>	<u>2,059,503</u>	<u>1,823,257</u>	<u>293,973</u>	<u>456,739</u>
10									
11	Return on Rate Base		<u>1.75%</u>	<u>(1.18%)</u>	<u>0.92%</u>	<u>8.77%</u>	<u>8.93%</u>	<u>(5.85%)</u>	<u>3.81%</u>
12									
13	Revenue Requirement		6,216,637	4,172,808	32,134	972,540	863,425	67,524	108,207
14									
15	Operating expenses		3,225,512	2,202,362	16,123	508,217	444,280	20,380	34,151
16	Depreciation expense		1,234,398	814,826	7,017	195,884	181,152	13,753	21,766
17	Regulatory Commission Expenses		48,804	31,964	249	7,374	6,529	1,053	1,635
18	General taxes / Other		79,212	51,796	427	12,184	11,202	1,407	2,195
19	Uncollectibles expense		20,600	12,603	103	3,957	3,512	82	342
20	GRT		361,659	242,891	1,865	56,579	50,011	3,964	6,348
21			<u>4,970,185</u>	<u>3,356,442</u>	<u>25,784</u>	<u>784,195</u>	<u>696,686</u>	<u>40,640</u>	<u>66,437</u>
22	Pre-tax income		1,246,452	816,366	6,349	188,344	166,739	26,884	41,769
23	Income taxes		331,382	217,039	1,688	50,073	44,329	7,147	11,105
24	Net income		<u>915,069</u>	<u>599,326</u>	<u>4,661</u>	<u>138,271</u>	<u>122,410</u>	<u>19,737</u>	<u>30,665</u>
25									
26	Return on Rate Base		6.71%	6.71%	6.71%	6.71%	6.71%	6.71%	6.71%
27									
28	Revenue Increase Required		999,456	979,436	5,942	(27,358)	(27,864)	46,837	22,464
29	Revenue Increase %		19.48%	31.21%	23.14%	(2.78%)	(3.19%)	228.26%	26.38%

Total
 Class Allocations- Total
 Tot
 E-1A (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	.	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0	.	0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	109,435	.	71,605	601	17,877	17,235	799	1,317
60	Station Expenses	582	10,050	.	5,879	74	1,521	2,549	8	19
61	OH Line Expenses	583	191,237	.	121,677	1,212	29,424	38,311	179	433
62	Street Lighting Expenses	585	6,405	.	0	0	0	0	2,515	3,890
63	Meter Expenses	586	34,407	.	24,828	90	7,850	1,639	0	0
64	Customer Installation Expenses	587	40,257	.	33,404	60	6,348	225	68	152
65	Misc. Distribution Expenses	588	344,186	.	224,031	2,242	54,237	62,550	329	797
66	Rents	589	505	.	350	3	80	70	1	1
67	Maint Supv & Engineering	590	0	.	0	0	0	0	0	0
68	Maint of Station Equip	592	8,399	.	4,914	62	1,271	2,130	6	16
69	Maint of OH Lines	593	594,613	.	378,331	3,769	91,487	119,121	557	1,348
70	Maint of UG Lines	594	5,760	.	3,898	34	911	896	6	14
71	Maint of Line Transformers	595	10,278	.	5,488	149	1,921	2,643	23	55
72	Maint of Lighting	596	8,383	.	0	0	0	0	3,291	5,092
73	Maint of Misc. Plant	599	398	.	268	2	61	55	5	8
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,364,311	.	874,672	8,298	212,987	247,424	7,787	13,143
75	Distribution Expense		1,364,311	.	874,672	8,298	212,987	247,424	7,787	13,143
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	.	0	0	0	0	0	0
78	Meter Reading Exp	902	1,876	.	1,353	5	428	89	0	0
79	Customer Records & Coll	903	414,677	.	344,088	615	65,386	2,321	698	1,570
80	Uncollectible Accounts	904	20,600	.	12,603	103	3,957	3,512	82	342
81	Subtotal - Customer Accounts Exp.	901-905	437,153	.	358,044	723	69,771	5,922	780	1,912
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153	.	358,044	723	69,771	5,922	780	1,912
83										

Total
 Class Allocations- Total
 Tot
 E-1A (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPPTY Ending December 31, 2023
Class Allocations- Total

Line	Account	No.	Balance	Check	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.7138%		6.7138%	6.7138%	6.7138%	6.7138%	6.7138%	6.7138%
162										
163	Rate Base		13,629,678	.	8,926,779	69,427	2,059,503	1,823,257	293,973	456,739
164										
165	Operating expenses		3,225,512	.	2,202,362	16,123	508,217	444,280	20,380	34,151
166	Uncollectibles expense		20,600	.	12,603	103	3,957	3,512	82	342
167	Depreciation expense		1,234,398	.	814,826	7,017	195,884	181,152	13,753	21,766
168	Regulatory Commission Expenses		48,804	.	31,964	249	7,374	6,529	1,053	1,635
169	General taxes / Other		79,212	.	51,796	427	12,184	11,202	1,407	2,195
170	Subtotal- Operating Costs to recover		4,608,526	.	3,113,551	23,919	727,616	646,675	36,675	60,089
171										
172	Target Return on Rate Base- After taxes		915,069		599,326	4,661	138,271	122,410	19,737	30,665
173										
174	Income taxes to recover		331,382	.	217,039	1,688	50,073	44,329	7,147	11,105
175										
176	Subtotal- Rev Req before GRT		5,854,978	.	3,929,917	30,268	915,961	813,414	63,559	101,859
177	GRT needed		361,659	.	242,891	1,865	56,579	50,011	3,964	6,348
178	TOTAL REVENUE REQUIREMENT		<u>6,216,637</u>	.	<u>4,172,808</u>	<u>32,134</u>	<u>972,540</u>	<u>863,425</u>	<u>67,524</u>	<u>108,207</u>
179										
180	Revenue at Present rates		5,217,181		3,193,372	26,192	999,898	891,289	20,687	85,742
181	Revenue Excess (Deficiency)		<u>(999,456)</u>		<u>(979,436)</u>	<u>(5,942)</u>	<u>27,358</u>	<u>27,864</u>	<u>(46,837)</u>	<u>(22,464)</u>

FuncClass
 Revenue
 Tot
 E-1B (R)

**Citizens Electric Company of Lewisburg
 Embedded Cost of Service Study (ECOSS) (R)
 FPFTY Ending December 31, 2023**

Revenue Requirement By Functional Classification

Account Description	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1 Demand-related							
2 Primary	2,791,196	1,634,538	20,559	422,376	705,077	2,607	6,038
3 Secondary	523,428	309,681	6,335	95,481	109,304	773	1,854
4	<u>3,314,623</u>	<u>1,944,219</u>	<u>26,894</u>	<u>517,857</u>	<u>814,381</u>	<u>3,380</u>	<u>7,893</u>
5 NCP-Primary	1	1	0	0	0	0	0
6 Per kW / month-Demand	\$276,218.60	\$276,950.21	\$303,471.15	\$285,173.50	\$267,576.97	\$372,422.00	\$347,305.33
7							
8 kWh-Meter	158,217,004	87,452,069	657,436	26,466,835	43,276,801	102,962	260,902
9 Per kWh-Meter	\$0.02095	\$0.02223	\$0.04091	\$0.01957	\$0.01882	\$0.03282	\$0.03025
10							
11 Customer-related							
12 Secondary	1,461,514	1,090,875	2,046	208,181	10,237	59,066	91,109
13 Billing	1,440,500	1,137,715	3,194	246,502	38,807	5,078	9,204
14	<u>2,902,014</u>	<u>2,228,589</u>	<u>5,239</u>	<u>454,682</u>	<u>49,044</u>	<u>64,144</u>	<u>100,314</u>
15 Number of Bills	85,591	71,021	127	13,496	479	144	324
16 Per bill	\$33.91	\$31.38	\$41.25	\$33.69	\$102.39	\$445.45	\$309.61
17							
18 Total revenue requirement	<u>6,216,637</u>	<u>4,172,808</u>	<u>32,134</u>	<u>972,540</u>	<u>863,425</u>	<u>67,524</u>	<u>108,207</u>
Secondary Per kW / month-Demand	\$43,618.96	\$44,113.40	\$71,485.04	\$52,579.39	\$35,913.36	\$85,166.50	\$81,600.84

**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023**

Customer
Custom
Tot
E-1C (R)

Customer-Related Costs In Revenue Requirement

Account Description	FERC	Total Dollars	RS	SH	GLP-1	GLP-3	MBL	OL
1 Services, cost	Acct 369	4,318,849	3,589,926	6,610	686,307	28,143	7,864	0
2 Services, Acc Depr	Portion Acct 108	(1,807,582)	(1,502,503)	(2,767)	(287,242)	(11,779)	(3,291)	0
3 Meters, cost	Acct 370	1,302,722	940,037	3,412	297,220	62,053	0	0
4 Meters, Acc Depr	Portion Acct 108	(54,065)	(39,013)	(142)	(12,335)	(2,575)	0	0
5 Transformers, cost	Acct 368	2,837,206	1,514,892	41,082	530,282	729,485	6,246	15,218
6 Transformers, Acc Depr	Portion Acct 108	(2,229,870)	(1,190,612)	(32,288)	(416,769)	(573,331)	(4,909)	(11,961)
7 ADIT	Portion Acct 154	(237,450)	(191,685)	(410)	(41,336)	(3,708)	(310)	0
8 Service / Meter/ Trnsf Rate Base		4,129,810	3,121,042	15,498	756,127	228,287	5,599	3,258
9 Rate of return on rate base		6.71%	6.71%	6.71%	6.71%	6.71%	6.71%	6.71%
10 Return on Service / Meter rate base		277,267	209,540	1,040	50,765	15,327	376	219
11 Income tax gross-up		100,409	75,883	377	18,384	5,550	136	79
12 GRT gross-up		23,334	17,641	87	4,271	1,284	32	19
13 Customer-charge return component		401,010	303,064	1,505	73,420	22,161	544	316
14								
15 Meter expenses	Acct 586	34,407	24,828	90	7,850	1,639	0	0
16 Customer installatins expense	Acct 587	40,257	33,404	60	6,348	225	68	152
17 Meter reading expenses	Acct 902	1,876	1,353	5	428	89	0	0
18 Customer records and collection	Acct 903	414,677	344,088	615	65,386	2,321	698	1,570
19 Service / Meter / EDI depreciation exp	Portion Acct 403	247,123	199,450	436	42,982	3,810	348	97
20 Labor-related		161,795	132,690	237	26,569	1,284	318	697
21 Customer-charge expense component		900,135	735,813	1,443	149,563	9,368	1,432	2,516
22								
23 Customer-charge expense component		1,301,145	1,038,877	2,948	222,983	31,529	1,976	2,833
24								
25 Number of Bills		85,591	71,021	127	13,496	479	144	324
26								
27 Customer-charge Components		\$15.20	\$14.63	\$23.21	\$16.52	\$65.82	\$13.72	\$8.74
28								
29 Distribution Plant in Service- Cost		26,241,913	16,981,748	158,173	4,146,538	4,118,352	325,715	511,386
30 Services / Meters % of Distribution Plant		21.4%	26.7%	6.3%	23.7%	2.2%	2.4%	0.0%
31 ADIT		(1,101,790)	(718,581)	(6,473)	(174,271)	(169,330)	(12,857)	(20,279)
32								
33 Income tax gross-up		36.21%	36.21%	36.21%	36.21%	36.21%	36.21%	36.21%
34 GRT gross-up		6.18%	6.18%	6.16%	6.18%	6.15%	6.24%	6.23%

Functions
 Funtionalization
 Fnc
 E-2 (R)

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPPTY Ending December 31, 2023
Funtionalization

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %
30	II. DEPRECIATION RESERVE								
31	Intangible Plant	108.3	319,218	IntanPt	0	0	319,218	-	
32	Transmission Plant	108.5	0	Tran	0	0	0	-	
33	Station Equipment	108.5	805,945	Prim	805,945	0	0	-	
34	Poles, Towers and Fixtures	108.6	3,165,389	OH_Cond	2,388,853	776,536	0	-	
35	OH Conductors and Devices	108.6	2,122,002	OH_Cond	1,601,430	520,571	0	-	
36	UG Conduits and Conductors	108.6	2,145,006	UG_Cond	1,055,752	1,089,255	0	-	
37	Line Transformers	108.6	2,229,870	Trans	0	2,229,870	0	-	
38	Services	108.6	1,807,582	Sec	0	1,807,582	0	-	
39	Meters	108.6	54,065	Bill	0	0	54,065	-	
40	Street Lighting	108.6	24,534	Sec	0	24,534	0	-	
41	General Plant	108.6	2,392,950	GenPtxL	1,060,804	482,982	849,164	-	
35	Total DEPRECIATION RESERVE	108	15,066,561		6,912,784	6,931,330	1,222,447	-	
42									
43	III. OTHER RATE BASE ITEMS								
44	Cash Working Capital	131	401,915	OpExp_Dist	180,757	89,807	131,351	-	
45	CWIP	131	0	Plant	0	0	0	-	
45	Materials & Supplies	255	202,480	OpExp_Dist	91,063	45,244	66,173	-	
46	Customer Deposits		(228,657)	Bill	0	0	(228,657)	-	
47	ADIT / EDIT	154	(1,101,790)	Plant	(507,549)	(500,141)	(94,100)	-	
48	Accrued Pension / OPEB	182	(621,869)	Labor	(275,677)	(125,515)	(220,677)	-	
49	Total OTHER RATE BASE ITEMS	131-283	(1,347,921)		(511,406)	(490,606)	(345,910)	-	
50									
51	TOTAL RATE BASE		<u>13,629,678</u>		<u>6,268,861</u>	<u>6,071,243</u>	<u>1,289,574</u>	-	
52			13,629,678						

Line	Account	No.	Balance	Allocator	Primary	Secondary	Billing	Labor	Labor %
53	I. OPERATING AND MAINTENANCE EXPENSES								
54	B. TRANSMISSION EXPENSE								
55	Transmission Expense		0	Tran	0	0	0	- 0	0
56	Total TRANSMISSION Expense		0		0	0	0		
57									
58	C. DISTRIBUTION OPER. & MAINT. EXPENSE								
59	Ops Supv & Engineering	580	109,435	D-Labor-Op	58,397	28,511	22,527	- 51,770	47.31%
60	Station Expenses	582	10,050	Prim	10,050	0	0	- 4,462	44.40%
61	OH Line Expenses	583	191,237	OH_Cond	144,323	46,914	0	- 92,263	48.25%
62	Street Lighting Expenses	585	6,405	Sec	0	6,405	0	- 2,700	42.15%
63	Meter Expenses	586	34,407	Bill	0	0	34,407	- 34,407	100.00%
64	Customer Installation Expenses	587	40,257	Bill	0	0	40,257	- 15,896	39.49%
65	Misc. Distribution Expenses	588	344,186	OH_UG	204,787	139,398	0	- 94,645	27.50%
66	Rents	589	505	DistPt	234	246	25	- 0	0.00%
67	Maint Supv & Engineering	590	0	None	0	0	0	- 0	0.00%
68	Maint of Station Equip	592	8,399	Prim	8,399	0	0	- 3,502	41.70%
69	Maint of OH Lines	593	594,613	OH_Cond	448,742	145,871	0	- 125,475	21.10%
70	Maint of UG Lines	594	5,760	UG_Cond	2,835	2,925	0	- 2,457	42.66%
71	Maint of Line Transformers	595	10,278	Trans	0	10,278	0	- 4,143	40.31%
72	Maint of Lighting	596	8,383	Sec	0	8,383	0	- 3,832	45.71%
73	Maint of Misc. Plant	599	398	DistPt	184	194	20	- 186	46.77%
74	Total DISTR. OPER. & MAINT. EXP.	500-599	1,364,311		877,952	389,125	97,235	- 435,738	
75	Distribution Expense		1,364,311		877,952	389,125	97,235	-	
76	D. CUSTOMER ACCOUNTS AND SERVICE								
77	Supervision	901	0	None	0	0	0	- 0	0.00%
78	Meter Reading Exp	902	1,876	Bill	0	0	1,876	- 883	47.08%
79	Customer Records & Coll	903	414,677	Bill	0	0	414,677	- 144,292	34.80%
80	Uncollectible Accounts	904	20,600	Bill	0	0	20,600	- 0	0.00%
81	Subtotal - Customer Accounts Exp.	901-905	437,153		0	0	437,153	- 145,175	
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153		0	0	437,153	- 145,175	
83								580,912	

Classify
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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
1	I. ELECTRIC PLANT IN SERVICE					
2	INTANGIBLE PLANT					
3	Organization	302	0	Sec-Pt	0	0
4	EDI Software	303	0	Customer	0	0
5	Total INTANGIBLE Plant		0		0	0
6						
7	C. TRANSMISSION PLANT					
8	Transmission Plant	361	0	None	0	0
9	Total TRANSMISSION Plant	350-359	0		0	0
10						
11	D. DISTRIBUTION PLANT					
12	Land and Land Rights	360	0	None	0	0
13	Station Equipment	362	0	None	0	0
14	Poles, Towers and Fixtures	364	1,090,240	PTF-Sec-Z	233,071	857,169
15	OH Conductors and Devices	365	2,045,997	OH-Sec-Z	475,389	1,570,608
16	UG Conduits and Conductors	366	1,745,550	UG-Sec-Z	725,592	1,019,958
17	Line Transformers	368	2,837,206	Trans-Min	1,846,064	991,142
18	Services	369	4,318,849	Customer	0	4,318,849
19	Meters	370	0	None	0	0
20	Street Lighting	373	752,337	Customer	0	752,337
21	Total DISTRIBUTION Plant	360-373	12,790,180		3,280,116	9,510,064
22						
23	E. GENERAL PLANT					
24	General Plant	389	648,036	Sec-Lab	225,139	422,897
25	Communication Equip	398	54,962	Sec-Lab	19,095	35,868
26	Total GENERAL Plant	389-399	702,999		244,234	458,765
27						
28	TOTAL UTILITY PLANT		13,493,179		3,524,350	9,968,829
29						

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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Classification

Line	Account	No.	Secondary	Allocator	Demand	Customer
30	II. DEPRECIATION RESERVE					
31	Intangible Plant	108.3	0	Sec-Pt	0	0
32	Transmission Plant	108.5	0	None	0	0
33	Station Equipment	108.5	0	None	0	0
34	Poles, Towers and Fixtures	108.6	776,536	PTF-Sec-Z	166,008	610,529
35	OH Conductors and Devices	108.6	520,571	OH-Sec-Z	120,955	399,616
36	UG Conduits and Conductors	108.6	1,089,255	UG-Sec-Z	452,782	636,472
37	Line Transformers	108.6	2,229,870	Trans-Min	1,450,894	778,977
38	Services	108.6	1,807,582	Customer	0	1,807,582
39	Meters	108.6	0	None	0	0
40	Street Lighting	108.6	24,534	Customer	0	24,534
41	General Plant	108.6	482,982	Sec-GenPt	167,796	315,186
35	Total DEPRECIATION RESERVE	108	6,931,330		2,358,435	4,572,895
42						
43	III. OTHER RATE BASE ITEMS					
44	Cash Working Capital	131	89,807	Sec-OpExp	30,113	59,694
45	CWIP	131	0	Sec-Pt	0	0
45	Materials & Supplies	255	45,244	Sec-OpExp	15,170	30,073
46	Customer Deposits		0	None	0	0
47	ADIT / EDIT	154	(500,141)	Sec-Pt	(130,634)	(369,507)
48	Accrued Pension / OPEB	182	(125,515)	Sec-Lab	(43,606)	(81,909)
49	Total OTHER RATE BASE ITEMS	131-283	(490,606)		(128,957)	(361,649)
50						
51	TOTAL RATE BASE		<u>6,071,243</u>		<u>1,036,958</u>	<u>5,034,285</u>
52						
53	I. OPERATING AND MAINTENANCE EXPENSE					

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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
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Line	Account	No.	Secondary	Allocator	Demand	Customer
54	B. TRANSMISSION EXPENSE					
55	Transmission Expense		0	None	0	0
56	Total TRANSMISSION Expense		0		0	0
57						
58	C. DISTRIBUTION OPER. & MAINT. EXP.					
59	Ops Supv & Engineering	580	28,511	Sec-Lab	9,905	18,606
60	Station Expenses	582	0	None	0	0
61	OH Line Expenses	583	46,914	OH-Sec-Z	10,901	36,014
62	Street Lighting Expenses	585	6,405	Customer	0	6,405
63	Meter Expenses	586	0	None	0	0
64	Customer Installation Expenses	587	0	None	0	0
65	Misc. Distribution Expenses	588	139,398	Sec-OH_UG	74,184	65,215
66	Rents	589	246	Sec-Pt	64	182
67	Maint Supv & Engineering	590	0	Sec-Lab	0	0
68	Maint of Station Equip	592	0	None	0	0
69	Maint of OH Lines	593	145,871	OH-Sec-Z	33,893	111,978
70	Maint of UG Lines	594	2,925	UG-Sec-Z	1,216	1,709
71	Maint of Line Transformers	595	10,278	Trans-Min	6,688	3,590
72	Maint of Lighting	596	8,383	Customer	0	8,383
73	Maint of Misc. Plant	599	194	Sec-Pt	51	143
74	Total DISTR. OPER. & MAINT. EXP.	500-599	389,125		136,901	252,224
75	Distribution Expense		389,125		136,901	252,224
76	D. CUSTOMER ACCOUNTS AND SERVICE					
77	Supervision	901	0	None	0	0
78	Meter Reading Exp	902	0	None	0	0
79	Customer Records & Coll	903	0	None	0	0
80	Uncollectible Accounts	904	0	None	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0
83						

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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Classification

Line	Account	No.	Secondary	Allocator	Demand	Customer
84	E. ADMINISTRATIVE AND GENERAL					
85	Administrative & General Salaries	920	149,115	Sec-Lab	51,805	97,310
86	Office Supplies & Expenses	921	41,692	Sec-Lab	14,484	27,207
87	Outside Services Employed	923	25,329	Sec-LabPt	7,708	17,621
88	Property Insurance	924	5,442	Sec-Pt	1,421	4,020
89	Injuries and Damages	925	15,808	Sec-Pt	4,129	11,679
90	Employee Pensions & Benefits	926	4,781	Sec-Lab	1,661	3,120
91	Regulatory Commission Expense	928	0	Sec-Pt	0	0
92	Miscellaneous General Expense	930	31,177	Sec-LabPt	9,487	21,689
89	Maint General Property	932	73,770	Sec-Pt	19,268	54,502
93	Total A&G Expense	920-932	347,114		109,964	237,149
94						
95	TOTAL OPERATING EXPENSES		736,239		246,865	489,373
96						
97	II. DEPRECIATION EXPENSE					
98	Intangible Plant		0	None	0	0
99	Station Equipment	361/362	0	None	0	0
100	Poles, Towers and Fixtures	364	43,971	PTF-Sec-Z	9,400	34,571
101	OH Conductors and Devices	364	79,203	OH-Sec-Z	18,403	60,800
102	UG Conduits and Conductors	364	68,701	UG-Sec-Z	28,558	40,143
103	Line Transformers	364	111,912	Trans-Min	72,817	39,095
104	Services	364	167,463	Customer	0	167,463
105	Meters	364	0	None	0	0
106	Street Lighting	364	28,717	Customer	0	28,717
107	General Plant	364	42,237	Sec-GenPt	14,674	27,563
101	Total DEPRECIATION Expense	403	542,203		143,852	398,352
108						
109	III. TAXES and OTHER					
110	A. GENERAL TAXES					
111	Payroll related	408	0	None	0	0
112	PURTA, Real estate	408.16	11,922	Sec-Pt	3,114	8,808
113	PUC Assessment		21,739	Sec-RB	3,713	18,026
114	PA Use Tax	408	1,882	Sec-Pt	491	1,390
115	Subtotal - General Taxes		35,543		7,318	28,224
116						
117	B. GROSS RECEIPTS TAX					
118	Gross Receipts tax		95,600	Sec-Rev	25,542	70,057
119	Subtotal- Gross Receipts tax		95,600		25,542	70,057
120						

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**Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Classification**

Line	Account	No.	Secondary	Allocator	Demand	Customer
121	B. FEDERAL / STATE INCOME TAXES					
122	State Income Tax Expense		9,809	Sec-StaTax	621	9,188
123	Federal Income Tax Expense		31,488	Sec-FedTax	1,993	29,495
124	Subtotal - Federal / State Income Taxes	409-411	<u>41,297</u>		<u>2,614</u>	<u>38,683</u>
125	Total TAXES	408-411	<u>172,439</u>		<u>35,475</u>	<u>136,964</u>
126						
127	TOTAL EXPENSES		<u>1,450,881</u>		<u>426,192</u>	<u>1,024,689</u>
128						
129	IV. OPERATING REVENUES at Present Rates					
130	Distribution Revenue		1,627,912	Sec-RetRRPF	434,944	1,192,967
131	Forfeited Discounts		0	Sec-RetRRPF	0	0
132	Rent For Electric Property		14,530	PTF-Sec-Z	3,106	11,423
133	Other Electric Revenues		1,314	Sec-RetRRPF	351	963
134	Total REVENUES		<u>1,643,755</u>		<u>438,402</u>	<u>1,205,354</u>
135						
136	TOTAL EXPENSES		<u>1,450,881</u>		<u>426,192</u>	<u>1,024,689</u>
137	V. NET INCOME at Present Rates		<u>192,874</u>		<u>12,210</u>	<u>180,664</u>
138						
139	SUMMARY REPORT					
140	OPERATING REVENUES					
141	Utility Revenues	440-446	1,627,912		434,944	1,192,967
142	Other Operating Revenues	450-456	<u>15,843</u>		<u>3,457</u>	<u>12,386</u>
143	Total Operating Revenues		<u>1,643,755</u>		<u>438,402</u>	<u>1,205,354</u>
144						
145	OPERATING EXPENSES					
146	Distribution / Transmission	580-599	389,125		136,901	252,224
147	Customer Acctg & Service	901-919	0		0	0
148	Admin & General	920-932	<u>347,114</u>		<u>109,964</u>	<u>237,149</u>
149	Total Operating Expenses		<u>736,239</u>		<u>246,865</u>	<u>489,373</u>
150						
151	Depreciation Expense	403	542,203		143,852	398,352
152	Taxes Other Than Income Tax / Other	408	<u>131,142</u>		<u>32,861</u>	<u>98,282</u>
153	INCOME BEFORE INCOME TAXES		<u>234,171</u>		<u>14,824</u>	<u>219,347</u>
154	Income Taxes	409-411	<u>41,297</u>		<u>2,614</u>	<u>38,683</u>
155	NET INCOME		<u>192,874</u>		<u>12,210</u>	<u>180,664</u>
156						
157	RATE BASE		<u>6,071,243</u>		<u>1,036,958</u>	<u>5,034,285</u>
158	Return on Rate Base					

Classify
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Classification

Line	Account	No.	Secondary	Allocator	Demand	Customer
159						
160	REVENUE REQUIREMENTS					
161	Target Rate of Return		6.7138%		6.7138%	6.7138%
162						
163	Rate Base		6,071,243		1,036,958	5,034,285
164						
165	Operating expenses		714,499		243,152	471,347
166	Uncollectibles expense		0	None	0	0
167	Depreciation expense		542,203		143,852	398,352
168	Regulatory Commission Expenses		21,739	Sec-Pt	3,713	18,026
169	General taxes / Other		35,543		7,318	28,224
170	Subtotal- Operating Costs to recover		<u>1,313,984</u>		<u>398,035</u>	<u>915,949</u>
171						
172	Target Return on Rate Base- After taxes		407,611		69,619	337,992
173						
174	Income taxes to recover	36.21%	147,612		25,212	122,400
175						
176	Subtotal- Rev Req before GRT		1,869,208		492,866	1,376,341
177	GRT needed	6.24%	<u>115,734</u>		<u>30,561</u>	<u>85,173</u>
178	TOTAL REVENUE REQUIREMENT		<u><u>1,984,942</u></u>		<u><u>523,428</u></u>	<u><u>1,461,514</u></u>
179						

PrimDem
 Class Allocation- Primary Demand
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Primary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	0	NCP-Prim	0	0	0	0	0	0
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	805,945	NCP-Prim	471,485	5,952	121,962	204,410	609	1,526
34	Poles, Towers and Fixtures	108.6	2,388,853	NCP-Prim	1,397,499	17,642	361,501	605,880	1,806	4,524
35	OH Conductors and Devices	108.6	1,601,430	NCP-Prim	936,850	11,827	242,341	406,168	1,211	3,033
36	UG Conduits and Conductors	108.6	1,055,752	NCP-Prim	617,624	7,797	159,765	267,768	798	1,999
37	Line Transformers	108.6	0	None	0	0	0	0	0	0
38	Services	108.6	0	None	0	0	0	0	0	0
39	Meters	108.6	0	None	0	0	0	0	0	0
40	Street Lighting	108.6	0	None	0	0	0	0	0	0
41	General Plant	108.6	1,060,804	PriD-Lab	620,579	7,834	160,529	269,050	802	2,009
35	Total DEPRECIATION RESERVE	108	6,912,784		4,044,037	51,053	1,046,099	1,753,277	5,228	13,091
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	180,757	PriD-OpExp	105,744	1,335	27,354	45,845	137	342
45	CWIP	131	0	PriD-Pt	0	0	0	0	0	0
45	Materials & Supplies	255	91,063	PriD-OpExp	53,273	673	13,780	23,096	69	172
46	Customer Deposits		0	None	0	0	0	0	0	0
47	ADIT / EDIT	154	(507,549)	PriD-Pt	(296,921)	(3,748)	(76,806)	(128,729)	(384)	(961)
48	Accrued Pension / OPEB	182	(275,677)	PriD-Lab	(161,273)	(2,036)	(41,718)	(69,919)	(208)	(522)
49	Total OTHER RATE BASE ITEMS	131-283	(511,406)		(299,177)	(3,777)	(77,390)	(129,707)	(387)	(968)
50										
51	TOTAL RATE BASE		6,268,861		3,667,337	46,297	948,655	1,589,960	4,741	11,872

52

PrimDem
 Class Allocation- Primary Demand
 CAI
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Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Primary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.7138%		6.7138%	6.7138%	6.7138%	6.7138%	6.7138%	6.7138%
162										
163	Rate Base		6,268,861		3,667,337	46,297	948,655	1,589,960	4,741	11,872
164										
165	Operating expenses		1,459,406		852,195	10,829	220,854	372,837	636	2,054
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		538,275		314,895	3,975	81,456	136,522	407	1,019
168	Regulatory Commission Expenses		22,447	PriD-Pt	14,702	114	3,392	3,003	484	752
169	General taxes / Other		36,455		22,896	218	5,512	6,555	495	779
170	Subtotal- Operating Costs to recover		2,056,583		1,204,688	15,137	311,214	518,917	2,022	4,604
171										
172	Target Return on Rate Base- After taxes		420,879		246,218	3,108	63,691	106,747	318	797
173										
174	Income taxes to recover		152,417	36.21%	89,165	1,126	23,065	38,657	115	289
175										
176	Subtotal- Rev Req before GRT		2,629,878		1,540,071	19,371	397,970	664,321	2,456	5,690
177	GRT needed		161,317	6.24%	94,467	1,188	24,407	40,756	151	348
178	TOTAL REVENUE REQUIREMENT		<u>2,791,196</u>		<u>1,634,538</u>	<u>20,559</u>	<u>422,376</u>	<u>705,077</u>	<u>2,607</u>	<u>6,038</u>
179										
180	Revenue at Present rates		2,336,664		1,428,378	11,803	447,027	402,129	9,202	38,125
181	Revenue Excess (Deficiency)		<u>(454,532)</u>		<u>(206,160)</u>	<u>(8,757)</u>	<u>24,651</u>	<u>(302,948)</u>	<u>6,595</u>	<u>32,087</u>

SecnDem
 Class Allocation- Secondary Demand
 CAI
 E-4B (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	0	NCP-Sec	0	0	0	0	0	0
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	0	None	0	0	0	0	0	0
34	Poles, Towers and Fixtures	108.6	166,008	NCP-Sec	112,148	1,416	29,010	22,926	145	363
35	OH Conductors and Devices	108.6	120,955	NCP-Sec	81,712	1,032	21,137	16,704	106	265
36	UG Conduits and Conductors	108.6	452,782	NCP-Sec	305,881	3,861	79,124	62,530	395	990
37	Line Transformers	108.6	1,450,894	NCP-Ltr	543,786	31,131	294,400	568,968	3,598	9,010
38	Services	108.6	0	None	0	0	0	0	0	0
39	Meters	108.6	0	None	0	0	0	0	0	0
40	Street Lighting	108.6	0	None	0	0	0	0	0	0
41	General Plant	108.6	167,796	SecD-Lab	109,582	1,593	29,676	26,361	167	417
35	Total DEPRECIATION RESERVE	108	2,358,435		1,153,109	39,034	453,348	697,489	4,410	11,045
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	30,113	SecD-OpExp	19,212	305	5,368	5,114	32	81
45	CWIP	131	0	SecD-Pt	0	0	0	0	0	0
45	Materials & Supplies	255	15,170	SecD-OpExp	9,679	154	2,704	2,576	16	41
46	Customer Deposits		0	None	0	0	0	0	0	0
47	ADIT / EDIT	154	(130,634)	SecD-Pt	(67,467)	(2,007)	(24,774)	(35,596)	(225)	(564)
48	Accrued Pension / OPEB	182	(43,606)	SecD-Lab	(28,478)	(414)	(7,712)	(6,851)	(43)	(108)
49	Total OTHER RATE BASE ITEMS	131-283	(128,957)		(67,054)	(1,962)	(24,414)	(34,757)	(220)	(550)
50										
51	TOTAL RATE BASE		1,036,958		600,017	13,164	190,620	228,103	1,442	3,612

52

SecnDem
 Class Allocation- Secondary Demand
 CAI
 E-4B (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Demand

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.7138%		6.7138%	6.7138%	6.7138%	6.7138%	6.7138%	6.7138%
162										
163	Rate Base		1,036,958		600,017	13,164	190,620	228,103	1,442	3,612
164										
165	Operating expenses		243,152		155,068	2,485	43,447	41,428	185	539
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		143,852		74,949	2,182	27,220	38,644	244	612
168	Regulatory Commission Expenses		3,713	SecD-Pt	2,432	19	561	497	80	124
169	General taxes / Other		7,318		4,294	74	1,245	1,479	86	140
170	Subtotal- Operating Costs to recover		398,035		236,743	4,761	72,472	82,048	596	1,416
171										
172	Target Return on Rate Base- After taxes		69,619		40,284	884	12,798	15,314	97	243
173										
174	Income taxes to recover		25,212	36.21%	14,588	320	4,635	5,546	35	88
175										
176	Subtotal- Rev Req before GRT		492,866		291,615	5,965	89,905	102,908	728	1,746
177	GRT needed		30,561	6.24%	18,066	371	5,576	6,396	45	108
178	TOTAL REVENUE REQUIREMENT		<u>523,428</u>		<u>309,681</u>	<u>6,335</u>	<u>95,481</u>	<u>109,304</u>	<u>773</u>	<u>1,854</u>
179										
180	Revenue at Present rates		438,402		268,413	2,205	84,159	74,649	1,744	7,231
181	Revenue Excess (Deficiency)		<u>(85,026)</u>		<u>(41,268)</u>	<u>(4,130)</u>	<u>(11,322)</u>	<u>(34,654)</u>	<u>971</u>	<u>5,377</u>

SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	0	SecC-IntPt	0	0	0	0	0	0
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	0	None	0	0	0	0	0	0
34	Poles, Towers and Fixtures	108.6	610,529	Avg-Cust	506,599	906	96,268	3,417	1,027	2,311
35	OH Conductors and Devices	108.6	399,616	Avg-Cust	331,590	593	63,012	2,236	672	1,513
36	UG Conduits and Conductors	108.6	636,472	Avg-Cust	528,127	944	100,359	3,562	1,071	2,409
37	Line Transformers	108.6	778,977	Avg-Cust-Sec	646,826	1,157	122,369	4,363	1,311	2,951
38	Services	108.6	1,807,582	Services_Cost	1,502,503	2,767	287,242	11,779	3,291	0
39	Meters	108.6	0	None	0	0	0	0	0	0
40	Street Lighting	108.6	24,534	StLgt-Cost	0	0	0	0	9,632	14,902
41	General Plant	108.6	315,186	SecC-Lab	236,287	423	44,897	1,594	12,426	19,561
35	Total DEPRECIATION RESERVE	108	4,572,895		3,751,933	6,789	714,147	26,950	29,431	43,647
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	59,694	SecC-OpExp	45,695	82	8,686	313	1,913	3,006
45	CWIP	131	0	SecC-Pt	0	0	0	0	0	0
45	Materials & Supplies	255	30,073	SecC-OpExp	23,020	41	4,376	157	964	1,514
46	Customer Deposits		0	CustDeposits	0	0	0	0	0	0
47	ADIT / EDIT	154	(369,507)	SecC-Pt	(282,358)	(512)	(53,783)	(2,050)	(12,187)	(18,616)
48	Accrued Pension / OPEB	182	(81,909)	SecC-Lab	(61,405)	(110)	(11,668)	(414)	(3,229)	(5,083)
49	Total OTHER RATE BASE ITEMS	131-283	(361,649)		(275,049)	(499)	(52,388)	(1,994)	(12,539)	(19,180)
50										
51	TOTAL RATE BASE		5,034,285		3,590,701	6,525	684,459	26,364	286,814	439,423

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SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	None	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0		0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	18,606	SecC-Lab	13,948	25	2,650	94	734	1,155
60	Station Expenses	582	0	None	0	0	0	0	0	0
61	OH Line Expenses	583	36,014	Avg-Cust	29,883	53	5,679	202	61	136
62	Street Lighting Expenses	585	6,405	StLgt-Cost	0	0	0	0	2,515	3,890
63	Meter Expenses	586	0	None	0	0	0	0	0	0
64	Customer Installation Expenses	587	0	None	0	0	0	0	0	0
65	Misc. Distribution Expenses	588	65,215	Avg-Cust	54,113	97	10,283	365	110	247
66	Rents	589	182	Avg-Cust	151	0	29	1	0	1
67	Maint Supv & Engineering	590	0	SecC-Lab	0	0	0	0	0	0
68	Maint of Station Equip	592	0	None	0	0	0	0	0	0
69	Maint of OH Lines	593	111,978	Avg-Cust	92,916	166	17,657	627	188	424
70	Maint of UG Lines	594	1,709	Avg-Cust	1,418	3	269	10	3	6
71	Maint of Line Transformers	595	3,590	Avg-Cust-Sec	2,981	5	564	20	6	14
72	Maint of Lighting	596	8,383	StLgt-Cost	0	0	0	0	3,291	5,092
73	Maint of Misc. Plant	599	143	SecC-Pt	109	0	21	1	5	7
74	Total DISTR. OPER. & MAINT. EXP.	500-599	252,224		195,520	350	37,152	1,319	6,912	10,972
75	Distribution Expense		252,224		195,520	350	37,152	1,319	6,912	10,972
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	None	0	0	0	0	0	0
78	Meter Reading Exp	902	0	None	0	0	0	0	0	0
79	Customer Records & Coll	903	0	None	0	0	0	0	0	0
80	Uncollectible Accounts	904	0	None	0	0	0	0	0	0
81	Subtotal - Customer Accounts Exp.	901-905	0		0	0	0	0	0	0
82	Total CUST. ACCT. & SERV. EXP.	901-919	0		0	0	0	0	0	0
83										

SecnCus
 Class Allocation- Secondary Customer
 CAI
 E-4C (F

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Secondary Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.7138%		6.7138%	6.7138%	6.7138%	6.7138%	6.7138%	6.7138%
162										
163	Rate Base		5,034,285		3,590,701	6,525	684,459	26,364	286,814	439,423
164										
165	Operating expenses		471,347		362,800	580	68,488	151	15,293	24,036
166	Uncollectibles expense		0	None	0	0	0	0	0	0
167	Depreciation expense		398,352		304,771	552	58,047	2,208	12,959	19,814
168	Regulatory Commission Expenses		18,026	SecC-Pt	11,806	92	2,724	2,411	389	604
169	General taxes / Other		28,224		19,599	106	4,208	2,468	725	1,118
170	Subtotal- Operating Costs to recover		915,949		698,976	1,330	133,467	7,238	29,367	45,572
171										
172	Target Return on Rate Base- After taxes		337,992		241,072	438	45,953	1,770	19,256	29,502
173										
174	Income taxes to recover		122,400	36.21%	87,302	159	16,641	641	6,973	10,684
175										
176	Subtotal- Rev Req before GRT		1,376,341		1,027,350	1,927	196,061	9,649	55,596	85,758
177	GRT needed		85,173	6.24%	63,525	119	12,119	588	3,470	5,351
178	TOTAL REVENUE REQUIREMENT		<u>1,461,514</u>		<u>1,090,875</u>	<u>2,046</u>	<u>208,181</u>	<u>10,237</u>	<u>59,066</u>	<u>91,109</u>
179										
180	Revenue at Present rates		1,205,354		739,928	5,993	231,143	203,636	4,795	19,859
181	Revenue Excess (Deficiency)		<u>(256,160)</u>		<u>(350,947)</u>	<u>3,948</u>	<u>22,962</u>	<u>193,398</u>	<u>(54,272)</u>	<u>(71,250)</u>

BillCus
 Class Allocation- Billing Customer
 CAI
 E-4D (I

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
30	II. DEPRECIATION RESERVE									
31	Intangible Plant	108.3	319,218	Avg-Cust	264,878	474	50,334	1,786	537	1,208
32	Transmission Plant	108.5	0	None	0	0	0	0	0	0
33	Station Equipment	108.5	0	None	0	0	0	0	0	0
34	Poles, Towers and Fixtures	108.6	0	None	0	0	0	0	0	0
35	OH Conductors and Devices	108.6	0	None	0	0	0	0	0	0
36	UG Conduits and Conductors	108.6	0	None	0	0	0	0	0	0
37	Line Transformers	108.6	0	None	0	0	0	0	0	0
38	Services	108.6	0	None	0	0	0	0	0	0
39	Meters	108.6	54,065	Meter_Cost	39,013	142	12,335	2,575	0	0
40	Street Lighting	108.6	0	StLgt-Cost	0	0	0	0	0	0
41	General Plant	108.6	849,164	Bill-Lab	685,639	1,459	146,256	12,125	1,134	2,551
35	Total DEPRECIATION RESERVE	108	1,222,447		989,530	2,074	208,926	16,487	1,671	3,759
42										
43	III. OTHER RATE BASE ITEMS									
44	Cash Working Capital	131	131,351	Bill-OpExp	103,430	287	21,967	4,147	542	978
45	CWIP	131	0	Bill-Pt	0	0	0	0	0	0
45	Materials & Supplies	255	66,173	Bill-OpExp	52,107	145	11,066	2,089	273	493
46	Customer Deposits		(228,657)	CustDeposits	(50,157)	(341)	(91,858)	(86,301)	0	0
47	ADIT / EDIT	154	(94,100)	Bill-Pt	(71,835)	(205)	(18,908)	(2,954)	(61)	(138)
48	Accrued Pension / OPEB	182	(220,677)	Bill-Lab	(178,181)	(379)	(38,008)	(3,151)	(295)	(663)
49	Total OTHER RATE BASE ITEMS	131-283	(345,910)		(144,635)	(493)	(115,741)	(86,171)	460	670
50										
51	TOTAL RATE BASE		1,289,574		1,068,724	3,441	235,770	(21,170)	976	1,832

52

BillCus
 Class Allocation- Billing Customer
 CAI
 E-4D (I

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
53	I. OPERATING AND MAINTENANCE EXPENSES									
54	B. TRANSMISSION EXPENSE									
55	Transmission Expense		0	None	0	0	0	0	0	0
56	Total TRANSMISSION Expense		0		0	0	0	0	0	0
57										
58	C. DISTRIBUTION OPER. & MAINT. EXP.									
59	Ops Supv & Engineering	580	22,527	Bill-DxLab	17,025	51	4,638	774	12	27
60	Station Expenses	582	0	None	0	0	0	0	0	0
61	OH Line Expenses	583	0	None	0	0	0	0	0	0
62	Street Lighting Expenses	585	0	StLgt-Cost	0	0	0	0	0	0
63	Meter Expenses	586	34,407	Meter_Cost	24,828	90	7,850	1,639	0	0
64	Customer Installation Expenses	587	40,257	Avg-Cust	33,404	60	6,348	225	68	152
65	Misc. Distribution Expenses	588	0	Avg-Cust	0	0	0	0	0	0
66	Rents	589	25	Bill-Pt	19	0	5	1	0	0
67	Maint Supv & Engineering	590	0	None	0	0	0	0	0	0
68	Maint of Station Equip	592	0	None	0	0	0	0	0	0
69	Maint of OH Lines	593	0	None	0	0	0	0	0	0
70	Maint of UG Lines	594	0	None	0	0	0	0	0	0
71	Maint of Line Transformers	595	0	None	0	0	0	0	0	0
72	Maint of Lighting	596	0	StLgt-Cost	0	0	0	0	0	0
73	Maint of Misc. Plant	599	20	Avg-Cust	16	0	3	0	0	0
74	Total DISTR. OPER. & MAINT. EXP.	500-599	97,235		75,292	201	18,843	2,639	80	179
75	Distribution Expense		97,235		75,292	201	18,843	2,639	80	179
76	D. CUSTOMER ACCOUNTS AND SERVICE									
77	Supervision	901	0	Avg-Cust	0	0	0	0	0	0
78	Meter Reading Exp	902	1,876	Meter_Cost	1,353	5	428	89	0	0
79	Customer Records & Coll	903	414,677	Avg-Cust	344,088	615	65,386	2,321	698	1,570
80	Uncollectible Accounts	904	20,600	Write-Offs	12,603	103	3,957	3,512	82	342
81	Subtotal - Customer Accounts Exp.	901-905	437,153		358,044	723	69,771	5,922	780	1,912
82	Total CUST. ACCT. & SERV. EXP.	901-919	437,153		358,044	723	69,771	5,922	780	1,912
83										

BillCus
 Class Allocation- Billing Customer
 CAI
 E-4D (I

Citizens Electric Company of Lewisburg
Embedded Cost of Service Study (ECOSS) (R)
FPFTY Ending December 31, 2023
Class Allocation- Billing Customer

Line	Account	No.	Balance	Allocator	RS	SH	GLP-1	GLP-3	MBL	OL
160	REVENUE REQUIREMENTS									
161	Target Rate of Return		6.7138%		6.7138%	6.7138%	6.7138%	6.7138%	6.7138%	6.7138%
162										
163	Rate Base		1,289,574		1,068,724	3,441	235,770	(21,170)	976	1,832
164										
165	Operating expenses		1,051,606		832,299	2,228	175,428	29,864	4,265	7,522
166	Uncollectibles expense		20,600	Write-Offs	12,603	103	3,957	3,512	82	342
167	Depreciation expense		153,920		120,211	307	29,161	3,779	142	320
168	Regulatory Commission Expenses		4,618	Bill-Pt	3,024	24	698	618	100	155
169	General taxes / Other		7,215		5,007	29	1,220	699	101	159
170	Subtotal- Operating Costs to recover		1,237,958		973,144	2,691	210,463	38,472	4,690	8,497
171										
172	Target Return on Rate Base- After taxes		86,579		71,752	231	15,829	(1,421)	66	123
173										
174	Income taxes to recover		31,354	36.21%	25,984	84	5,732	(515)	24	45
175										
176	Subtotal- Rev Req before GRT		1,355,892		1,070,881	3,006	232,025	36,536	4,780	8,664
177	GRT needed		84,608	6.24%	66,834	187	14,477	2,271	298	540
178	TOTAL REVENUE REQUIREMENT		<u>1,440,500</u>		<u>1,137,715</u>	<u>3,194</u>	<u>246,502</u>	<u>38,807</u>	<u>5,078</u>	<u>9,204</u>
179										
180	Revenue at Present rates		1,236,762		756,653	6,191	237,569	210,875	4,947	20,527
181	Revenue Excess (Deficiency)		<u>(203,738)</u>		<u>(381,061)</u>	<u>2,997</u>	<u>(8,933)</u>	<u>172,068</u>	<u>(131)</u>	<u>11,322</u>

Class: **Citizens Electric Company of Lewisburg**
Class: **Embedded Cost of Service Study (ECOSS) (R)**
Fac: **FPFTY Ending December 31, 2023**
E-5C (**Classification Factors**

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
1	None		0			
2		FALSE	0.00%	0.00%	0.00%	0.00%
3						
4	Demand		1	1		
5		TRUE	100.00%	100.00%	0.00%	0.00%
6						
7	Commodity		1		1	
8		TRUE	100.00%	0.00%	100.00%	0.00%
9						
10	Customer		1			1
11		TRUE	100.00%	0.00%	0.00%	100.00%
12						
13	PTF-Sec-Z		100.00%	21.38%	0.00%	78.62%
14		TRUE	100.00%	21.38%	0.00%	78.62%
15						
16	OH-Sec-Z		100.00%	23.24%	0.00%	76.76%
17		TRUE	100.00%	23.24%	0.00%	76.76%
18						
19	UG-Sec-Z		100.00%	41.57%	0.00%	58.43%
20		TRUE	100.00%	41.57%	0.00%	58.43%
21						
22	Trans-Min		100.00%	65.07%	0.00%	34.93%
23		TRUE	100.00%	65.07%	0.00%	34.93%
24						
25	Sec_RB		6,071,243	1,036,958	-	5,034,285
26		TRUE	100.00%	17.08%	0.00%	82.92%
27						
28	Sec-Pt		13,493,179	3,524,350	-	9,968,829
29		TRUE	100.00%	26.12%	0.00%	73.88%
30						
31	Sec-RB		6,071,243	1,036,958	-	5,034,285
32		TRUE	100.00%	17.08%	0.00%	82.92%
33						
34	Sec-OH_UG		21,308,675	11,339,847	-	9,968,829
35		TRUE	100.00%	53.22%	0.00%	46.78%
36						

Class: **Citizens Electric Company of Lewisburg**
Class: **Embedded Cost of Service Study (ECOSS) (R)**
Fac: **FPFTY Ending December 31, 2023**
E-5C (**Classification Factors**

0	Allocator Name	In Use	Total	Demand	Commodity	Customer
37	Sec-GenPt		702,999	244,234	-	458,765
38		TRUE	100.00%	34.74%	0.00%	65.26%
39						
40	Sec-OpExp		736,239	246,865	-	489,373
41		TRUE	100.00%	33.53%	0.00%	66.47%
42						
43	Sec-DiPt		12,790,180	3,280,116	-	9,510,064
44		TRUE	100.00%	25.65%	0.00%	74.35%
45						
46	Sec-Lab		117,249	40,734	-	76,514
47		TRUE	100.00%	34.74%	0.00%	65.26%
48						
49	Sec-Rev		1,627,912	434,944	-	1,192,967
50		TRUE	100.00%	26.72%	0.00%	73.28%
51						
52	Sec-LabPt		200.00%	60.86%	0.00%	139.14%
53		TRUE	100.00%	30.43%	0.00%	69.57%
54						
55	Sec-PreTax		234,171	14,824	-	219,347
56		TRUE	100.00%	6.33%	0.00%	93.67%
57						
55	Sec-StaTax		234,171	14,824	-	219,347
58		TRUE	100.00%	6.33%	0.00%	93.67%
59						
58	Sec-FedTax		224,362	14,203	-	210,159
60		TRUE	100.00%	6.33%	0.00%	93.67%
61						
58	Sec-RetRRPF		1,917,789	512,394	-	1,405,395
62		TRUE	100.00%	26.72%	0.00%	73.28%
63						

WP (R)

**Citizens' Electric Company of Lewisburg
Rate Case with Fully Projected Future Test Year 2023 (R)
INDEX TO WORKPAPERS (R)**

Line	WORKPAPER	DESCRIPTION	PERIOD
INDEX TO WORKPAPERS			
1	INDEX TO WORKPAPERS (R)		
2	Workpaper 1 to Schedule B (R)	Sales Recap	Period Ending December 31, 2021
3	Workpaper 2 to Schedule B (R)	Monthly Billing Units, Rates And Revenue	Period Ending December 31, 2021
4	Workpaper 3 to Schedule B (R)	Monthly Customers	Period Ending December 31, 2021
5	Workpaper 1 to Schedule C (R)	Historic O&M	Historic Periods
6	Workpaper 2 to Schedule C (R)	Historic O&M- Details	Historic Periods
7			
8	Workpaper 4 to Schedule C (R)	Accumulated Deferred Income Taxes	Years 2017 through 2023
9	Workpaper 1 to Schedule D (R)	Components of Capital Projects- Zero Load Analysis	HY 2021
10	Workpaper 2 to Schedule D (R)	Transformer Costs and Replacements	HY 2021
11	Workpaper 3 to Schedule D (R)	Services Costs	HY 2021

NOTE: There are no changes to Workpapers, from the (CU) schedules submitted with Corrections and Updates.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA	:	
and Valley Energy Company	:	

REBUTTAL TESTIMONY
AND EXHIBIT
OF
DYLAN W. D'ASCENDIS, CRRA, CVA

ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY, INC.
AUGUST 16, 2022

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I. INTRODUCTION, PURPOSE AND SUMMARY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Dylan W. D'Ascendis. My business address is 3000 Atrium Way, Suite 200, Mount Laurel, NJ 08054.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a Partner at ScottMadden, Inc.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING?

A. I am submitting this rebuttal testimony (referred to throughout as my "Rebuttal Testimony") before the Pennsylvania Public Utility Commission ("PA PUC" or the "Commission") on behalf of Valley Energy, Inc. ("Valley") and Citizens' Electric Company of Lewisburg, PA ("Citizens"), collectively (the "Companies").

Q. ARE YOU THE SAME DYLAN W. D'ASCENDIS WHO PROVIDED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF THIS REBUTTAL TESTIMONY?

A. The purpose of my Rebuttal Testimony is to address certain aspects of the direct testimonies of Mr. Christopher Keller and Mr. Anthony Spadaccio, witnesses for the PA PUC's Bureau of Investigation and Enforcement ("I&E") (collectively, the "I&E ROE Witnesses") and Ms. Morgan N. DeAngelo, witness for the Pennsylvania Office of Consumer Advocate ("OCA") (collectively referred to as the "Opposing Witnesses") as they pertain to the Companies' allowed cost of capital, which the Companies should have the opportunity to earn on their authorized jurisdictional rate base.

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS.

A. As shown in my Direct Testimony filed on April 29, 2022, using market data as of March 18, 2022, I calculated a range of reasonable ROEs attributable to Valley between 10.85%

and 12.85%, and to Citizens' between 10.90% and 12.90%. Given that data, and shortcomings with the Opposing Witnesses' evidence, I maintain my initial recommendations of 11.50% for the Companies.

In view of current markets and the results of my ROE models, recommended ROEs of 9.70% and 9.50% (I&E and OCA, respectively) for Valley, and 8.98% and 8.82% (I&E and OCA, respectively) for Citizens', are insufficient.

Q. DO YOU HAVE GENERAL COMMENTS REGARDING THE OPPOSING WITNESSES' RECOMMENDED ROES?

A. Yes, I do. The Opposing Witnesses' recommended ROEs are insufficient, primarily because of their exclusive reliance on the discounted cash flow ("DCF") model results for their recommendations, and for failing to account for size and performance factor adjustments.

Q. HAVE YOU PREPARED AN EXHIBIT WHICH SUPPORTS YOUR REBUTTAL TESTIMONY?

A. Yes. It has been designated as Exhibit__(DWD-1R), which consists of Schedules DWD-1R through DWD-7R.

Q. HOW IS THE REMAINDER OF YOUR REBUTTAL TESTIMONY ORGANIZED?

A. The remainder of my Rebuttal Testimony is organized as follows:

- Section II – Contains my response to the I&E ROE Witnesses;
- Section III – Contains my response to Ms. DeAngelo; and
- Section IV – Summarizes my conclusions and recommendations.

Q. PLEASE SUMMARIZE THE KEY ISSUES AND RECOMMENDATIONS OFFERED BY THE OPPOSING WITNESSES THAT YOU ADDRESS IN YOUR REBUTTAL TESTIMONY.

A. My Rebuttal Testimony responds to substantive recommendations offered by the Opposing Witnesses in their direct testimonies. I will address the following issues common to the Opposing Witnesses' direct testimonies:

- Their undue weighting of DCF model results in their ROE recommendations;
- Their applications of the Capital Asset Pricing Model ("CAPM");
- Their failure to reflect the greater risk of the Companies due to their smaller relative sizes to their respective proxy groups; and
- Their failure to account for performance factor adjustments.

Specific to the I&E ROE Witnesses' direct testimonies, in addition to the above, I respond to their unfounded critiques of my Direct Testimony.

II. RESPONSE TO I&E ROE WITNESSES KELLER AND SPADACCIO

Q. PLEASE SUMMARIZE THE I&E ROE WITNESSES' RECOMMENDATIONS.

A. Mr. Keller accepts the proposed debt cost rate of 4.49% for Valley.¹ Mr. Spadaccio accepts the proposed debt cost rate of 4.09% for Citizens'.² Mr. Keller and Mr. Spadaccio also both accept the proposed capital structure consisting of 50.47% debt and 49.53% equity.³

Regarding the cost of common equity for Valley, Mr. Keller recommends a common equity cost rate of 9.70%, based on his DCF model. Regarding the cost of

¹ Keller Direct Testimony, at 13.

² Spadaccio Direct Testimony at 14.

³ Keller Direct Testimony, at 12; Spadaccio Direct Testimony at 14.

common equity for Citizens', Mr. Spadaccio recommends a common equity cost rate of 8.98%, also based on his DCF model.

Q. WHAT CONCERNS DO YOU HAVE WITH THE I&E ROE WITNESSES' CONCLUSIONS AND RESULTS?

A. I have concerns with: (1) their exclusive reliance on the results of their DCF models for their recommendations; (2) their use and application of the CAPM; (3) their failure to reflect the Companies' smaller size compared to their proxy groups; and (4) their failure to reflect a performance factor adjustment.

A. EXCLUSIVE RELIANCE ON DCF MODEL RESULTS

Q. DO YOU HAVE A GENERAL COMMENT ON THE I&E ROE WITNESSES' INDICATED ROE BEFORE ADJUSTMENT?

A. Yes, I do. Mr. Keller's indicated ROE of 9.70% for Valley and Mr. Spadaccio's indicated ROE of 8.98% for Citizens' are inadequate because they place exclusive weight on their DCF model results.

Q. WHAT WOULD BE THE I&E ROE WITNESSES' INDICATED ROE IF THEY AVERAGED THEIR DCF MODELS AND CAPM RESULTS?

A. In regard to Valley, averaging Mr. Keller's DCF result of 9.70% with his CAPM result of 13.53% results in an indicated ROE of 11.62%, which is above my recommended ROE of 11.50%. In regard to Citizens', averaging Mr. Spadaccio's DCF result of 8.98% with his CAPM result of 12.89% results in an indicated ROE of 10.94%, which is comparable, but slightly below my recommended ROE of 11.50%.

Q. DO THE I&E ROE WITNESSES STATE REASONS WHY THEY EXCLUSIVELY RELY ON THEIR DCF MODEL RESULTS?

A. Yes, they do. The I&E witnesses rely on the same reasoning for why they exclusively rely on their DCF model results. Despite conceding that four ROE models are commonly considered to estimate the ROE (the DCF, the CAPM, the Risk Premium Model (“RPM”), and the Comparable Earnings Model (“CEM”)),⁴ they do not rely on the other models for various reasons.

Regarding the CAPM, Mr. Keller opines that the CAPM is far less responsive to changes in the industry. The I&E Witnesses also both argue that: (1) the indicated ROE is only company-specific because of the use of the Beta coefficient (“beta”); (2) the model is historical in nature because beta is calculated using historical returns; and (3) empirical analysis by Fama and French show that the relationship between predicted return and actual return is poor.⁵

The I&E ROE Witnesses both exclude the RPM from their analysis because they claim that it is a simplified version of the CAPM, and subject to similar faults, in addition to not reflecting company-specific risks through the use of beta.⁶

Finally, the I&E ROE Witnesses both omit a CEM analysis because the choice of comparable companies is highly subjective and they do not believe that historical accounting returns are representative of future accounting returns.⁷

⁴ Keller Direct Testimony, at 14; Spadaccio Direct Testimony, at 15.

⁵ Keller Direct Testimony, at 17-20; Spadaccio Direct Testimony, at 19-21.

⁶ Keller Direct Testimony, at 20; Spadaccio Direct Testimony, at 21.

⁷ Keller Direct Testimony, at 20; Spadaccio Direct Testimony, at 21-22.

Q. DO YOU AGREE WITH THE I&E ROE WITNESSES' REASONS FOR OMITTING THE CAPM, RPM, AND CEM FROM THEIR ANALYSIS?

A. No, I do not.

Q. PLEASE RESPOND TO MR. KELLER'S COMMENTS REGARDING THE CAPM'S RESPONSIVENESS TO CHANGES IN THE INDUSTRY.

A. Regarding Mr. Keller's claim that the CAPM is far less responsive to changes in the industry, I disagree and so does the Commission. In a recent Order concerning Aqua Pennsylvania, Inc., ("Aqua") the Commission stated the following about the CAPM's ability to reflect changing market conditions better than the DCF:

We are persuaded by the arguments of Aqua that the ALJ erred by concluding I&E used its DCF and CAPM results to determine Aqua's ROE. In this regard, we note that although I&E did use its CAPM as a comparison to its DCF result, it made no CAPM based adjustment to its final ROE recommendation. I&E M.B. at 47. As Aqua points out, *infra*, the U.S. economy is currently in a period of high inflation. To help control rising inflation, the Federal Open Market Committee has signaled that it is ending its policies designed to maintain low interest rates. Aqua Exc. at 9. *Because the DCF model does not directly account for interest rates, consequently, it is slow to respond to interest rate changes. However, I&E's CAPM model uses forecasted yields on ten-year Treasury bonds, and accordingly, its methodology captures forward looking changes in interest rates. (emphasis added)*⁸

Clearly the Commission recognizes the importance of the CAPM and its ability to account for market changes such as those occurring currently.

⁸ Pa. PUC v. Aqua Pennsylvania, Inc., Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154-155 (Order entered May 16, 2022).

Q. DO YOU AGREE WITH THE I&E ROE WITNESSES' CLAIM THAT A FAULT OF THE CAPM IS THAT ITS INPUTS ARE EASILY MANIPULATED?

A. No, I do not. All ROE models are only as good as their inputs, and all ROE models can be easily manipulated by changing those inputs. For example, the DCF model has a number of inputs and variations of inputs that can drastically alter results as shown on Table 1:

Table 1: Various Inputs to DCF Models

Input	Variations of Inputs
Cash Flow Stream	Constant-Growth, Blended Growth, Multi-Stage Growth
Dividend Yield	Spot Dividend Yield, average dividend yield
Adjusted Dividend Yield	No adjustment, ½ g adjustment, full g adjustment, projected dividend
Growth Rates	Historical v. Projected v. Sustainable
Growth Measure	EPS, DPS, Book Value Per Share
Sources of Growth Rates	Value Line, Zacks, Yahoo, MorningStar, etc.

Q. DO YOU AGREE THAT BETAS USED IN THE CAPM ANALYSIS ARE HISTORICAL IN NATURE?

A. I do not agree that the adjusted betas used in my and the Opposing Witnesses' CAPM analyses are historical in nature. While I agree that unadjusted or "raw" betas are historical in nature, the Blume adjustment recognizes that over time betas will regress to the market mean, or 1.0. This makes the betas used in my and the Opposing Witnesses' CAPM analyses expectational in nature.

Q. PLEASE EXPAND ON THE EXPECTATIONAL NATURE OF ADJUSTED BETAS.

A. Betas are measured using an Ordinary Least Squares ("OLS") regression, in which the dependent variable is the return of the subject security, and the independent variable is the return on the market as measured by a given index (*Value Line*, for example, uses the New

York Stock Exchange Index). Beta is represented by the slope term of the regression estimates. Intuitively, beta measures the change in the subject company's returns relative to the change in the market return.

The resulting beta is considered "raw" or unadjusted. Unadjusted betas are historical in nature, as they use historical market data. Blume studied the stability of beta over time and found that "[n]o economic variable including the beta coefficient is constant over time."⁹ Consistent with that finding, Blume observed a tendency of raw betas to change gradually over time. Blume further stated:

...there is obviously some tendency for the estimated values of the risk parameter [beta] to change gradually over time. This tendency is most pronounced in the lowest risk portfolios, for which the estimated risk in the second period is invariably higher than that estimated in the first period. There is some tendency for the high risk portfolios to have lower estimated risk coefficients in the second period than in those estimated in the first. Therefore, the estimated values of the risk coefficients in one period are biased assessments of the future values, and furthermore the values of the risk coefficients as measured by the estimates of β_1 tend to regress towards the means with this tendency stronger for the lower risk portfolios than the higher risk portfolios. (emphasis added)¹⁰

Blume proposed a correction for this tendency, also known as "regression bias", which is inherent in the calculation of all betas. He stated:

In so far as the rate of regression towards the mean is stationary over time, one can in principle correct for this tendency in forming one's assessments.

* * *

For individual securities as well as portfolios of two or more securities, the assessments adjusted for the historical rate of regression are more accurate than the unadjusted or naïve assessments. Thus, an improvement in the accuracy of one's assessments of risk can be obtained by adjusting for the historical rate of regression even though the rate of regression over time is not strictly stationary.¹¹

⁹ Marshal E. Blume, "On the Assessment of Risk", *The Journal of Finance*, Vol. XXVI, No. 1, March 1971.

¹⁰ Marshal E. Blume, "On the Assessment of Risk", *The Journal of Finance*, Vol. XXVI, No. 1, March 1971.

¹¹ Marshal E. Blume, "On the Assessment of Risk", *The Journal of Finance*, Vol. XXVI, No. 1, March 1971.

Based on Blume's results, the typical adjustment is calculated based upon an approximate of the following formula:

$$\beta_{adjusted} = 0.35 + .67x\beta_{raw (unadjusted)}$$

This adjustment transforms the historical unadjusted beta into an expectational value, consistent with the expectational nature of the cost of capital.

As noted by Morin:

Several authors have investigated the regression tendency of beta and generally reached similar conclusions [as Blume]. High-beta portfolios have tended to decline over time toward unity, while low-beta portfolios have tended to increase over time toward unity...He demonstrated that the Value Line adjustment procedure anticipated differences between past and future betas.¹²

Morin further notes:

A comprehensive study of beta measurement methodology by Kryzanowski and Jalilvand (1983) concludes that raw unadjusted beta (OLS beta) is one of the poorest beta predictors, and is outperformed by the Blume-style Bayesian beta approach. Gombola and Kahl (1990) examine the time-series properties of utility betas and find strong support for the application of adjustment procedures such as the Value Line and Bloomberg procedures.

Because of this observed regressive tendency, a company's raw unadjusted beta is not the appropriate measure of market risk to use. Current stock prices reflect expected risk, that is, expected beta, rather than historical risk or historical beta. Historical betas, whether raw or adjusted, are only surrogates for expected beta. The best of the two surrogates is adjusted beta.¹³

Morin also provides economic and statistical justification for using adjusted betas to estimate the cost of equity for utilities. Relative to economic justification, he states:

Adjusted betas compensate for the tendency of regulated utilities to be extra interest-sensitive relative to industrials.^(footnote omitted) In the same way that bondholders get compensated for inflation through an inflation premium in the interest rate, utility shareholders receive compensation for inflation

¹² Roger A. Morin, Modern Regulatory Finance, Public Utilities Reports, Inc., 2022, at 81. ("Morin")

¹³ Morin, at 81-82.

through an inflation premium in the allowed rate of return. Thus, utility company returns are sensitive to fluctuations in interest rates. Conventional betas do not capture this extra sensitivity to interest rates. This is because the market index typically used in estimating betas is a stock-only index, such as the S&P 500. A focus on stocks alone distorts the betas of regulated companies. The true risk of regulated utilities relative to other companies is understated because when interest rates change, the stocks of regulated companies react in the same way as bonds do. A nominal interest rate on the face value of a bond offers the same pattern of future cash flows as a nominal return applied on a book value rate base. Empirical studies of utility returns confirm that betas are higher when calculated in a way that captures interest rate sensitivity. *The use of adjusted betas compensates for the interest sensitivity of regulated companies. (italics added for emphasis)*¹⁴

Relative to statistical justification, Morin states:

There is a statistical justification for the use of adjusted betas as well. High-estimated betas will tend to have positive error (overestimated) and low-estimated betas will tend to have negative error (underestimated). Therefore, it is necessary to squash the estimated betas in toward 1.00. One way to accomplish this is by measuring the extent to which estimated betas tend to regress toward the mean over time. As a result of this beta drift, several commercial beta producers adjust their forecasted betas toward 1.00 in an effort to improve their forecasts. This adjustment, which is commonly performed by investment services such as Value Line, and Bloomberg, uses the formula:

$$\beta_{adjusted} = 1.0 + a(\beta_{raw} - 1.0) \quad (4 - 3)$$

where “a” is an estimate of the extent to which estimated betas regress toward the mean based on past data. Value Line and Bloomberg betas are adjusted for their long-term tendency to regress toward 1.0 by giving approximately 66% weight to the measured beta and approximately 34% weight to the prior value of 1.0 for each stock, that is, $a = 0.66$ in the above equation:

$$\begin{aligned} \beta_{adjusted} &= 1.0 + 0.66(\beta_{raw} - 1.0) \\ &= 0.33 + 0.66\beta_{raw} \quad (4-4)^{15} \end{aligned}$$

Given the evidence presented above, adjusted betas are expectational in nature, and not historical.

¹⁴ Morin, at 82.

¹⁵ Morin, at 82-83.

Q. DO YOU AGREE WITH FAMA AND FRENCH'S RESEARCH ON THE CAPM AS IT PERTAINS TO THE EMPIRICAL FINDING THAT THE SECURITY MARKET LINE IS NOT AS STEEP AS IT IS PREDICTED BY BETA?

A. I agree with the empirical findings of Fama and French regarding the difference between projected returns as estimated by the CAPM and actual returns. As will be discussed below, that is the reason why the Empirical CAPM ("ECAPM") should be used in conjunction with the traditional CAPM in ROE analyses. In view of the above, the I&E ROE Witnesses' concerns regarding the CAPM should be dismissed by the Commission.

Q. IS YOUR RPM ANALYSIS A SIMPLIFIED VERSION OF THE CAPM AND NOT COMPANY-SPECIFIC?

A. No, it is not. The Predictive Risk Premium Model ("PRPM") used in my RPM analysis measures the risk-return relationship directly using the same company-specific market prices used to derive company-specific betas. The authors state:

The purpose of this paper is to present, test empirically and apply a recently developed general consumption-based asset pricing model that estimates the risk-return relationship directly from asset pricing data and, when estimated with recently developed time-series methods, produces a prediction of the equity risk premium that is driven by its predicted volatility.¹⁶

In addition, my traditional RPM analysis does apply beta to the indicated equity risk premium to create a proxy group-specific equity risk premium.¹⁷ In view of the above, my RPM analysis should be considered by the Commission in approving an ROE for the Companies.

¹⁶ Pauline M. Ahern, Frank J. Hanley, and Richard A. Michelfelder, "A New Approach for Estimating the Equity Risk Premium for Public Utilities", *The Journal of Regulatory Economics*, December 2011, 40:261-278.

¹⁷ D'Ascendis Direct Testimony, at 32-33.

Q. IS YOUR CEM ANALYSIS CONSISTENT WITH THE I&E ROE WITNESSES' DESCRIPTION?

A. No, it is not. As will be discussed in detail below, the selection criteria for my Non-Price Regulated Proxy Group is not subjective in nature, as it uses unadjusted betas (objective value) as a proxy for market risk and the standard error of the regression (another objective value) as a proxy for diversifiable risk. Additionally, I apply the DCF, CAPM, and RPM to my Non-Price Regulated Proxy Group, which is an apples-to-apples comparison of the investor-required return for non-regulated companies similar in total risk, which makes the I&E ROE Witnesses' second concern regarding the CEM moot.

Q. THE I&E ROE WITNESSES CURIOUSLY DO NOT REVEAL ANY OF THE CONCERNS REGARDING THE DCF MODEL IN THEIR DIRECT TESTIMONIES. WHY IS PRIMARY RELIANCE ON THE DCF MODEL GENERALLY PROBLEMATIC?

A. Traditional rate base / rate of return regulation, where a market-based common equity cost rate is applied to a book value rate base, presumes that the market-to-book ("M/B") ratios are at unity or 1.00. However, that is rarely the case. Morin states:

The third and perhaps most important reason for caution and skepticism is that application of the DCF model produces estimates of common equity cost that are consistent with investors' expected return only when stock price and book value are reasonably similar, that is, when the M/B is close to unity. As shown below, application of the standard DCF model to utility stocks understates the investor's expected return when the M/B ratio of a given stock exceeds unity. This was particularly relevant in the capital market environment of the early 2020s when utility stocks are trading at M/B ratios well above unity and have been for nearly two decades. The converse is also true, that is, the DCF model overstates the investor's return when the stock's M/B ratio is less than unity. The reason for the distortion is that the DCF market return is applied to a book value rate base by the

regulator, that is, a utility's earnings are limited to earnings on a book value rate base¹⁸.

As Morin explains, DCF models assume an M/B ratio of 1.0 and therefore under- or over-states investors' required return when market value exceeds or is less than book value, respectively. It does so because equity investors evaluate and receive their returns on the market value of a utility's common equity, whereas regulators authorize returns on the book value of common equity. This means that the market-based DCF will produce the total annual dollar return expected by investors, only when market and book values of common equity are equal, a very rare and unlikely situation.

Q. WHY DO MARKET AND BOOK VALUES DIVERGE?

A. Market values can diverge from book values for a myriad of reasons including, but not limited to, earnings per share ("EPS") and dividends per share ("DPS") expectations, merger / acquisition expectations, interest rates, etc. As noted by Phillips:

Many question the assumption that market price should equal book value, believing that 'the earnings of utilities should be sufficiently high to achieve market-to-book ratios which are consistent with those prevailing for stocks of unregulated companies.'¹⁹

In addition, Bonbright states:

In the first place, commissions cannot forecast, except within wide limits, the effect their rate orders will have on the market prices of the stocks of the companies they regulate. In the second place, *whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market.* In short, market prices are beyond the control, though not beyond the influence of rate regulation. Moreover, even if a commission did possess the power of control, any attempt to exercise it ... would result in harmful, uneconomic shifts in public utility rate levels. (italics added)²⁰

¹⁸ Morin, at 481-482.

¹⁹ Charles F. Phillips, The Regulation of Public Utilities, Public Utilities Reports, Inc., 1993, at 395.

²⁰ James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, Principles of Public Utility Rates (Public Utilities Reports, Inc., 1988), at 334.

Q. CAN THE UNDER- OR OVER-STATEMENT OF INVESTORS' REQUIRED RETURN BY THE DCF MODEL BE DEMONSTRATED MATHEMATICALLY?

A. Yes. Schedule DWD-1R, page 1 demonstrates how Mr. Keller's, Mr. Spadaccio's and Ms. DeAngelo's market-based DCF cost rates, when applied to a book value substantially below market value, will understate investors' required return on market value. As shown, there is no realistic opportunity to earn the expected market-based rate of return on book value. Using Mr. Keller's DCF cost rate, for example, in Column [A], investors expect a 9.70% return on an average market price of \$78.80 for Mr. Keller's proxy group. Column [B] shows that when Mr. Keller's 9.70% return rate is applied to a book value of \$39.62,²¹ the total annual return opportunity is \$3.84. After subtracting dividends of \$2.46, the investor only has the opportunity for \$1.38 in market appreciation, or 1.76%. The magnitude of the understatement of investors' required return on market value using Mr. Keller's 9.70% cost rate is 4.82%, which is calculated by subtracting the market appreciation based on book value of 1.76% from Mr. Keller's expected growth rate of 6.58%. Also as shown on Schedule DWD-1R, Mr. Spadaccio's DCF results understate the investor required returns by 4.94%, and Ms. DeAngelo's by 4.53% and 4.50% for her gas and electric proxy groups, respectively.

Q. HOW DO M/B RATIOS OF THE OPPOSING WITNESSES PROXY GROUPS COMPARE TO THE TEN-YEAR AVERAGE?

A. The M/B ratios of the Opposing Witnesses' proxy groups are currently close to their ten-year averages. As shown in Charts 1 and 2 below, with the exception of more recent periods, since 2016, the M/B ratios of the Combined Gas and Electric Proxy Groups have

²¹ Representing a market-to-book ratio of 198.89%.

generally been in-line or above the ten-year average M/B ratios of approximately 1.99 and 1.92 times, respectively, and significantly above 1.0 times.

Chart 1: M/B Ratios of the Opposing Witness' Combined Gas Proxy Group Compared With Ten-Year Average²²



Chart 2: M/B Ratios of the Opposing Witness' Combined Electric Proxy Group Compared With Ten-Year Average²³



²² Source: S&P Capital IQ.

²³ Source: S&P Capital IQ.

Q. IS THERE ANOTHER WAY TO QUANTIFY THE INACCURACY OF THE DCF MODEL WHEN M/B RATIOS ARE NOT AT UNITY?

A. Yes. One can quantify the inaccuracy of the DCF model when M/B ratios are not at unity by estimating the implied DCF model results (based on a market-value capital structure) to reflect a book-value capital structure. This can be measured by first calculating the market value of each proxy company's capital structure, which consists of the market value of the company's common equity (shares outstanding multiplied by price), and the fair value of the company's long-term debt and preferred stock. All of these measures, except for price, are available in each company's SEC Form 10-K.

Second, one must de-leverage the implied cost of common equity based on the DCF. This is derived using the Modigliani / Miller equation²⁴ as illustrated in Schedule DWD-2R and shown below:

$$k_u = k_e - (((k_u - i)(1 - t)) D/E) - (k_u - d) P/E$$

where:

k_u	=	Unlevered (i.e., 100% equity) cost of common equity;
k_e	=	Market determined cost of common equity;
i	=	Cost of debt;
t	=	Income tax rate;
D	=	Debt ratio;
E	=	Equity ratio;
d	=	Cost of preferred stock; and
P	=	Preferred equity ratio.

For example, using data specific to Mr. Keller's proxy group, the equation becomes:

$$k_u = 9.70\% - (((k_u - 3.58\%)(1 - 21\%)) 41.32\% / 56.95\%) - (k_u - 6.01\%) 1.73\% / 56.95\%$$

²⁴

The Modigliani / Miller theorem is an influential element of economic theory and forms the basis for modern theory on capital structure. See, F. Modigliani and M. Miller, "The Cost of Capital, Corporation Finance and the Theory of Investment", *The American Economic Review*, Vol. 48, No. 3, (June 1958), at 261-297.

Solving for k_u results in an unlevered cost of common equity of 7.44%. Next, one must re-lever those costs of common equity by relating them to each proxy group's average book capital structure as shown below:

$$k_e = k_u + (((k_u - i)(1 - t)) D/E) + (k_u - d) P/E$$

Once again, using data specific to Mr. Keller's proxy group, the equation becomes:

$$k_e = 7.44\% + (((7.44\% - 3.58\%)(1 - 21\%))52.39\%/45.30\%) + (7.44\% - 6.01\%)2.31\%/45.30\%$$

Solving for k_e results in an 11.05% indicated cost of common equity relative to the book capital structure of the proxy group, which is an increase of 1.35% over Mr. Keller's indicated DCF result of 9.70%.²⁵

The leverage-adjusted DCF results are still not applicable to the Companies, as they do not reflect the higher risk that the Companies face relative to the proxy groups, given the Companies smaller sizes, and nor do they include performance factor adjustments.

Q. HAS THIS COMMISSION RECOGNIZED THIS TENDENCY OF THE DCF MODEL TO MIS-SPECIFY INVESTORS' REQUIRED RETURN WHEN M/B RATIOS ARE NOT AT UNITY?

A. Yes. This Commission recognized this tendency in its order of August 26, 2005 in *The City of Lancaster – Sewer Fund, Docket Nos. R-00049862, et al.*, when it adopted the Administrative Law Judge's market-to-book adjustment of 65 basis points (0.65%) because such an adjustment was "consistent with our recent orders in PAWC, Aqua, and PPL" and "as in PPL, we find that adjustment is necessary because the DCF method produces the investor required return based on the current market price, not the return on

²⁵ On pages 2, 3, and 4 of Schedule DWD-2R, using the Modigliani/Miller equation relative to Mr. Spadaccio's and Ms. DeAngelo's proxy groups result in indicated DCF results of 10.68% (Spadaccio), 10.84% (DeAngelo Gas) and 10.25% (DeAngelo Electric) compared with their recommendations of 8.98%, 9.50%, and 8.82%, respectively.

the book value capitalization. With the M/B adjustment, the equity return allowance is 10.75 percent.” (emphasis added)

In 2007, the PA PUC again affirmed the tendency of the DCF model to mis-specify investors’ required return in its Order of February 8, 2007 in *PPL Gas Utilities Corporation*, Docket No. R-00061398, et al., when it stated:

The ALJ stated that the OTS and the OCA are correct that the Commission favors the DCF method to determine the cost of equity. However, the ALJ concluded, based on recent precedent, that the Commission consistently has adopted a leverage adjustment to compensate for the difference between market prices and book value (used in ratemaking). (See, *Aqua Pennsylvania*, 204, 234 (2004); *Pa. PUC v. PPL Electric Utilities Corp.*, Docket No. R-00049255, at 70-71 (2004); *Pa. PUC v. Pennsylvania American Water Co.*, 2002 Pa. PUC LEXIS 1; *Pa. PUC v. Phila. Suburban Water Co.*, 219 PUR4TH 272 (2002); *Pa. PUC v. Pennsylvania American Water Co.*, 231 PUR4TH 277 (2004)). According to the ALJ, these cases are persuasive that a leverage adjustment should be employed with the DCF analysis. (R.D. at 62-63).

Q. ARE YOU ADVOCATING A SPECIFIC ADJUSTMENT TO THE DCF RESULTS TO CORRECT FOR ITS MIS-SPECIFICATION OF THE INVESTOR-REQUIRED RETURN?

A. No. The purpose of this discussion is to demonstrate that, like all cost of common equity models, the DCF has its limitations and that the use of multiple cost of common equity models in conjunction with informed expert judgment provides a more accurate and reliable picture of the investor-required ROE than does a narrow evaluation of the results of one model.

Q. WHAT IS YOUR RECOMMENDED APPROACH TO DETERMINING THE ROE?

A. As discussed in my Direct Testimony,²⁶ the use of multiple models adds reliability to the estimation of the common equity cost rate, with the prudence of using multiple cost of common equity models supported in both the financial literature and regulatory precedent.

Q. ARE THERE EXAMPLES FROM THE FINANCIAL LITERATURE WHICH SUPPORT THE USE OF MULTIPLE COST OF COMMON EQUITY MODELS IN DETERMINING THE INVESTOR-REQUIRED RETURN?

A. Yes. In one example, Morin states:

Each methodology requires the exercise of considerable judgment on the reasonableness of the assumptions underlying the methodology and on the reasonableness of the proxies used to validate a theory. The inability of the DCF model to account for changes in relative market valuation, discussed below, is a vivid example of the potential shortcomings of the DCF model when applied to a given company. Similarly, the inability of the CAPM to account for variables that affect security returns other than beta tarnishes its use.

No one individual method provides the necessary level of precision for determining a fair return, but each method provides useful evidence to facilitate the exercise of an informed judgment. Reliance on any single method or preset formula is inappropriate when dealing with investor expectations because of possible measurement difficulties and vagaries in individual companies' market data. (emphasis added)

* * *

There is ample academic support in the financial literature for the need to rely upon several financial models in arriving at a recommended common equity cost rate. Professor Eugene Brigham, a widely respected scholar and finance academician, asserts^(footnote omitted):

Three methods typically are used: (1) the Capital Asset Pricing Model (CAPM), (2) the discounted cash flow (DCF) method, and (3) the bond-yield-plus-risk-premium approach. These methods are not mutually exclusive – no method

²⁶ D'Ascendis Direct Testimony, at 20.

dominates the others, and all are subject to error when used in practice. Therefore, when faced with the task of estimating a company's cost of equity, we generally use all three methods and then choose among them on the basis of our confidence in the data used for each in the specific case at hand. (italics in original) (emphasis added)

Another prominent finance scholar, Professor Stewart Myers, in an early pioneering article on regulatory finance, stated^(footnote omitted):

*Use more than one model when you can. Because estimating the opportunity cost of capital is difficult, **only a fool throws away useful information.** That means you should not use any one model or measure mechanically and exclusively. Beta is helpful as one tool in a kit, to be used in parallel with DCF models or other techniques for interpreting capital market data. (italics in original) (emphasis added)*

* * *

Reliance on multiple tests recognizes that no single methodology produces a precise definitive estimate of the cost of equity. As stated in Bonbright, Danielsen, and Kamerschen (1988), '*no single or group test or technique is conclusive.*' (italics in original)

* * *

While it is certainly appropriate to use the DCF methodology to estimate the cost of equity, there is no proof that the DCF produces a more accurate estimate of the cost of equity than other methodologies. Sole reliance on the DCF model ignores the capital market evidence and financial theory formalized in the CAPM and other risk premium methods. **The DCF model is one of many tools to be employed in conjunction with other methods to estimate the cost of equity.** It is not a superior methodology that supplants other financial theory and market evidence. The broad usage of the DCF methodology in regulatory proceedings in contrast to its virtual disappearance in academic textbooks does not make it superior to other methods. The same is true of the Risk Premium and CAPM methodologies. (emphasis added)²⁷

Finally, Brigham and Gapenski note:

In practical work, *it is often best to use all three methods – CAPM, bond yield plus risk premium, and DCF – and then apply judgment when the methods produce different results. People experienced in estimating equity*

²⁷

Morin, at 476-479.

capital costs recognize that both careful analysis and some very fine judgments are required. It would be nice to pretend that these judgments are unnecessary and to specify an easy, precise way of determining the exact cost of equity capital. Unfortunately, this is not possible. Finance is in large part a matter of judgment, and we simply must face this fact. (italics in original)²⁸

In the academic literature cited above, three methods are consistently mentioned: the DCF, CAPM, and the RPM, all of which I used in my analyses.

Q. ARE THERE SPECIFIC EXAMPLES WHERE THE PA PUC HAS CONSIDERED MULTIPLE COST OF COMMON EQUITY MODELS?

A. Yes. In Docket No. R-2013-2360798, concerning Columbia Water Company (“Columbia”), where I was Columbia’s ROE witness, the Commission stated:

Based on our review of the testimony, data, and cost models presented, we believe that the evidence in this case supports an ROE finding in the reasonable range of 9.25% to 10.25% using the DCF method as the foundation. The equity-heavy capital structure of Columba indicates that a slightly lower ROE is appropriate. However, the small size of the Company, its management effectiveness, and the results of other ROE models other than the DCF are all reasons to set a higher ROE. Therefore, within our indicated range of reasonableness, we conclude that an ROE of 9.75% is appropriate for our ratemaking determinations herein.

Also, in Docket No. R-2014-2402324 concerning Emporium Water Company (“Emporium”), where I was Emporium’s ROE witness, the Commission stated the following:

The ALJ recommended that the Commission adopt the Company’s proposed return on common equity of 11.05%.^{Footnote Omitted} R.D. at 11. The ALJ explained that the Company’s position allows it to pay its debt service, which includes principal payments and interest, and provides a modest return on equity (\$34,000). The ALJ states that I&E’s and the OCA’s positions fail to meet the standards set by the *Hope* and *Bluefield* by not even allowing the Company to pay their debt service, which may lead to

²⁸ Eugene F. Brigham and Louis C. Gapenski, Financial Management – Theory and Practice, 4th Ed. (The Dryden Press, 1985) at 256.

possible default on the loans and the bankruptcy of the Company. R.D. at 35.

* * *

As discussed, *supra*, the OCA recommends a return of 9.10% as the midpoint of its DCF and CE analyses; I&E recommends a return of 8.89% based on its DCF analyses; and the Company proposes a return of 10.3%, which utilizes its DCF, RP, and CAPM analyses to which the Company adds a size risk adjustment of 75 basis points. Based on our review of the testimony, data, and cost models presented, and considering our adoption of a 60% / 40% hypothetical capital structure, we believe that the range of returns provided in evidence supports an ROE finding of 10.0% for our ratemaking determinations herein.

Lastly, in Docket Nos. R-2021-3027385 and R-2021-3027386 concerning Aqua, the Commission stated:

Therefore, our methodology for determining Aqua's ROE shall utilize both I&E's DCF and CAPM methodologies. As noted above, the Commission recognizes the importance of informed judgment and information provided by other ROE models. In the *2012 PPL Order*, the Commission considered PPL's CAPM and RP methods, tempered by informed judgment, instead of DCF-only results. We conclude that methodologies other than the DCF can be used as a check upon the reasonableness of the DCF derived ROE calculation. Historically, we have relied primarily upon the DCF methodology in arriving at ROE determinations and have utilized the results of the CAPM as a check upon the reasonableness of the DCF derived equity return. As such, where evidence based on other methods suggests that the DCF-only results may understate the utility's ROE, we will consider those other methods, to some degree, in determining the appropriate range of reasonableness for our equity return determination. In light of the above, we shall determine an appropriate ROE for Aqua using informed judgement based on I&E's DCF and CAPM methodologies.²⁹

In the Commission Orders cited above, there is clear language that the Commission considers multiple models in its determination of ROE. It is also my interpretation of these Orders that the Commission correctly observes capital market conditions and their effect on the model results in determining an ROE for utility companies. This, in addition to the

²⁹

Pa. PUC v. Aqua Pennsylvania, Inc., Docket Nos. R-2021-3027385 & R-2021-3027386, pp. 154-155 (Order entered May 16, 2022).

academic literature cited above, shows that the Opposing Witnesses' reasoning behind relying solely on the DCF for their recommended ROE is misplaced.

B. APPLICATION OF THE CAPM

Q. PLEASE BRIEFLY SUMMARIZE THE I&E ROE WITNESSES' CAPM METHODOLOGY AND RESULTS.

A. The I&E ROE Witnesses use the average *Value Line Investors Service* ("Value Line") beta of their proxy groups, a projected 10-year Treasury yield for their risk-free rate, and an average of two expectational market returns to arrive at their CAPM results of 13.53% and 12.89% for Valley and Citizens', respectively.³⁰

Q. DO YOU HAVE ANY CONCERNS WITH THE I&E ROE WITNESSES' APPLICATION OF THE CAPM?

A. Yes, I do. While I agree with the I&E ROE Witnesses' use of *Value Line* betas, projected interest rates, and projections of market returns, I have concerns regarding their selection of a risk-free rate and their failure to conduct an ECAPM.

Q. IS THE USE OF 10-YEAR TREASURY BONDS AS A RISK-FREE RATE APPROPRIATE FOR COST OF CAPITAL PURPOSES?

A. No, it is not. As discussed below, the tenor of the risk-free rate used in the CAPM should match the life (or duration) of the underlying investment. As noted by Morningstar:

The traditional thinking regarding the time horizon of the chosen Treasury security is that it should match the time horizon of whatever is being valued. When valuing a business that is being treated as a going concern, the appropriate Treasury yield should be that of a long-term Treasury bond. Note that the horizon is a function of the investment, not the investor. If an investor plans to hold stock in a company for only five years, the yield on a five-year Treasury note would not be appropriate since the company will continue to exist beyond those five years.³¹

³⁰ Keller Direct Testimony, at 29-30; Spadaccio Direct Testimony, at 31-32.

³¹ Morningstar, Inc., 2013 Ibbotson Stocks, Bonds, Bills and Inflation Valuation Yearbook, at 44.

Morin also confirms this when he states:

[b]ecause common stock is a long-term investment and because the cash flows to investors in the form of dividends last indefinitely, the yield on very long-term government bonds, namely, the yield on 30-year Treasury bonds, is the best measure of the risk-free rate for use in the CAPM ^(footnote omitted)... The expected common stock return is based on long-term cash flows, regardless of an individual's holding time period.³²

Pratt and Grabowski recommend a similar approach to selecting the risk-free rate:

“In theory, when determining the risk-free rate and the matching ERP you should be matching the risk-free security and the ERP with the period in which the investment cash flows are expected.”³³ As a practical matter, equity securities represent a perpetual claim on cash flows; 30-year Treasury bonds are the longest-maturity securities available to match that perpetual claim. The I&E ROE Witnesses' use of a medium-term Treasury bond does not match the life of the assets being valued. The use of a 30-year Treasury bond is the more appropriate risk-free rate.

Q. THE I&E ROE WITNESSES CLAIM THAT LONG-TERM GOVERNMENT BONDS ARE SUBJECT TO THE MATURITY RISK.³⁴ PLEASE COMMENT.

They are mistaken. If a long-term Treasury note is held to maturity, there is no risk (the investor will get the stated coupon rate and principal at the end). Since the cost of equity is a long-term concept, the investment horizon of an individual investor is irrelevant.

³² Morin, at 169.

³³ Shannon Pratt and Roger Grabowski, Cost of Capital: Applications and Examples, 3rd Ed. (Hoboken, NJ: John Wiley & Sons, Inc., 2008), at 92. “ERP” is the Equity Risk Premium.

³⁴ Keller Direct Testimony, at 28; Spadaccio Direct Testimony, at 30.

Q. PLEASE DISCUSS THE I&E ROE WITNESSES' PROJECTED RISK-FREE RATE.

A. Mr. Keller, Mr. Spadaccio and I use the same publication for our forecasted interest rate data, *Blue Chip Financial Forecasts* (“*Blue Chip*”). The I&E ROE Witnesses incorporate forecasts from the third quarter of 2022 out to the period 2023-2027, although forecasts are published by *Blue Chip* to the period 2028-2032. Not incorporating the longest projection available is inconsistent with the application of the DCF model in which there is an assumption that the projected “g” is constant into perpetuity, creating a mismatch. It is also inconsistent with the Efficient Market Hypothesis (“EMH”) on which the DCF is based.

Q. WHAT IS THE EMH?

A. According to Fama,³⁵ a market in which prices always “fully reflect” available information is called “efficient.” There are three forms of the EMH, namely:

- (1) The “weak” form asserts that all past market prices and data are fully reflected in securities prices. In other words, technical analysis cannot enable an investor to “outperform the market.”
- (2) The “semi-strong” form asserts that all publicly available information is fully reflected in securities prices. In other words, fundamental analysis cannot enable an investor to “outperform the market.”
- (3) The “strong” form asserts that all information, both public and private, is fully reflected in securities prices. In other words, even insider information cannot enable an investor to “outperform the market.”

³⁵ Eugene F. Fama. "Efficient Capital Markets: A Review of Theory and Empirical Work", *The Journal of Finance*, Vol. 25, No. 2. (May 1970), pp. 383-417.

The “semi-strong” form is generally considered the most realistic because the illegal use of insider information can enable an investor to “beat the market” and earn excessive returns, thereby disproving the “strong” form. The semi-strong form of the EMH assumes that all information (including long-term forecasts of interest rates) are available to the investor, which means the 2028-2032 forecasted interest rate would be considered by investors when making investment decisions and, therefore, should be included in the I&E ROE Witnesses’ CAPM analysis.

Q. THE I&E ROE WITNESSES DID NOT PERFORM AN ECAPM ANALYSIS. PLEASE COMMENT.

A. As discussed in my Direct Testimony,³⁶ although numerous tests of the CAPM have confirmed its validity, it has been determined that the empirical Security Market Line (“SML”) described by the traditional CAPM is not as steeply sloped as the predicted SML. Tests of the CAPM have measured the extent to which security returns and betas are related as predicted by the CAPM, thus confirming its validity. As such, the I&E ROE Witnesses should have used the ECAPM in their CAPM analysis.

Q. IS THERE ANY ADDITIONAL EVIDENCE TO SUPPORT THE USE OF THE ECAPM?

A. Yes, there is. Dianna R. Harrington summarizes studies on the predicted results of the CAPM versus the actual returns in her text Modern Portfolio Theory & the Capital Asset Pricing Model:

So far we have learned some very interesting things about the CAPM and reality. Some of the earliest work tested realized data (history) against data generated by simulated portfolios. Early studies by Douglas (1969) and Lintner (Douglas [1969]) showed discrepancies between what was expected on the basis of the CAPM and the actual relationships that were apparent in

³⁶ D’Ascendis Direct Testimony, at 39-41.

the capital markets. Theoretically, the minimal rate of return from the portfolios (the intercept) and the actual risk-free rate for the period should have been equal. They were not.

* * *

Another study, now more famous than Lintner's was done by Black, Jensen, and Scholes (1972). Lintner had used what is called a cross-sectional method (looking at a number of stock returns during one time period), whereas Black, Jensen, and Scholes used a time-series method (using returns for a number of stocks over several time periods). To make their test, Black, Jensen, and Scholes assumed that what had happened in the past was a good proxy for the investor expectations (a frequent assumption in CAPM tests). Using historical data, they generated estimates using what we call the market model:

$$R_{jt} = \alpha_j + \beta_j (R_{mt}) + \varepsilon_j$$

Where:

R = total returns

β = the slope of the line (the incremental return for risk)

α = the intercept or a constant (expected to be 0 over time and across all firms)

ε = an error term (expected to be random, without information)

m = the market proxy

j = the firm or portfolio

t = the time period

Instead of using single stocks, they formed portfolios in an effort to wash out one source of error; because betas of single firms are quite unstable. On the basis of the CAPM, they expected to find

1. That the intercept was equal to the risk-free rate (their proxy was the Treasury bill rate)
2. That the capital market line had a positive slope and that riskier (higher beta) securities provided higher return

Instead they found

1. That the intercept was different from the risk-free rate
2. That high-risk securities earned less and low-risk securities earned more than predicted by the model

3. That the intercept seemed to depend on the beta of any asset: high-beta stocks had a different intercept than low-beta stocks

* * *

Fama and MacBeth (1974) criticized the Black, Jensen, and Scholes study (hereafter called BJS). In a reformation of the study, they supported the first of the BJS findings. They found that the intercept exceeded the risk-free proxy, but did not find the evidence to support the other BJS conclusions.³⁷

Harrington discusses Black's potential solution to this phenomenon:

Black's replacement for the risk-free asset was a portfolio that had no covariability with the market portfolio. Because the relevant risk in the CAPM is systematic risk, a risk-free asset would be the one with no volatility relative to the market – that is, a portfolio with a beta of zero. All investor-perceived levels of risk could be obtained from various linear combinations of Black's zero-beta portfolio and the market portfolio... Since R_z (the rate of return of the zero-beta asset) and R_m are uncorrelated (as R_f and R_m were assumed to be in the simple CAPM), the investor can choose from various combinations of R_z and R_m . On segment R_mY , R_z is sold short and proceeds are invested in R_m . On segment R_zR_m , portions of the zero-beta portfolio are purchased. At R_m , the investor is fully invested in the market portfolio. The equilibrium CAPM was rewritten by Black as follows:

$$E(R_i) = (1 - \beta_i) E(R_z) + \beta_i E(R_m)$$

Where:

E indicates expected,

$E(R_z)$ is less than $E(R_m)$, and

R_z holdings over the whole market must be in equilibrium. That is, the number of short sellers and lenders of securities must be equal.

Black's adaptation is intriguing. The result of using this model is a capital market line that has a less steep slope and a higher intercept than those of the simple CAPM. If Black's model is more correct in its description of investor behavior in the marketplace, then the use of the simple model would produce equity return predictions that would be too low for stocks

³⁷

Dianna R. Harrington, Modern Portfolio Theory & the Capital Asset Pricing Model – A User's Guide, Prentice-Hall, Inc. 1983, at 43-45.

with betas greater than one and too high for stocks with betas of less than one.³⁸

Q. DOES MR. KELLER HAVE CONCERNS REGARDING THE ECAPM?

A. Yes, he does. Specifically, Mr. Keller claims that the ECAPM “does not correct the problems with the CAPM”³⁹ without providing evidence to that effect. Conversely, I have provided substantial evidence that the ECAPM is a necessary adjustment to the CAPM in my Direct Testimony and above. Mr. Keller’s concerns should be given no weight by the Commission.

Q. WHAT WOULD THE I&E ROE WITNESSES’ CAPM RESULTS INDICATE IF CORRECTED TO REFLECT A FULLY FORECASTED 30-YEAR TREASURY BOND YIELD AND THE USE OF THE ECAPM?

A. As shown in Schedule DWD-3R, page 4, using a fully projected 30-year Treasury bond yield and employing the ECAPM would result in indicated ROEs of 13.86% and 13.17% for Mr. Keller and Mr. Spadaccio’s proxy groups, respectively.

C. FAILURE TO REFLECT VALLEY AND CITIZENS’ GREATER RELATIVE RISK DUE TO THEIR SMALL SIZE

Q. DO THE I&E ROE WITNESSES MAKE A SPECIFIC ADJUSTMENT TO REFLECT THE SMALLER SIZE OF THE COMPANIES RELATIVE TO THEIR PROXY GROUPS?

A. No. As discussed in my Direct Testimony,⁴⁰ relative company size is a significant element of business risk for which investors expect to be compensated through greater returns. Smaller companies are simply less able to cope with significant events which affect sales,

³⁸ Dianna R. Harrington, Modern Portfolio Theory & the Capital Asset Pricing Model – A User’s Guide, Prentice-Hall, Inc. 1983, at 31-32.

³⁹ Keller Direct Testimony, at 34.

⁴⁰ D’Ascendis Direct Testimony, at 51-53.

revenues and earnings. For example, smaller companies face more exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few large customers would have a far greater effect on a small company than on a larger company with a more diverse customer base. Finally, smaller companies are generally less diverse in their operations and have less financial flexibility. Consistent with the financial principle of risk and return in my Direct Testimony,⁴¹ such increased risk due to small size must be taken into account in the allowed rate of return on common equity.

Q. DO THE I&E ROE WITNESSES RELY ON STUDIES THAT SUPPORT THE SMALL SIZE PREMIUM?

A. Yes. In the Fama and French article cited by the I&E ROE Witnesses in their direct testimony, the authors propose that their three-factor model include the “Small Minus Big” factor, which indicates that small capitalization firms are more risky than large capitalization firms,⁴² confirming that size is a risk factor which must be taken into account in estimating the cost of common equity.

Q. THE I&E ROE WITNESSES SAY THAT YOUR SIZE ADJUSTMENT IS NOT SPECIFIC TO UTILITIES BECAUSE THE STUDY YOU CITE USES DATA FROM THE NEW YORK STOCK EXCHANGE, AMERICAN STOCK

⁴¹ D'Ascendis Direct Testimony, at 13.

⁴² Eugene F. Fama and Kenneth R. French, "The Capital Asset Pricing Model: Theory and Evidence", *Journal of Economic Perspectives*, Vol. 18, No. 3, Summer 2004, at 39.

**EXCHANGE AND NATIONAL ASSOCIATION OF SECURITY DEALERS
AUTOMATED QUOTATION SYSTEM. IS THIS A VALID CRITICISM?**

A. No. While the study does use data from these exchanges, all publicly traded utility companies are traded on one of these exchanges, including the proxy group companies. This means that utilities are, indeed, part of the size study I use to derive my size adjustment.

Q. THE I&E ROE WITNESSES CITE A STUDY BY DR. ANNIE WONG FOR THE PROPOSITION THAT THERE IS NO SIZE PREMIUM FOR UTILITIES. DOES THIS STUDY ESTABLISH THAT CONTENTION?

A. No. Dr. Wong's study is flawed because she attempts to relate a change in size to beta, which accounts for only a small percentage of diversifiable company-specific risk. However, size is company-specific and therefore diversifiable.

Q. IS THERE ALSO A PUBLISHED RESPONSE TO DR. WONG'S ARTICLE?

A. Yes, there is. In response to Professor Wong's article, *The Quarterly Review of Economics and Finance* published an article in 2003, authored by Thomas M. Zepp, which commented on the Wong article cited by Mr. Keller. Relative to Dr. Wong's results, Dr. Zepp concluded in the Abstract on page 1 of his article: "Her weak results, however, do not rule out the possibility of a small firm effect for utilities."⁴³ Dr. Zepp also noted on page 582 that: "Two other studies discussed here support a conclusion that smaller water utility stocks are more risky than larger ones. To the extent that water utilities are representative of all utilities, there is support for smaller utilities being more risky than larger ones."⁴⁴

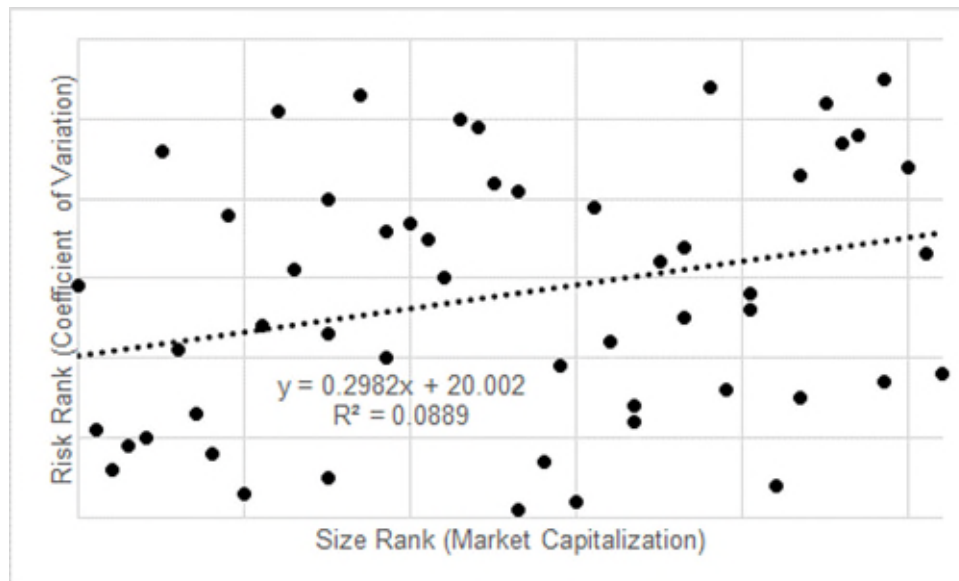
⁴³ Thomas M. Zepp, "Utility Stocks and the Size Effect --- Revisited", *The Quarterly Review of Economics and Finance*, 43 (2003), at 578-582.

⁴⁴ Thomas M. Zepp, "Utility Stocks and the Size Effect --- Revisited", *The Quarterly Review of Economics and Finance*, 43 (2003), at 578-583.

Q. HAVE YOU PERFORMED STUDIES LINKING SIZE AND RISK FOR UTILITY COMPANIES?

A. Yes, I have performed two studies that link size and risk for utility companies. My first study included the universe of electric, gas, and water companies included in *Value Line Standard* and *Small and Mid-Cap Editions*. From each of the utilities' *Value Line Ratings & Reports*, I calculated the 10-year coefficient of variation⁴⁵ ("CoV") of net profit (a measure of risk) and current market capitalization (a measure of size) for each company. After ranking the companies by size (largest to smallest) and risk (least risky to most risky), I made a scatter plot of the data, as shown on Chart 3, below:

Chart 3: Relationship Between Size and Risk for the *Value Line* Universe of Utility Companies⁴⁶



As shown in Chart 3 above, as company size decreases (increasing size rank), the CoV increases, linking size and risk for utilities, which is significant at 95.0% confidence level.

⁴⁵ The coefficient of variation is used by investors and economists to determine volatility.

⁴⁶ Source: *Value Line*

Q. MR. KELLER POINTS TO THE COMMISSION'S DECISION IN DOCKET NO. 2019-3008212 IN NOTING THAT THE COMMISSION DID NOT MAKE AN EXPLICIT SIZE ADJUSTMENT. PLEASE COMMENT.

A. While the Commission did not make an explicit size adjustment in that proceeding, it did acknowledge that size is a factor in assessing a company's ability to attract capital (i.e., the cost required by investors).⁴⁹ Specifically, the Commission adjusted the DCF result by one standard deviation of the mean and median to account for size. Applying that same approach in my Direct Testimony resulted in size premiums of 0.93% and 1.00% for Valley and Citizens',⁵⁰ consistent with my recommended size premiums for Valley and Citizens', respectively. Given that, in addition to the other evidence presented above, it is clear that size should be considered in setting the return for Valley and Citizens'.

D. PERFORMANCE FACTOR ADJUSTMENT

Q. THE OPPOSING WITNESSES HAVE NOT CONSIDERED A PERFORMANCE FACTOR ADJUSTMENT FOR THE COMPANIES' COST OF COMMON EQUITY. PLEASE COMMENT.

A. As discussed in my Direct Testimony,⁵¹ the Companies should each be awarded a five-basis point upward adjustment to their indicated ROE based on Code 66 Pa.C.S. § 523 regarding performance factor. Mr. Keller (Valley) and Mr. Spadaccio (Citizens') testified regarding the management efficiency of the Companies. No witness from I&E or the OCA has refuted the efficiency of each Company's management, yet both refuted the adjustment, since the Companies were simply doing "what is expected". Simply put, Code 66 Pa.C.S.

⁴⁹ D'Ascendis Direct Testimony, at 55-56.

⁵⁰ D'Ascendis Direct Testimony, at 55-56.

⁵¹ D'Ascendis Direct Testimony, at 56-57.

§ 523 is in existence to incentivize companies to “do their job” at a high level. The Companies in this case fulfill the requirement of the statute and should receive the benefit of doing so.

E. RESPONSE TO THE I&E ROE WITNESSES’ CRITICISMS OF COMPANY TESTIMONY

Q. DO THE I&E ROE WITNESSES HAVE CRITIQUES OF THE ANALYSES MADE IN YOUR DIRECT TESTIMONY?

A. Yes. The I&E ROE Witnesses have the following critiques of my analyses in my Direct Testimony: (1) that I have given weight to models other than the DCF in my determination of the ROE for the Companies; (2) that the PRPM is relatively new and not commonly used and cannot be performed without expense; (3) that my selection and use of a Non-Price Regulated Proxy Group similar in total risk to my Utility Proxy Group is “speculative and subjective”;⁵² (4) that the size adjustment I use is not applicable to utility companies; and (5) that exemplary management performance is not a basis for awarding a higher ROE.

As I addressed critiques (1), (4), and (5) in my response to the I&E ROE Witnesses’ analyses, I will not address them again here. I will address the remaining critiques in turn.

Q. THE I&E ROE WITNESSES SAY THAT THE PRPM WAS PUBLISHED IN 2011.⁵³ DOES THAT MEAN THAT THE METHODOLOGY BEHIND THE PRPM WAS ALSO PUBLISHED IN 2011?

A. No. As discussed in my Direct Testimony,⁵⁴ the PRPM is based on the research of Robert F. Engle, dating back to the early 1980s. Dr. Engle discovered that the volatility of market prices, returns and risk premiums clusters over time, making prices, returns and risk

⁵² Keller Direct Testimony, at 36; Spadaccio Direct Testimony, at 38.

⁵³ Keller Direct Testimony, at 34; Spadaccio Direct Testimony, at 36.

⁵⁴ D’Ascendis Direct Testimony, at 24-25.

premiums highly predictable. In 2003, he shared the Nobel Prize in Economics for this work, characterized as “methods of analyzing economic time series with time-varying volatility (“ARCH”).⁵⁵ Dr. Engle⁵⁶ noted that relative to volatility, “the standard tools have become the ARCH / GARCH⁵⁷ models.” Hence, the methodology is not new.

In addition, the GARCH methodology has been well tested by academia, since Engle’s, *et al.* research was originally published in 1982, 40 years ago. I use the well-established GARCH methodology to estimate the PRPM model using a standard commercial and relatively inexpensive statistical package, Eviews,[®] to develop a means by which to estimate a predicted equity risk premium, and when added to a bond yield, results in a cost of common equity.

The PRPM is also in the public domain, having been published six times in academically peer-reviewed journals: Journal of Economics and Business (June 2011 and April 2015),⁵⁸ The Journal of Regulatory Economics (December 2011),⁵⁹ The Electricity Journal (May 2013 and March 2020),⁶⁰ and Energy Policy (April 2019).⁶¹ Notably, none of these articles have been rebutted in the academic literature.

⁵⁵ www.nobelprize.org.

⁵⁶ Robert Engle, “GARCH 101: The Use of ARCH / GARCH Models in Applied Econometrics”, *Journal of Economic Perspectives*, Volume 15, No. 4, Fall 2001, p. 157-168.

⁵⁷ Autoregressive Conditional Heteroskedasticity / Generalized Autoregressive Conditional Heteroskedasticity.

⁵⁸ Eugene A. Pilotte and Richard A. Michelfelder, “Treasury Bond Risk and Return, the Implications for the Hedging of Consumption and Lessons for Asset Pricing”, *Journal of Economics and Business*, June 2011, 582-604; and Richard A. Michelfelder, “Empirical Analysis of the Generalized Consumption Asset Pricing Model: Estimating the Cost of Capital”, *Journal of Economics and Business*, April 2015, 37-50.

⁵⁹ Pauline M. Ahern, Frank J. Hanley, and Richard A. Michelfelder, “New Approach to Estimating the Equity Risk Premium for Public Utilities”, *The Journal of Regulatory Economics*, December 2011, at 40:261-278.

⁶⁰ Richard A. Michelfelder, Pauline M. Ahern, Dylan W. D’Ascendis, and Frank J. Hanley, “Comparative Evaluation of the Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for Estimating the Cost of Common Equity”, *The Electricity Journal*, April 2013, at 84-89; and Richard A. Michelfelder, Pauline M. Ahern, and Dylan W. D’Ascendis, “Decoupling, Risk Impacts and the Cost of Capital”, *The Electricity Journal*, January 2020.

⁶¹ Richard A. Michelfelder, Pauline M. Ahern, and Dylan W. D’Ascendis, “Decoupling Impact and Public Utility Conservation Investment”, *Energy Policy*, April 2019, 311-319.

Finally, the PRPM was presented to a number of utility industry/regulatory/academic groups including the following: The Edison Electric Institute Cost of Capital Working Group; The NARUC Staff Subcommittee on Accounting and Finance; The National Association of Electric Companies Finance/Accounting/Taxation and Rates and Regulations Committees; the NARUC Electric Committee; The Wall Street Utility Group; the Indiana Utility Regulatory Commission Cost of Capital Task Force; the Financial Research Institute of the University of Missouri Hot Topic Hotline Webinar; and the Center for Research and Regulated Industries Annual Eastern Conference on two occasions.

Q. HAS THE PRPM BEEN IMPLICITLY ACCEPTED BY OTHER REGULATORY COMMISSIONS?

A. Yes. In Docket No. 2017-292-WS, the Public Service Commission of South Carolina (“PSC SC”) accepted Carolina Water Services’ entire requested ROE, which included the PRPM. The relevant portion states:

The Commission finds Mr. D’Ascendis’ arguments persuasive. He provided more indicia of market returns, by using more analytical methods and proxy group calculations. Mr. D’Ascendis’ use of analysts’ estimates for his DCF analysis is supported by consensus, as is his use of the arithmetic mean. The Commission also finds that Mr. D’Ascendis’ non-price regulated proxy group more accurately reflects the total risk faced [by] price regulated utilities and CWS. Furthermore, there is no dispute that CWS is significantly smaller than its proxy group counterparts, and, therefore, it may present a higher risk. An appropriate ROE for CWS is 10.45% to 10.95%. The Company used an ROE of 10.5% in computing its Application, a return on the low end of Mr. D’Ascendis’ range, and the Commission finds that ROE is supported by the evidence.⁶²

⁶² PSC SC Docket No. 2017-292-WS - Order No. 2018-345, at 14. (May 17, 2018)

In addition, in Docket No. W-354, Subs 363, 364 and 365, the State of North Carolina Utilities Commission (“NCUC”) approved my RPM and CAPM analyses, which used PRPM analyses as presented in this proceeding. The relevant portion of the order states:

In doing so the Commission finds that the DCF (8.81%), Risk Premium (10.00%) and CAPM (9.29%) model results provided by witness D’Ascendis, as updated to use current rates in D’Ascendis Late-Filed Exhibit No. 1, as well as the risk premium (9.57%) analysis of witness Hinton, are credible, probative, and are entitled to substantial weight as set forth below.⁶³

Q. THE I&E ROE WITNESSES POSIT THAT YOU USE PROPRIETARY SOFTWARE TO CONDUCT YOUR PRPM.⁶⁴ IS THAT TRUE?

A. No. The GARCH methodology is available in various statistical packages such as EViews[®], SAS, RATS, S-Plus and JMulti, which are not cost-prohibitive and provide instructions for using the various statistical methodologies in their software. I provided all parties in these proceedings the backup data to run their own GARCH models. While the software I used in this proceeding costs approximately \$1,500 for a single user commercial license,⁶⁵ JMulti is a free downloadable software with GARCH estimation applications.

Q. THE I&E ROE WITNESSES STATE THAT THE SELECTION AND USE OF NON-PRICE REGULATED GROUPS COMPARABLE IN TOTAL RISK TO THE UTILITY PROXY GROUPS IS SPECULATIVE AND SUBJECTIVE.⁶⁶ PLEASE RESPOND.

A. As discussed briefly above, the selection criteria for my Non-Price Regulated Proxy Group were based on ranges of two measures of risk: (1) the unadjusted beta of the Utility Proxy

⁶³ NCUC Docket No. W-354, Sub 363, 364, 365, *Order Granting Partial Rate Increase and Requiring Customer Notice*, at PDF 72 (March 31, 2020).

⁶⁴ Keller Direct Testimony, at 32; Spadaccio Direct Testimony, at 35.

⁶⁵ <http://www.eviews.com/general/prices/prices.html>

⁶⁶ Keller Direct Testimony, at 36; Spadaccio Direct Testimony, at 38.

Group, which measures systematic, or market risk; and (2) the standard error of the regression, which gave rise to those betas, measuring non-systematic or diversifiable risk. Systematic plus non-systematic risk is one definition of total risk.⁶⁷ This is agreed upon by Mr. Keller and Mr. Spadaccio, who state in their testimony: “two types of risk are associated with a stock: (1) firm-specific risk (unsystematic risk); and (2) market risk (systematic risk), which is measured by a firm’s beta.”⁶⁸

Each company I selected for my Non-Price Regulated Proxy Group was required to have an unadjusted beta (a measure of systematic risk) and a standard error of the regression (a measure of unsystematic risk) within the ranges generated by my proxy group, as explained in pages 45 and 46 of my Direct Testimony and on Schedule DWD-6.

Business and financial risks may vary between companies and proxy groups, but if the collective average betas and standard errors of the regression of the group are similar, then the total, or aggregate, non-diversifiable market risks and diversifiable risks are similar, as noted in “Comparable Earnings: New Life for an Old Precept” provided in Schedule DWD-4R. Thus, because the non-price regulated companies are selected based on analyses of market data, they are comparable in total risk (even though individual risks may vary) to my Utility Proxy Group. This is demonstrated clearly on page 273 of Jack C. Francis’ Investments: Analysis and Management (page 3 of Schedule DWD-5R), which shows that total risk can be “partitioned into its systematic and unsystematic components.” Essentially, companies that have similar betas and standard errors of regression have similar total investment risk.

⁶⁷ Business risk plus financial risk is a second definition of total risk.
⁶⁸ Keller Direct Testimony, at 16; Spadaccio Direct Testimony, at 15.

Q. THE I&E ROE WITNESSES CRITICIZE THE USE OF YOUR NON-PRICE REGULATED PROXY GROUPS BECAUSE THE RESULTS OF THE MODELS APPLIED TO THE GROUPS ARE NOT SIMILAR TO THE RESULTS OF THE SAME MODELS APPLIED TO YOUR UTILITY PROXY GROUPS.⁶⁹ PLEASE RESPOND.

A. The role of regulation when setting rates for a utility company is to simulate a competitive market and the returns that the regulator approves should be commensurate with the rates of return earned by firms with comparable risk. That being said, the ranges of the indicated ROEs produced by the common equity models applied to the Utility Proxy Group and Non-Price Regulated Proxy Group in my ROE update do mostly overlap as shown below:

Table 2: Comparison of Model Results Applied to The D'Ascendis Gas and Non-Price Regulated Proxy Groups

	DCF	RPM	CAPM
D'Ascendis Gas Proxy Group	7.83% - 10.50%	8.12% - 14.84%	11.09% - 12.38%
Non-Regulated Group Comparable to Gas Group	5.08% - 18.81%	12.12%	9.63% - 12.81%

Table 3: Comparison of Model Results Applied to The D'Ascendis Electric and Non-Price Regulated Proxy Groups

	DCF	RPM	CAPM
D'Ascendis Electric Proxy Group	7.05% - 10.26%	7.79% - 13.59%	11.18% - 13.76%
Non-Regulated Group Comparable to Electric Group	5.08% - 20.17%	12.73%	10.06% - 13.42%

Given the indicated ranges of results of cost of common equity models applied to the Utility Proxy Groups and Non-Price Regulated Proxy Groups, the objective of the comparable earnings model, and the adherence to the regulatory compact, the results of market models

⁶⁹ Keller Direct Testimony, at 37; Spadaccio Direct Testimony, at 39.

applied to the Non-Price Regulated Proxy Groups comparable in total risk to my Utility Proxy Groups should be accepted by the Commission.

Q. THE I&E ROE WITNESSES BOTH NOTE THEY ARE UNAWARE OF ANY AUTHORIZED ROES IN THE LAST TWO YEARS ABOVE YOUR REQUESTED ROE OF 11.50%.⁷⁰ PLEASE COMMENT.

A. While authorized ROEs may be reasonable benchmarks of acceptable ROEs in static economic conditions, they can mis-specify the investor-required return in a dynamic economic environment, such as this one. The reason why historical authorized returns mis-specify the investor-required return in changing markets is because authorized ROEs are a lagging indicator of investor-required returns; i.e., authorized ROEs are based on market data presented in an evidentiary record, which spans a period before the decision, lasting over a year in some cases. Because markets are constantly changing, historical authorized returns do not completely reflect the investor required return because the economic conditions in the past are not representative of economic conditions now. That is, what investors require in the future may not correlate to what they required and/or received in the past. We must remember that projecting the investor required ROE is a forward-looking concept. Because this is the case, the I&E ROE Witnesses' observations regarding historically allowed ROEs are of little value.

III. RESPONSE TO OCA WITNESS DEANGELO

Q. PLEASE SUMMARIZE MS. DEANGELO'S RECOMMENDATIONS.

A. Ms. DeAngelo accepts the proposed debt cost rate of 4.49% for Valley and 4.09% for Citizens'.⁷¹ Ms. DeAngelo also accepts the proposed capital structure consisting of 50.47%

⁷⁰ Keller Direct Testimony, at 46; Spadaccio Direct Testimony, at 47.

⁷¹ DeAngelo Direct Testimony, at 4-5.

debt and 49.53% equity.⁷² Regarding the cost of common equity for Valley, Ms. DeAngelo recommends a common equity cost rate of 9.50%, based on her DCF model result of 9.50%. Regarding the cost of common equity for Citizens', Ms. DeAngelo recommends a common equity cost rate of 8.82%, based on her DCF model result of 8.82%.

Q. DO YOU HAVE CONCERNS WITH MS. DEANGELO'S CONCLUSIONS AND RESULTS?

A. Yes, I do. I am concerned with the following: (1) her exclusive reliance on her DCF model results to arrive at her unadjusted ROE; (2) her application of the CAPM; (3) her failure to consider the Companies' small size relative to the proxy groups; and (4) her failure to consider a performance factor adjustment based on exemplary performance. Because I discuss (1) and (4) in response to the I&E ROE Witnesses, I will not repeat that discussion here.

A. APPLICATION OF THE CAPM

Q. PLEASE SUMMARIZE MS. DEANGELO'S APPLICATION OF THE CAPM.

A. Ms. DeAngelo used a three-month average yield on a 30-year Treasury bond as her risk-free rate, betas from *Value Line*, and an expected risk premium from Schwab as her market risk premium to calculate indicated CAPM cost rates of 8.54% (Valley) and 8.66% (Citizens'). Ms. DeAngelo did not apply the ECAPM in her analysis.⁷³

⁷² DeAngelo Direct Testimony, at 4-5.

⁷³ DeAngelo Direct Testimony, at 9-11.

Q. DO YOU HAVE ANY GENERAL COMMENTS REGARDING MS. DEANGELO'S APPLICATION OF THE CAPM AND HER INDICATED RESULTS?

A. Yes, I do. Notwithstanding her decision not to apply an ECAPM, I also take issue with (1) the use of a current, instead of an expectational risk-free rate; and (2) the use of a market risk premium from Schwab.

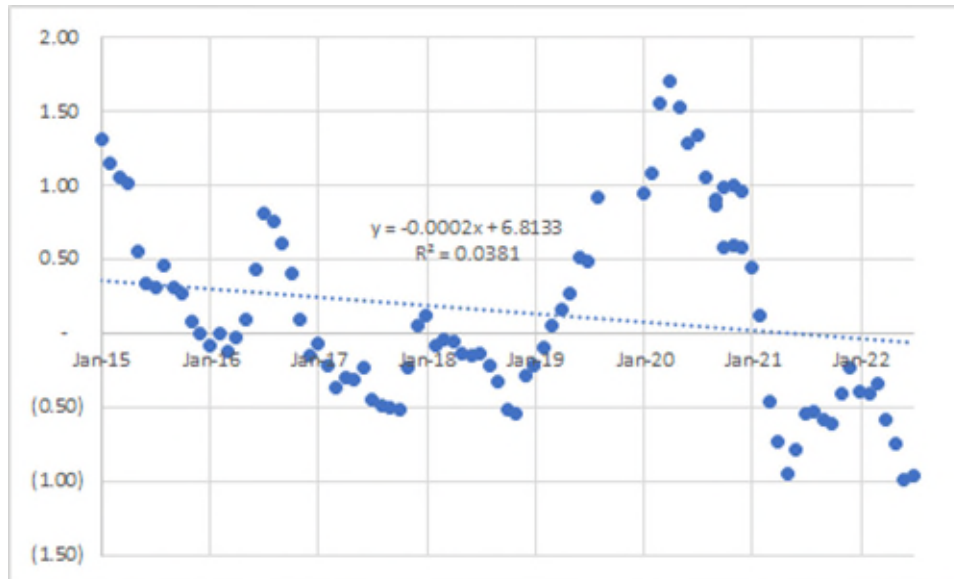
Q. WHY SHOULD ONE USE PROJECTED MEASURES WHEN DETERMINING THE COST OF COMMON EQUITY?

A. One should use projected measures when measuring the cost of common equity because it, as well as ratemaking, is expectational in that it reflects investors' expectations of future capital markets, including an expectation of interest rate levels, as well as future risks. Ratemaking is prospective in that the rates set in this proceeding will be in effect for a period in the future. Even though Ms. DeAngelo exclusively relies on projected growth rates in her DCF analyses,⁷⁴ she fails to apply that logic to selecting an appropriate interest rate in her CAPM.

Q. ARE CURRENT INTEREST RATES PROVEN TO BE A BETTER PREDICTOR OF FUTURE INTEREST RATES?

A. No, they are not. In Chart 5 (below) I compare actual monthly yields to the three-month yield average from 12 months prior. This chart demonstrates that current Treasury yields have not been accurate predictors of future yields. Those results make intuitive sense. With the recent market turbulence, Treasury yields have varied significantly. As interest rates decreased, historical Treasury yields over-projected current yields, and vice versa.

⁷⁴ DeAngelo Direct Testimony, at 6.

Chart 5: Forecast Error of Three-Month Average Treasury Yields⁷⁵

Q. PLEASE COMMENT ON THE MARKET RISK PREMIUM ESTIMATES FROM SCHWAB AND VANGUARD PRESENTED BY MS. DEANGELO.

A. First, the use of expected returns from investment houses is not appropriate for cost of capital purposes, and second, the recommendations from Schwab and Vanguard contain several noticeable disclosures that should have given Ms. DeAngelo cause for concern.

Q. WHY IS THE USE OF EXPECTED RETURNS FROM INVESTMENT HOUSE NOT APPROPRIATE?

A. Expected returns from pension funds or investment houses are not the same as the return on common equity (otherwise known as required returns). Expected returns from pension funds or investment houses are expecting what the particular utility's earned return will be, not what investors require that return to be. Because utilities do not earn their authorized returns, investor expected returns are less than investor-required returns. For example, a benefit plan asset manager will match the expected returns available from various asset

⁷⁵

Source: Federal Reserve Schedule H.15.

classes to the expected liabilities that must be funded. An investor seeking to maximize their risk-adjusted return will only invest in a security if the **expected return** is equal to or greater than the **required return**. Because expected returns may or may not equal required returns, we should not assume pension funding assumptions (that is, expected returns) may be viewed as a measure of investors' required returns.

Benefit plan managers develop asset allocation and investment decisions based on expected risks and returns for various asset classes, and are subject to the investment objective or expected timing and nature of the liabilities being funded by those investments. In the U.S., they must consider: (1) the diversification of the portfolio; (2) the liquidity and current return of the portfolio relative to the expected cash flow requirements under the plan; (3) the portfolio's projected return relative to the plan's funding objective; and (4) the return expected on alternative investments with similar risks.⁷⁶ Pension asset managers, therefore, are concerned with investing funds at an expected return to meet expected liabilities.

Q. IS THE USE OF EXPECTED RETURNS FROM INVESTMENT HOUSES OR PENSION FUNDS FOR COST OF CAPITAL PURPOSES TAUGHT IN THE FINANCIAL LITERATURE?

A. No. To determine whether the use of broad market expected returns for the purposes of pension asset management also is an approach recommended by finance texts, I reviewed articles published in financial journals, as well as additional texts that speak to the methods used by analysts to estimate the cost of equity. An article published in Financial Analysts Journal surveyed financial analysts to determine the analytical techniques that are used in

⁷⁶ 29 CFR 2509.908-1, *Interpretive Bulletin Relating to Investing in Economically Targeted Investments*, October 17, 2008.

practice.⁷⁷ Regarding stock price valuation and cost of capital estimation, the author asked respondents to comment only on the DCF, CAPM, and Economic Value-Added models. Nowhere in that article did the author consider asking whether surveys of expected returns or pension fund assumptions are relevant to the determination of the ROE, the subject of this proceeding.

Q. WHAT DISCLOSURES DO SCHWAB AND VANGUARD MENTION IN REGARD TO ITS EXPECTED MARKET RETURNS?

A. Most importantly, Schwab notes the following:

The information provided here is for general informational purposes only and should not be considered an individualized recommendation or personalized investment advice. Data here are obtained from what are considered reliable sources; its accuracy, completeness or reliability, however, cannot be guaranteed.

All expressions of opinion are subject to change without notice in reaction to shifting market or other conditions. Data contained herein from third-party providers is obtained from what are considered reliable sources. However, its accuracy, completeness or reliability cannot be guaranteed.⁷⁸

Vanguard notes in describing its approach:

The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. **Results produced by the tool will vary with each use and over time.** (emphasis added)⁷⁹

Given the disclosures noted above, any weight placed on the recommendations from Schwab and Vanguard should be considered ill-advised and disregarded by the Commission.

⁷⁷ Stanley B. Block, "A Study of Financial Analysts: Practice and Theory", *Financial Analysts Journal*, July/August, 1999.

⁷⁸ <https://www.schwab.com/learn/story/schwabs-long-term-capital-market-expectations>.

⁷⁹ <https://advisors.vanguard.com/insights/article/series/vanguardeconomicandmarketoutlook#next-steps>

Q. PLEASE BRIEFLY SUMMARIZE MS. DEANGELO'S ESTIMATED MRP USING DATA FROM DUFF & PHELPS.

A. Ms. DeAngelo calculates a MRP estimate of 5.54% using the geometric mean of yearly returns on the S&P 500 and 30-year Treasury bonds based on data from Duff & Phelps for the period 1977-2021.

Q. DO YOU HAVE ANY ISSUES WITH MS. DEANGELO'S APPROACH USING DATA FROM DUFF & PHELPS?

A. Yes, I do. First, the use of geometric returns is not appropriate for cost of capital purposes. Second, I take issue with Ms. DeAngelo's arbitrary use of the 1977-2021 timeframe.

Q. WHY IS THE GEOMETRIC MEAN NOT APPROPRIATE FOR COST OF CAPITAL PURPOSES?

A. Only arithmetic mean return rates, ERPs, and yields are appropriate for cost of capital purposes because ex-post (historical) total returns and ERPs differ in size and direction over time, indicating volatility, i.e., variance or risk. The arithmetic mean captures the prospect for variance in returns and ERPs, providing the valuable insight needed by investors in estimating risk in the future when making a current investment. Absent such valuable insight into the potential variance of returns, investors cannot meaningfully evaluate prospective risk. The geometric mean of ex-post ERPs provides no insight into the potential variance of future returns, because the geometric mean relates the change over many time periods to a constant rate of change, rather than the year-to-year fluctuations, or variance, critical to risk analysis. Therefore, the geometric mean is of little to no value to investors seeking to measure risk. Moreover, from a statistical perspective, since stock returns and ERPs are randomly generated, the arithmetic mean is expectational and consistent with the prospective nature of the cost of capital and ratemaking noted above.

The financial literature is quite clear that risk is measured by the variability of expected returns, i.e., the probability distribution of returns.⁸⁰ Kroll 2022 SBBI® Yearbook Stocks, Bonds, Bills, and Inflation (“SBBI – 2022”)⁸¹ explains in detail why the arithmetic mean is the correct mean to use when estimating the cost of capital.

In addition, Weston and Brigham provide the standard financial textbook definition of the riskiness of an asset when they state:

The riskiness of an asset is defined in terms of the likely variability of future returns from the asset. (emphasis added)⁸²

Furthermore, Morin states:

The geometric mean answers the question of what constant return you would have had to achieve in each year to have your investment growth match the return achieved by the stock market. The arithmetic mean answers the question of what growth rate is the best estimate of the future amount of money that will be produced by continually reinvesting in the stock market. It is the rate of return which, compounded over multiple periods, gives the mean of the probability distribution of ending wealth. (emphasis added)⁸³

In addition, Brealey and Myers note:

The proper uses of arithmetic and compound rates of return from past investments are often misunderstood... Thus the arithmetic average of the returns correctly measures the opportunity cost of capital for investments... Moral: If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return. (italics in original)⁸⁴

As previously discussed, investors gain insight into relative riskiness by analyzing expected future variability. This is accomplished using the arithmetic mean of a random

⁸⁰ Eugene F. Brigham, Fundamentals of Financial Management, (The Dryden Press, 1989), at 639.

⁸¹ SBBI – 2022, at 201.

⁸² J. Fred Weston and Eugene F. Brigham, Essentials of Managerial Finance, 3rd Edition (The Dryden Press, 1974), at 272.

⁸³ Morin, at 151.

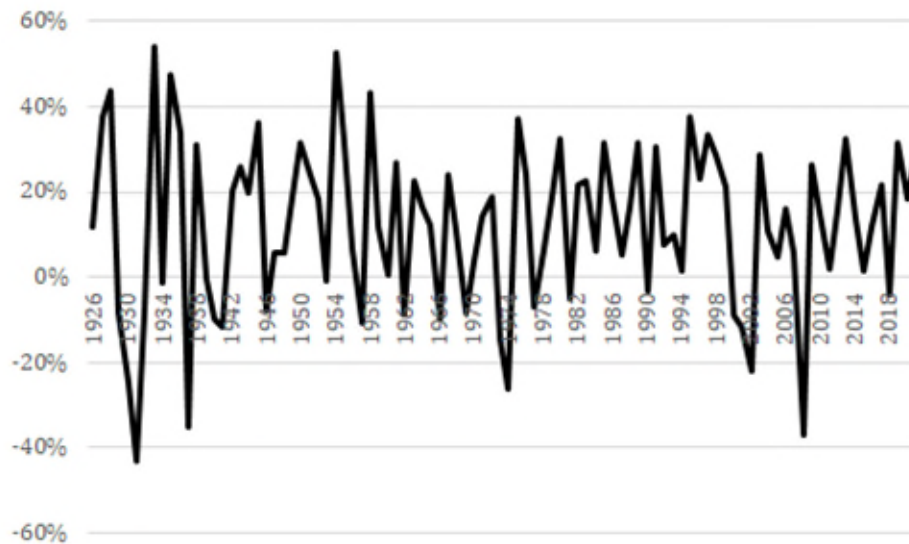
⁸⁴ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, 5th Ed. (McGraw-Hill Publications, Inc., 1996), at 146 – 147.

distribution of returns/premiums. Only the arithmetic mean considers all the returns/premiums over a period of time, hence, providing meaningful insight into the variance and standard deviation of those returns/premiums.

Q. CAN IT BE DEMONSTRATED THAT THE ARITHMETIC MEAN TAKES INTO ACCOUNT ALL OF THE RETURNS AND, THEREFORE, IS THE ONLY APPROPRIATE MEAN TO USE WHEN ESTIMATING THE COST OF CAPITAL?

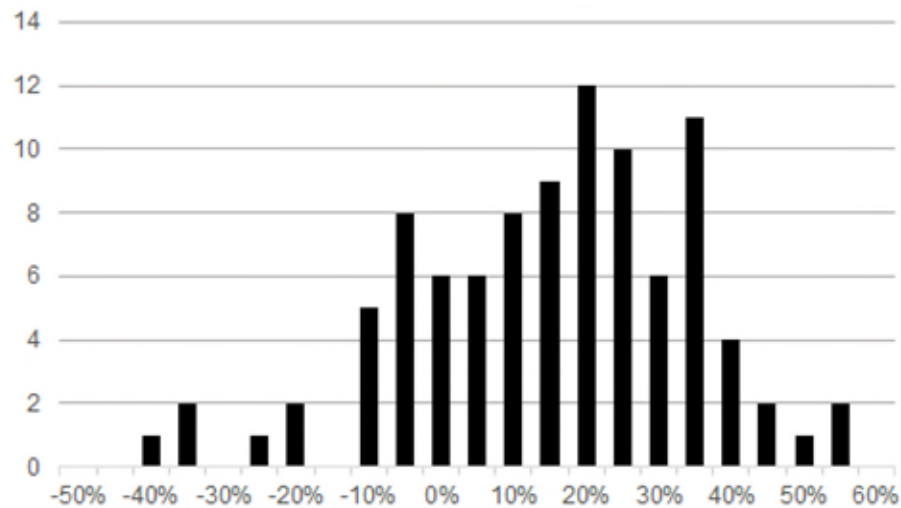
A. Yes. Pages 1 and 2 of Schedule DWD-6R graphically demonstrate this. Page 1 charts the SBBI-2022 returns on large company stocks for each and every year from 1926 through 2021. It is clear from looking at the year-to-year variation of these returns that stock market returns and, hence, MRPs vary (see Chart 6, below)

Chart 6: U.S. Large Company Stock Returns 1926-2021⁸⁵



The distribution of each of those returns for the period from 1926 through 2021 is shown on page 2 of Schedule DWD-6R and Chart 7, below.

⁸⁵ SBBI-2022 at Appendix A-1.

Chart 7: Frequency Distribution of Observed Market Returns, 1926 - 2021⁸⁶

There is a clear bell-shaped pattern to the probability distribution of returns, an indication that they are randomly generated and not serially correlated. The arithmetic mean of this distribution of returns considers each and every return in the distribution. In doing so, the arithmetic mean takes into account the standard deviation or likely variance which may be experienced in the future when estimating the rate of return based on such historical returns.

In contrast, the geometric mean considers only two of the returns, the initial and terminal years, which, in this case, are 1926 and 2021. Based on only those two years, a constant rate of return is calculated by the geometric average. That constant return is graphically represented by a flat line, showing no year-to-year variation, for the entire 1926 to 2021 time period. This is obviously unrealistic, based on the histogram shown in Chart 7 above. In view of the foregoing, Ms. DeAngelo should have exclusively relied on the

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Schedule DWD-6R, at 2.

long-term arithmetic average return on the market, dating back to 1926, not 1977, in calculating her historical risk premium using SBBI-2022 data.

Q. WHY IS IT INAPPROPRIATE TO ONLY USE DATA DATING BACK TO 1977?

A. Using a subset of data inherently presents several issues. As noted by Kroll:

The estimate of the equity risk premium depends on the length of the data series studied. A proper estimate of the equity risk premium requires a data series long enough to give a reliable average without being unduly influenced by very good and very poor short-term returns. When calculated using a long data series, the historical equity risk premium is relatively stable. Furthermore, because an average of the realized equity risk premium, is quite volatile when calculated using a short history, using a long series makes it less likely that the analyst can justify any number he or she wants.

Without an appreciation of the 1920s and 1930s, no one would believe that such events could happen. The 95-year period starting with 1926 represents what can happen: It includes high and low returns, volatile and quiet markets, war and peace, inflation and deflation, and prosperity and depression. Restricting attention to a shorter historical period underestimates the amount of change that could occur in a long future period. Finally, because historical event-types (not specific events) tend to repeat themselves, long-run capital market return studies can reveal a great deal about the future. Investors probably expect unusual events to occur from time to time, and their return expectations reflect this.⁸⁷

Given the academic literature above, no valid conclusion of the MRP can be drawn from the 1977-2021 period.

Q. HAVE YOU CORRECTED MS. DEANGELO'S CAPM TO INCLUDE PROJECTED INTEREST RATES AND A RELIABLE MRP ESTIMATE, AND APPLIED THE ECAPM?

A. Yes, I have. Using the projected interest rate from *Blue Chip* for the six quarters ending with the fourth quarter 2023 and the periods 2024-2028 (3.74%), the historical MRP from

⁸⁷

Kroll 2022, SBBI® Yearbook Stocks, Bonds, Bills, and Inflation, at 201 - 202.

Kroll (7.40%)⁸⁸, and the betas provided in Schedules MND-7, MND-8, results in average CAPM estimates of 10.06% for Valley and 10.28% for Citizens', as shown on Schedule DWD-7R, page 5. While I do not consider the use of a single estimate of the MRP to be practical or acceptable, the results noted above illustrate the extent to which Ms. DeAngelo's CAPM analysis as presented was mis-stating the ROEs for the Companies.

B. FAILURE TO REFLECT THE COMPANIES' GREATER RELATIVE RISK DUE TO THEIR SMALL SIZE

Q. DID MS. DEANGELO ADDRESS THE ISSUE OF A SIZE PREMIUM IN HER TESTIMONY?

A. Yes. Ms. DeAngelo does not include a size premium in her recommendation, but she does point to a study by Banz, which notes that since 1983, small-capitalization stocks have underperformed large-capitalization stocks.⁸⁹

Q. PLEASE RESPOND.

A. The issue with Ms. DeAngelo's position is that the size premium measures the increased risk associated with a company's smaller size; Ms. DeAngelo is only focused on returns. As I discussed in my Direct Testimony, smaller companies face increased business risk as they are less equipped to cope with significant events that affect sales, revenues, and earnings, as the loss of a few larger customers will have a greater effect on a smaller company than a larger company.⁹⁰

This is further evident when we consider that increasing capital costs (i.e., risk) for one set of securities will put downward pressure on those securities as investors transition

⁸⁸ SBBI-2022, at 145. Represents Arithmetic Mean Total Return on Large-Cap Stocks (12.30%) minus the Arithmetic Mean Income-Only Return on Long-Term Government Bonds (4.90%); $12.30\% - 4.90\% = 7.40\%$.

⁸⁹ DeAngelo Direct Testimony, at 12.

⁹⁰ D'Ascendis Direct Testimony, at 51.

to securities with lower risk. Under this premise, the underperformance is directly tied to the increase in risk. As such, Ms. DeAngelo's premise that smaller companies' underperformance indicates a reduction of risk is in fact the opposite – underperformance indicates an increasing level of risk.

Q. DO THE DISCLOSURES BY SCHWAB DISCUSS THE RISKS RELATIVE TO SMALL-CAPITALIZATION STOCKS?

A. Yes, they do. Specifically, Schwab notes, "Small-cap stocks (or securities or investments) are subject to greater volatility than those in other asset categories."⁹¹

IV. CONCLUSION

Q. WHAT IS YOUR RECOMMENDED ROE FOR VALLEY AND FOR CITIZENS'?

A. Given the discussion above and the results from the analyses, I recommend that ROEs of 11.50% for Valley and 11.50% for Citizens' are appropriate at this time.

Q. IN YOUR OPINION, IS YOUR PROPOSED ROE OF 11.50% FAIR AND REASONABLE FOR VALLEY AND ITS CUSTOMERS?

A. Yes, it is.

Q. IN YOUR OPINION, IS YOUR PROPOSED ROE OF 11.50% FAIR AND REASONABLE FOR CITIZENS' AND ITS CUSTOMERS?

A. Yes, it is.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

⁹¹ <https://www.schwab.com/learn/story/schwabs-long-term-capital-market-expectations>.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA	:	
and Valley Energy Company	:	

EXHIBITS

OF

DYLAN W. D'ASCENDIS, CRRA, CVA

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY, INC.

AUGUST 16, 2022

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA

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of Dylan W. D'Ascendis

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Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Demonstration of the Inadequacy of
a DCF Return Rate Related to Book Value
When Market Value is Greater than Book Value

		[A]	[B]
Line No.		Based on Mr. Keller's Proxy Group	
		Market Value	Book Value
1.	Per Share	\$ 78.80 (1)	\$ 39.62 (2)
2.	DCF Cost Rate (3)	9.70%	9.70%
3.	Return in Dollars (4)	\$ 7.644	\$ 3.843
4.	Dividends (5)	\$ 2.459	\$ 2.459
5.	Growth in Dollars (6)	\$ 5.185	\$ 1.384
6.	Return on Market Value (7)	9.70%	4.88%
7.	Rate of Growth on Market Value (8)	6.58%	1.76%

Notes:

- (1) Average of market prices for Mr. Keller's proxy group
- (2) Average book value calculated by dividing total common equity at year-end 2021 by common shares outstanding at year-end 2021 for each proxy group company.
- (3) Recommended DCF cost rate for Mr. Keller.
- (4) Line 1 * Line 2.
- (5) Dividends are based on Mr. Keller's reported dividend yields.
- (6) Line 3 - Line 4.
- (7) Line 3 / Line 1.
- (8) Line 5 / Line 1.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Demonstration of the Inadequacy of
a DCF Return Rate Related to Book Value
When Market Value is Greater than Book Value

<u>Line No.</u>		[A]	[B]
		<u>Based on Mr. Spadaccio's Proxy Group</u>	
		<u>Market Value</u>	<u>Book Value</u>
1.	Per Share	\$ 87.35 (1)	\$ 39.25 (2)
2.	DCF Cost Rate (3)	8.98%	8.98%
3.	Return in Dollars (4)	\$ 7.844	\$ 3.525
4.	Dividends (5)	\$ 2.865	\$ 2.865
5.	Growth in Dollars (6)	\$ 4.979	\$ 0.660
6.	Return on Market Value (7)	8.98%	4.04%
7.	Rate of Growth on Market Value (8)	5.70%	0.76%

Notes:

- (1) Average of market prices for Mr. Spadaccio's proxy group
- (2) Average book value calculated by dividing total common equity at year-end 2021 by common shares outstanding at year-end 2021 for each proxy group company.
- (3) Recommended DCF cost rate for Mr. Spadaccio.
- (4) Line 1 * Line 2.
- (5) Dividends are based on Mr. Spadaccio's reported dividend yields.
- (6) Line 3 - Line 4.
- (7) Line 3 / Line 1.
- (8) Line 5 / Line 1.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Demonstration of the Inadequacy of
a DCF Return Rate Related to Book Value
When Market Value is Greater than Book Value

<u>Line No.</u>		[A]	[B]
		Based on Ms. DeAngelo's Gas Proxy Group	
		<u>Market Value</u>	<u>Book Value</u>
1.	Per Share	\$ 67.05 (1)	\$ 35.11 (2)
2.	DCF Cost Rate (3)	9.50%	9.50%
3.	Return in Dollars (4)	\$ 6.370	\$ 3.336
4.	Dividends (5)	\$ 2.119	\$ 2.119
5.	Growth in Dollars (6)	\$ 4.251	\$ 1.217
6.	Return on Market Value (7)	9.50%	4.98%
7.	Rate of Growth on Market Value (8)	6.34%	1.81%

Notes:

- (1) Average of market prices for Ms. DeAngelo's proxy group
- (2) Average book value calculated by dividing total common equity at year-end 2021 by common shares outstanding at year-end 2021 for each proxy group company.
- (3) Recommended DCF cost rate for Ms. DeAngelo for Valley Energy Inc.
- (4) Line 1 * Line 2.
- (5) Dividends are based on Ms. DeAngelo's reported dividend yields.
- (6) Line 3 - Line 4.
- (7) Line 3 / Line 1.
- (8) Line 5 / Line 1.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Demonstration of the Inadequacy of
a DCF Return Rate Related to Book Value
When Market Value is Greater than Book Value

<u>Line No.</u>		[A]	[B]
		Based on Ms. DeAngelo's Electric Proxy Group	
		<u>Market Value</u>	<u>Book Value</u>
1.	Per Share	\$ 79.00 (1)	\$ 38.73 (2)
2.	DCF Cost Rate (3)	8.82%	8.82%
3.	Return in Dollars (4)	\$ 6.968	\$ 3.416
4.	Dividends (5)	\$ 2.662	\$ 2.662
5.	Growth in Dollars (6)	\$ 4.306	\$ 0.754
6.	Return on Market Value (7)	8.82%	4.32%
7.	Rate of Growth on Market Value (8)	5.45%	0.95%

Notes:

- (1) Average of market prices for Ms. DeAngelo's proxy group
- (2) Average book value calculated by dividing total common equity at year-end 2021 by common shares outstanding at year-end 2021 for each proxy group company.
- (3) Recommended DCF cost rate for Ms. DeAngelo for Citizens' Electric Company of Lewisburg, PA.
- (4) Line 1 * Line 2.
- (5) Dividends are based on Ms. DeAngelo's reported dividend yields.
- (6) Line 3 - Line 4.
- (7) Line 3 / Line 1.
- (8) Line 5 / Line 1.

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Calculation of Indicated DCF Applied to Book Value Capital Structure
of Mr. Keller's Proxy Group

Un-lever Indicated Market Capital Structure DCF

Ku	=	Ke	-	((	Ku	-	i	)	1	-	t	)	D	/	E	)	-	(	Ku	-	d	)	P	/	E
Ku	=	9.70%	-	((	Ku	-	3.58%	)	1	-	21%	)	41.32%	/	56.95%	)	-	(	Ku	-	6.01%	)	1.73%	/	56.95%
Ku	=	9.70%	-	((	Ku	-	3.58%	)	79.00%	)	)	72.55%	)	-	(	Ku	-	6.01%	)	3.04%)				
Ku	=	9.70%	-	((	79.00%	*	Ku	-	2.8244%	)	)	72.55%	)	-	(	3.04%	*	Ku	-	0.18%)				
Ku	=	9.70%	-	(	57.32%	*	Ku	-	2.05%	)	)	-3.04%	*	Ku	+	0.18%									
Ku	=	9.70%	-	(	-57.32%	*	Ku	+	2.05%	)	)	-3.04%	*	Ku	+	0.18%									
Ku	=	11.93%	-	(	-60.36%	*	Ku)															
160.36%	*	Ku	=		11.93%																				
		Ku	=		7.44%																				

Re-lever to Indicated Book Value Capital Structure DCF

Ke	=	Ku	+	((	Ku	-	i	)	1	-	t	)	D	/	E	)	+	(	Ku	-	d	)	P	/	E
Ke	=	7.44%	+	((	7.44%	-	3.58%	)	1	-	21%	)	52.39%	/	45.30%	)	+	(	7.44%	-	6.01%	)	2.31%	/	45.30%
Ke	=	7.44%	+	((	3.87%	)	79%	)	115.65%	)	+	(	1.43%	)	5.09%										
Ke	=	7.44%	+	((	3.05%	)	115.65%	)	+	(	0.07%)													
Ke	=	7.44%	+	(	3.53%	)	+	0.07%																	
		Ke	=		11.05%																				

Where:

- Ku = Un-levered (i.e., 100% equity) cost of common equity
- Ke = Market determined cost of common equity
- i = Cost of debt
- t = Income tax rate
- D = Debt ratio
- E = Equity ratio
- d = Cost of preferred stock
- P = Preferred equity ratio

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
 Calculation of Indicated DCF Applied to Book Value Capital Structure
 of Mr. Spadaccio's Proxy Group

Un-lever Indicated Market Capital Structure DCF

Ku	=	Ke	-	((Ku	-	i)	1	-	t)	D	/	E)	-	(Ku	-	d)	P	/	E
Ku	=	8.98%	-	((Ku	-	3.85%)	1	-	21%)	42.64%	/	56.99%)	-	(Ku	-	4.61%)	0.37%	/	56.99%
Ku	=	8.98%	-	((Ku	-	3.85%)	79.00%))	74.82%)	-	(Ku	-	4.61%)	0.65%					
Ku	=	8.98%	-	((	79.00%	*	Ku	-	3.0443%	)	)	74.82%	)	-	(	0.65%	*	Ku	-	0.03%)				
Ku	=	8.98%	-	(	59.11%	*	Ku	-	2.28%	)	)	-0.65%	*	Ku	+	0.03%								
Ku	=	8.98%	-		-59.11%	*	Ku	+	2.28%	)	)	-0.65%	*	Ku	+	0.03%								
Ku	=	11.29%			-59.76%	*	Ku																		
159.76%	*	Ku	=		11.29%																				
		Ku	=		7.07%																				

Re-lever to Indicated Book Value Capital Structure DCF

Ke	=	Ku	+	((Ku	-	i)	1	-	t)	D	/	E)	+	(Ku	-	d)	P	/	E
Ke	=	7.07%	+	((7.07%	-	3.85%)	1	-	21%)	58.19%	/	41.24%)	+	(7.07%	-	4.61%)	0.57%	/	41.24%
Ke	=	7.07%	+	((	3.21%	)	79%	)	141.10%	)	+	(	2.45%	)	1.38%									
Ke	=	7.07%	+	((	2.54%	)	141.10%	)	+	(	0.03%)													
Ke	=	7.07%	+	(	3.58%	)	+	0.03%																
		Ke	=		10.68%																				

Where:

- Ku = Un-levered (i.e., 100% equity) cost of common equity
- Ke = Market determined cost of common equity
- i = Cost of debt
- t = Income tax rate
- D = Debt ratio
- E = Equity ratio
- d = Cost of preferred stock
- P = Preferred equity ratio

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
Calculation of Indicated DCF Applied to Book Value Capital Structure
of Ms. DeAngelo's Gas Proxy Group

Un-lever Indicated Market Capital Structure DCF

Ku =	Ke	- (((Ku	-	i)	1	-	t)	D	/	E)	-	(Ku	-	d)	P	/	E	
Ku =	9.50%	- (((Ku	-	3.58%)	1	-	21%)	44.30%	/	53.97%)	-	(Ku	-	6.01%)	1.73%	/	53.97%	
Ku =	9.50%	- (((Ku	-	3.58%)	79.00%)	82.08%)	-	(Ku	-	6.01%)	3.21%							
Ku =	9.50%	- ((79.00%	*	Ku	-	2.8286%)	82.08%)	-	(3.21%	*	Ku	-	0.19%)						
Ku =	9.50%	- (	64.85%	*	Ku	-	2.32%	)	-3.21%	*	Ku	+	0.19%									
Ku =	9.50%		-64.85%	*	Ku	+	2.32%		-3.21%	*	Ku	+	0.19%											
Ku =	12.01%		-68.05%	*	Ku																			
168.05%	*	Ku =	12.01%																					
		Ku =	7.15%																					

Re-lever to Indicated Book Value Capital Structure DCF

Ke =	Ku	+ (((	Ku	-	i	)	1	-	t	)	D	/	E	)	+	(	Ku	-	d	)	P	/	E
Ke =	7.15%	+ (((	7.15%	-	3.58%	)	1	-	21%	)	54.97%	/	42.73%	)	+	(	7.15%	-	6.01%	)	2.31%	/	42.73%
Ke =	7.15%	+ (((	3.57%	)	79%	)	128.66%	)	+	(	1.14%	)	5.40%										
Ke =	7.15%	+ ((	2.82%	)	128.66%	)	+	(	0.06%)													
Ke =	7.15%	+ (	3.63%	)	+	0.06%																	
		Ke =	10.84%																				

Where:

- Ku = Un-levered (i.e., 100% equity) cost of common equity
- Ke = Market determined cost of common equity
- i = Cost of debt
- t = Income tax rate
- D = Debt ratio
- E = Equity ratio
- d = Cost of preferred stock
- P = Preferred equity ratio

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
 Calculation of Indicated DCF Applied to Book Value Capital Structure
 of Ms. DeAngelo's Electric Proxy Group

Un-lever Indicated Market Capital Structure DCF

$$\begin{aligned}
 Ku &= Ke - (((Ku - i) 1 - t) D / E) - (Ku - d) P / E \\
 Ku &= 8.82\% - (((Ku - 3.75\%) 1 - 21\%) 42.52\% / 57.04\%) - (Ku - 5.13\%) 0.44\% / 57.04\% \\
 Ku &= 8.82\% - (((Ku - 3.75\%) 79.00\%) 74.54\%) - (Ku - 5.13\%) 0.77\% \\
 Ku &= 8.82\% - ((79.00\% * Ku - 2.9588\%) 74.54\%) - (0.77\% * Ku - 0.04\%) \\
 Ku &= 8.82\% - (58.89\% * Ku - 2.21\%) -0.77\% * Ku + 0.04\% \\
 Ku &= 8.82\% -58.89\% * Ku + 2.21\% -0.77\% * Ku + 0.04\% \\
 Ku &= 11.07\% -59.66\% * Ku \\
 159.66\% * Ku &= 11.07\% \\
 Ku &= 6.93\%
 \end{aligned}$$

Re-lever to Indicated Book Value Capital Structure DCF

$$\begin{aligned}
 Ke &= Ku + (((Ku - i) 1 - t) D / E) + (Ku - d) P / E \\
 Ke &= 6.93\% + (((Ku - 3.75\%) 1 - 21\%) 56.38\% / 43.01\%) + (6.93\% - 5.13\%) 0.61\% / 43.01\% \\
 Ke &= 6.93\% + (((Ku - 3.19\%) 79\%) 131.09\%) + (1.80\%) 1.42\% \\
 Ke &= 6.93\% + ((2.52\%) 131.09\%) + (0.03\%) \\
 Ke &= 6.93\% + (3.30\%) + 0.03\% \\
 Ke &= 10.25\%
 \end{aligned}$$

Where:

- Ku = Un-levered (i.e., 100% equity) cost of common equity
- Ke = Market determined cost of common equity
- i = Cost of debt
- t = Income tax rate
- D = Debt ratio
- E = Equity ratio
- d = Cost of preferred stock
- P = Preferred equity ratio

Valley Energy, Inc. / Citizens' Electric
Company of Lewisburg, PA
I&E Corrected CAPM

Risk-Free Rate	
<u>Treasury note 30-yr Note</u>	<u>Yield</u>
3Q 2022	3.10
4Q 2022	3.20
1Q 2023	3.40
2Q 2023	3.50
3Q 2023	3.50
2023-2027	3.40
2028-2032	3.80
Average	<u><u>3.41</u></u>

Source:

Blue Chip

December 1, 2021 and April 29, 2022

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
I&E Corrected CAPM

Required Rate of Return on Market as a Whole Forecasted (Keller)

	<u>Dividend</u> <u>Yield</u>	+	<u>Growth</u> <u>Rate</u>	=	<u>Expected</u> <u>Market</u> <u>Return</u>
Value Line Estimate	2.10%		14.19%	(a)	16.29%
S&P 500	1.63%	(b)	13.70%		15.33%
Average Expected Market Return				=	<u>15.81%</u>

(a) $((1+70\%)^{.25}) - 1$ Value Line forecast for the 3 to 5 year index appreciation is 70%

(b) S&P 500 multiplied by half the growth rate

(b) $1.53\% * ((1+13.70\%/2)) = 1.63\%$

Sources:

S&P 500 Growth Rate (Morningstar)	5/19/2022	13.70%
S&P 500 Dividend Yield (Barrons)	5/13/2022	1.53%
Value Line Dividend Yield	5/20/2022	2.10%
Value Line Appreciation Yield	5/20/2022	70%

Required Rate of Return on Market as a Whole Forecasted (Spadaccio)

	<u>Dividend</u> <u>Yield</u>	+	<u>Growth</u> <u>Rate</u>	=	<u>Expected</u> <u>Market</u> <u>Return</u>
Value Line Estimate	2.00%		12.47%	(a)	14.47%
S&P 500	1.59%	(b)	13.70%		15.29%
Average Expected Market Return				=	<u>14.88%</u>

(a) Value Line forecast for the 3 to 5 year index appreciation is 60% $((1+60\%)^{.25}) - 1$

(b) S&P 500 dividend yield multiplied by half the S&P 500 growth rate

$1.49\% * ((1+13.70\%/2)) = 1.59\%$

Sources:

S&P 500 Growth Rate (Morningstar)	5/10/2022	13.70%
S&P 500 Dividend Yield (Barrons)	5/6/2022	1.49%
Value Line Dividend Yield	5/13/2022	2.00%
Value Line Appreciation Yield	5/13/2022	60.00%

Valley Energy, Inc. / Citizens' Electric Company of
Lewisburg, PA
I&E Corrected CAPM

<u>Company (Keller)</u>	<u>Beta</u>
Atmos Energy Corp.	0.80
Chesapeake Utilities Corp.	0.80
NiSource Inc.	0.85
Northwest Natural Holding Co.	0.80
ONE Gas, Inc.	0.80
Spire Inc.	0.85
Average beta for CAPM	<u>0.82</u>

Source:

Value Line
February 25, 2022

<u>Company (Spadaccio)</u>	<u>Beta</u>
Ameren Corp.	0.80
American Electric Power Company Inc.	0.75
CMS Energy Corp.	0.80
Consolidated Edison Inc.	0.75
Dominion Energy	0.80
Duke Energy Corp.	0.85
Entergy Corp.	0.95
Eversource Energy	0.90
FirstEnergy Corp.	0.80
IDACORP Inc.	0.80
Portland General Electric Company	0.85
Public Service Enterprise Group Inc.	0.90
Xcel Energy Inc.	0.80
Average beta for CAPM	<u>0.83</u>

Source:

Value Line
3/11/22 - 4/22/22 - 5/13/22

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
I&E Corrected CAPM

CAPM with Forecasted Return (Keller)

Re Required return on individual equity security
Rf Risk-free rate
Rm Required return on the market as a whole
Be Beta on individual equity security

Re (CAPM) = $Rf + Be(Rm - Rf)$
Re (ECAPM) = $Rf + Be(Rm - Rf) \times 0.75 + (Rm - Rf) \times 0.25$

Rf =	3.41
Rm =	15.81
Be =	0.82
Re (CAPM) =	<u><u>13.58</u></u>
Re (ECAPM) =	<u><u>14.14</u></u>
Average	<u><u>13.86</u></u>

Sources: Value Line February 25, 2022
 Blue Chip December 1, 2021 and April 29, 2022

CAPM with Forecasted Return (Spadaccio)

Re Required return on individual equity security
Rf Risk-free rate
Rm Required return on the market as a whole
Be Beta on individual equity security

Re (CAPM) = $Rf + Be(Rm - Rf)$
Re (ECAPM) = $Rf + Be(Rm - Rf) \times 0.75 + (Rm - Rf) \times 0.25$

Rf =	3.41
Rm =	14.88
Be =	0.83
Re (CAPM) =	<u><u>12.93</u></u>
Re (ECAPM) =	<u><u>13.42</u></u>
Average	<u><u>13.17</u></u>

Sources: Value Line 3/11/22 - 4/22/22 - 5/13/22
 Blue Chip December 1, 2021 and April 29, 2022

FINANCIAL **Q**UARTERLY

R · E · V · I · E · W

Comparable Earnings: New Life for an Old Precept

by
Frank J. Hanley
Pauline M. Ahern

Comparable Earnings: New Life for an Old Precept

Accelerating deregulation has greatly increased the investment risk of natural gas utilities. As a result, the authors believe it more appropriate than ever to employ the comparable earnings model. We believe our application of the model overcomes the greatest traditional objection to it — lack of comparability of the selected non-utility proxy firms. Our illustration focuses on a target gas pipeline company with a beta of 0.96 — almost equal to the market's beta of 1.00.



Introduction

The comparable earnings model used to determine a common equity cost rate is deeply rooted in the standard of “corresponding risk” enunciated in the landmark *Bluefield* and *Hope* decisions of the U.S. Supreme Court.¹ With such solid grounding in the foundations of rate of return regulation, comparable earnings should be accepted as a principal model, along with the currently popular market-based models, provided that its most common criticism, non-comparability of the proxy companies, is overcome.

Our comparable earnings model overcomes the non-comparability issue of the non-utility firms selected as a proxy for the target utility, in this example, a gas pipeline company. We should note that in the absence of common stock prices for the target utility (as with a wholly-owned subsidiary), it is appropriate to use the average of a proxy group of similar risk gas pipeline companies whose common stocks are actively traded. As we will demonstrate, our selection process results in a group of domestic, non-utility firms that is comparable in total risk, the sum of business and financial risk, which reflects both non-diversifiable systematic, or market, risk as well as diversifiable unsystematic, or firm-specific, risk.

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Embedded in the Landmark Decisions

As stated in *Bluefield* in 1922: “A public utility is entitled to such rates as will permit it to earn a return ... on investments in other business undertakings which are attended by corresponding risks and uncertainties ...”

In addition, the court stated in *Hope* in 1944: “By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks.”

Thus, the “corresponding risk” pre-

cept of *Bluefield* and *Hope* predates the use of such market-based cost-of-equity models as the Discounted Cash Flow (DCF) and Capital Asset Pricing (CAPM), which were developed later and are currently popular in rate-base/rate-of-return regulation. Consequently, the comparable earnings model has a longer regulatory and judicial history. However, it has far greater relevance now than ever before in its history because significant deregulation has substantially increased natural gas utilities’ investment risk to a level similar to that of non-utility firms. As a result, it is

Comparable Earnings from page 4

more important than ever to look to similar-risk non-utility firms for insight into common equity cost rate, especially in view of the deficiencies inherent in the currently popular market-based cost of common equity models, particularly the DCF model.

Despite the fact that the landmark decisions are still regarded as having set the standards for determining a fair rate of return, the comparable earnings model has experienced decreased usage by expert witnesses, as well as less regulatory acceptance over the years. We believe the decline in the popularity of the comparable earnings model, in large measure, is attributable to the difficulty of selecting non-utility proxy firms that regulators will accept as comparable to the target utility. Regulatory acceptance is difficult to gain when the selection process is arbitrary. Our application of the model is objective and consistent with fundamental financial tenets.

Principles of Comparable Earnings

Regulation is a substitute for the competition of the marketplace. Moreover, regulated public utilities compete in the capital markets with all firms, including unregulated non-utilities. The comparable earnings model is based upon the opportunity cost principle; i.e., that the true cost of an investment is the return that could have been earned on the next best available alternative investment of similar risk. Consequently, the comparable earnings model is consistent with regulatory and financial principles, as it is a surrogate for the competition of the marketplace, and investors seek the greatest available rate of return for bearing similar risk.

The selection of comparable firms is the most difficult step in applying the comparable earnings model, as noted by Phillips² as well as by Bonbright, Danielsen and Kamerschen.³ The selection of non-utility proxy firms should result in a sufficiently broad-based group in order to minimize the effect of company-specific aberrations. How-

ever, if the selection process is arbitrary, it likely would result in a proxy group that is too broad-based, such as the Standard & Poor's 500 Composite Index or the Value Line Industrial Composite. The use of such groups would require subjective adjustments to the comparable earnings results to reflect risk differences between the group(s) and the target utility, a gas pipeline company in this example.

Authors' Selection Criteria

We base the selection of comparable non-utility firms on market-based, objective, quantitative measures of risk resulting from market prices that subsume investors' assessments of all elements of risk. Thus, our approach is based upon the principle of risk and return; namely, that firms of comparable risk should be expected to earn comparable returns. It is also consistent with the "corresponding risk" standard established in *Bluefield* and *Hope*. We measure total investment risk as the sum of non-diversifiable systematic and diversifiable unsystematic risk. We use the unadjusted beta as a measure of systematic risk and the standard error of the estimate (residual standard error) as a measure of unsystematic risk. Both the unadjusted beta and the residual standard error are derived from a regression of the target utility's security returns relative to the market's returns, which takes the general form:

$$r_{it} = a_i + b_i r_{mt} + e_{it}$$

where:

r_{it} = t th observation of the i th utility's rate of return

r_{mt} = t th observation of the market's rate of return

e_{it} = t th random error term

a_i = constant least-squares regression coefficient

b_i = least-squares regression slope coefficient, the unadjusted beta.

As shown by Francis,⁴ the total variation or risk of a firm's return, $\text{Var}(r_i)$, comes from two sources:

$$\text{Var}(r_i) = \text{total risk of } i\text{th asset}$$

$$\begin{aligned} &= \text{var}(a_i + b_i r_m + e) \\ &\quad \text{substituting } (a_i + b_i r_m + e) \\ &\quad \text{for } r_i \\ &= \text{var}(b_i r_m) + \text{var}(e) \text{ since} \\ &\quad \text{var}(a_i) = 0 \\ &= b_i^2 \text{var}(r_m) + \text{var}(e) \\ &\quad \text{since } \text{var}(b_i r_m) = b_i^2 \\ &\quad \text{var}(r_m) \\ &= \text{systematic} + \\ &\quad \text{unsystematic risk} \end{aligned}$$

Francis⁵ also notes: "The term $\sigma^2(r_i|r_m)$ is called the *residual variance around the regression line* in statistical terms or *unsystematic risk* in capital market theory language. $\sigma^2(r_i|r_m) = \dots = \text{var}(e)$. The residual variance is the squared standard error in regression language, a measure of unsystematic risk." Application of these criteria results in a group of non-utility firms whose average total investment risk is indeed comparable to that of the target gas pipeline.

As a measure of systematic risk, we use the Value Line unadjusted beta. Beta measures the extent to which market-wide or macro-economic events affect a firm's stock price. We use the unadjusted beta of the target utility as a starting point because it results from the regression of the target utility's security returns relative to the market's returns. Thus, the resulting standard deviation of beta relates to the unadjusted beta. We use the standard deviation of the unadjusted beta to determine the range around it as the selection criterion based on systematic risk.

We use the residual standard error of the regression as a measure of unsystematic risk. The residual standard error reflects the extent to which events specific to the firm's operations affect a firm's stock price. Thus, it is a measure of diversifiable, unsystematic, firm-specific risk.

An Illustration of Authors' Approach

Step One: We begin our approach by establishing the selection criteria as a range of both unadjusted beta and residual standard error of the target gas
continued on page 6

Comparable Earnings *from page 5*

pipeline company.

As shown in table 1, our target gas pipeline company has a Value Line unadjusted beta of 0.90, whose standard deviation is 0.1250. The selection criterion range of unadjusted beta is the unadjusted beta plus (+) and minus (-) three of its standard deviations. By using three standard deviations, 99.73 percent of the comparable unadjusted betas is captured.

Three standard deviations of the target utility's unadjusted beta equals 0.38 ($0.1250 \times 3 = 0.3750$, rounded to 0.38). Consequently, the range of unadjusted betas to be used as a selection criteria is $0.52 - 1.28$ ($0.52 = 0.90 - 0.38$) and $(1.28 = 0.90 + 0.38)$.

Likewise, the selection criterion range of residual standard error equals the residual standard error plus (+) and

minus (-) three of its standard deviations. The standard deviation of the residual standard error is defined as: $\sigma/\sqrt{2N}$.

As also shown in table 1, the target gas pipeline company has a residual standard error of 3.7867. According to the above formula, the standard deviation of the residual standard error would be 0.1664 ($0.1664 = 3.7867/\sqrt{2(259)} = 3.7867/22.7596$, where $259 = N$, the number of weekly price change observations over a period of five years). Three standard deviations of the target utility's residual standard error would be 0.4992 ($0.1664 \times 3 = .4992$). Consequently, the range of residual standard errors to be used as a selection criterion is $3.2875 - 4.2859$ ($3.2875 = 3.7867 - 0.4992$) and $(4.2859 = 3.7867 + 0.4992)$.

Step Two: The step one criteria are applied to Value Line's data base of nearly 4,000 firms for which Value Line derives unadjusted betas and residual standard errors on a weekly basis. All firms with unadjusted betas and residual standard errors within the criteria ranges are then selected.

Step Three: In the regulatory ratemaking environment, authorized common equity return rates are applied to a book-value rate base. Thus, the earnings rates on book common equity, or net worth, of competitive, non-utility firms are highly relevant provided those firms are indeed comparable in total risk to the target gas pipeline. The use of the return rates of other utilities has no relevance because their allowed, and hence subsequently achieved, earnings rates are dependent upon the regulatory

table 1

Summary of the Comparable Earnings Analysis for the Proxy Group of 248 Non-Utility Companies Comparable in Total Risk to the Target Gas Pipeline Company¹

	1	2	3	4	5	6	7	8
	adj. beta	unadj. beta	residual standard error	rate of return on net worth				
				3-year average ²	4-year average ²	5-year average ²	5-year projected ³	
average for the proxy group of 248 non-utility companies comparable in total risk to the target gas pipeline company	0.97	0.92	3.7705					
target gas pipeline company	0.96	0.90 ⁴	3.7867					
median				11.7%	12.0%	12.6%	15.5%	
average of the median historical returns					12.1%			
conclusion ⁵								13.8%

¹ The criteria for selection of the non-utility group was that the non-utility companies be domestic and included in *Value Line Investment Survey*. The non-utility group was selected based on an unadjusted beta range of 0.52 to 1.28 and a residual standard error range of 3.2875 to 4.2859.

² Ending 1992.

³ 1996-1998/1997-1999.

⁴ The average standard deviation of the target gas pipeline company's unadjusted beta is 0.1250.

⁵ Equal weight given to both the average of the 3-, 4- and 5-year historical medians (12.1%) and 5-year projected median rate of return on net worth (15.5%). Thus, $13.8\% = (12.1\% + 15.5\% / 2)$.

Source: Value Line Inc., March 15, 1994
Value Line Investment Survey

Comparable Earnings *from page 6*

process. Consequently, we believe all utilities must be eliminated to avoid circularity. Moreover, we believe non-domestic firms must be eliminated because their reporting methods differ significantly from U.S. firms.

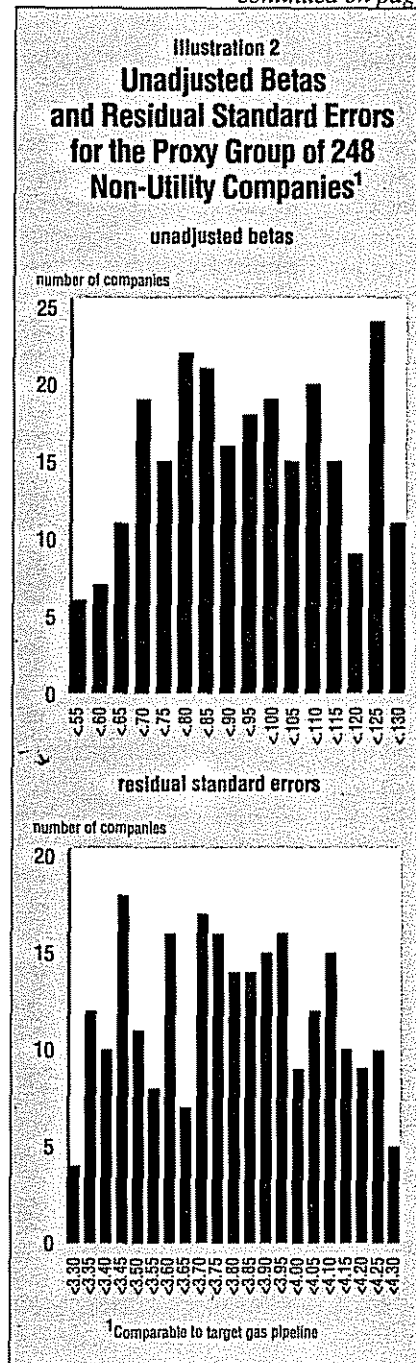
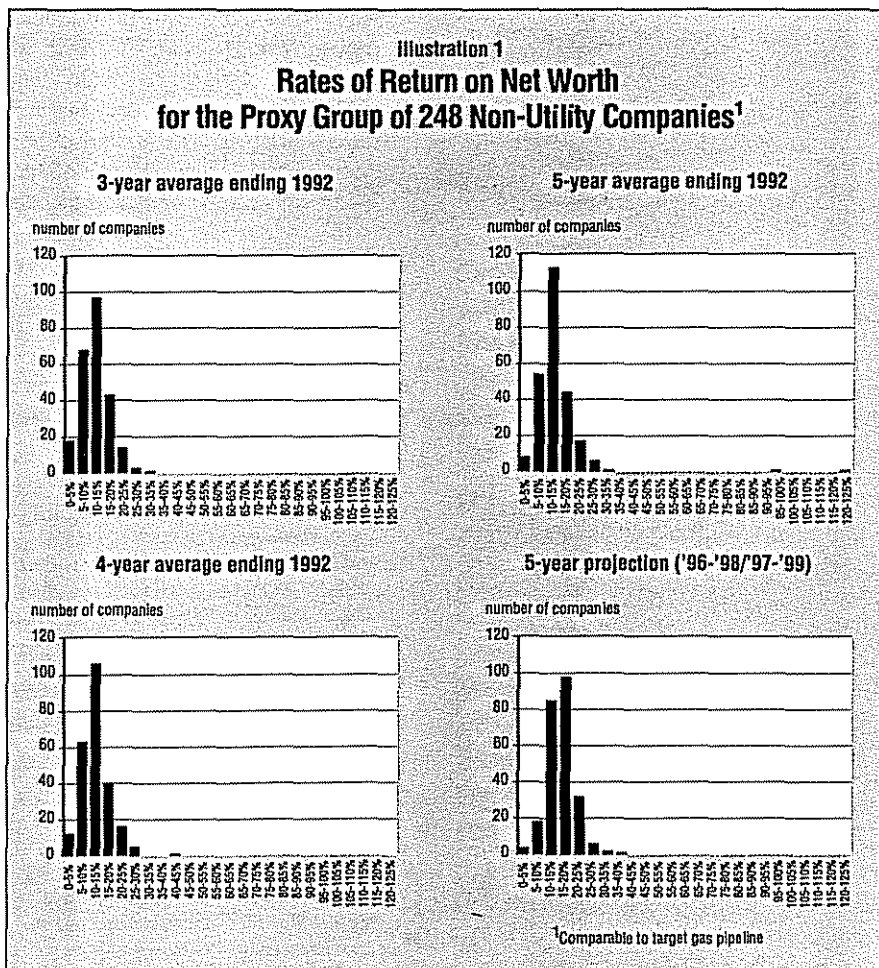
Step Four: We then eliminated those firms for which Value Line does not publish a "Ratings & Report" in *Value Line Investment Survey* so that the historical and projected returns on net worth⁶ are from a consistent source. We use historical returns on net worth for the most recent five years, as well as those projected three to five years into the future. We believe it is logical to evaluate both historical and projected return rates because it is reasonable to assume that investors avail themselves of both when they are available from widely disseminated information ser-

VICES, such as Value Line Inc. The use of Value Line's return rates on net worth understates the common equity return rates for two reasons. First, preferred stock is included in net worth. Second, the net worth return rates are as of the end of each period. Thus, the use of average common equity return rates would yield higher results.

Step Five: Median returns based on the historical average three, four and five years ending 1992 and projected 1996-1998 or 1997-1999 rates of return on net worth are then determined as shown in columns 4 through 7 of table 1. The median is used due to the wide variations and skewness in rates of return on net worth for the non-utility firms as evidenced by the frequency distributions of those returns as shown in illustration 1.

However, we show the average unadjusted beta, 0.92, and residual standard error, 3.7705, for the proxy group in columns 2 and 3 of table 1 because their frequency distributions are not significantly skewed, as shown in illustration 2.

Step Six: Our conclusion of a com-
continued on page 8



Comparable Earnings *from page 7*

comparable earnings cost rate is based upon the mid-point of the average of the median three-, four- and five-year historical rates of return on net worth of 12.1 percent as shown in column 5 and the median projected 1996-1998/1997-1999 rate of return on net worth of 15.5 percent as shown in column 7 of table 1. As shown in column 8, it is 13.8 percent.

Summary

Our comparable earnings approach demonstrates that it is possible to select a proxy group of non-utility firms that is comparable in total risk to a target utility. In our example, the 13.8 percent comparable earnings cost rate is very conservative as it is an expected achieved rate on book common equity (a regulatory allowed rate should be

greater) and because it is based on end-of-period net worth. A similar rate on average net worth would be about 20 to 40 basis points higher (i.e., 14.0 to 14.2 percent) and still understate the appropriate regulatory allowed rate of return on book common equity.

Our selection criteria are based upon measures of systematic and unsystematic risk, specifically unadjusted beta and residual standard error. They provide the basis for the objective selection of comparable non-utility firms. Our selection criteria rely on changes in market prices over approximately five years. We compare the aggregate total risk, or the sum of systematic and unsystematic risk, which reflects investors' aggregate assessment of both business and financial risk. Thus, no adjustments are necessary to the proxy group results to

compensate for the differences in business risk and financial risk, such as accounting practices and debt/equity ratios. Moreover, it is inappropriate to attempt a comparison of the target utility with any individual firm, or subset of firms, in the proxy group because only the average firm of the group is relevant.

Because the comparable earnings model is firmly anchored in the "corresponding risk" precept established in the landmark court decisions, it is worthy of consideration as a principal model for use in estimating the cost rate of common equity capital of a regulated utility. Our approach to the comparable earnings model produces a proxy group that is indeed comparable in total risk because the selection process is objective and quantitative. It therefore overcomes criticism linked to arbitrary selection processes.

All cost-of-common-equity models, including the DCF and CAPM, are fraught with deficiencies, usually stemming from the many necessary but unrealistic assumptions that underlie them. The effects of the deficiencies of individual models can be mitigated by using more than one model when estimating a utility's common equity cost rate. Therefore, when the non-comparability issue is overcome, the comparable earnings model deserves to receive the same consideration as a primary model, as do the currently popular market-based models. ■

Report Lists Pipeline, Storage Projects

More than \$9 billion worth of projects to expand the nation's natural gas pipeline network are in various stages of development, according to an A.G.A. report. These projects involve nearly 8,000 miles of new pipelines and capacity additions to existing lines and represent 15.3 billion cubic feet (Bcf) per day of new pipeline capacity.

During 1993 and early 1994, construction on 3,100 miles of pipeline was completed or under way, at a cost of nearly \$4 billion, says A.G.A. These projects are adding 5.4 Bcf in daily delivery capacity nationwide.

Among the projects completed in 1993 were Pacific Gas Transmission Co.'s 805 miles of looping that allows increased deliveries of Canadian gas to the West Coast; Northwest Pipeline Corp.'s addition of 433 million cubic feet of daily capacity for customers in the Pacific Northwest and Rocky Mountain areas; and the 156-mile Empire State Pipeline in New York.

In addition, major construction projects were started on the systems of Texas Eastern Transmission Corp. and Algonquin Gas Transmission Co. — both subsidiaries of Panhandle Eastern Corp. — and along Florida Gas Transmission Co.'s pipeline.

The report goes on to discuss another \$5 billion in proposed projects, which, if completed, will add nearly 5,000 miles of pipeline and 9.8 Bcf per day in capacity, much of it serving Florida and West Coast markets.

A.G.A. also identifies 47 storage projects and says that if all of them are built, existing storage capacity will increase by more than 500 Bcf, or 15 percent.

For a copy of *New Pipeline Construction: Status Report 1993-94* (#F00103), call A.G.A. at (703) 841-8490. Price per copy is \$6 for employees of member companies and associates and \$12 for other customers.

¹Bluefield Water Works Improvement Co. v. Public Service Commission. 262 U.S. 679 (1922) and Federal Power Commission v. Hope Natural Gas Co. 320 U.S. 519 (1944).


²Charles F. Phillips Jr., *The Regulation of Public Utilities: Theory and Practice*, Public Utilities Reports Inc. 1988, p. 379

³James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, *Principles of Public Utilities Rates*, 2nd edition, Public Utilities Reports Inc. 1988, p. 329

⁴Jack Clark Francis, *Investments: Analysis and Management*, 3rd edition, McGraw-Hill Book Co., 1980, p. 363

⁵Id., p. 548.

⁶Returns on net worth must be used when relying on Value Line data because returns on book common equity for non-utility firms are not available from Value Line



Investments:
Analysis and
Management

Fifth Edition

Jack Clark Francis

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Investments: Analysis and Management

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Beta Measurements The beta coefficient is an *index of systematic risk*. Beta coefficients may be used for ranking the systematic risk of different assets. If the beta is larger than 1, $b > 1.0$, then the asset is more volatile than the market and is called an **aggressive asset**. If the beta is less than 1, $b < 1.0$, the asset is a **defensive asset**; its price fluctuations are less volatile than the market's. Figure 10-1 illustrates the characteristic lines for three different assets that have low, medium, and high levels of beta (or undiversifiable risk).

Figure 10-2 shows that IBM is a stock with an average amount of systematic risk. IBM's beta of 1.02 indicates that its return tends to increase 2 percent more than the return on the market average when the market is rising. When the market falls, IBM's return tends to fall 2 percent more than the market's. The characteristic line for IBM has an above average correlation coefficient of $\rho = .7495$, indicating that the returns on this security follow its particular characteristic line slightly more closely than those of the average stock.

Partitioning Risk

Total risk can be measured by the variance of returns, denoted $\text{Var}(r)$. This measure of *total risk is partitioned into its systematic and unsystematic components in Equation (10-8).*⁷

$$\begin{aligned} \text{Var}(r_i) &= \text{total risk of } i\text{th asset} \\ &= \text{Var}(a_i + b_i r_{m,t} + e_{i,t}) \\ &\quad \text{by substituting } (a_i + b_i r_{m,t} + e_{i,t}) \text{ for } r_{i,t} \\ &= 0 + \text{Var}(b_i r_{m,t}) + \text{Var}(e_{i,t}) \\ &\quad \text{since } \text{Var}(a_i) = 0 \end{aligned} \tag{10-8}$$

$$\begin{aligned} \text{Var}(r_i) &= b_i^2 \text{Var}(r_m) + \text{Var}(e) \quad \text{since } \text{Var}(b_i r_m) = b_i^2 \text{Var}(r_m) \\ &= \text{systematic} + \text{unsystematic risk} \end{aligned} \tag{10-8a}$$

$$.01389 = .00780 + .00609 \quad \text{for IBM}$$

The unsystematic risk measure $\text{Var}(e)$ is called in regression language the *residual variance* or, synonymously, the *standard error squared*.

Undiversifiable Proportion The percentage of total risk that is systematic can be measured by the coefficient of determination ρ^2 (that is, the characteristic line's squared correlation coefficient).

⁷In this context, **partition** is a technical statistical term that means to divide the total variance into *mutually exclusive* and *exhaustive* pieces. This partition is only possible if the returns from the market are statistically independent from the residual error terms that occur simultaneously, $\text{Cov}(r_{m,t}, e_{i,t}) = 0$. The mathematics of regression analysis will orthogonalize the residuals and thus ensure that the needed statistical independence exists.

$$\frac{\text{Systematic risk}}{\text{Total risk}} = \frac{b_i^2 \text{Var}(r_m)}{\text{Var}(r_i)} = \rho^2 \quad (10-9)$$

$$\frac{.007802}{.01389} = \frac{(1.021)^2 (.00749)}{.00749} = .5617 \times 100 = 56.17\% \quad \text{for IBM}$$

Diversifiable Proportion The percentage of unsystematic risk equals $(1.0 - \rho^2)$.

$$\frac{\text{Unsystematic risk}}{\text{Total risk}} = \frac{\text{Var}(e)}{\text{Var}(r_i)} = (1.0 - \rho^2)$$

$$\frac{.00609}{.01389} = (1.0 - .5617) = .438 \times 100 \quad (10-10)$$

$$= 43.8\% \text{ unsystematic} \quad \text{for IBM}$$

Studies of the characteristic lines of hundreds of stocks listed on the NYSE indicate that the average correlation coefficient is approximately $\rho = .5$.⁸ This means that about $\rho^2 = 25$ percent of the total variability of return in most NYSE securities is explained by movements in the market.

	NYSE average	IBM
Systematic risk: ρ^2	.25	.5617
Unsystematic risk: $(1.0 - \rho^2)$	.75	.4383
Total risk: 100%	1.00	1.0000

As explained above, systematic changes are common to all stocks and are therefore undiversifiable.

A primary use of the characteristic line (or *market model*, or the *single-index model*, as it is also called) is to assess the risk characteristics of one asset.⁹ The statistics in Table 10-2, for instance, indicate that IBM's common stock is slightly more risky than the average common stock in terms of total risk and

⁸The average ρ was found to be about .5, as reported in Marshall Blume, "On the Assessment of Risk," *Journal of Finance*, March 1971, p. 4. For similar estimates, see J. C. Francis, "Statistical Analysis of Risk Surrogates for NYSE Stocks," *Journal of Financial and Quantitative Analysis*, Dec. 1979.

⁹Professor Jensen reformulated the characteristic line in a risk-premium form. See M. C. Jensen, "The Performance of Mutual Funds in the Period 1945 through 1964," *Journal of Finance*, May 1968, pp. 389-416. See also M. C. Jensen, "Risk, the Pricing of Capital Assets, and the Evaluation of Investment Portfolios," *Journal of Business*, vol. XLII, 1969. Jensen interprets the alpha intercept term of the characteristic line, as he formulates it, as an investment performance measure. It has been suggested that Jensen's performance measure is biased. See Keith V. Smith and Dennis A. Tito, "Risk-Return Measures of Ex-Post Portfolio Performance," *Journal of Financial and Quantitative Analysis*, Dec. 1969, vol. IV, no. 4, p. 466.

systematic risk.¹⁰ New risk measurements must be made periodically, however, because the risk and return of an asset may change with the passage of time.¹¹

10-3 CAPITAL ASSET PRICING MODEL (CAPM)

An old axiom states “there is no such thing as a free lunch.” This means that you cannot expect to get something for nothing—a rule that certainly applies to investment returns. Investors who want to earn high average rates of return must take high risks and endure the associated loss of sleep, the possibility of ulcers, and the chance of bankruptcy. The question to which we now turn is: Should investors worry about total risk, undiversifiable risk, diversifiable risk, or all three?

In Chapter 1 it was suggested that *investors should seek investments that have the maximum expected return in their risk class*. Their happiness from investing is presumed to be derived as indicated in the expected utility $E(U)$ function below.

$$E(U) = f[E(r), \sigma]$$

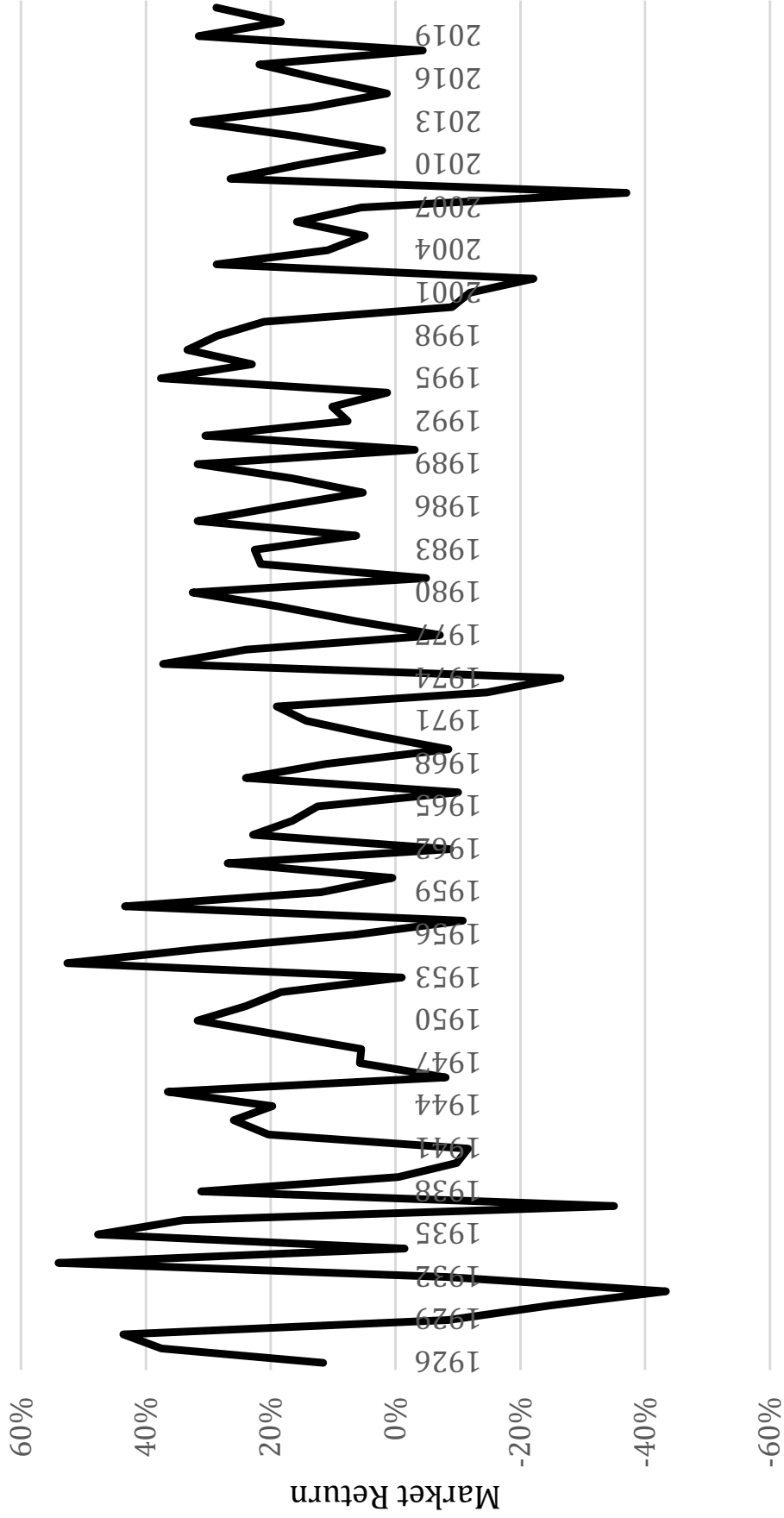
The investment preferences of wealth-seeking risk-averse investors represented by the function above cause them to maximize their expected utility (or, equivalently, happiness) by (1) maximizing their expected return in any given risk class, $\partial E(U)/\partial E(r) > 0$, or, conversely, (2) minimizing their total risk at any given rate of expected return, $\partial E(U)/\partial \sigma < 0$. However, in selecting individual assets, investors will not be particularly concerned with the asset’s total risk σ . Figure 9-1 showed that the unsystematic portion of total risk can be easily diversified by holding a portfolio of different securities. But, systematic risk affects all stocks in the market because it is undiversifiable. Portfolio theory therefore suggests that only the undiversifiable (or systematic) risk is worth avoiding.¹²

¹⁰Statements about the relative degree of total risk are made in the context of a long-run horizon—that is, over at least one *complete business cycle*. Obviously, an accurate short-run forecast which says that some particular company will go bankrupt next quarter makes it more risky than IBM, although IBM may have had more historical variability of return.

¹¹Empirical studies documenting the intertemporal instability of betas have been published. Marshall Blume, “Betas and Their Regression Tendencies,” *Journal of Finance*, June 1975, pp. 785–795. See also J. C. Francis, “Statistical Analysis of Risk Coefficients for NYSE Stocks,” *Journal of Financial and Quantitative Analysis*, Dec. 1979, vol. XIV, no. 5, pp. 981–997. An appendix at the end of this chapter reviews some evidence about shifting betas, standard deviations, and correlations.

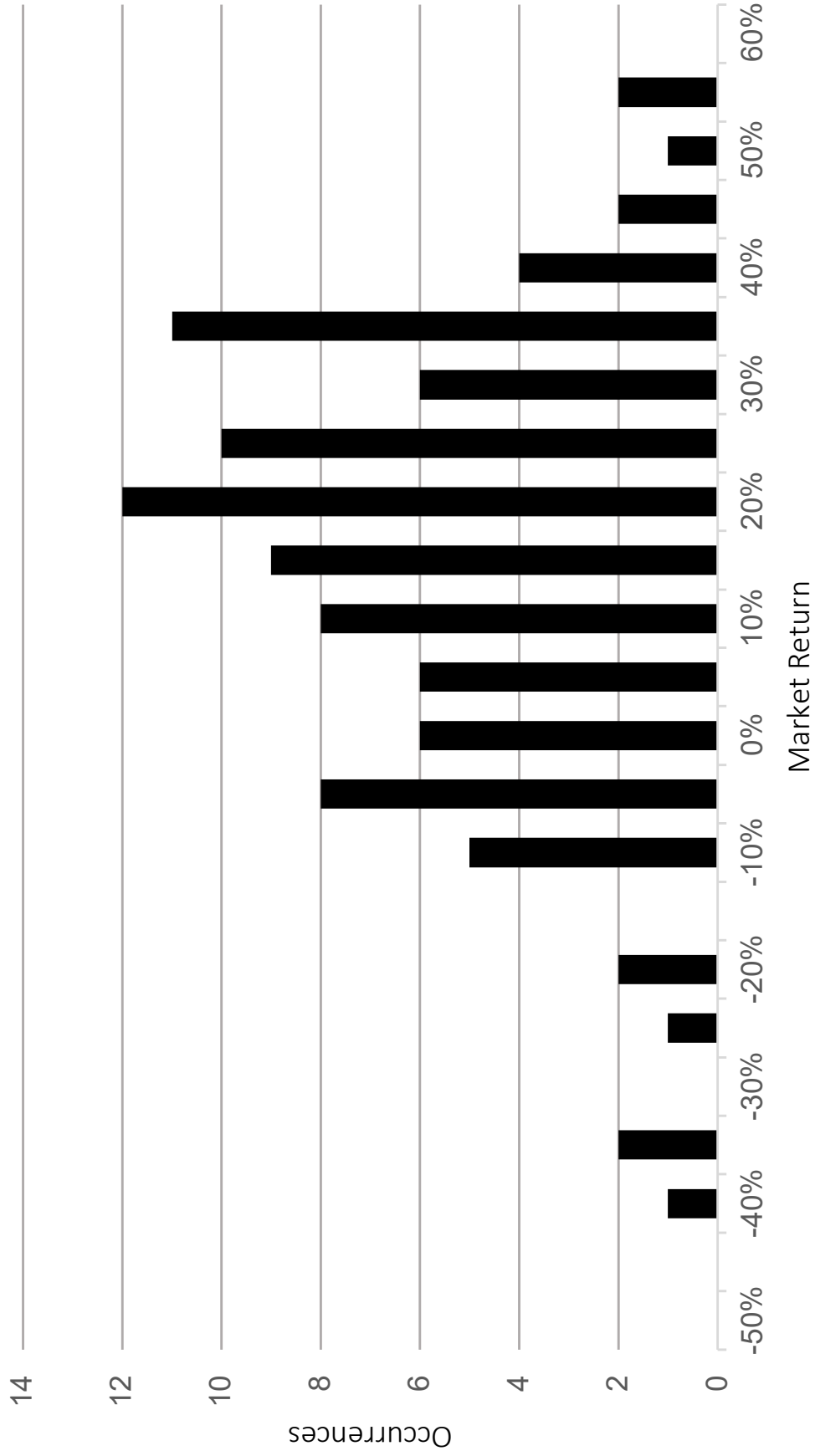
¹²Both the systematic and unsystematic portions of total risk must be considered by **undiversified investors**. Entrepreneurs who have their entire net worth invested in one business, for example, can be bankrupted by a piece of bad luck that could be easily averaged away to zero in a diversified portfolio. Poorly diversified investors should not treat diversifiable risk lightly. Only well-diversified investors can afford to ignore diversifiable risk.

U.S. Large Company Stock Returns 1926 - 2021



Source: Kroll, SBI 2022 Yearbook: Stocks, Bonds, Bills, and Inflation 1926 - 2021, Appendix A

Histogram of U.S. Large Company Stock Returns 1926 - 2021



Source: Kroll, SBBI 2022 Yearbook: Stocks, Bonds, Bills, and Inflation 1926 - 2021,
Appendix A

Valley Energy, Inc. / Citizens' Electric
Company of Lewisburg, PA
OCA Corrected CAPM

Risk-Free Rate	
<u>Treasury 30-yr Note (1)</u>	<u>Yield</u>
3Q 2022	3.50
4Q 2022	3.60
1Q 2023	3.70
2Q 2023	3.80
3Q 2023	3.80
4Q 2023	3.80
2024-2028	3.80
2029-2033	3.90
Average	<u><u>3.74</u></u>

Notes:

(1) Page 2 and 3 of this Schedule.

Source:

Blue Chip Financial Forecasts
June 1, 2022 and July 1, 2022

Consensus Forecasts of U.S. Interest Rates and Key Assumptions

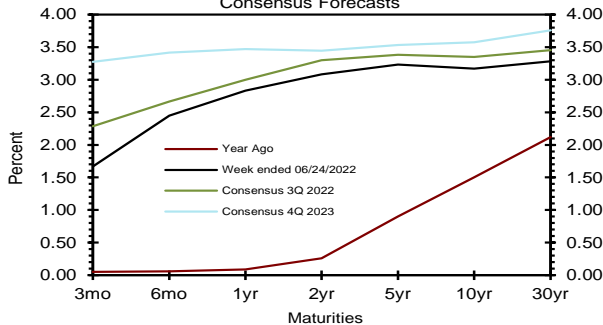
Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month				Latest Qtr	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023
	Jun 24	Jun 17	Jun 10	Jun 3	May	Apr	Mar	2Q 2022*	2022	2022	2023	2023	2023	2023
Federal Funds Rate	1.58	0.83	0.83	0.83	0.77	0.33	0.20	0.73	2.4	3.1	3.5	3.5	3.5	3.4
Prime Rate	4.75	4.00	4.00	4.00	3.94	3.50	3.37	3.90	5.4	6.2	6.6	6.7	6.6	6.5
SOFR	1.45	1.00	0.76	0.79	0.72	0.29	0.16	0.69	2.1	2.9	3.4	3.5	3.4	3.3
Commercial Paper, 1-mo.	1.60	1.40	1.00	0.87	0.80	0.44	0.32	0.80	2.2	3.0	3.4	3.4	3.4	3.3
Treasury bill, 3-mo.	1.67	1.70	1.30	1.17	0.99	0.76	0.45	1.08	2.3	3.0	3.4	3.4	3.4	3.3
Treasury bill, 6-mo.	2.45	2.30	1.81	1.65	1.49	1.26	0.86	1.62	2.7	3.3	3.5	3.6	3.5	3.4
Treasury bill, 1 yr.	2.83	2.94	2.34	2.14	2.06	1.89	1.34	2.18	3.0	3.5	3.7	3.7	3.6	3.5
Treasury note, 2 yr.	3.08	3.27	2.83	2.63	2.62	2.54	1.91	2.71	3.3	3.6	3.7	3.6	3.6	3.4
Treasury note, 5 yr.	3.23	3.45	3.07	2.91	2.87	2.78	2.11	2.95	3.4	3.6	3.6	3.6	3.6	3.5
Treasury note, 10 yr.	3.17	3.36	3.05	2.92	2.90	2.75	2.13	2.93	3.3	3.5	3.6	3.6	3.6	3.6
Treasury note, 30 yr.	3.28	3.38	3.18	3.09	3.07	2.81	2.41	3.04	3.5	3.6	3.7	3.8	3.8	3.8
Corporate Aaa bond	4.58	4.68	4.39	4.27	4.37	4.01	3.63	4.30	4.7	5.0	5.1	5.1	5.1	5.1
Corporate Baa bond	5.30	5.38	5.05	4.94	5.05	4.63	4.23	4.97	5.6	6.0	6.2	6.2	6.2	6.2
State & Local bonds	4.05	4.08	3.77	3.73	3.96	3.70	3.30	3.87	4.0	4.3	4.4	4.5	4.5	4.4
Home mortgage rate	5.81	5.78	5.23	5.09	5.23	4.98	4.17	5.23	5.7	5.9	6.0	5.9	5.8	5.7

Key Assumptions	History								Consensus Forecasts-Quarterly					
	3Q 2020	4Q 2020	1Q 2021	2Q 2021	3Q 2021	4Q 2021	1Q 2022	2Q 2022**	3Q 2022	4Q 2022	1Q 2023	2Q 2023	3Q 2023	4Q 2023
Fed's AFE \$ Index	107.2	105.1	103.4	102.9	105.0	107.0	108.4	113.6	115.3	115.4	115.1	114.6	114.0	113.8
Real GDP	33.8	4.5	6.3	6.7	2.3	6.9	-1.6	2.9	2.1	1.6	1.2	1.0	1.3	1.6
GDP Price Index	3.6	2.2	4.3	6.1	6.0	7.1	8.2	5.9	5.2	3.9	3.4	2.8	2.7	2.6
Consumer Price Index	4.8	2.2	4.1	8.2	6.7	7.9	9.2	7.6	6.0	3.8	3.3	2.7	2.5	2.5
PCE Price Index	3.7	1.5	3.8	6.5	5.3	6.4	7.1	5.8	5.2	3.6	3.1	2.5	2.4	2.3

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. *Interest rate data for 2Q 2022 based on historical data through the week ended June 24. **Data for 2Q 2022 for the Fed's AFE \$ Index based on data through the week ended June 24. Figures for 2Q 2022 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the June 2022 survey.

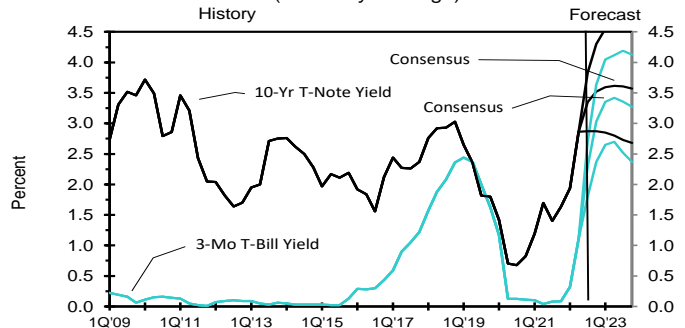
U.S. Treasury Yield Curve

Week ended Jun 24, 2022 & Year Ago vs. 3Q 2022 & 4Q 2023 Consensus Forecasts



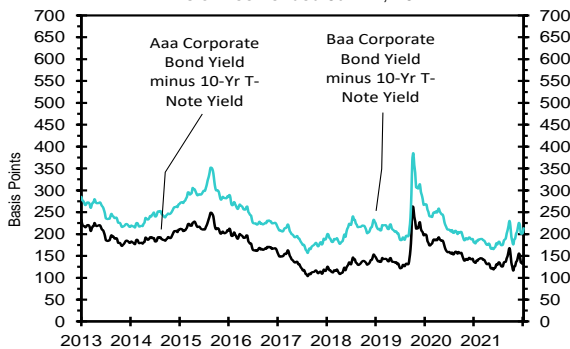
US 3-Mo T-Bills & 10-Yr T-Note Yield

(Quarterly Average)



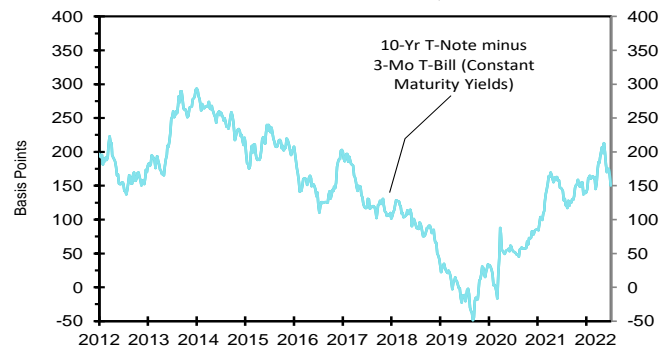
Corporate Bond Spreads

As of week ended Jun 24, 2022



U.S. Treasury Yield Curve

As of week ended Jun 24, 2022



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2023 through 2028 and averages for the five-year periods 2024-2028 and 2029-2033. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		----- Average For The Year -----					Five-Year Averages		
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
1. Federal Funds Rate	CONSENSUS	3.0	2.7	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.5	3.3	3.0	2.8	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.6	2.1	2.0	2.2	2.2	2.2	2.2	2.1
2. Prime Rate	CONSENSUS	6.1	5.9	5.7	5.6	5.6	5.6	5.7	5.6
	Top 10 Average	6.6	6.4	6.1	6.0	6.0	6.0	6.1	5.9
	Bottom 10 Average	5.6	5.3	5.2	5.3	5.3	5.3	5.3	5.2
3. SOFR	CONSENSUS	3.0	2.8	2.5	2.5	2.5	2.5	2.6	2.5
	Top 10 Average	3.4	3.3	3.0	2.9	2.8	2.8	3.0	2.8
	Bottom 10 Average	2.7	2.2	2.0	2.2	2.2	2.2	2.2	2.1
4. Commercial Paper, 1-Mo	CONSENSUS	3.2	2.9	2.6	2.6	2.6	2.6	2.7	2.6
	Top 10 Average	3.5	3.4	3.1	2.9	2.9	2.9	3.0	2.9
	Bottom 10 Average	2.8	2.5	2.3	2.4	2.4	2.3	2.3	2.3
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.0	2.8	2.6	2.6	2.6	2.5	2.6	2.5
	Top 10 Average	3.6	3.4	3.1	3.1	3.0	2.9	3.1	2.9
	Bottom 10 Average	2.5	2.2	2.0	2.1	2.2	2.2	2.1	2.2
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.2	2.9	2.7	2.7	2.7	2.6	2.7	2.6
	Top 10 Average	3.8	3.6	3.2	3.2	3.1	3.0	3.2	3.0
	Bottom 10 Average	2.6	2.2	2.1	2.2	2.3	2.3	2.2	2.3
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.2	3.0	2.9	2.9	2.8	2.8	2.9	2.8
	Top 10 Average	3.9	3.8	3.5	3.4	3.3	3.2	3.4	3.2
	Bottom 10 Average	2.6	2.4	2.2	2.4	2.4	2.4	2.3	2.4
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.4	3.2	3.1	3.1	3.0	3.0	3.1	3.0
	Top 10 Average	4.3	4.1	3.8	3.6	3.5	3.5	3.7	3.5
	Bottom 10 Average	2.7	2.4	2.3	2.5	2.6	2.5	2.4	2.5
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.5	3.4	3.3	3.3	3.3	3.2	3.3	3.3
	Top 10 Average	4.3	4.2	4.1	3.9	3.8	3.8	3.9	3.8
	Bottom 10 Average	2.8	2.6	2.5	2.7	2.7	2.7	2.6	2.8
10. Treasury Note Yield, 10-Yr	CONSENSUS	3.5	3.5	3.4	3.5	3.5	3.4	3.5	3.5
	Top 10 Average	4.4	4.4	4.2	4.2	4.1	4.1	4.2	4.1
	Bottom 10 Average	2.8	2.5	2.6	2.9	2.9	2.8	2.7	2.8
11. Treasury Bond Yield, 30-Yr	CONSENSUS	3.8	3.8	3.8	3.9	3.8	3.8	3.8	3.9
	Top 10 Average	4.6	4.7	4.5	4.5	4.4	4.5	4.5	4.5
	Bottom 10 Average	3.0	2.9	3.0	3.3	3.2	3.2	3.1	3.2
12. Corporate Aaa Bond Yield	CONSENSUS	5.0	5.0	4.9	5.0	5.0	4.9	4.9	5.0
	Top 10 Average	5.7	5.7	5.6	5.5	5.5	5.5	5.5	5.6
	Bottom 10 Average	4.4	4.2	4.3	4.4	4.4	4.4	4.3	4.4
13. Corporate Baa Bond Yield	CONSENSUS	6.0	5.9	5.8	5.9	5.9	5.9	5.9	5.9
	Top 10 Average	6.6	6.6	6.4	6.3	6.3	6.3	6.4	6.4
	Bottom 10 Average	5.4	5.3	5.2	5.4	5.4	5.4	5.3	5.4
14. State & Local Bonds Yield	CONSENSUS	4.3	4.3	4.2	4.3	4.3	4.3	4.3	4.3
	Top 10 Average	5.0	5.0	4.8	4.8	4.7	4.7	4.8	4.8
	Bottom 10 Average	3.7	3.7	3.7	3.9	3.9	3.9	3.8	3.9
15. Home Mortgage Rate	CONSENSUS	5.7	5.5	5.4	5.4	5.4	5.4	5.4	5.4
	Top 10 Average	6.4	6.4	6.1	6.0	6.0	6.0	6.1	6.0
	Bottom 10 Average	4.9	4.7	4.6	4.8	4.8	4.8	4.7	4.8
A. Fed's AFE Nominal \$ Index	CONSENSUS	113.8	112.8	111.9	111.0	110.6	110.4	111.3	109.8
	Top 10 Average	115.6	114.7	114.0	113.4	113.1	112.8	113.6	112.7
	Bottom 10 Average	112.2	111.0	109.9	108.8	108.2	107.9	109.2	107.4
		----- Year-Over-Year, % Change -----					Five-Year Averages		
		2023	2024	2025	2026	2027	2028	2024-2028	2029-2033
B. Real GDP	CONSENSUS	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0
	Top 10 Average	2.6	2.4	2.4	2.4	2.4	2.4	2.4	2.3
	Bottom 10 Average	1.5	1.5	1.8	1.8	1.8	1.8	1.7	1.8
C. GDP Chained Price Index	CONSENSUS	3.0	2.4	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	3.7	2.8	2.7	2.6	2.6	2.6	2.7	2.6
	Bottom 10 Average	2.3	2.0	1.9	1.9	1.9	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	3.2	2.4	2.4	2.4	2.3	2.3	2.4	2.3
	Top 10 Average	4.1	3.0	2.9	2.8	2.7	2.7	2.8	2.7
	Bottom 10 Average	2.3	1.8	2.0	2.0	1.9	1.9	1.9	1.9
E. PCE Price Index	CONSENSUS	3.0	2.3	2.3	2.3	2.3	2.2	2.3	2.3
	Top 10 Average	3.8	2.8	2.8	2.7	2.7	2.6	2.7	2.7
	Bottom 10 Average	2.2	1.8	1.9	1.9	1.9	1.8	1.9	1.9

Valley Energy, Inc. / Citizens' Electric Company of
Lewisburg, PA
OCA Corrected CAPM

<u>Company (Gas Proxy)</u>	<u>Beta</u>
Atmos Energy Corporation (ATO)	0.80
New Jersey Resources Corporation (NJR)	0.95
NiSource, Inc. (NI)	0.85
Northwest Natural Holding Company (NWN)	0.80
ONE Gas, Inc. (OGS)	0.80
Spire Inc. (SR)	0.80
Average beta for CAPM	<u>0.83</u>

Source:
Value Line

<u>Company (Electric Proxy)</u>	<u>Beta</u>
Alliant Energy Corporation (LNT)	0.80
Ameren Corp. (AEE)	0.80
American Electric Power Company Inc. (AEP)	0.75
Duke Energy Corp. (DUK)	0.85
Edison International (EIX)	0.95
Entergy Corp. (ETR)	0.90
Evergy, Inc. (EVRG)	0.90
Eversource Energy (ES)	0.90
IDACORP Inc. (IDA)	0.80
NorthWestern Corporation (NWE)	0.95
OGE Energy Corporation (OGE)	1.00
Portland General Electric Company (POR)	0.85
The Southern Company (SO)	0.90
Xcel Energy Inc. (XEL)	0.80
Average beta for CAPM	<u>0.87</u>

Source:
Value Line

Valley Energy, Inc. / Citizens' Electric Company of Lewisburg, PA
OCA Corrected CAPM

CAPM with Forecasted Return (Valley)

Re Required return on individual equity security
Rf Risk-free rate
Rm Required return on the market as a whole
Be Beta on individual equity security

Re (CAPM) = $Rf + Be(Rm - Rf)$
Re (ECAPM) = $Rf + Be(Rm - Rf) \times 0.75 + (Rm - Rf) \times 0.25$

Rf =	3.74
Rm =	7.40 (a)
Be =	0.83
Re (CAPM) =	<u><u>9.90</u></u>
Re (ECAPM) =	<u><u>10.21</u></u>
Average	<u><u>10.06</u></u>

(a) Kroll SBBI-2022, at 145. Represents Arithmetic Mean Total Return on Large-Cap Stocks (12.30%) minus the Arithmetic Mean Income-Only Return on Long-Term Government Bonds (4.90%); 12.30% - 4.90% = 7.40%.

Sources: Value Line
 Blue Chip June 1, 2022 and July 1, 2022

CAPM with Forecasted Return (Citizens')

Re Required return on individual equity security
Rf Risk-free rate
Rm Required return on the market as a whole
Be Beta on individual equity security

Re (CAPM) = $Rf + Be(Rm - Rf)$
Re (ECAPM) = $Rf + Be(Rm - Rf) \times 0.75 + (Rm - Rf) \times 0.25$

Rf =	3.74
Rm =	7.40 (a)
Be =	0.87
Re (CAPM) =	<u><u>10.16</u></u>
Re (ECAPM) =	<u><u>10.40</u></u>
Average	<u><u>10.28</u></u>

(a) Kroll SBBI-2022, at 145. Represents Arithmetic Mean Total Return on Large-Cap Stocks (12.30%) minus the Arithmetic Mean Income-Only Return on Long-Term Government Bonds (4.90%); 12.30% - 4.90% = 7.40%.

Sources: Value Line
 Blue Chip June 1, 2022 and July 1, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA and Valley Energy, Inc.	:	
	:	

**REBUTTAL TESTIMONY
AND EXHIBIT
OF
MELISSA SULLIVAN**

**ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY, INC.**

AUGUST 16, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : Docket Nos. R-2022-3032369
 : R-2022-3032300
 Citizens' Electric Company of Lewisburg, PA :
 and Valley Energy, Inc. :

**REBUTTAL TESTIMONY OF MELISSA SULLIVAN
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA, AND
VALLEY ENERGY, INC.**

1 **Q. Please state your name and business address.**

2 A. My name is Melissa Sullivan and my business address is 33 Austin Street, 3rd Floor,
3 Wellsboro, Pennsylvania.

4 **Q. Are you the same Melissa Sullivan who previously submitted Direct Testimony in this**
5 **proceeding on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens")**
6 **and Valley Energy, Inc. ("Valley") (collectively, "Companies")?**

7 A. Yes. Terms defined in my direct testimony have the same meaning in this rebuttal
8 testimony.

9 **Q. What is the purpose of your testimony today?**

10 A. The purpose of my testimony is to rebut the testimony of OCA Witness Mugrace regarding
11 the Companies' Shared Services allocations and Act 40 of 2016 ("Act 40") requirements.

12 **Q. Can you summarize the adjustments proposed by OCA to Citizens' and Valley's**
13 **Shared Services allocations? (OCA Statement No. 1 at 15 (Citizens'), OCA Statement**
14 **No. 1 at 15 (Valley))?**

1 A. Yes, OCA Witness Mugrace observes increases to the actual and projected Shared Services
2 expense allocated to the Companies' from C&T from 2020 through 2023. Mr. Mugrace
3 claims the Companies have not provided any basis for the increasing expense by 25.25%
4 from the HTY to the FTY, and proposes to average the expenses over the four-year period
5 instead of accepting the projected FPFTY expense proposed by the Companies. This
6 results in identical \$18,575 reductions to Shared Services expense for both Citizens' and
7 Valley.

8 **Q. Is Mr. Mugrace correct?**

9 A. No, Mr. Mugrace is not correct. The Companies have provided support for the increasing
10 Shared Services expense. As I testified, the C&T Expenses reflect wage, salary, overhead
11 and benefits increases for the existing C&T Shared Services employees, and anticipated
12 new positions at C&T to better serve Valley, Citizens' and the other operating companies.
13 In the FTY, the Companies added a Network Systems Specialist in its Information
14 Technology department. In the FPFTY, C&T will be adding a Payroll Specialist in the
15 Human Resources department and will be replacing a retiring Vice President of
16 Communications.

17 **Q. Mr. Mugrace claims that his adjustment is appropriate because Citizens' and Valley**
18 **have not itemized the reasons for the increase in the C&T Shared Services costs from**
19 **2021 to 2022. Please respond.**

20 A. Based on my recollection of the discovery, no party asked for Citizens' or Valley to provide
21 an itemization of the reasons for the increase in Shared Services costs from the HTY (2021)

1 to the FTY (2022). From 2021 to 2022, the Shared Services allocated cost for Valley and
2 Citizens' increased by \$42,946. The increase is attributable to several factors:

- 3 • First, the increase is due to the additional Shared Services position discussed above.
4 Citizens' and Valley each pay 12.84% of the wages and benefits associated with
5 this new position.
- 6 • Second, the historical amount for 2021 reflects the impact of the COVID-19
7 pandemic on travel and training costs. During 2021 and due to COVID-19, many
8 training programs and conferences were held with remote participation rather than
9 in-person participation. In 2022, most of those events have returned to in-person
10 participation. In 2021, the actual travel costs were \$16,765 while in 2022, the
11 projected costs for the Shared Services employee travel is \$30,000.
- 12 • Third, from 2021 to 2022, the C&T Shared Services employees received the 4.5%
13 base compensation increase discussed in my Direct Testimony. This increased the
14 total Wages & Salaries for the C&T Shared Services employees from \$1,336,000
15 to \$1,386,000.
- 16 • Fourth, the retirement benefit costs from the C&T Shared Services employees
17 increased from \$653,983 in 2021 to \$772,152 in 2022 due to the previously-
18 discussed salary increases and because two additional C&T Shared Services
19 employees became eligible for our pension and 401(k) retirement plans. We have
20 a one-year waiting period after an employee begins with C&T before that benefit
21 starts. One employee was hired in late 2020 and one as of January 1, 2021, both of
22 which became eligible for the benefit and increased this expense. The portion of
23 this expense that is allocated to Valley and Citizens' would follow the allocation

1 percentage for the position that is set forth in Exhibit__(MS-1R), which attaches
2 responses to OCA-II-8 (Valley) and OCA-I-10 (Citizens'). The Chief Legal &
3 Regulatory Officer was one of those positions that became eligible for retirement
4 benefits. The costs of that position are allocated 30%/30%/30% to Citizens', Valley
5 and Wellsboro Electric Company.

6 **Q. How does OCA's proposed Shared Services expense for the FPFTY compare to the**
7 **expense for the FTY?**

8 A. For both Companies, OCA's proposal to average Shared Services expense over four years
9 would result in a FPFTY expense *lower than the FTY expense*:

10 Table 1

	Company FTY Shared Services Allocation	Company Proposed FPFTY Shared Services Allocation	OCA Proposed FPFTY Shared Services Allocation
Citizens'/Valley	\$213,011	\$219,401	\$200,826

11
12 See OCA Statement No. 1 at 14-15 (Citizens'), OCA Statement No. 1 at 14-15 (Valley).
13 Considering that OCA Witness Mugrace has acknowledged the Shared Services expense
14 increased in each year from 2020 - 2022, I am very challenged to understand the logic
15 behind proposing a FPFTY Shared Service expense lower than the FTY Shared Service
16 expense. This result is unreasonable and would not allow the Companies to recover the
17 costs of administrative services necessary to support the utility operations, including

1 critical cybersecurity support costs. As explained above, the increase from the HTY to the
2 FTY has been justified and should not serve as the basis for the OCA's adjustment.

3 **Q. Did OCA Witness Mugrace present testimony addressing the Companies' Act 40**
4 **requirements (OCA Statement No. 1 at 35-37 (Citizens'), OCA Statement No. 1 at 35-**
5 **37 (Valley))?**

6 A. Yes. Mr. Mugrace claims the Companies have not prepared a consolidated income tax
7 adjustment to determine whether the Companies have properly allocated the revenue
8 differential from pre-Act 40 ratemaking tax treatment to post-Act 40 ratemaking tax
9 treatment. As discussed in his direct testimony, such revenue differentials are to be
10 allocated 50/50 to general corporate use and infrastructure-related capital investment. Mr.
11 Mugrace requests that the Commission direct the Companies to explain why a consolidated
12 tax adjustment has not been presented.

13 **Q. Do you have any comments in response to this request?**

14 A. Yes. Although C&T submits a consolidated tax filing, there is no difference between
15 Valley or Citizens' tax liability on a stand-alone basis and on a consolidated basis. No
16 entity within our corporate family has operating losses (either current or historic) that are
17 available to offset taxes that Valley and Citizens' would otherwise pay. Although we take
18 advantage of bonus depreciation when possible, the benefits are allocated directly back to
19 the particular entity that purchased the depreciable asset. There is no "net" differential that
20 needs to be allocated between general corporate use an infrastructure-related capital
21 investment.

22 **Q. Does this conclude your Rebuttal Testimony?**

23 A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket Nos. R-2022-3032369
	:	R-2022-3032300
Citizens' Electric Company of Lewisburg, PA and Valley Energy, Inc.	:	
	:	

**EXHIBIT
OF
MELISSA SULLIVAN**

**ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA
AND
VALLEY ENERGY, INC.**

AUGUST 16, 2022

**VALLEY ENERGY, INC. RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES
DOCKET NO. R-2022-3032300**

OCA-II-8 Please provide a schedule and description of all costs (shared services) allocated to Valley Energy from C&T Enterprises, Claverack Rural Electric Cooperative, Inc. (if applicable) and from Tri-County Rural Electric Cooperative, Inc. (if applicable). Please provide this schedule for the years 2020-2023. Please show where these costs are accounted for in the Company's filing by account nos. Please include the average number of employees (and titles) assigned from C&T, Claverack Rural Electric and Tri- County for services provided. Please also include in the breakdown costs related to (1) IT Costs; (2) Charitable Contributions; (3) Lobbying/Other; (4) Incentive Compensation and Stock Awards; (5) A&G Costs and; (6) Other/Miscellaneous.

Response: All shared services costs allocation to Valley are from C&T Enterprises only. There are no services rendered from either Cooperative.

	Account Code	2020	2021	2022	2023
Average Shared Services Count Assigned (Percentage of FT Position)	N/A				(Est)
Chief Financial Officer/Controller		33.333%	33.333%	33.333%	33.333%
Director of Human Resources		13.410%	13.270%	12.840%	13.130%
Payroll Specialist/Benefits		13.410%	13.270%	12.840%	13.130%
Payroll Specialist/Analyst		13.410%	13.270%	12.840%	13.130%
Payroll Specialist		0.000%	0.000%	0.000%	13.130%
VP of Communications		13.410%	13.270%	12.840%	13.130%
Chief Information Officer		13.410%	13.270%	12.840%	13.130%
Manager Information Services		13.410%	13.270%	12.840%	13.130%
Network Systems Specialist		13.410%	13.270%	12.840%	13.130%
Network Systems Specialist		0.000%	0.000%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
Safety Manager		13.410%	13.270%	12.840%	13.130%
Chief Legal/Regulatory Officer		0.000%	30.000%	30.000%	30.000%
Total Annual Allocation Billing	See Below	\$ 120,340	\$ 130,018	\$ 167,501	\$ 172,526
Total IT Expense Allocation (Not Including Wages/Benefits)	See Below	\$ 14,637	\$ 14,833	\$ 20,215	\$ 20,821
Total Administrative Expense Allocation (Not Including Wages/Benefits)	See Below	\$ 26,823	\$ 25,214	\$ 25,295	\$ 26,054
Charitable Contributions	N/A	\$ -	\$ -	\$ -	\$ -
Lobbying/Other	N/A	\$ -	\$ -	\$ -	\$ -
Incentive Compensation	N/A	\$ -	\$ -	\$ -	\$ -
Other/Miscellaneous	N/A	\$ -	\$ -	\$ -	\$ -

**VALLEY ENERGY, INC. RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES
DOCKET NO. R-2022-3032300**

The costs allocated to Valley Energy from C&T Enterprises are spread to the following accounts, as well as a portion to Valley Energy's NY Division based on labor activity for the month:

107	874	889
108	875	890
163	876	891
184	877	891
416	877	892
416	878	893
602	879	902
870	885	903
874	886	920
874	887	930
874	887	932

**Response Provided by: Melissa Sullivan, Chief Financial Officer
C&T Enterprises, Inc.**

**Jamie Levering, Vice President/Treasurer
Valley Energy, Inc.**

Date: July 13, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

OCA-I-10 Please refer to the Direct Testimony and Exhibits of Howard S. Gorman, Exhibit HSG, Schedule E-5D. Please define the inputs and calculation of each of the allocators named and listed in Schedule E-5D.

Response: All shared services costs allocation to Citizens' Electric from C&T Enterprises only. There are no services rendered from either Cooperative.

	Account Code	2020	2021	2022	2023
Average Shared Services Count Assigned (Percentage of FT Position)	N/A				(Est)
Chief Financial Officer/Controller		33.333%	33.333%	33.333%	33.333%
Director of Human Resources		13.410%	13.270%	12.840%	13.130%
Payroll Specialist/Benefits		13.410%	13.270%	12.840%	13.130%
Payroll Specialist/Analyst		13.410%	13.270%	12.840%	13.130%
Payroll Specialist		0.000%	0.000%	0.000%	13.130%
VP of Communications		13.410%	13.270%	12.840%	13.130%
Chief Information Officer		13.410%	13.270%	12.840%	13.130%
Manager Information Services		13.410%	13.270%	12.840%	13.130%
Network Systems Specialist		13.410%	13.270%	12.840%	13.130%
Network Systems Specialist		0.000%	0.000%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
IT Specialist		13.410%	13.270%	12.840%	13.130%
Safety Manager		13.410%	13.270%	12.840%	13.130%
Chief Legal/Regulatory Officer		0.000%	30.000%	30.000%	30.000%
Total Annual Allocation Billing	See Below	\$ 120,340	\$ 130,018	\$ 167,501	\$ 172,526
Total IT Expense Allocation (Not Including Wages/Benefits)	See Below	\$ 14,637	\$ 14,833	\$ 20,215	\$ 20,821
Total Administrative Expense Allocation (Not Including Wages/Benefits)	See Below	\$ 26,823	\$ 25,214	\$ 25,295	\$ 26,054
Charitable Contributions	N/A	\$ -	\$ -	\$ -	\$ -
Lobbying/Other	N/A	\$ -	\$ -	\$ -	\$ -
Incentive Compensation	N/A	\$ -	\$ -	\$ -	\$ -
Other/Miscellaneous	N/A	\$ -	\$ -	\$ -	\$ -

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

The costs allocated to Citizens' Electric from C&T Enterprises are spread to the following accounts based on labor activity for the month:

107	588.72	920.2
108	588.82	932.2
184	592.2	
580.2	593.2	
582.2	593.52	
583.2	593.62	
584.2	594.2	
586.2	595.2	
587.2	596.2	
588.2	903.2	

**Response Provided by: Melissa Sullivan, Chief Financial Officer
C&T Enterprises, Inc.**

**Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: July 14, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

REBUTTAL TESTIMONY
AND EXHIBITS
OF
JOHN KELCHNER

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

**BEFORE
THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Pennsylvania Public Utility Commission :
: **Docket No. R-2022-3032369**
v. :
:
Citizens' Electric Company of Lewisburg, PA :

**REBUTTAL TESTIMONY OF JOHN KELCHNER
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

Q. Please state your name.

A. My name is John Kelchner.

Q. Are you the same John Kelchner that presented Direct Testimony on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens'" or "Company")?

A. Yes.

Q. What is the purpose of your Rebuttal Testimony?

A. My testimony will respond to the following witnesses' direct testimony:

- Office of Consumer Advocate ("OCA") Witnesses DeAngelo and Mugrace and Bureau of Investigation and Enforcement ("I&E") Witness Spadaccio regarding recommended Return on Equity ("ROE") allowances, including their proposals to deny the Company's proposed size and performance adjustments
- OCA Witness Mugrace regarding his various proposed expense adjustments; and
- I&E Witness Sakaya regarding his proposed reporting requirements for the Company's plant in service.

RETURN ON EQUITY

Q. Please summarize the parties' positions regarding an appropriate ROE for Citizens' (OCA Statement No. 1 at 6, OCA Statement 2 at 5; I&E Statement No. 2 at 6).

A. OCA Witnesses Mr. Mugrace and Ms. DeAngelo recommend a total rate of return of 6.43%, with a return on equity of 8.82%. I&E Witnesses Mr. Spadaccio recommends a rate of return of 6.51%, with a return of equity of 8.98%.

Q. Do you have any initial comments regarding the parties' recommendation?

A. Yes. It is very important to Citizens' shareholders and our banks that we receive fair treatment from the Commission. In our last rate base proceeding of 2019, the Commission awarded an ROE of 9.54%, which included upward adjustments to reflect our small size and management performance.

Q. Have you reviewed the parties' positions on Mr. D'Ascendis' adjustments to the Company's ROE (OCA Statement No. 2 at 11-13; I&E Statement No. 2 at 40-46)?

A. Yes. Both Ms. DeAngelo and Mr. Spadaccio oppose the Company's proposed performance adjustment.

Q. Do you have any comments with regard to the size and performance adjustments?

A. Mr. D'Ascendis' Rebuttal Testimony responds to the I&E and OCA testimony on these adjustments. My testimony supplements Mr. D'Ascendis' response.

Regarding the performance adjustment, Ms. DeAngelo and Mr. Spadaccio inappropriately imply that the Company is seeking additional returns for merely performing its mandated duties. This characterization is not consistent with the items described in my Direct Testimony. For example, Citizens' was not required to offer Smarthub online account access to its customers, provide tablet computers for its linemen, increase poll attachment

billing, implement street light upgrades, or undertake significant capital investments in system replacements and improvements, without assessing a Distribution System Improvement Charge upon customers. Additionally, Citizens' commitment to customer service exceeded regular business performance expectations, as shown by the Company's response to COVID-19 that included the waiving of late fees for all customer classes, increased customer outreach to payment-troubled customers, protected our workforce from a widespread COVID outbreak by splitting line crews into two separate units and rotating them to ensure appropriate response to emergencies, and the implementation of enhanced cleaning and sanitation processes to keep our employees and customers safe. These extensive measures are indicative of the Company's commitment to high, and not merely adequate, customer service. Our other examples from my Direct Testimony similarly demonstrate that Citizens' is providing exceptional, customer-focused service to its customers. While Ms. DeAngelo and Mr. Spadaccio may disagree with the principle of a performance adjustment, that question seems to have been answered by the General Assembly and recognized appropriately by the Commission. A performance adjustment mechanism is available under the statute, and I believe that Citizens' has earned it based on the Company's achievements and initiatives outlined in my Direct Testimony. Neither Mr. Spadaccio nor Ms. DeAngelo have the experience in utility operations to appreciate the effort that is necessary to ensure that "operations are running exactly as they are expected," as Ms. DeAngelo suggests in her testimony rejecting the performance adjustment.¹ This was especially true during a "once in a hundred years" pandemic. I can attest based on my

¹ OCA Statement No. 2 at 13.

35 years of utility experience that Citizens' exceeds the performance of other utilities and deserves the small performance adjustment that we are proposing.

Q. Do you have any comments regarding the size adjustment?

A. Yes, I would like to correct Ms. DeAngelo's mischaracterization of the Commission's holding regarding the outcome of the Company's request for a size adjustment in its 2019 rate base case proceeding. While the Commission did not specify an exact size adjustment it awarded, it adopted the ALJ's recommendation that Citizens' be awarded a DCF cost of common equity of 9.49%, which was one standard deviation above the average of the mean and median proxy group ROE of the Company's DCF analysis.² In doing so, the Commission specifically recognized Mr. D'Ascendis' record evidence of a general inverse relationship between size and risk, such that smaller companies like Citizens' face greater risk.

Q. Have the considerations on which the Commission's size and performance adjustment determinations were based changed since the last rate case?

A. No. Citizens' is still a very small utility. As Mr. D'Ascendis has testified, it still requires a higher return to provide the resources to handle significant events that affect revenues, costs, plant and earnings. And as stated above, Citizens' still performs very well on the measures of management effectiveness discussed in the Commission's Order in the last rate case.

² *Pa. PUC v. Citizens Electric Company of Lewisburg, PA*, Docket No. R-2019-3008212 (Order Entered April 29, 2020). See generally Disposition of Cost of Common Equity at 103-104.

Q. Is it important that the Commission be consistent in applying the criteria it uses to determine ROE?

A. Yes, it is critically important. Mr. Gorman discusses some of the policy reasons why consistency is important. It is also very important for business and financial planning. When we are making investment decisions and planning for future financial activities, including the timing of rate cases, it is important for us to be able to use consistent assumptions. Large changes in regulatory treatment on the size adjustment would complicate our planning and create additional financial risk for Citizens'.

OTHER PROPOSED ADJUSTMENTS

Q. Mr. Kelchner, will you be the only respondent addressing adjustments to expenses and rate base proposed by the OCA and I&E Witnesses in this proceeding?

A. No. Company Witnesses Gorman, Sullivan, and Stauder will also address the proposed expense adjustments. The purpose of my testimony is to provide supporting detail for Mr. Gorman's responses. To the extent I do not address a proposed adjustment in my testimony, such omission does not represent my acceptance of, or agreement with, the proposed adjustment.

SALARY AND WAGE BALANCES

Q. Did OCA propose adjustments to Citizens' Salary and Wage balances (OCA Statement No. 1 at 17)?

A. Yes. Mr. Mugrace proposed adjustments totaling \$31,613 to the Company' FPPTY Salary and Wage balance based on his recommendation to average the Company's Salary and Wage balances over the period 2021 – 2023.

Q. Did you find the adjustments to Citizens' Salary and Wage balance proposed by OCA to be generally reasonable?

A. No. I think OCA misunderstands the relationship between the holding company, C&T Enterprises, Inc. ("C&T") and the operating utilities, Citizens', Wellsboro and Valley. OCA Witness Mugrace describes his basis for the adjustment as follows:

My reasoning is that the parent Company C&T currently provides oversight in allocating human resources, and payroll to each of its regulated subsidiaries. Company witness Ms. Sullivan stated that the AIA assigns various employees to the each of the subsidiaries (Statement No. 3 at 5). OCA Statement No. 1 at 17.

This is not accurate. While Ms. Sullivan did reference the assignment of employees to the Companies, she also clarified that "[t]he operating companies each determine which individuals they want to have on their staffs... ." Citizens' Statement No. 3 at 6. As a result, C&T does not oversee or assign the allocation of employees to the Companies, these decisions are made by the respective companies based on operational needs. Once an employee is placed with Citizens', the employee will perform services for Citizens' and remain a Citizens' employee unless and until the employee quits, retires or is involuntarily separated. Those decisions are made by the Citizens' management team, not by C&T Any year-to-year expense fluctuations are due to events and decisions at Citizens', including decisions to create new positions, vacancies that may occur as we transition an employee (either voluntarily or involuntarily), disability leaves, etc., C&T does not have an independent role in determining the employee complement for Citizens' or the other operating companies.

Citizens' has developed its FPFTY Salaries and Wage balance using a thorough bottom-up approach that reflects the actual employee complement needed for its operations, as

allowed when using FPFTY. Additionally, the projected Salary and Wage balance includes merit and step increases, which can result in overall increase that exceeds the base compensation adjustment. We provided multiple detailed discovery responses that support the Salary and Wage projections for the FTY and FPFTY. A redacted version of one such response is attached as Exhibit__(JK-1R). We also provided discovery responses explaining how we will establish the base compensation adjustment for the FPFTY, which no party disputed in the Direct Testimony. Therefore, averaging the Company's Salary and Wage balance over a three-year period is inappropriate.

Q. Did OCA propose an adjustment to Citizens' Payroll Tax expense (OCA Statement No. 1 at 19)?

A. Yes. Applying the same 3-year averaging approach applied to the Salary and Wage balance, OCA calculated a total of \$2,652 downward adjustments to Citizens' proposed Payroll Tax expense.

Q. Do you agree with the adjustment?

A. No. Citizens' Witness Kathy Stauder addresses the support for the Company's claimed Payroll Tax expense. As detailed in her testimony, OCA's proposed adjustment conflicts with the evidence provided by the Company. Citizens' proposed Payroll Tax expense has been supported and should be approved.

O&M INFLATION

Q. What did OCA propose for Citizens' O&M Inflation factor (OCA Statement No. 1 at 20-21)?

A. OCA recommends that the Commission deny the Company's proposal to increase FPFTY O&M expense pursuant to a 3% inflation factor. This adjustment reduces the Company's claim by \$8,930.

Q. Is OCA correct?

A. No. OCA is analogizing this adjustment to the Company's prior rate case where budgeted 2019 costs were proposed to increase by 3% to project costs for 2020 (the fully projected future test year in that rate case). Specifically, OCA argues that Inflation-related increases or adjustments are broad blanket-types adjustments that are applied to all goods and services, which may or may not be directed related to costs incurred by the Company. The Company acknowledges that it applied a broad inflation adjustment to budgeted O&M expense in its 2019 rate case. However, the Company adopted a far more granular approach for this 2022 rate case and proposed 3% increases to some FPFTY O&M costs based on granular FTY costs, including the 2022 4.5% base compensation adjustment approved by the C&T Board of Directors and the Company's FTY materials costs increases. Exhibit__(JK-2R) attaches our response and Attachments A-C to OCA-I-6 as well as the response to OCA-1-28, all of which explain our analysis in more detail. The Company cannot hope to support the FPFTY expenses with the specificity of FTY expense because these costs will remain projections for the duration of the rate case. However, the Company's support for its FTY O&M expenses supports the reasonableness of the 3% adjustment factor for the FPFTY. Further, the inflationary conditions experienced throughout the FTY indicate the 3% projection is conservative, as supported by the Bureau of Labor Consumer Price Index report provided as Attachment C to the Company's response to Interrogatory OCA-1-6. See Exhibit__(JK-2R), Attachment C to OCA-I-6.

DISTRIBUTION AND MAINTENANCE EXPENSE

Q. Do you have any comments in response to OCA's proposed adjustment to Distribution and Maintenance expense (OCA Statement No. 1 at 21)?

A. Yes. This adjustment derives from the previously discussed Salary and Wage expense adjustment and would result in decreases to Labor Overhead – Payroll Tax and, Distribution Labor, and Payroll.

Q. Do you agree with OCA?

A. No. OCA proposes to average Citizens' Distribution and Maintenance - Labor Overhead-Payroll Tax expense over three years based on the mistaken premise that the projected costs are not known and measurable. As discussed in my response to the proposed Salary and Wage adjustment, Citizens' developed its costs using a bottom-up approach and provided support for its forecast, including the Labor Overhead-Payroll expense.

CUSTOMER ACCOUNTING AND COLLECTION EXPENSE

Q. Do you have any comments in response to OCA's proposed adjustment to the filed Customer Accounting and Collection expense (OCA Statement No. 1 at 21)?

A. Yes. OCA proposes to adjust the Company's Customer Accounting and Collection expense to reflect its Inflation and Labor Overhead and Payroll adjustments. OCA Statement No. 1 at 23. I note that the Inflation adjustment is not quantified or explained in OCA's direct testimony and the proposed Labor Overhead and Payroll adjustment would increase the Company's Customer Accounting and Collection expense by \$1,008. As explained in my prior response to the OCA's proposed O&M Inflation adjustment, the Company has supported a 3% inflation adjustment for certain market expenses, which is different than broader 3% O&M inflation adjustment proposed in the 2019 rate case. Similarly, my

response to OCA's proposed Salary and Wage adjustment shows the Company developed its costs using a bottom-up approach and provided support for its forecast labor expenses for the FPFTY.

ADMIN AND GENERAL EXPENSE

Q. Have you reviewed OCA's proposed adjustments to the Company's claimed Admin and General expense?

A. Yes. OCA applies its Payroll Tax and Inflation factor proposals to support downward adjustments to Admin and General expense for Labor and Payroll Tax. The OCA also proposes adjustments for rate case, employee recognition, dues and subscriptions, office supplies and expense, outside services, injuries and damages, and property insurance. In addition to my responses below, Ms. Stauder and Mr. Gorman will also address some of these adjustments.

Q. Do you agree with OCA's proposed Labor and Payroll Tax adjustments?

A. No. As explained in the discussion of OCA's proposed Salary and Wage adjustment, the Company has supported its increased labor costs for the FPFTY.

Q. Please summarize the OCA proposed adjustments to the Company's claim for rate case expense (OCA Statement No. 1 at 29-31)?

A. Mr. Mugrace agrees with the Company's proposed three-year normalization period, but proposed to adjust the Company's claimed base rate case expense. Rather than accept the Company's projected rate case expense for this filing, Mr. Mugrace adds the costs of the Company's five base rate case proceedings, starting with 2008, and calculates an average cost for the proceedings. He explains that this method reduces the Company's proposed rate case expense from \$384,500 to \$242,563.

Q. Do you agree with the adjustment to average Citizens' proposed rate case expense over the past five proceedings?

A. No. Mr. Mugrace's proposed rate case expense allowance is clearly insufficient. The costs of preparing, defending and litigating a rate case have increased dramatically over the 14-year period that Mr. Mugrace uses as the basis for his calculation. For example, the total cost of our 2008 rate case was \$138,331, while the cost of our 2019 rate case was \$351,774. The cost of our 2019 case actually exceeded the projected cost that the Commission accepted and included in rates, which was \$271,000 (normalized over 3 years). When the litigation cost exceeds the allowed rate case expense that is included in rates, the utility absorbs that amount.

In addition, the actual expenses from our 2019 case demonstrate that our current rate case expense claim is reasonable. In comparison, Mr. Mugrace's proposed allowance is lower than the rate case allowance approved by the Commission in the 2019 proceeding, which was lower than our actual expense for that case. Clearly, this defies logic and is inadequate.

Q. Do you have any comments in response to OCA's proposed adjustments to Employee Pension and Benefits?

A. Yes. OCA Witness Mugrace proposed to disallow \$13,690 of costs related to employee recognition of the total claimed \$23,690 related to Employee Benefits and Pension. The "Benefits and Pension" expenses at issue are employee recognition costs. I am informed by counsel that the Commission has a long history of recognizing that employee recognition events can incentivize an effective workforce and are recoverable expenses. In addition, the Commission allowed Citizens' employee recognition expenses at the last 2019

rate base case.³ At every Citizens' employee appreciation event, remarks are made by the Company's senior staff recognizing employee contributions to the Company. An important benefit of these minor costs is to improve morale which reduces turnover and improves customer service. Accordingly, the Company should be permitted to recover expenses for employee recognition events, including Employee Service Awards, Employee Appreciation Events, retirement parties, and holiday events listed in Exhibit__(JK-3R), which attaches the Company's response to Interrogatories OCA-I-31 and I&E-RE-27.

Q. Please discuss Mr. Mugrace's adjustment for Injuries and Damages.

A. The Company includes Injuries and Damages in the FPFTY of \$34,824. Citizens' provided the support for this amount in its response to I&E-RE-15-D, which is attached as Exhibit__(JK-4R).

Mr. Mugrace ignores the support that Citizens' provided and instead proposes to normalize the Injury and Damages expense over a three-year period (2021-2023). This reduced the amount from \$34,824 to \$31,760.

Q. Do you agree with this adjustment?

No. As shown in Exhibit__(JK-4R), Citizens' costs are increasing every year. These represent actual prepaid insurance costs. There is no reason to expect these costs to do anything but increase in the FPFTY, as supported by the historical record. I would also note that my understanding is that premiums are based on our actual experience rate. Since we have had no injuries and no claims for many years, our rates are as low as they can be.

³ *Pa. PUC v. Citizens Electric Company of Lewisburg, PA*, Docket No. R-2019-3008212 (Order Entered April 29, 2020). See generally *Employee Pension & Benefits (Account 926)* at 73-75.

RATE BASE REPORTING REQUIREMENTS

Q. Have you reviewed the plant in service proposal from I&E (I&E St. No. 3 at 6-7).

A. Yes. I&E witness Sakaya accepts the Company's plant in service projections for the FTY and FPFTY, but adds a request for the Company to submit updates to Schedule C3-CU by April 1, 2023 (for the year ended December 31, 2022) and by April 1, 2024 (for the year ended December 31, 2023).

Q. Do you have a response to Mr. Sakaya's proposal?

A. Yes. The Commission has not adopted rules or regulations comprehensively addressing the requirements for public utilities utilizing the FPFTY. The Company should not be required to comply with additional filing requirements unless those requirements are part of the regulations applicable to all Electric Distribution Companies. I&E and other interested parties will have the opportunities to review this information when the Company files a subsequent base rate case.

The parties litigated a similar proposal from I&E in the 2019 rate case. The Commission rejected I&E's request. Circumstances have not changed to warrant a different result in this proceeding.

Q. Does this conclude your Rebuttal Testimony?

A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
: **Docket No. R-2022-3032369**
v. :
:
Citizens' Electric Company of Lewisburg, PA :

EXHIBITS
OF
JOHN KELCHNER

ON BEHALF OF
CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

Citizens' Electric Company									C&T Incr. =	4.5%	EXHIBIT (JK-1R)
Wage & Salary Recommendations											Page 2 of 3
Number of Crew									4.5%		
		2021	2021	C&T			Final	Final			
		Base	Hourly	Hourly	2022	2022	2022	2022			
Expense Account		Wage	Wage	Increase	Hourly	Merit	Hourly	Annual		*Labor accounts*	
Crew Chief	*See Labor accounts*									107	
Crew Chief	*See Labor accounts*									108	
Lineman Apprentice	*See Labor accounts*									184	
Lineman 1st	*See Labor accounts*									580.2	
Lineman 1st	*See Labor accounts*									582.2	
Lineman 1st	*See Labor accounts*									583.2	
Lineman 1st	*See Labor accounts*									584.2	
Lineman 1st	*See Labor accounts*									586.2	
Lineman 1st	*See Labor accounts*									587.2	
Lineman Apprentice	*See Labor accounts*									588.2	
Total		\$732,180.80						\$771,950.40		588.72	
										588.82	
							Average Crew Wage	\$41.24		592.2	
										593.2	
				4.5%						593.52	
		2021	2021	C&T			Final	Final		593.62	
		Base	Hourly	Hourly	2022	2022	2022	2022		594.2	
		Wage	Wage	Increase	Hourly	Merit	Hourly	Annual		595.2	
Customer Service Rep	903.2									596.2	
Customer Service System Analyst	903.2									932.2	
Customer Service Rep	903.2 / 920.2										
Acct. Clerk	107 / 920.2										
Manager of Cust. Serv.	903.2										
Tech. Assistant	588.2										
Total		\$326,227.20						\$344,073.60			
				4.5%							
		2021	2021	C&T	2022	2022	2022	2022			
		Annual	Biweekly	Annual	Annual	Annual	Biweekly	Final			
		Base	Salary	Increase	Base	Merit	Salary	Annual			
President & CEO	920.2										
*V.P., Engineering & Operations	107 / 580.2										
Treasurer/CFO	920.2										
Total		\$415,382.29						\$458,574.50			
							Overtime	\$49,488			
							Stand-By Pay	\$11,200			
							Ins. Waiver	\$6,480			
								\$67,168			
							Total 2022 Wage & Salary Cost	\$1,641,767			

Assumes partial year of merit increase for Lineman Apprentices upon completion of probationary period.

*Assumes three months of training overlap for the V.P., Engineering & Operations replacement position.

Wage & Salary Recommendations		2021		3.0%		C&T Incr. = 3.0%		Page 3 of 3	
Number of Crew		8.3							
		2020	2020	C&T	2021	2021	Final	Final	
		Base	Hourly	Hourly	Hourly	Merit	Hourly	Annual	*Labor accounts*
Crew Chief	*See Labor accounts*								107
Crew Chief	*See Labor accounts*								108
Lineman Apprentice	*See Labor accounts*								184
Lineman 1st	*See Labor accounts*								580.2
Lineman 1st	*See Labor accounts*								582.2
Lineman 1st	*See Labor accounts*								583.2
Lineman 1st	*See Labor accounts*								584.2
Lineman 2nd	*See Labor accounts*								586.2
Lineman 2nd	*See Labor accounts*								587.2
									588.2
Total		\$682,052.80						\$728,429.87	588.72
									588.82
							Average Crew Wage	\$42.20	592.2
									593.2
				3.0%					593.52
		2020	2020	C&T	2021	2021	Final	Final	593.62
		Base	Hourly	Hourly	Hourly	Merit	Hourly	Annual	594.2
		Wage	Wage	Increase	Hourly	Merit	Hourly	Annual	595.2
Customer Service Rep	903.2								596.2
Customer Service System Analyst	903.2								932.2
Customer Service Rep	903.2 / 920.2								
Acc. Clerk	107 / 920.2								
Manager of Cust. Serv.	903.2								
Tech. Assistant	588.2								
Total		\$312,624.00						\$326,227.20	
				3.0%					
		2020	2020	C&T	2021	2021	2021	2021	
		Annual	Biweekly	Annual	Annual	Annual	Biweekly	Final	
		Base	Salary	Increase	Base	Merit	Salary	Annual	
President & CEO	920.2								
V.P., Engineering & Operations	107 / 580.2								
Treasurer/CFO	920.2								
Total		\$397,592.00						\$414,019.77	
							Overtime	\$33,760	
							Stand-By Pay	\$11,200	
							Ins. Waiver	\$6,552	
								\$51,512	
							Total 2021 Wage & Salary Cost	\$1,520,188	

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

OCA-I-6 Please provide a schedule and development of all Inflationary and CPI's adjustments the Company used to develop its proposed revenue requirement increase of approximately \$1.0 million. Please also show where these adjustments are accounted for and recorded in the Company's O&M Expense categories, and if applicable, Rate Base category along with the actual percentages of inflation and deflation adjustments.

Response:

FTY Capital and O&M amounts are based on known costs at time of budget preparation in late 2021, as well as known increases in material costs or quotes experienced during the 1st Quarter of 2022. For the FPFTY, the Company utilized best efforts to incorporate cost trends it is experiencing in real time. Please see Attachment A to OCA-I-6 for a sampling of material cost increases experienced between the HTY and FTY. These increases informed the Company's cost estimates for FTY and FPFTY Capital projects.

FPFTY O&M expenses were computed by increasing expected FTY costs by 3% to conservatively reflect historical trends, year-to-date experience, and government analysis. The 3% increase also reflects a return to the historic increase percentage in base compensation rather than the 4.5% awarded in 2022. Recent publications indicate that we can expect to see actual expense increases much greater than 3%. For example, a June release from the US Bureau of Labor Statistics indicates an annual CPI index increase of 8.6% for the 12-month period ending May 31, 2022. *See* Attachment B to OCA-I-6. The Bureau of Labor Statistics CPI for the 12-month period ending June 30, 2022, was 9.1%. *See* Attachment C to OCA-I-6. Ongoing increases at this rate will undoubtedly exert significant pressure on FPFTY costs.

**Response Provided by: John Kelchner, President & CEO
Citizens' Electric Company of Lewisburg, PA**

Date: July 22, 2022

2022 Material Cost Increases

ITEM			COST		UC Increase			
	2021	2022	2021	2022		2021	2022	
AN8	8	8	\$ 37.78	\$ 51.60	37%	\$ 302.20	\$ 412.80	
AROH	25	20	\$ 38.09	\$ 48.88	28%	\$ 952.21	\$ 977.60	
ATC-B	142	233	\$ 1.88	\$ 3.01	60%	\$ 265.98	\$ 702.33	
CO1LB	12	10	\$ 147.75	\$ 221.00	50%	\$ 1,773.03	\$ 2,210.00	
DECA	25	50	\$ 18.59	\$ 24.33	31%	\$ 464.63	\$ 1,216.50	
AT458	50	38	\$ 3.30	\$ 4.81	46%	\$ 164.75	\$ 180.38	
WC40	25	25	\$ 2.15	\$ 3.07	43%	\$ 53.75	\$ 76.75	
GRC	25	38	\$ 1.48	\$ 2.25	52%	\$ 37.00	\$ 84.47	
W4/OTPXUG	1,000	2,000	\$ 1.63	\$ 1.72	5%	\$ 1,633.29	\$ 3,444.00	
FGSI	16	15	\$ 17.37	\$ 23.91	38%	\$ 277.84	\$ 358.65	
ATS474	10	20	\$ 25.50	\$ 72.17	183%	\$ 255.00	\$ 1,443.40	
W1/OTPX	1,200	1,200	\$ 1.20	\$ 1.37	14%	\$ 1,443.00	\$ 1,644.00	
AT283-3	42	50	\$ 3.39	\$ 3.30	-3%	\$ 141.08	\$ 165.00	
ATC-Y	100	150	\$ 2.15	\$ 3.38	57%	\$ 215.00	\$ 506.25	
CO1	26	25	\$ 69.64	\$ 84.07	21%	\$ 1,818.35	\$ 2,101.63	
AT403	75	50	\$ 3.43	\$ 3.83	12%	\$ 257.50	\$ 191.50	
SV	50	25	\$ 14.87	\$ 18.10	22%	\$ 743.50	\$ 452.50	
AT283-1	38	25	\$ 3.31	\$ 3.34	1%	\$ 124.22	\$ 83.50	
GW	500	625	\$ 0.36	\$ 0.40	11%	\$ 180.63	\$ 250.00	
AT283	38	25	\$ 3.02	\$ 3.34	11%	\$ 113.06	\$ 83.50	
ATC	100	150	\$ 1.98	\$ 2.59	31%	\$ 197.51	\$ 387.75	
W2CIC	2,500	2,500	\$ 2.77	\$ 3.13	13%	\$ 6,912.50	\$ 7,825.00	
AT411	44	63	\$ 3.61	\$ 4.64	29%	\$ 157.74	\$ 290.00	
AT466	25	25	\$ 3.33	\$ 5.65	70%	\$ 83.17	\$ 141.13	
GR	25	25	\$ 10.97	\$ 15.40	40%	\$ 274.25	\$ 385.00	
SB	25	25	\$ 3.62	\$ 10.91	201%	\$ 90.50	\$ 272.75	
ATC-W	142	150	\$ 1.86	\$ 2.77	49%	\$ 264.09	\$ 415.50	
PI	33	30	\$ 4.63	\$ 4.88	6%	\$ 152.63	\$ 146.40	
LS	1,000	1,000	\$ 0.11	\$ 0.16	45%	\$ 110.00	\$ 160.00	
TGL	100	50	\$ 4.44	\$ 4.95	11%	\$ 444.00	\$ 247.50	
AT004	15	15	\$ 15.60	\$ 18.85	21%	\$ 234.00	\$ 282.75	
CCI2	50	75	\$ 0.41	\$ 0.53	29%	\$ 20.50	\$ 39.75	
RF	35	25	\$ 14.44	\$ 14.88	3%	\$ 505.40	\$ 372.00	
SB2GP	50	100	\$ 1.94	\$ 2.52	30%	\$ 97.17	\$ 252.00	
SI	35	36	\$ 8.92	\$ 11.00	23%	\$ 312.08	\$ 396.00	
W336ACSR	8,195	8,195	\$ 1.55	\$ 1.77	14%	\$ 12,702.25	\$ 14,505.15	
TOTAL						\$ 33,773.79	\$ 42,703.42	26%

Material Xref

CD	DESC
AN8	Anchor, Screw 8"
AROH	Arrestor, Overhead
AT004	Ampact Tap, 602004
AT283	Ampact Tap, 602283
AT283-1	Ampact Tap, 602283-1
AT283-3	Ampact Tap, 602283-3
AT403	Ampact Tap, 600403
AT411	Ampact Tap, 600411
AT458	Ampact Tap, 600458
AT466	Ampact Tap, 600466
ATC	Amp Cover, 602080, Medium
ATC-B	Amp Cartridge, 69338-1, Blue
ATC-W	Amp Cartridge, 69338-5, White
ATC-Y	Amp Cartridge, 69338-4, Yellow
ATS474	Ampact Stirrup, 600474
CCI2	Comp Connector, Insulated, #2
CO1	Cutout, Polymer/Silicone, Fused 100 Amp
CO1LB	Cutout, Fused, 100 Amp, LB
DECA	Dead End Clamp Al, #2-336 ACSR
FGSI	Fbg, Guy Strain Insulator
GR	Ground Rod
GRC	Ground Rod Clamp
GW	Guy Wire
LS	Lag, Small - for U-Guard
PI	Pin Insulator
RF	Riser Fitting
SB	Spool Bolt, Neutral
SB2GP	Split Bolt/Bug), #2 Str. G.P.
SI	Suspension Insulator
SV	Strand Vise, 3/8"
TGL	Transformer Ground Lug
W1/0TPX	Wire, 1/0 Tpx, "NERITINA"
W2CIC	Wire, #2 CIC Primary URD /15KV
W336ACSR	Wire, 336.4 ACSR,Bare,"LINNET"
W4/0TPXUG	Wire, 4/0 Tpx URD,"SWEETBRIER"
WC40	Wedge Clamp, W-40, 1/0 - 4/0

7/13/22, 9:33 AM

Consumer prices up 8.6 percent over year ended May 2022 : The Economics Daily: U.S. Bureau of Labor Statistics

TED: The Economics Daily

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Consumer prices up 8.6 percent over year ended May 2022

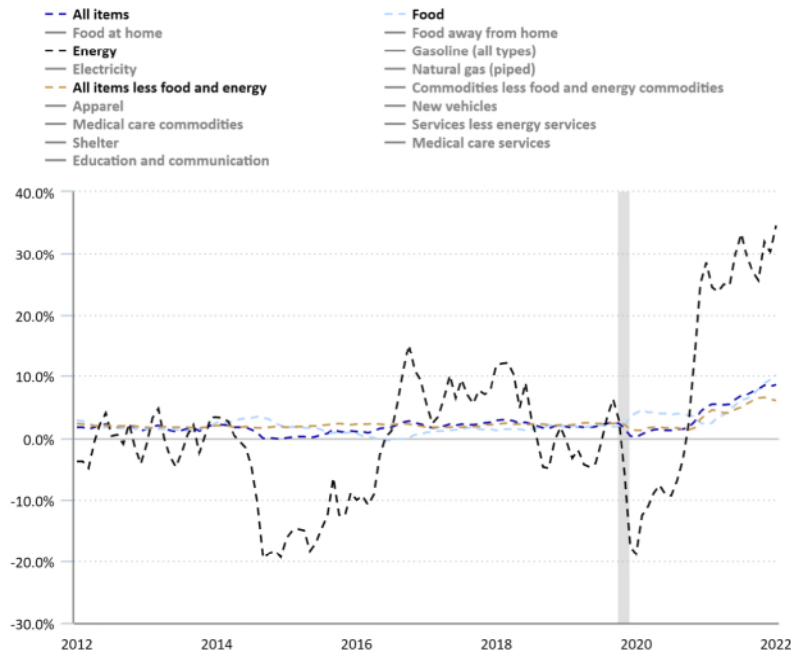
JUNE 14, 2022

From May 2021 to May 2022, the Consumer Price Index for All Urban Consumers increased 8.6 percent, the largest 12-month increase since the period ending December 1981.

CHART IMAGE | CHART DATA

Chart Image

12-month percentage change, Consumer Price Index, selected categories, not seasonally adjusted



Click legend items to change data display. Hover over chart to view data.
Shaded area represents a recession as determined by the National Bureau of Economic Research.
Source: U.S. Bureau of Labor Statistics.



The all items less food and energy index rose 6.0 percent over the last 12 months. The energy index rose 34.6 percent over the last year, the largest 12-month increase since the period ending September 2005. The food index increased 10.1 percent for the 12-months ending May, the first increase of 10.0 percent or more since the period ending March 1981.

Prices for food at home rose 11.9 percent over the last 12 months, the largest 12-month increase since the period ending April 1979. Prices for food away from home rose 7.4 percent over the last year, the largest 12-month change since the period ending November 1981.

Energy prices rose 34.6 percent over the past 12 months. Gasoline prices increased 48.7 percent over the span. Electricity prices rose 12.0 percent, the largest 12-month increase since the period ending August 2006. Prices for natural gas increased 30.2 percent over the last 12 months, the largest such increase since the period ending July 2008.

Shelter prices rose 5.5 percent over the last year, the largest 12-month increase since the period ending February 1991. Prices for household furnishings and operations increased 8.9 percent over the last 12 months. Prices for new vehicles rose 12.6 percent and prices for used cars and trucks increased 16.1 percent over the year, while prices for airline fares rose 37.8 percent.

These data are from the [Consumer Price Index](#) program and are not seasonally adjusted. To learn more, see "[Consumer Price Index — May 2022](#)." Also see [more charts related to the latest Consumer Price Index news release](#).

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NEWS RELEASE
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U. S. D E P A R T M E N T O F L A B O R



**Transmission of material in this release is embargoed until
8:30 a.m. (ET) July 13, 2022**

USDL-22-1470

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Media Contact: (202) 691-5902 • PressOffice@bls.gov

CONSUMER PRICE INDEX – JUNE 2022

The Consumer Price Index for All Urban Consumers (CPI-U) increased 1.3 percent in June on a seasonally adjusted basis after rising 1.0 percent in May, the U.S. Bureau of Labor Statistics reported today. Over the last 12 months, the all items index increased 9.1 percent before seasonal adjustment.

The increase was broad-based, with the indexes for gasoline, shelter, and food being the largest contributors. The energy index rose 7.5 percent over the month and contributed nearly half of the all items increase, with the gasoline index rising 11.2 percent and the other major component indexes also rising. The food index rose 1.0 percent in June, as did the food at home index.

The index for all items less food and energy rose 0.7 percent in June, after increasing 0.6 percent in the preceding two months. While almost all major component indexes increased over the month, the largest contributors were the indexes for shelter, used cars and trucks, medical care, motor vehicle insurance, and new vehicles. The indexes for motor vehicle repair, apparel, household furnishings and operations, and recreation also increased in June. Among the few major component indexes to decline in June were lodging away from home and airline fares.

The all items index increased 9.1 percent for the 12 months ending June, the largest 12-month increase since the period ending November 1981. The all items less food and energy index rose 5.9 percent over the last 12 months. The energy index rose 41.6 percent over the last year, the largest 12-month increase since the period ending April 1980. The food index increased 10.4 percent for the 12-months ending June, the largest 12-month increase since the period ending February 1981.

Chart 1. One-month percent change in CPI for All Urban Consumers (CPI-U), seasonally adjusted, June 2021 - June 2022
Percent change

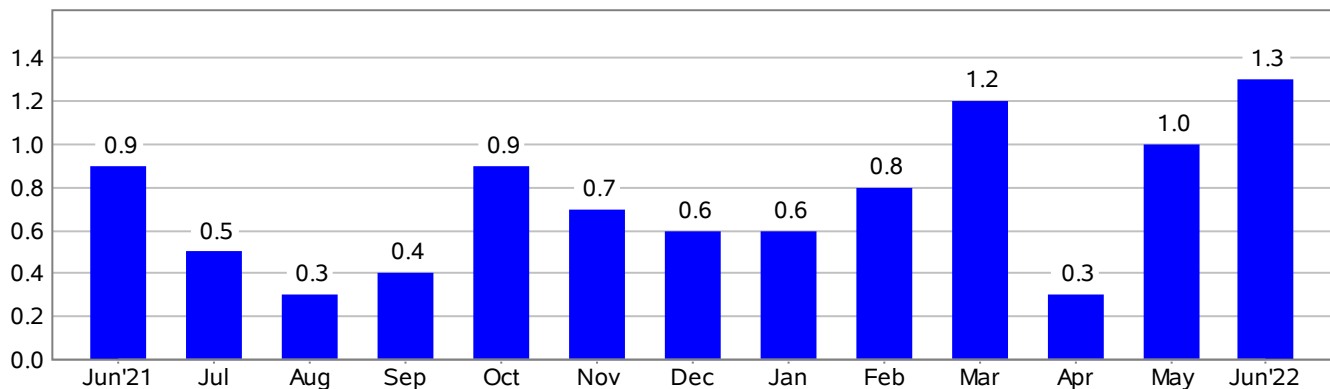


Chart 2. 12-month percent change in CPI for All Urban Consumers (CPI-U), not seasonally adjusted, June 2021 - June 2022

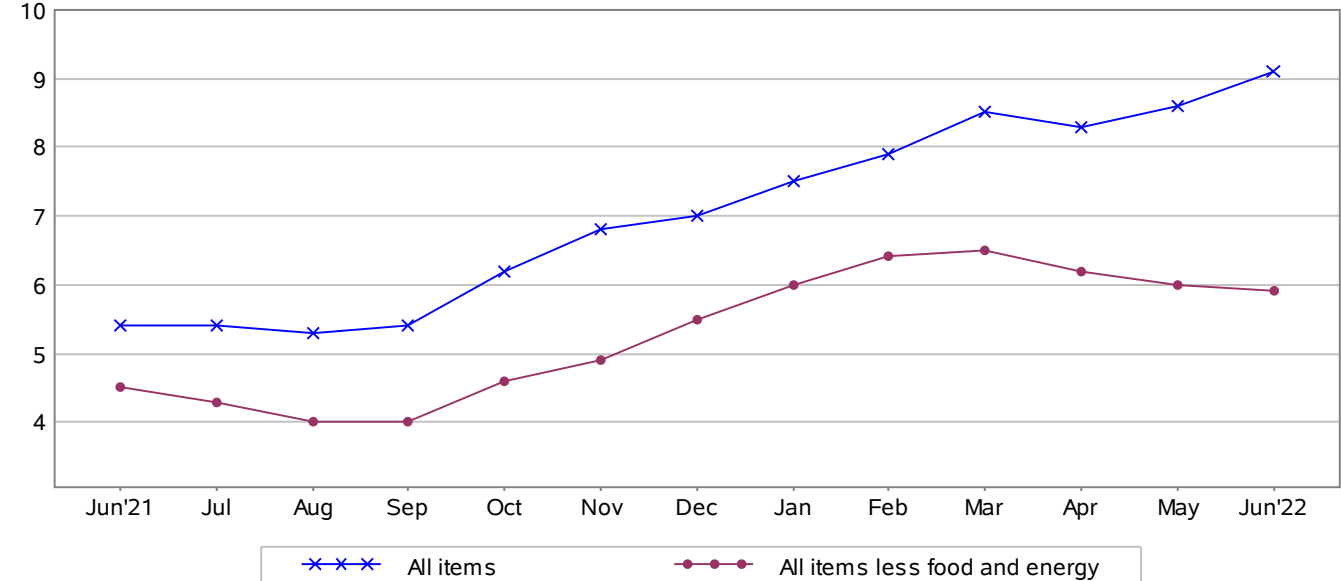


Table A. Percent changes in CPI for All Urban Consumers (CPI-U): U.S. city average

	Seasonally adjusted changes from preceding month							Un-adjusted 12-mos. ended Jun. 2022
	Dec. 2021	Jan. 2022	Feb. 2022	Mar. 2022	Apr. 2022	May 2022	Jun. 2022	
All items.....	0.6	0.6	0.8	1.2	0.3	1.0	1.3	9.1
Food.....	0.5	0.9	1.0	1.0	0.9	1.2	1.0	10.4
Food at home.....	0.4	1.0	1.4	1.5	1.0	1.4	1.0	12.2
Food away from home ¹	0.6	0.7	0.4	0.3	0.6	0.7	0.9	7.7
Energy.....	0.9	0.9	3.5	11.0	-2.7	3.9	7.5	41.6
Energy commodities.....	1.3	-0.6	6.7	18.1	-5.4	4.5	10.4	60.6
Gasoline (all types).....	1.3	-0.8	6.6	18.3	-6.1	4.1	11.2	59.9
Fuel oil ¹	-2.4	9.5	7.7	22.3	2.7	16.9	-1.2	98.5
Energy services.....	0.3	2.9	-0.4	1.8	1.3	3.0	3.5	19.4
Electricity.....	0.5	4.2	-1.1	2.2	0.7	1.3	1.7	13.7
Utility (piped) gas service.....	-0.3	-0.5	1.5	0.6	3.1	8.0	8.2	38.4
All items less food and energy.....	0.6	0.6	0.5	0.3	0.6	0.6	0.7	5.9
Commodities less food and energy								
commodities.....	1.2	1.0	0.4	-0.4	0.2	0.7	0.8	7.2
New vehicles.....	1.2	0.0	0.3	0.2	1.1	1.0	0.7	11.4
Used cars and trucks.....	3.3	1.5	-0.2	-3.8	-0.4	1.8	1.6	7.1
Apparel.....	1.1	1.1	0.7	0.6	-0.8	0.7	0.8	5.2
Medical care commodities ¹	0.0	0.9	0.3	0.2	0.1	0.3	0.4	3.2
Services less energy services.....	0.3	0.4	0.5	0.6	0.7	0.6	0.7	5.5
Shelter.....	0.4	0.3	0.5	0.5	0.5	0.6	0.6	5.6
Transportation services.....	0.0	1.0	1.4	2.0	3.1	1.3	2.1	8.8
Medical care services.....	0.3	0.6	0.1	0.6	0.5	0.4	0.7	4.8

¹ Not seasonally adjusted.

Food

The food index increased 1.0 percent in June following a 1.2-percent increase the prior month. The index for food at home also rose 1.0 percent in June, the sixth consecutive increase of at least 1.0 percent in that index. Five of the six major grocery store food group indexes rose in June. The index for other food at home rose 1.8 percent, with sharp increases in the indexes for butter and for sugar and sweets. The index for cereals and bakery products increased 2.1 percent in June, with the index for flour rising 5.3 percent. The dairy and related products index rose 1.7 percent over the month, following a 2.9-percent increase in May.

The fruits and vegetables index increased 0.7 percent in June after rising 0.6 percent in May. The index for nonalcoholic beverages rose 0.8 percent over the month. The only major grocery group index to decline in June was the index for meats, poultry, fish, and eggs which fell 0.4 percent over the month as the indexes for beef and pork declined.

The food away from home index rose 0.9 percent in June after rising 0.7 percent in May. The index for full service meals rose 0.8 percent over the month. The index for limited service meals increased 0.7 percent in June, as it did in May.

The food at home index rose 12.2 percent over the last 12 months, the largest 12-month increase since the period ending April 1979. All six major grocery store food group indexes increased over the span, with five of the six rising more than 10 percent. The index for other food at home increased the most, rising 14.4 percent, with the index for butter and margarine increasing 26.3 percent. The remaining groups saw increases ranging from 8.1 percent (fruits and vegetables) to 13.8 percent (cereals and bakery products).

The index for food away from home rose 7.7 percent over the last year, the largest 12-month change since the period ending November 1981. The index for full service meals rose 8.9 percent over the last 12 months, and the index for limited service meals rose 7.4 percent over the last year.

Energy

The energy index increased 7.5 percent in June after rising 3.9 percent in May. The gasoline index rose 11.2 percent in June after increasing 4.1 percent in May. (Before seasonal adjustment, gasoline prices rose 9.9 percent in June.) The index for natural gas rose 8.2 percent in June, the largest monthly increase since October 2005. The electricity index also increased in June, rising 1.7 percent.

The energy index rose 41.6 percent over the past 12 months. The gasoline index increased 59.9 percent over the span, the largest 12-month increase in that index since March 1980. The index for electricity rose 13.7 percent, the largest 12-month increase since the period ending April 2006. The index for natural gas increased 38.4 percent over the last 12 months, the largest such increase since the period ending October 2005.

All items less food and energy

The index for all items less food and energy rose 0.7 percent in June. The shelter index increased 0.6 percent in June, as it did in May. The rent index rose 0.8 percent over the month, the largest monthly increase since April 1986, and the owners' equivalent rent index rose 0.7 percent. The index for lodging away from home fell 2.8 percent in June after a string of increases in recent months.

The index for used cars and trucks rose 1.6 percent in June after rising 1.8 percent in May. The motor vehicle insurance index increased 1.9 percent over the month, the sixth consecutive increase in that index. The index for new vehicles rose in June, increasing 0.7 percent after rising 1.0 percent in May. The motor vehicle maintenance and repair index increased 2.0 percent in June, its largest increase since September 1974.

The medical care index rose 0.7 percent in June, with all medical care component indexes increasing over the month. The index for dental services increased 1.9 percent in June, the largest monthly change ever recorded for that series, which dates to 1995. The hospital services index increased 0.3 percent over the month, while the physicians' services index rose 0.1 percent. The index for prescription drugs also increased 0.1 percent in June.

The apparel index rose 0.8 percent in June, following a 0.7-percent increase in May. The index for household furnishings and operations continued to rise, increasing 0.4 percent over the month. The recreation index rose 0.3 percent in June. Other indexes that increased in June include education (+0.4 percent), personal care (+0.4 percent), alcoholic beverages (+0.4 percent), and tobacco (+0.6 percent).

Among the limited number of indexes which declined in June was the index for airline fares, which fell 1.8 percent in June after rising sharply in recent months. The communication index was unchanged over the month.

The index for all items less food and energy rose 5.9 percent over the past 12 months. The increase was broad-based, reflecting advances in almost all major component indexes. The shelter index rose 5.6 percent over the last year, the largest 12-month increase since the period ending February 1991. The index for household furnishings and operations increased 9.5 percent over the last 12 months. The index for new vehicles rose 11.4 percent and the index for used cars and trucks increased 7.1 percent over the year, while the index for airline fares rose 34.1 percent.

Not seasonally adjusted CPI measures

The Consumer Price Index for All Urban Consumers (CPI-U) increased 9.1 percent over the last 12 months to an index level of 296.311 (1982-84=100). For the month, the index increased 1.4 percent prior to seasonal adjustment.

The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) increased 9.8 percent over the last 12 months to an index level of 292.542 (1982-84=100). For the month, the index rose 1.6 percent prior to seasonal adjustment.

The Chained Consumer Price Index for All Urban Consumers (C-CPI-U) increased 8.4 percent over the last 12 months. For the month, the index increased 1.2 percent on a not seasonally adjusted basis. Please note that the indexes for the past 10 to 12 months are subject to revision.

The Consumer Price Index for July 2022 is scheduled to be released on Wednesday, August 10, 2022 at 8:30 a.m. (ET).

Technical Note

Brief Explanation of the CPI

The Consumer Price Index (CPI) measures the change in prices paid by consumers for goods and services. The CPI reflects spending patterns for each of two population groups: all urban consumers and urban wage earners and clerical workers. The all urban consumer group represents about 93 percent of the total U.S. population. It is based on the expenditures of almost all residents of urban or metropolitan areas, including professionals, the self-employed, the poor, the unemployed, and retired people, as well as urban wage earners and clerical workers. Not included in the CPI are the spending patterns of people living in rural nonmetropolitan areas, farming families, people in the Armed Forces, and those in institutions, such as prisons and mental hospitals. Consumer inflation for all urban consumers is measured by two indexes, namely, the Consumer Price Index for All Urban Consumers (CPI-U) and the Chained Consumer Price Index for All Urban Consumers (C-CPI-U).

The Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) is based on the expenditures of households included in the CPI-U definition that meet two requirements: more than one-half of the household's income must come from clerical or wage occupations, and at least one of the household's earners must have been employed for at least 37 weeks during the previous 12 months. The CPI-W population represents about 29 percent of the total U.S. population and is a subset of the CPI-U population.

The CPIs are based on prices of food, clothing, shelter, fuels, transportation, doctors' and dentists' services, drugs, and other goods and services that people buy for day-to-day living. Prices are collected each month in 75 urban areas across the country from about 6,000 housing units and approximately 22,000 retail establishments (department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments). All taxes directly associated with the purchase and use of items are included in the index. Prices of fuels and a few other items are obtained every month in all 75 locations. Prices of most other commodities and services are collected every month in the three largest geographic areas and every other month in other areas. Prices of most goods and services are obtained by personal visit, telephone call, or web collection by the Bureau's trained representatives.

In calculating the index, price changes for the various items in each location are aggregated using weights, which represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. For the CPI-U and CPI-W, separate indexes are also published by size of city, by region of the country, for cross-classifications of regions and population-size classes, and for 23 selected local areas. Area indexes do not measure differences in the level of prices among cities; they only measure the average change in prices for each area since the base period. For the C-CPI-U, data are issued only at the national level. The CPI-U and CPI-W are considered final when released, but the C-CPI-U is issued in preliminary form and subject to three subsequent quarterly revisions.

The index measures price change from a designed reference date. For most of the CPI-U and the CPI-W, the reference base is 1982-84 equals 100. The reference base for the C-CPI-U is December 1999 equals 100. An increase of 7 percent from the reference base, for example, is shown as 107.000. Alternatively, that relationship can also be expressed as the price of a base period market basket of goods and services rising from \$100 to \$107.

Sampling Error in the CPI

The CPI is a statistical estimate that is subject to sampling error because it is based upon a sample of retail prices and not the complete universe of all prices. BLS calculates and publishes estimates of the 1-

month, 2-month, 6-month, and 12-month percent change standard errors annually for the CPI-U. These standard error estimates can be used to construct confidence intervals for hypothesis testing. For example, the estimated standard error of the 1-month percent change is 0.03 percent for the U.S. all items CPI. This means that if we repeatedly sample from the universe of all retail prices using the same methodology, and estimate a percentage change for each sample, then 95 percent of these estimates will be within 0.06 percent of the 1-month percentage change based on all retail prices. For example, for a 1-month change of 0.2 percent in the all items CPI-U, we are 95 percent confident that the actual percent change based on all retail prices would fall between 0.14 and 0.26 percent. For the latest data, including information on how to use the estimates of standard error, see www.bls.gov/cpi/tables/variance-estimates/home.htm.

Calculating Index Changes

Movements of the indexes from 1 month to another are usually expressed as percent changes rather than changes in index points, because index point changes are affected by the level of the index in relation to its base period, while percent changes are not. The following table shows an example of using index values to calculate percent changes:

	Item A	Item B	Item C
Year I	112.500	225.000	110.000
Year II	121.500	243.000	128.000
Change in index points	9.000	18.000	18.000
Percent change	$9.0/112.500 \times 100 = 8.0$	$18.0/225.000 \times 100 = 8.0$	$18.0/110.000 \times 100 = 16.4$

Use of Seasonally Adjusted and Unadjusted Data

The Consumer Price Index (CPI) produces both unadjusted and seasonally adjusted data. Seasonally adjusted data are computed using seasonal factors derived by the X-13ARIMA-SEATS seasonal adjustment method. These factors are updated each February, and the new factors are used to revise the previous 5 years of seasonally adjusted data. The factors are available at www.bls.gov/cpi/tables/seasonal-adjustment/seasonal-factors-2022.xlsx. For more information on data revision scheduling, please see the Factsheet on Seasonal Adjustment at www.bls.gov/cpi/seasonal-adjustment/questions-and-answers.htm and the Timeline of Seasonal Adjustment Methodological Changes at www.bls.gov/cpi/seasonal-adjustment/timeline-seasonal-adjustment-methodology-changes.htm.

For analyzing short-term price trends in the economy, seasonally adjusted changes are usually preferred since they eliminate the effect of changes that normally occur at the same time and in about the same magnitude every year—such as price movements resulting from weather events, production cycles, model changeovers, holidays, and sales. This allows data users to focus on changes that are not typical for the time of year. The unadjusted data are of primary interest to consumers concerned about the prices they actually pay. Unadjusted data are also used extensively for escalation purposes. Many collective bargaining contract agreements and pension plans, for example, tie compensation changes to the Consumer Price Index before adjustment for seasonal variation. BLS advises against the use of seasonally adjusted data in escalation agreements because seasonally adjusted series are revised annually.

Intervention Analysis

The Bureau of Labor Statistics uses intervention analysis seasonal adjustment (IASA) for some CPI series. Sometimes extreme values or sharp movements can distort the underlying seasonal pattern of price change. Intervention analysis seasonal adjustment is a process by which the distortions caused by such unusual events are estimated and removed from the data prior to calculation of seasonal factors. The resulting seasonal factors, which more accurately represent the seasonal pattern, are then applied to the unadjusted data.

For example, this procedure was used for the motor fuel series to offset the effects of the 2009 return to normal pricing after the worldwide economic downturn in 2008. Retaining this outlier data during seasonal factor calculation would distort the computation of the seasonal portion of the time series data for motor fuel, so it was estimated and removed from the data prior to seasonal adjustment. Following that, seasonal factors were calculated based on this “prior adjusted” data. These seasonal factors represent a clearer picture of the seasonal pattern in the data. The last step is for motor fuel seasonal factors to be applied to the unadjusted data.

For the seasonal factors introduced for January 2022, BLS adjusted 72 series using intervention analysis seasonal adjustment, including selected food and beverage items, motor fuels, electricity, and vehicles.

Revision of Seasonally Adjusted Indexes

Seasonally adjusted data, including the U.S. city average all items index levels, are subject to revision for up to 5 years after their original release. Every year, economists in the CPI calculate new seasonal factors for seasonally adjusted series and apply them to the last 5 years of data. Seasonally adjusted indexes beyond the last 5 years of data are considered to be final and not subject to revision. For January 2022, revised seasonal factors and seasonally adjusted indexes for 2017 to 2021 were calculated and published. For series which are directly adjusted using the Census X-13ARIMA-SEATS seasonal adjustment software, the seasonal factors for 2021 will be applied to data for 2022 to produce the seasonally adjusted 2022 indexes. Series which are indirectly seasonally adjusted by summing seasonally adjusted component series have seasonal factors which are derived and are therefore not available in advance.

Determining Seasonal Status

Each year the seasonal status of every series is reevaluated based upon certain statistical criteria. Using these criteria, BLS economists determine whether a series should change its status from "not seasonally adjusted" to "seasonally adjusted", or vice versa. If any of the 81 components of the U.S. city average all items index change their seasonal adjustment status from seasonally adjusted to not seasonally adjusted, not seasonally adjusted data will be used in the aggregation of the dependent series for the last 5 years, but the seasonally adjusted indexes before that period will not be changed. For 2022, 22 of the 81 components of the U.S. city average all items index are seasonally adjusted.

Contact Information

For additional information about the CPI visit www.bls.gov/cpi or contact the CPI Information and Analysis Section at 202-691-7000 or cpi_info@bls.gov.

For additional information on seasonal adjustment in the CPI visit www.bls.gov/cpi/seasonal-adjustment/home.htm or contact the CPI seasonal adjustment section at 202-691-6968 or cpiseas@bls.gov.

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Table 1. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022

[1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted indexes			Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021	May 2022	Jun. 2022	Jun. 2021-Jun. 2022	May 2022-Jun. 2022	Mar. 2022-Apr. 2022	Apr. 2022-May 2022	May 2022-Jun. 2022
All items.....	100.000	271.696	292.296	296.311	9.1	1.4	0.3	1.0	1.3
Food.....	13.423	276.206	302.038	305.041	10.4	1.0	0.9	1.2	1.0
Food at home.....	8.324	257.412	285.953	288.884	12.2	1.0	1.0	1.4	1.0
Cereals and bakery products.....	1.058	286.761	319.930	326.378	13.8	2.0	1.1	1.5	2.1
Meats, poultry, fish, and eggs.....	1.906	282.993	314.929	316.110	11.7	0.4	1.4	1.1	-0.4
Dairy and related products.....	0.785	230.152	257.678	261.255	13.5	1.4	2.5	2.9	1.7
Fruits and vegetables.....	1.425	315.211	341.594	340.594	8.1	-0.3	-0.3	0.6	0.7
Nonalcoholic beverages and beverage materials.....	0.950	179.527	199.166	200.876	11.9	0.9	2.0	1.7	0.8
Other food at home.....	2.201	220.221	247.300	252.015	14.4	1.9	0.7	1.6	1.8
Food away from home ¹	5.099	305.634	325.952	329.033	7.7	0.9	0.6	0.7	0.9
Energy.....	8.665	240.720	316.761	340.917	41.6	7.6	-2.7	3.9	7.5
Energy commodities.....	5.194	273.459	402.040	439.256	60.6	9.3	-5.4	4.5	10.4
Fuel oil ¹	0.191	280.786	564.147	557.440	98.5	-1.2	2.7	16.9	-1.2
Motor fuel.....	4.927	269.983	393.950	432.585	60.2	9.8	-5.8	4.1	11.0
Gasoline (all types).....	4.820	268.979	391.262	430.142	59.9	9.9	-6.1	4.1	11.2
Energy services.....	3.471	219.425	249.129	262.048	19.4	5.2	1.3	3.0	3.5
Electricity.....	2.541	226.562	247.461	257.557	13.7	4.1	0.7	1.3	1.7
Utility (piped) gas service.....	0.930	194.563	248.854	269.278	38.4	8.2	3.1	8.0	8.2
All items less food and energy.....	77.912	278.218	292.506	294.680	5.9	0.7	0.6	0.6	0.7
Commodities less food and energy commodities.....	21.249	155.284	165.140	166.403	7.2	0.8	0.2	0.7	0.8
Apparel.....	2.459	120.324	126.970	126.619	5.2	-0.3	-0.8	0.7	0.8
New vehicles.....	4.026	154.847	171.350	172.546	11.4	0.7	1.1	1.0	0.7
Used cars and trucks.....	3.975	198.855	208.373	212.980	7.1	2.2	-0.4	1.8	1.6
Medical care commodities ¹	1.480	375.697	386.273	387.787	3.2	0.4	0.1	0.3	0.4
Alcoholic beverages.....	0.870	262.913	272.293	273.537	4.0	0.5	0.4	0.5	0.4
Tobacco and smoking products ¹	0.514	1,247.577	1,338.572	1,346.046	7.9	0.6	0.4	0.9	0.6
Services less energy services.....	56.663	354.250	370.937	373.664	5.5	0.7	0.7	0.6	0.7
Shelter.....	32.285	334.222	350.580	352.967	5.6	0.7	0.5	0.6	0.6
Rent of primary residence.....	7.239	347.833	365.116	367.927	5.8	0.8	0.6	0.6	0.8
Owners' equivalent rent of residences ²	23.657	342.258	358.469	361.018	5.5	0.7	0.5	0.6	0.7
Medical care services.....	6.821	570.509	594.243	598.035	4.8	0.6	0.5	0.4	0.7
Physicians' services ¹	1.819	406.812	410.249	410.729	1.0	0.1	0.2	-0.1	0.1
Hospital services ³	2.146	361.384	375.273	375.318	3.9	0.0	0.5	0.5	0.3
Transportation services.....	5.855	335.548	357.437	365.178	8.8	2.2	3.1	1.3	2.1
Motor vehicle maintenance and repair ¹	1.016	315.209	333.258	340.058	7.9	2.0	0.5	0.5	2.0
Motor vehicle insurance.....	2.379	569.656	594.437	603.932	6.0	1.6	0.8	0.5	1.9
Airline fares.....	0.756	256.684	344.853	344.101	34.1	-0.2	18.6	12.6	-1.8

¹ Not seasonally adjusted.² Indexes on a December 1982=100 base.³ Indexes on a December 1996=100 base.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022

[1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
All items.....	100.000	9.1	1.4	0.3	1.0	1.3
Food.....	13.423	10.4	1.0	0.9	1.2	1.0
Food at home.....	8.324	12.2	1.0	1.0	1.4	1.0
Cereals and bakery products.....	1.058	13.8	2.0	1.1	1.5	2.1
Cereals and cereal products.....	0.342	15.1	2.5	1.5	1.2	2.1
Flour and prepared flour mixes.....	0.054	19.2	5.5	-0.9	1.0	5.3
Breakfast cereal ¹	0.144	14.2	2.5	2.4	1.3	2.5
Rice, pasta, cornmeal.....	0.144	14.2	1.3	1.3	2.1	0.7
Rice ^{1, 2, 3}		11.9	-1.1	0.7	2.6	-1.1
Bakery products ¹	0.716	13.2	1.8	1.0	1.5	1.8
Bread ^{1, 2}	0.199	10.8	1.6	2.0	0.5	1.6
White bread ^{1, 3}		10.1	1.8	2.0	0.6	1.8
Bread other than white ^{1, 3}		11.6	1.3	1.9	0.4	1.3
Fresh biscuits, rolls, muffins ²	0.107	13.2	3.4	-0.2	0.2	3.5
Cakes, cupcakes, and cookies ¹	0.177	13.4	1.8	0.9	3.1	1.8
Cookies ^{1, 3}		14.7	1.3	0.3	4.0	1.3
Fresh cakes and cupcakes ^{1, 3}		11.6	2.9	1.0	1.8	2.9
Other bakery products.....	0.233	15.3	1.2	0.4	1.6	1.2
Fresh sweetrolls, coffeecakes, doughnuts ^{1, 3}		14.6	1.7	0.7	1.1	1.7
Crackers, bread, and cracker products ³		16.6	0.5	0.0	1.0	0.9
Frozen and refrigerated bakery products, pies, tarts, turnovers ^{1, 3}		17.2	2.9	1.9	1.7	2.9
Meats, poultry, fish, and eggs.....	1.906	11.7	0.4	1.4	1.1	-0.4
Meats, poultry, and fish.....	1.778	10.4	0.4	0.8	0.9	-0.4
Meats.....	1.125	8.2	0.0	0.4	-0.1	-1.3
Beef and veal.....	0.522	4.1	-0.6	-0.9	-0.7	-2.3
Uncooked ground beef ¹	0.191	9.7	-0.1	1.3	-0.7	-0.1
Uncooked beef roasts ^{1, 2}	0.079	3.6	-2.0	-0.7	1.0	-2.0
Uncooked beef steaks ²	0.202	-0.3	-0.1	-2.1	-1.4	-1.6
Uncooked other beef and veal ^{1, 2}	0.051	3.4	-1.9	-0.6	-1.2	-1.9
Pork.....	0.361	9.0	0.1	0.6	0.0	-1.6
Bacon, breakfast sausage, and related products ²	0.162	11.9	-0.8	2.1	0.3	-1.7
Bacon and related products ³		10.8	-1.1	2.5	-0.9	-1.9
Breakfast sausage and related products ^{2, 3}		13.6	0.2	1.5	2.7	-1.0
Ham.....	0.063	9.6	3.4	-1.8	0.2	1.1
Ham, excluding canned ³		9.3	3.6	-1.8	0.2	1.2
Pork chops ¹	0.051	4.2	-1.4	1.9	-1.7	-1.4
Other pork including roasts, steaks, and ribs ²	0.085	7.2	0.1	0.6	-0.1	-1.2
Other meats.....	0.242	16.7	1.0	2.7	1.2	1.5
Frankfurters ³		16.3	4.8	1.9	2.0	4.5
Lunchmeats ^{1, 2, 3}		18.0	0.6	2.6	1.5	0.6
Poultry ¹	0.362	17.3	1.5	3.0	3.0	1.5
Chicken ^{1, 2}	0.294	18.6	1.7	3.4	2.7	1.7
Fresh whole chicken ^{1, 3}		15.5	1.2	4.0	2.1	1.2
Fresh and frozen chicken parts ^{1, 3}		20.4	1.7	3.5	3.0	1.7
Other uncooked poultry including turkey ²	0.068	11.7	1.0	0.8	2.9	0.4
Fish and seafood.....	0.292	11.0	0.5	0.0	1.9	0.5
Fresh fish and seafood ^{1, 2}	0.149	10.6	-0.4	0.9	2.2	-0.4
Processed fish and seafood ²	0.142	11.4	1.4	-0.7	1.4	1.6
Shelf stable fish and seafood ³		7.4	1.8	-2.5	1.3	2.0
Frozen fish and seafood ³		14.1	2.0	-0.7	2.0	2.2
Eggs ¹	0.128	33.1	0.3	10.3	5.0	0.3

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021-Jun. 2022	May 2022-Jun. 2022	Mar. 2022-Apr. 2022	Apr. 2022-May 2022	May 2022-Jun. 2022
Dairy and related products.....	0.785	13.5	1.4	2.5	2.9	1.7
Milk ²	0.206	16.4	0.5	3.1	2.8	0.8
Fresh whole milk ³		17.1	0.0	3.1	3.9	0.1
Fresh milk other than whole ^{2, 3}		16.7	0.9	3.4	2.6	1.2
Cheese and related products ¹	0.256	9.7	1.0	2.1	2.0	1.0
Ice cream and related products.....	0.114	12.5	3.1	1.7	4.3	4.0
Other dairy and related products ^{1, 2}	0.209	15.9	1.9	2.3	3.4	1.9
Fruits and vegetables.....	1.425	8.1	-0.3	-0.3	0.6	0.7
Fresh fruits and vegetables.....	1.090	7.0	-0.7	-0.3	0.4	0.5
Fresh fruits.....	0.595	7.3	-1.9	-0.5	0.2	0.2
Apples.....	0.077	6.0	2.3	-0.5	-0.1	0.8
Bananas ¹	0.079	6.6	0.5	-0.6	1.3	0.5
Citrus fruits ²	0.176	9.3	-3.0	-0.6	-1.5	-4.5
Oranges, including tangerines ³		10.9	0.7	-0.7	-1.8	-3.0
Other fresh fruits ²	0.263	6.5	-3.1	-1.4	1.0	2.4
Fresh vegetables.....	0.495	6.5	0.7	0.0	0.6	0.8
Potatoes.....	0.079	9.0	2.1	2.0	-0.1	1.5
Lettuce ¹	0.059	11.4	0.3	0.3	-1.8	0.3
Tomatoes.....	0.078	0.6	0.8	0.3	2.9	-0.9
Other fresh vegetables.....	0.280	6.5	0.3	0.0	0.3	0.7
Processed fruits and vegetables ²	0.335	11.6	1.1	-0.5	1.4	1.2
Canned fruits and vegetables ²	0.172	13.4	1.2	-0.3	1.9	1.4
Canned fruits ^{2, 3}		11.6	-0.2	-0.8	3.7	0.1
Canned vegetables ^{2, 3}		14.3	2.0	-0.1	1.0	2.1
Frozen fruits and vegetables ²	0.099	10.2	1.0	0.1	1.5	0.4
Frozen vegetables ³		9.8	1.3	-0.1	1.8	0.9
Other processed fruits and vegetables including dried ²	0.063	9.0	1.3	-0.2	0.1	1.1
Dried beans, peas, and lentils ^{1, 2, 3}		9.9	-1.0	-0.2	0.2	-1.0
Nonalcoholic beverages and beverage materials.....	0.950	11.9	0.9	2.0	1.7	0.8
Juices and nonalcoholic drinks ²	0.667	11.6	0.8	1.9	1.8	0.6
Carbonated drinks.....	0.279	11.0	-0.1	1.8	2.5	-0.4
Frozen noncarbonated juices and drinks ^{1, 2}	0.007	8.4	2.4	0.5	1.5	2.4
Nonfrozen noncarbonated juices and drinks ²	0.381	12.1	1.4	2.4	1.0	1.6
Beverage materials including coffee and tea ²	0.283	12.4	1.0	2.2	1.6	0.7
Coffee.....	0.184	15.8	0.9	2.4	2.1	0.4
Roasted coffee ³		16.8	1.2	2.6	1.8	0.7
Instant coffee ^{1, 3}		11.2	1.0	3.7	1.7	1.0
Other beverage materials including tea ^{1, 2}	0.099	6.4	1.0	1.9	0.1	1.0
Other food at home.....	2.201	14.4	1.9	0.7	1.6	1.8
Sugar and sweets ¹	0.276	9.4	1.1	-0.2	0.6	1.1
Sugar and sugar substitutes.....	0.041	11.4	1.6	-0.8	2.3	2.1
Candy and chewing gum ^{1, 2}	0.174	6.9	0.7	-0.8	-0.2	0.7
Other sweets ²	0.061	15.7	1.9	1.6	2.3	1.5
Fats and oils.....	0.245	19.5	2.0	1.2	2.2	2.6
Butter and margarine ²	0.077	26.3	3.7	4.7	1.9	5.0
Butter ³		21.3	2.9	3.7	0.6	4.8
Margarine ^{1, 3}		34.5	6.8	7.1	3.2	6.8
Salad dressing ²	0.056	15.0	2.0	0.7	0.5	3.3
Other fats and oils including peanut butter ²	0.112	17.1	0.8	-0.8	3.2	1.1
Peanut butter ^{1, 2, 3}		9.5	-2.0	-0.3	3.3	-2.0
Other foods.....	1.679	14.6	2.0	0.8	1.7	1.8
Soups.....	0.102	16.0	2.0	2.3	0.4	2.0
Frozen and freeze dried prepared foods.....	0.271	17.7	2.9	-0.1	0.8	2.8

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
Snacks ¹	0.364	14.3	1.8	0.7	1.7	1.8
Spices, seasonings, condiments, sauces.....	0.323	12.2	0.9	0.4	1.6	1.1
Salt and other seasonings and spices ^{2, 3}		11.9	0.1	0.5	1.5	0.0
Olives, pickles, relishes ^{1, 2, 3}		12.6	0.9	-0.1	0.3	0.9
Sauces and gravies ^{2, 3}		13.6	1.1	1.6	2.0	1.4
Other condiments ³		10.7	2.0	-1.8	2.4	2.1
Baby food ^{1, 2}	0.043	14.0	1.1	3.0	0.0	1.1
Other miscellaneous foods ²	0.575	14.5	2.4	1.0	1.9	2.1
Prepared salads ^{3, 4}		17.6	3.1	1.7	3.6	3.2
Food away from home ¹	5.099	7.7	0.9	0.6	0.7	0.9
Full service meals and snacks ^{1, 2}	2.385	8.9	0.8	0.9	0.8	0.8
Limited service meals and snacks ^{1, 2}	2.474	7.4	0.7	0.3	0.7	0.7
Food at employee sites and schools ^{1, 2}	0.034	-14.1	24.2	0.1	0.4	24.2
Food at elementary and secondary schools ^{1, 3, 5}				0.1	0.3	
Food from vending machines and mobile vendors ^{1, 2}	0.036	7.6	1.8	1.5	2.0	1.8
Other food away from home ^{1, 2}	0.169	6.8	1.8	0.1	0.5	1.8
Energy.....	8.665	41.6	7.6	-2.7	3.9	7.5
Energy commodities.....	5.194	60.6	9.3	-5.4	4.5	10.4
Fuel oil and other fuels.....	0.267	70.4	-0.9	3.7	13.1	-0.7
Fuel oil ¹	0.191	98.5	-1.2	2.7	16.9	-1.2
Propane, kerosene, and firewood ⁶	0.076	26.1	-0.2	1.4	1.5	1.1
Motor fuel.....	4.927	60.2	9.8	-5.8	4.1	11.0
Gasoline (all types).....	4.820	59.9	9.9	-6.1	4.1	11.2
Gasoline, unleaded regular ³		61.1	10.1	-6.4	4.6	11.3
Gasoline, unleaded midgrade ^{3, 7}		56.4	9.6	-4.0	3.1	10.4
Gasoline, unleaded premium ³		52.1	8.7	-3.5	2.5	9.4
Other motor fuels ^{1, 2}	0.107	75.8	3.9	6.9	7.6	3.9
Energy services.....	3.471	19.4	5.2	1.3	3.0	3.5
Electricity.....	2.541	13.7	4.1	0.7	1.3	1.7
Utility (piped) gas service.....	0.930	38.4	8.2	3.1	8.0	8.2
All items less food and energy.....	77.912	5.9	0.7	0.6	0.6	0.7
Commodities less food and energy commodities.....	21.249	7.2	0.8	0.2	0.7	0.8
Household furnishings and supplies ⁸	3.930	10.2	0.7	0.5	0.1	0.5
Window and floor coverings and other linens ^{1, 2}	0.291	5.6	0.3	0.8	-0.4	0.3
Floor coverings ^{1, 2}	0.067	8.8	1.0	0.8	2.2	1.0
Window coverings ^{1, 2}	0.058	15.9	-3.9	4.7	-2.0	-3.9
Other linens ^{1, 2}	0.166	0.8	1.6	-0.5	-0.9	1.6
Furniture and bedding ¹	0.967	13.1	1.1	1.5	-0.2	1.1
Bedroom furniture ¹	0.313	10.3	1.1	1.7	-1.6	1.1
Living room, kitchen, and dining room furniture ^{1, 2}	0.467	15.4	2.1	1.1	0.7	2.1
Other furniture ²	0.178	12.0	-1.5	2.0	0.3	-1.7
Appliances ²	0.252	6.5	0.6	-0.5	-0.7	0.2
Major appliances ²	0.084	7.5	0.0	-0.8	-2.0	0.0
Laundry equipment ^{1, 3}		-1.6	-0.9	-3.1	-0.1	-0.9
Other appliances ^{1, 2}	0.165	6.0	0.8	-0.1	-0.1	0.8
Other household equipment and furnishings ²	0.557	7.3	0.6	-1.6	-1.7	1.2
Clocks, lamps, and decorator items ¹	0.332	7.9	0.5	-1.1	-3.7	0.5
Indoor plants and flowers ⁹	0.099	5.6	0.7	-1.7	0.1	0.8
Dishes and flatware ^{1, 2}	0.051	4.5	0.3	-0.3	0.6	0.3
Nonelectric cookware and tableware ^{1, 2}	0.075	9.6	1.2	0.3	0.3	1.2
Tools, hardware, outdoor equipment and supplies ²	0.932	10.5	-0.1	0.6	1.1	-0.2
Tools, hardware and supplies ^{1, 2}	0.243	10.2	0.4	1.2	0.6	0.4
Outdoor equipment and supplies ²	0.464	10.8	-0.2	0.1	1.1	-0.3

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
Housekeeping supplies ¹	0.932	10.7	1.2	1.3	1.0	1.2
Household cleaning products ^{1, 2}	0.343	11.3	0.5	1.7	0.3	0.5
Household paper products ^{1, 2}	0.211	9.4	2.2	0.5	-0.1	2.2
Miscellaneous household products ^{1, 2}	0.378	11.0	1.4	1.3	2.4	1.4
Apparel.....	2.459	5.2	-0.3	-0.8	0.7	0.8
Men's and boys' apparel.....	0.625	8.1	-0.6	0.3	0.2	1.0
Men's apparel.....	0.482	8.7	-0.8	0.3	0.2	0.3
Men's suits, sport coats, and outerwear.....	0.079	24.9	0.4	6.6	1.5	1.8
Men's underwear, nightwear, swimwear, and accessories ¹	0.160	8.2	0.8	-1.3	0.2	0.8
Men's shirts and sweaters ²	0.116	8.7	-3.0	-0.9	1.8	-2.0
Men's pants and shorts.....	0.121	-0.5	-1.7	-1.9	-1.2	0.4
Boys' apparel.....	0.143	6.5	0.2	0.2	0.2	1.4
Women's and girls' apparel.....	0.961	3.2	-1.2	-0.9	0.6	0.0
Women's apparel.....	0.806	3.5	-1.4	-1.0	0.7	-0.1
Women's outerwear.....	0.058	7.6	1.6	0.4	2.0	0.6
Women's dresses.....	0.089	5.8	-2.3	0.7	2.2	0.8
Women's suits and separates ²	0.385	3.1	-0.5	-2.3	-0.6	0.4
Women's underwear, nightwear, swimwear, and accessories ²	0.266	2.4	-2.9	-0.9	0.6	-1.5
Girls' apparel.....	0.154	1.8	-0.4	-0.5	0.2	0.5
Footwear.....	0.600	5.8	0.9	-1.3	0.9	1.6
Men's footwear ¹	0.201	5.1	1.7	-1.1	0.4	1.7
Boys' and girls' footwear.....	0.116	6.7	0.8	-1.4	3.2	1.2
Women's footwear.....	0.282	6.0	0.4	0.1	0.5	0.8
Infants' and toddlers' apparel.....	0.116	10.0	0.2	-0.7	2.0	1.3
Jewelry and watches ⁶	0.157	1.1	1.6	-1.8	0.9	1.4
Watches ^{1, 6}	0.030	-1.1	0.1	1.1	-0.7	0.1
Jewelry ⁶	0.128	1.4	2.0	-1.3	0.8	1.5
Transportation commodities less motor fuel ⁸	8.515	9.5	1.4	0.4	1.4	1.1
New vehicles.....	4.026	11.4	0.7	1.1	1.0	0.7
New cars ³		12.5	0.6	1.7	1.1	0.5
New trucks ^{3, 10}		11.1	0.7	0.9	1.0	0.8
Used cars and trucks.....	3.975	7.1	2.2	-0.4	1.8	1.6
Motor vehicle parts and equipment ¹	0.428	14.9	0.4	1.2	1.5	0.4
Tires ¹	0.271	15.4	0.7	0.9	1.1	0.7
Vehicle accessories other than tires ^{1, 2}	0.157	14.1	0.0	1.6	2.3	0.0
Vehicle parts and equipment other than tires ^{1, 3}		11.6	-0.7	0.9	2.6	-0.7
Motor oil, coolant, and fluids ^{1, 3}		18.7	2.6	3.7	1.3	2.6
Medical care commodities ¹	1.480	3.2	0.4	0.1	0.3	0.4
Medicinal drugs ^{1, 8}	1.379	3.1	0.4	0.0	0.1	0.4
Prescription drugs ¹	1.009	2.5	0.1	0.0	-0.1	0.1
Nonprescription drugs ^{1, 8}	0.370	4.7	1.2	0.0	0.9	1.2
Medical equipment and supplies ^{1, 8}	0.101	5.9	0.6	0.3	2.0	0.6
Recreation commodities ³	1.883	4.5	0.3	0.5	0.1	0.4
Video and audio products ³	0.284	-5.6	-0.1	-0.7	-1.4	-0.2
Televisions.....	0.130	-12.7	-1.5	-2.2	-3.0	-2.3
Other video equipment ²	0.026	-4.4	-2.3	-0.7	0.4	-0.2
Audio equipment ¹	0.072	3.3	3.2	1.0	0.1	3.2
Recorded music and music subscriptions ^{1, 2}	0.051	-1.7	0.3	0.6	-0.7	0.3
Pets and pet products ¹	0.552	9.7	1.0	0.8	1.0	1.0
Pet food ^{1, 2, 3}		10.3	1.3	1.2	1.6	1.3
Purchase of pets, pet supplies, accessories ^{1, 2, 3}		9.3	0.9	-0.1	0.1	0.9
Sporting goods ¹	0.554	5.3	-0.3	0.9	-0.2	-0.3

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
Sports vehicles including bicycles ¹	0.317	3.6	-0.6	0.7	-0.2	-0.6
Sports equipment ¹	0.227	8.0	0.1	1.2	-0.2	0.1
Photographic equipment and supplies.....	0.020	2.1	-1.0	-1.4	2.7	-0.6
Photographic equipment ^{2, 3}		1.8	-0.7	-1.2	2.7	-0.2
Recreational reading materials ¹	0.096	7.4	3.1	2.0	0.0	3.1
Newspapers and magazines ^{1, 2}	0.056	10.9	4.2	2.7	0.2	4.2
Recreational books ^{1, 2}	0.040	2.6	1.6	1.0	-0.4	1.6
Other recreational goods ²	0.376	2.7	-0.3	0.3	0.2	0.1
Toys.....	0.291	1.9	-0.6	0.0	0.1	0.1
Toys, games, hobbies and playground equipment ^{2, 3}		4.8	-0.6	0.4	-0.6	0.1
Sewing machines, fabric and supplies ^{1, 2}	0.028	3.7	1.9	4.6	1.6	1.9
Music instruments and accessories ^{1, 2}	0.042	5.6	-0.1	-0.4	-0.4	-0.1
Education and communication commodities ⁸	0.772	-5.7	0.2	-2.6	-1.7	0.3
Educational books and supplies ¹	0.087	3.7	0.0	-0.1	2.2	0.0
College textbooks ^{1, 3, 11}		5.0	0.0	0.4	2.5	0.0
Information technology commodities ⁹	0.685	-6.7	0.2	-2.9	-2.2	0.3
Computers, peripherals, and smart home assistants ^{1, 4}	0.340	-0.6	1.3	-2.1	-1.4	1.3
Computer software and accessories ^{1, 2}	0.019	0.1	2.3	-1.4	1.3	2.3
Telephone hardware, calculators, and other consumer information items ²	0.326	-13.0	-1.1	-3.7	-3.2	-0.9
Smartphones ^{1, 3, 12}		-20.0	-0.5	-4.3	-5.0	-0.5
Alcoholic beverages.....	0.870	4.0	0.5	0.4	0.5	0.4
Alcoholic beverages at home.....	0.579	2.9	0.5	0.3	0.3	0.6
Beer, ale, and other malt beverages at home.....	0.220	4.3	0.8	0.2	0.4	0.9
Distilled spirits at home ¹	0.105	1.3	0.1	0.5	0.1	0.1
Whiskey at home ^{1, 3}		2.5	-0.1	0.5	0.1	-0.1
Distilled spirits, excluding whiskey, at home ^{1, 3}		0.8	0.1	0.5	0.2	0.1
Wine at home ¹	0.254	2.3	0.5	0.4	0.0	0.5
Alcoholic beverages away from home ¹	0.291	5.6	0.3	0.5	0.8	0.3
Beer, ale, and other malt beverages away from home ^{1, 2, 3}		6.0	0.2	0.6	0.8	0.2
Wine away from home ^{1, 2, 3}		6.6	0.3	0.4	1.4	0.3
Distilled spirits away from home ^{1, 2, 3}		3.9	0.1	0.9	0.2	0.1
Other goods ⁸	1.340	6.6	0.5	0.3	0.8	0.5
Tobacco and smoking products ¹	0.514	7.9	0.6	0.4	0.9	0.6
Cigarettes ^{1, 2}	0.444	8.1	0.6	0.5	0.8	0.6
Tobacco products other than cigarettes ^{1, 2}	0.065	6.0	0.3	-0.2	1.0	0.3
Personal care products ¹	0.638	3.8	0.7	0.3	0.3	0.7
Hair, dental, shaving, and miscellaneous personal care products ^{1, 2}	0.328	6.0	1.2	1.2	0.2	1.2
Cosmetics, perfume, bath, nail preparations and implements ¹	0.300	1.3	0.2	-0.7	0.3	0.2
Miscellaneous personal goods ^{1, 2}	0.189	11.4	-0.4	0.2	2.4	-0.4
Stationery, stationery supplies, gift wrap ³		13.0	-0.6	0.3	1.0	-0.6
Services less energy services.....	56.663	5.5	0.7	0.7	0.6	0.7
Shelter.....	32.285	5.6	0.7	0.5	0.6	0.6
Rent of shelter ¹³	31.921	5.7	0.7	0.5	0.6	0.6
Rent of primary residence.....	7.239	5.8	0.8	0.6	0.6	0.8
Lodging away from home ²	1.026	10.0	-0.7	1.7	0.9	-2.8
Housing at school, excluding board ¹³	0.123	1.6	0.1	0.2	0.1	0.2
Other lodging away from home including hotels and motels.....	0.902	11.5	-0.8	2.0	1.0	-3.3
Owners' equivalent rent of residences ¹³	23.657	5.5	0.7	0.5	0.6	0.7

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
Owners' equivalent rent of primary residence ¹³ ..	22.427	5.5	0.7	0.5	0.6	0.7
Tenants' and household insurance ^{1, 2}	0.364	0.3	0.9	0.0	-0.1	0.9
Water and sewer and trash collection services ²	1.082	4.4	0.4	0.3	0.3	0.4
Water and sewerage maintenance.....	0.779	3.9	0.3	0.3	0.2	0.3
Garbage and trash collection ^{1, 10}	0.303	5.9	0.6	0.3	0.4	0.6
Household operations ^{1, 2}	0.828	6.5	0.1		2.1	0.1
Domestic services ^{1, 2}	0.237	5.1	0.6	-1.2	0.8	0.6
Gardening and lawncare services ^{1, 2}						
Moving, storage, freight expense ^{1, 2}	0.103	2.7	0.8	2.1	2.4	0.8
Repair of household items ^{1, 2}						
Medical care services.....	6.821	4.8	0.6	0.5	0.4	0.7
Professional services.....	3.454	2.6	0.7	0.0	0.1	0.7
Physicians' services ¹	1.819	1.0	0.1	0.2	-0.1	0.1
Dental services.....	0.894	4.7	2.0	-0.2	0.6	1.9
Eyeglasses and eye care ^{1, 6}	0.356	3.3	0.7	0.2	0.1	0.7
Services by other medical professionals ^{1, 6}	0.385	4.7	0.1	-0.3	0.7	0.1
Hospital and related services.....	2.512	3.9	0.1	0.5	0.4	0.4
Hospital services ¹⁴	2.146	3.9	0.0	0.5	0.5	0.3
Inpatient hospital services ^{14, 3}		3.9	-0.1	0.4	0.3	0.1
Outpatient hospital services ^{3, 6}		3.3	0.0	0.7	0.6	0.1
Nursing homes and adult day services ¹⁴	0.205	4.6	1.3	0.3	0.0	1.4
Care of invalids and elderly at home ^{1, 5}	0.162	2.0	0.1	0.5	0.0	0.1
Health insurance ^{1, 5}	0.855	17.3	2.1	2.0	2.0	2.1
Transportation services.....	5.855	8.8	2.2	3.1	1.3	2.1
Leased cars and trucks ^{1, 11}	0.763					
Car and truck rental ²	0.152	-7.7	3.7	0.8	1.7	-2.2
Motor vehicle maintenance and repair ¹	1.016	7.9	2.0	0.5	0.5	2.0
Motor vehicle body work ¹	0.052	14.4	1.8	1.3	1.0	1.8
Motor vehicle maintenance and servicing ¹	0.558	6.6	2.0	1.2	0.3	2.0
Motor vehicle repair ^{1, 2}	0.364	9.0	2.1	-0.7	0.7	2.1
Motor vehicle insurance.....	2.379	6.0	1.6	0.8	0.5	1.9
Motor vehicle fees ^{1, 2}	0.498	1.5	0.5	-0.1	0.1	0.5
State motor vehicle registration and license fees ^{1, 2}	0.288	0.7	0.0	0.0	0.1	0.0
Parking and other fees ^{1, 2}	0.196	2.6	1.1	-0.3	0.2	1.1
Parking fees and tolls ^{2, 3}		3.6	1.2	0.1	0.5	1.5
Public transportation.....	1.046	23.7	0.0	12.1	8.6	-0.4
Airline fares.....	0.756	34.1	-0.2	18.6	12.6	-1.8
Other intercity transportation.....	0.092	-4.3	-0.2	-0.3	-0.3	0.4
Ship fare ^{1, 2, 3}		-7.8	-2.1	-1.0	-0.9	-2.1
Intracity transportation ¹	0.196	2.8	0.8	0.2	0.4	0.8
Intracity mass transit ^{1, 3, 8}		0.8	0.0	0.0	0.0	0.0
Recreation services ⁸	3.130	4.7	0.2	0.4	0.5	0.3
Video and audio services ⁸	1.156	4.9	0.1	0.8	1.4	0.1
Cable and satellite television service ¹⁰	1.064	4.9	0.0	0.8	1.3	0.0
Video djscs and other media, including rental of video ^{1, 2}	0.092	4.7	1.0	0.7	2.3	1.0
Video discs and other media ^{1, 2, 3}		4.5	0.3	1.7	6.5	0.3
Rental of video discs and other media ^{1, 2, 3}		6.0	-0.2	0.7	1.0	-0.2
Pet services including veterinary ²	0.514	7.9	0.1	1.1	-0.6	0.3
Pet services ^{1, 2, 3}		6.2	-0.7	1.7	0.5	-0.7
Veterinarian services ^{2, 3}		7.5	0.2	0.7	-1.1	0.6
Photographers and photo processing ^{1, 2}	0.030	5.6	-0.5	1.8	0.4	-0.5
Other recreation services ²	1.430	3.4	0.4	-0.3	0.3	0.4

See footnotes at end of table.

Table 2. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by detailed expenditure category, June 2022 — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
Club membership for shopping clubs, fraternal, or other organizations, or participant sports fees ^{1, 2, ..}	0.631	3.5	-0.3	0.4	0.5	-0.3
Admissions ¹	0.444	3.8	1.7	-1.4	0.1	1.7
Admission to movies, theaters, and concerts ^{1, 2, 3}		6.4	0.9	1.1	0.0	0.9
Admission to sporting events ^{1, 2, 3}		-6.1	2.9	-8.2	-0.1	2.9
Fees for lessons or instructions ^{1, 6}	0.168	0.8	-0.3	0.3	0.0	-0.3
Education and communication services ⁸	5.307	1.7	0.2	0.2	0.2	0.2
Tuition, other school fees, and childcare.....	2.480	2.7	0.4	0.2	0.2	0.4
College tuition and fees.....	1.423	2.2	0.3	0.2	0.1	0.3
Elementary and high school tuition and fees.....	0.314	3.1	0.5	0.1	1.2	0.5
Day care and preschool ⁹	0.616	3.7	0.8	0.6	-0.1	0.7
Technical and business school tuition and fees ^{1, 2, ..}	0.038	1.2	0.3	0.3	0.3	0.3
Postage and delivery services ²	0.083	4.1	-0.1	0.7	0.7	0.3
Postage.....	0.074	3.0	0.0	0.4	0.4	0.4
Delivery services ²	0.009	14.4	-0.8	2.8	2.6	-0.7
Telephone services ^{1, 2}	1.807	-0.1	-0.1	0.2	0.0	-0.1
Wireless telephone services ^{1, 2}	1.502	-0.9	-0.1	0.0	0.0	-0.1
Residential telephone services ^{1, 8}	0.305	4.0	0.1	0.7	-0.1	0.1
Internet services and electronic information providers ^{1, 2}	0.929	2.6	-0.1	0.2	0.5	-0.1
Other personal services ^{1, 8}	1.356	6.7	0.4	0.5	0.1	0.4
Personal care services ¹	0.536	6.3	0.3	0.4	0.5	0.3
Haircuts and other personal care services ^{1, 2}	0.536	6.3	0.3	0.4	0.5	0.3
Miscellaneous personal services ¹	0.820	7.0	0.5	0.6	-0.1	0.5
Legal services ^{1, 6}				1.1	1.0	
Funeral expenses ^{1, 6}	0.145	2.8	0.1	0.3	0.2	0.1
Laundry and dry cleaning services ^{1, 2}	0.152	10.2	0.8	0.4	0.2	0.8
Apparel services other than laundry and dry cleaning ^{1, 2}	0.017	8.1	1.0	0.6	-2.6	1.0
Financial services ^{1, 6}	0.192	4.6	-0.5	0.4	-1.7	-0.5
Checking account and other bank services ^{1, 2, 3, ..}		3.0	0.0	2.1	0.0	0.0
Tax return preparation and other accounting fees ^{1, 2, 3}		7.1				

¹ Not seasonally adjusted.

² Indexes on a December 1997=100 base.

³ Special index based on a substantially smaller sample.

⁴ Indexes on a December 2007=100 base.

⁵ Indexes on a December 2005=100 base.

⁶ Indexes on a December 1986=100 base.

⁷ Indexes on a December 1993=100 base.

⁸ Indexes on a December 2009=100 base.

⁹ Indexes on a December 1990=100 base.

¹⁰ Indexes on a December 1983=100 base.

¹¹ Indexes on a December 2001=100 base.

¹² Indexes on a December 2019=100 base.

¹³ Indexes on a December 1982=100 base.

¹⁴ Indexes on a December 1996=100 base.

Table 3. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, special aggregate indexes, June 2022

[1982-84=100, unless otherwise noted]

Special aggregate indexes	Relative importance May 2022	Unadjusted indexes			Unadjusted percent change		Seasonally adjusted percent change		
		Jun. 2021	May 2022	Jun. 2022	Jun. 2021- Jun. 2022	May 2022- Jun. 2022	Mar. 2022- Apr. 2022	Apr. 2022- May 2022	May 2022- Jun. 2022
All items less food.....	86.577	270.975	290.760	294.924	8.8	1.4	0.2	0.9	1.4
All items less shelter.....	67.715	250.261	272.550	277.194	10.8	1.7	0.2	1.1	1.7
All items less food and shelter.....	54.292	243.483	264.868	269.845	10.8	1.9	0.1	1.1	1.8
All items less food, shelter, and energy.....	45.627	247.036	260.146	262.195	6.1	0.8	0.6	0.6	0.8
All items less food, shelter, energy, and used cars and trucks.....	41.652	247.993	261.361	263.065	6.1	0.7	0.7	0.5	0.7
All items less medical care.....	91.699	259.628	280.207	284.253	9.5	1.4	0.3	1.0	1.4
All items less energy.....	91.335	277.161	293.092	295.378	6.6	0.8	0.6	0.7	0.7
Commodities.....	39.866	200.209	223.076	227.423	13.6	1.9	-0.3	1.3	2.1
Commodities less food, energy, and used cars and trucks.....	17.275	149.161	159.204	159.892	7.2	0.4	0.3	0.4	0.6
Commodities less food.....	26.443	166.238	187.042	191.593	15.3	2.4	-0.9	1.4	2.6
Commodities less food and beverages.....	25.573	162.845	183.797	188.392	15.7	2.5	-0.9	1.4	2.7
Services.....	60.134	341.863	359.566	363.133	6.2	1.0	0.8	0.8	0.9
Services less rent of shelter ¹	28.213	360.462	380.099	385.220	6.9	1.3	1.1	0.9	1.1
Services less medical care services.....	53.313	324.542	341.776	345.321	6.4	1.0	0.8	0.8	0.8
Durables.....	12.689	119.434	128.122	129.464	8.4	1.0	0.1	0.1	0.7
Nondurables.....	27.176	239.487	271.921	278.363	16.2	2.4	-0.2	1.9	2.8
Nondurables less food.....	13.754	208.587	246.034	255.163	22.3	3.7	-1.5	2.3	4.4
Nondurables less food and beverages.....	12.884	205.223	244.396	254.001	23.8	3.9	-1.6	2.4	4.7
Nondurables less food, beverages, and apparel.....	10.425	262.552	322.565	338.444	28.9	4.9	-1.9	2.7	5.5
Nondurables less food and apparel.....	11.295	261.275	316.375	330.860	26.6	4.6	-1.6	2.7	5.1
Housing.....	41.863	280.366	297.868	300.927	7.3	1.0	0.6	0.8	0.8
Education and communication ²	6.079	142.174	143.108	143.335	0.8	0.2	-0.2	-0.1	0.2
Education ²	2.567	273.169	279.356	280.562	2.7	0.4	0.2	0.3	0.4
Communication ²	3.512	75.748	75.341	75.311	-0.6	0.0	-0.4	-0.3	0.0
Information and information processing ²	3.429	71.532	71.053	71.025	-0.7	0.0	-0.5	-0.3	0.0
Information technology, hardware and services ³	1.622	7.338	7.250	7.251	-1.2	0.0	-1.2	-0.6	0.1
Recreation ²	5.013	124.893	130.360	130.677	4.6	0.2	0.4	0.4	0.3
Video and audio ²	1.441	110.503	113.457	113.514	2.7	0.1	0.5	0.8	0.0
Pets, pet products and services ²	1.066	184.134	199.268	200.390	8.8	0.6	0.9	0.2	0.7
Photography ²	0.051	76.697	80.455	79.905	4.2	-0.7	0.5	1.3	-0.5
Food and beverages.....	14.293	275.380	300.081	302.967	10.0	1.0	0.8	1.1	1.0
Domestically produced farm food.....	7.004	266.106	295.893	299.074	12.4	1.1	1.3	1.3	1.1
Other services.....	9.793	374.539	386.219	387.049	3.3	0.2	0.3	0.3	0.2
Apparel less footwear.....	1.859	111.785	118.220	117.433	5.1	-0.7	-0.6	0.6	0.5
Fuels and utilities.....	4.820	260.400	295.153	306.293	17.6	3.8	1.2	2.9	2.5
Household energy.....	3.738	215.355	250.594	262.500	21.9	4.8	1.5	3.7	3.2
Medical care.....	8.301	522.989	543.488	546.717	4.5	0.6	0.4	0.4	0.7
Transportation.....	19.297	237.701	274.282	284.644	19.7	3.8	-0.4	2.0	3.8
Private transportation.....	18.250	235.331	271.545	282.398	20.0	4.0	-1.0	1.6	4.1
New and used motor vehicles ²	9.003	118.941	127.847	130.450	9.7	2.0	0.9	0.9	1.6
Utilities and public transportation.....	8.470	231.273	250.991	256.396	10.9	2.2	2.0	2.2	1.3
Household furnishings and operations.....	4.758	131.131	142.736	143.586	9.5	0.6	0.4	0.4	0.4
Other goods and services.....	2.696	473.718	502.966	505.312	6.7	0.5	0.4	0.5	0.5
Personal care.....	2.182	241.907	256.147	257.287	6.4	0.4	0.4	0.4	0.4

¹ Indexes on a December 1982=100 base.² Indexes on a December 1997=100 base.³ Indexes on a December 1988=100 base.

Table 4. Consumer Price Index for All Urban Consumers (CPI-U): Selected areas, all items index, June 2022
 [1982-84=100, unless otherwise noted]

Area	Pricing Schedule ¹	Percent change to Jun. 2022 from:			Percent change to May 2022 from:		
		Jun. 2021	Apr. 2022	May 2022	May 2021	Mar. 2022	Apr. 2022
U.S. city average.....	M	9.1	2.5	1.4	8.6	1.7	1.1
Region and area size²							
Northeast.....	M	7.6	2.0	1.2	7.5	1.5	0.9
Northeast - Size Class A.....	M	7.2	1.9	1.3	6.9	1.4	0.6
Northeast - Size Class B/C ³	M	8.2	2.2	1.0	8.2	1.6	1.2
New England ⁴	M	7.9	1.9	0.8	7.9	1.3	1.1
Middle Atlantic ⁴	M	7.5	2.1	1.3	7.3	1.6	0.8
Midwest.....	M	9.5	3.1	1.6	8.8	2.0	1.5
Midwest - Size Class A.....	M	9.2	3.0	1.6	8.5	2.1	1.4
Midwest - Size Class B/C ³	M	9.7	3.2	1.6	9.0	2.0	1.6
East North Central ⁴	M	9.8	3.5	1.8	8.8	2.0	1.6
West North Central ⁴	M	8.8	2.5	1.2	8.8	2.0	1.3
South.....	M	9.8	2.7	1.5	9.2	1.7	1.2
South - Size Class A.....	M	10.0	2.5	1.1	9.6	1.9	1.3
South - Size Class B/C ³	M	9.8	2.8	1.6	9.1	1.6	1.2
South Atlantic ⁴	M	9.8	2.6	1.4	9.2	1.5	1.1
East South Central ⁴	M	8.4	2.7	1.6	7.7	1.8	1.1
West South Central ⁴	M	10.6	2.9	1.4	9.9	2.1	1.4
West.....	M	8.8	2.1	1.2	8.3	1.5	0.8
West - Size Class A.....	M	8.9	2.2	1.4	8.3	1.4	0.8
West - Size Class B/C ³	M	8.5	1.9	1.1	8.4	1.6	0.8
Mountain ⁴	M	9.9	2.0	1.2	9.4	1.5	0.7
Pacific ⁴	M	8.3	2.1	1.3	8.0	1.5	0.8
Size classes							
Size Class A ⁵	M	8.8	2.3	1.3	8.4	1.7	1.0
Size Class B/C ³	M	9.2	2.6	1.4	8.8	1.7	1.2
Selected local areas							
Chicago-Naperville-Elgin, IL-IN-WI.....	M	9.4	3.5	1.7	8.0	2.2	1.8
Los Angeles-Long Beach-Anaheim, CA.....	M	8.6	1.9	1.1	8.0	1.3	0.8
New York-Newark-Jersey City, NY-NJ-PA.....	M	6.7	1.9	1.4	6.3	1.4	0.5
Atlanta-Sandy Springs-Roswell, GA.....	2	11.5	2.4				
Baltimore-Columbia-Towson, MD ⁶	2	10.6	2.6				
Detroit-Warren-Dearborn, MI.....	2	9.7	3.0				
Houston-The Woodlands-Sugar Land, TX.....	2	10.2	2.8				
Miami-Fort Lauderdale-West Palm Beach, FL.....	2	10.6	2.5				
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD.....	2	8.8	2.3				
Phoenix-Mesa-Scottsdale, AZ ⁷	2	12.3	3.1				
San Francisco-Oakland-Hayward, CA.....	2	6.8	1.7				
Seattle-Tacoma-Bellevue, WA.....	2	10.1	3.2				
St. Louis, MO-IL.....	2	8.4	2.4				
Urban Alaska.....	2	12.4	7.1				
Boston-Cambridge-Newton, MA-NH.....	1				7.5	1.1	
Dallas-Fort Worth-Arlington, TX.....	1				9.1	1.8	
Denver-Aurora-Lakewood, CO.....	1				8.3	1.3	
Minneapolis-St.Paul-Bloomington, MN-WI.....	1				8.7	1.9	
Riverside-San Bernardino-Ontario, CA ⁴	1				9.4	1.4	
San Diego-Carlsbad, CA.....	1				8.3	1.1	
Tampa-St. Petersburg-Clearwater, FL ⁸	1				11.3	2.1	
Urban Hawaii.....	1				7.0	1.6	
Washington-Arlington-Alexandria, DC-VA-MD-WV ⁶	1				7.5	1.5	

¹ Foods, fuels, and several other items are priced every month in all areas. Most other goods and services are priced as indicated: M - Every month. 1 - January, March, May, July, September, and November. 2 - February, April, June, August, October, and December.

² Regions defined as the four Census regions.

³ Indexes on a December 1996=100 base.

⁴ Indexes on a December 2017=100 base.

⁵ Indexes on a December 1986=100 base.

⁶ 1998 - 2017 indexes based on substantially smaller sample.

⁷ Indexes on a December 2001=100 base.

⁸ Indexes on a 1987=100 base.

NOTE: Local area indexes are byproducts of the national CPI program. Each local index has a smaller sample size than the national index and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses.

Table 5. Chained Consumer Price Index for All Urban Consumers (C-CPI-U) and the Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, all items index, June 2022
[Percent changes]

Month Year	Unadjusted 1-month percent change		Unadjusted 12-month percent change	
	C-CPI-U ¹	CPI-U	C-CPI-U ¹	CPI-U
December 2009.....			2.5	2.7
December 2010.....			1.3	1.5
December 2011.....			2.9	3.0
December 2012.....			1.5	1.7
December 2013.....			1.3	1.5
December 2014.....			0.5	0.8
December 2015.....			0.4	0.7
December 2016.....			1.8	2.1
December 2017.....			1.7	2.1
December 2018.....			1.5	1.9
December 2019.....			1.8	2.3
January 2020.....	0.4	0.4	2.0	2.5
February 2020.....	0.3	0.3	1.8	2.3
March 2020.....	-0.2	-0.2	1.1	1.5
April 2020.....	-0.5	-0.7	0.2	0.3
May 2020.....	-0.1	0.0	-0.1	0.1
June 2020.....	0.6	0.5	0.4	0.6
July 2020.....	0.6	0.5	0.9	1.0
August 2020.....	0.4	0.3	1.3	1.3
September 2020.....	0.1	0.1	1.4	1.4
October 2020.....	0.0	0.0	1.2	1.2
November 2020.....	-0.1	-0.1	1.2	1.2
December 2020.....	0.1	0.1	1.5	1.4
January 2021.....	0.5	0.4	1.6	1.4
February 2021.....	0.5	0.5	1.8	1.7
March 2021.....	0.6	0.7	2.6	2.6
April 2021.....	0.8	0.8	4.0	4.2
May 2021.....	0.7	0.8	4.9	5.0
June 2021.....	0.8	0.9	5.1	5.4
July 2021.....	0.5	0.5	5.0	5.4
August 2021.....	0.2	0.2	4.8	5.3
September 2021.....	0.3	0.3	5.0	5.4
October 2021.....	0.8	0.8	5.9	6.2
November 2021.....	0.5	0.5	6.4	6.8
December 2021.....	0.3	0.3	6.6	7.0
January 2022.....	0.8	0.8	7.0	7.5
February 2022.....	0.9	0.9	7.4	7.9
March 2022.....	1.2	1.3	8.0	8.5
April 2022.....	0.6	0.6	7.8	8.3
May 2022.....	1.0	1.1	8.0	8.6
June 2022.....	1.2	1.4	8.4	9.1

¹ The C-CPI-U is designed to be a closer approximation to a cost-of-living index in that it, in its final form, accounts for any substitution that consumers make across item categories in response to changes in relative prices. Since the expenditure data required for the calculation of the C-CPI-U are available only with a time lag, the C-CPI-U is issued first in preliminary form using the latest available expenditure data at that time and is subject to four revisions.

Indexes are issued as initial estimates. Indexes are revised each quarter with the publication of January, April, July, and October data as updated expenditure estimates become available. The C-CPI-U indexes are updated quarterly until they become final. January-March indexes are final in January of the following year; April-June indexes are final in April of the following year; July-September indexes are final in July of the following year; October-December indexes are final in October of the following year.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
All items.....	100.000	1.3		0.04	L-Sep.2005	1.4
Food.....	13.423	1.0	0.133	0.09	S-Apr.2022	0.9
Food at home.....	8.324	1.0	0.085	0.13	S-Apr.2022	1.0
Cereals and bakery products.....	1.058	2.1	0.022	0.32	L-Apr.2020	2.8
Cereals and cereal products.....	0.342	2.1	0.007	0.38	L-Mar.2022	2.1
Flour and prepared flour mixes.....	0.054	5.3	0.003	0.89	L-EVER	-
Breakfast cereal ⁴	0.144	2.5	0.004	0.68	L-Oct.2021	3.3
Rice, pasta, cornmeal.....	0.144	0.7	0.001	0.53	S-Dec.2021	0.7
Rice ^{4, 5, 6}		-1.1		0.62	S-Dec.2019	-2.1
Bakery products ⁴	0.716	1.8	0.013	0.39	L-Jan.2022	2.0
Bread ^{4, 5}	0.199	1.6	0.003	0.53	L-Apr.2022	2.0
White bread ^{4, 6}		1.8		0.74	L-Apr.2022	2.0
Bread other than white ^{4, 6}		1.3		0.86	L-Apr.2022	1.9
Fresh biscuits, rolls, muffins ⁵	0.107	3.5	0.004	1.00	L-Sep.2021	3.5
Cakes, cupcakes, and cookies ⁴	0.177	1.8	0.003	0.67	S-Apr.2022	0.9
Cookies ^{4, 6}		1.3		0.77	S-Apr.2022	0.3
Fresh cakes and cupcakes ^{4, 6}		2.9		1.06	L-Jun.2020	3.5
Other bakery products.....	0.233	1.2	0.003	0.67	S-Apr.2022	0.4
Fresh sweetrolls, coffeecakes, doughnuts ^{4, 6}		1.7		1.29	L-Feb.2022	4.1
Crackers, bread, and cracker products ⁶		0.9		1.31	S-Apr.2022	0.0
Frozen and refrigerated bakery products, pies, tarts, turnovers ^{4, 6}		2.9		0.86	L-Oct.2021	3.7
Meats, poultry, fish, and eggs.....	1.906	-0.4	-0.007	0.25	S-Sep.2020	-0.4
Meats, poultry, and fish.....	1.778	-0.4	-0.007	0.27	S-Sep.2020	-0.5
Meats.....	1.125	-1.3	-0.014	0.38	S-Aug.2020	-1.9
Beef and veal.....	0.522	-2.3	-0.012	0.55	S-Aug.2020	-3.6
Uncooked ground beef ⁴	0.191	-0.1	0.000	0.65	L-Apr.2022	1.3
Uncooked beef roasts ^{4, 5}	0.079	-2.0	-0.002	1.40	S-Dec.2021	-3.8
Uncooked beef steaks ⁵	0.202	-1.6	-0.003	0.93	S-Apr.2022	-2.1
Uncooked other beef and veal ^{4, 5}	0.051	-1.9	-0.001	1.15	S-Jan.2022	-3.6
Pork.....	0.361	-1.6	-0.006	0.64	S-Jul.2020	-3.3
Bacon, breakfast sausage, and related products ⁵	0.162	-1.7	-0.003	0.77	S-Aug.2019	-1.9
Bacon and related products ⁶		-1.9		0.86	S-Aug.2020	-2.6
Breakfast sausage and related products ^{5, 6}		-1.0		1.20	S-Jan.2022	-1.7
Ham.....	0.063	1.1	0.001	1.86	L-Feb.2022	3.0
Ham, excluding canned ⁶		1.2		2.02	L-Feb.2022	2.9
Pork chops ⁴	0.051	-1.4	-0.001	1.63	L-Apr.2022	1.9
Other pork including roasts, steaks, and ribs ⁵	0.085	-1.2	-0.001	1.53	S-Jan.2022	-2.3
Other meats.....	0.242	1.5	0.004	0.60	L-Apr.2022	2.7
Frankfurters ⁶		4.5		1.28	L-Apr.2020	5.1
Lunchmeats ^{4, 5, 6}		0.6		0.59	S-Aug.2021	-0.5
Poultry ⁴	0.362	1.5	0.006	0.51	S-Mar.2022	1.5
Chicken ^{4, 5}	0.294	1.7	0.005	0.62	S-Mar.2022	1.5
Fresh whole chicken ^{4, 6}		1.2		0.93	S-Jan.2022	-0.5
Fresh and frozen chicken parts ^{4, 6}		1.7		0.73	S-Mar.2022	1.4
Other uncooked poultry including turkey ⁵	0.068	0.4	0.000	0.90	S-Dec.2021	-0.7
Fish and seafood.....	0.292	0.5	0.001	0.56	S-Apr.2022	0.0
Fresh fish and seafood ^{4, 5}	0.149	-0.4	-0.001	0.84	S-Feb.2022	-0.7
Processed fish and seafood ⁵	0.142	1.6	0.002	0.71	L-Feb.2022	2.3
Shelf stable fish and seafood ⁶		2.0		0.91	L-Mar.2022	3.0
Frozen fish and seafood ⁶		2.2		0.96	L-Feb.2022	2.4

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Eggs ⁴	0.128	0.3	0.000	0.73	S-Nov.2021	-1.8
Dairy and related products.....	0.785	1.7	0.013	0.32	S-Mar.2022	1.2
Milk ⁵	0.206	0.8	0.002	0.43	S-Nov.2021	0.6
Fresh whole milk ⁶		0.1		0.56	S-Oct.2021	0.1
Fresh milk other than whole ^{5, 6}		1.2		0.65	S-Mar.2022	1.1
Cheese and related products ⁴	0.256	1.0	0.003	0.59	S-Dec.2021	0.2
Ice cream and related products.....	0.114	4.0	0.005	0.94	S-Apr.2022	1.7
Other dairy and related products ^{4, 5}	0.209	1.9	0.004	0.57	S-Feb.2022	1.1
Fruits and vegetables.....	1.425	0.7	0.009	0.33	L-Mar.2022	1.5
Fresh fruits and vegetables.....	1.090	0.5	0.005	0.40	L-Mar.2022	1.3
Fresh fruits.....	0.595	0.2	0.001	0.62	—	—
Apples.....	0.077	0.8	0.001	1.09	L-Feb.2022	2.7
Bananas ⁴	0.079	0.5	0.000	0.71	S-Apr.2022	-0.6
Citrus fruits ⁵	0.176	-4.5	-0.008	1.06	S-Jul.2021	-4.7
Oranges, including tangerines ⁶		-3.0		1.43	S-Jul.2021	-4.7
Other fresh fruits ⁵	0.263	2.4	0.006	1.07	L-Feb.2022	3.5
Fresh vegetables.....	0.495	0.8	0.004	0.51	L-Mar.2022	2.6
Potatoes.....	0.079	1.5	0.001	0.77	L-Apr.2022	2.0
Lettuce ⁴	0.059	0.3	0.000	0.92	L-Apr.2022	0.3
Tomatoes.....	0.078	-0.9	-0.001	1.09	S-Jan.2022	-3.0
Other fresh vegetables.....	0.280	0.7	0.002	0.71	L-Mar.2022	2.4
Processed fruits and vegetables ⁵	0.335	1.2	0.004	0.41	S-Apr.2022	-0.5
Canned fruits and vegetables ⁵	0.172	1.4	0.002	0.61	S-Apr.2022	-0.3
Canned fruits ^{5, 6}		0.1		0.69	S-Apr.2022	-0.8
Canned vegetables ^{5, 6}		2.1		0.72	L-Mar.2022	4.2
Frozen fruits and vegetables ⁵	0.099	0.4	0.000	0.88	S-Apr.2022	0.1
Frozen vegetables ⁶		0.9		1.04	S-Apr.2022	-0.1
Other processed fruits and vegetables including dried ⁵	0.063	1.1	0.001	0.94	L-Mar.2022	1.9
Dried beans, peas, and lentils ^{4, 5, 6}		-1.0		0.90	S-Oct.2021	-1.2
Nonalcoholic beverages and beverage materials.....	0.950	0.8	0.007	0.40	S-Jan.2022	0.0
Juices and nonalcoholic drinks ⁵	0.667	0.6	0.004	0.49	S-Jan.2022	-0.9
Carbonated drinks.....	0.279	-0.4	-0.001	0.85	S-Jan.2022	-2.8
Frozen noncarbonated juices and drinks ^{4, 5}	0.007	2.4	0.000	0.66	L-Feb.2022	4.6
Nonfrozen noncarbonated juices and drinks ⁵	0.381	1.6	0.006	0.59	L-Apr.2022	2.4
Beverage materials including coffee and tea ⁵	0.283	0.7	0.002	0.61	S-Dec.2021	0.2
Coffee.....	0.184	0.4	0.001	0.79	S-Mar.2022	0.2
Roasted coffee ⁶		0.7		0.90	S-Mar.2022	0.4
Instant coffee ^{4, 6}		1.0		1.86	S-Mar.2022	-0.3
Other beverage materials including tea ^{4, 5}	0.099	1.0	0.001	1.01	L-Apr.2022	1.9
Other food at home.....	2.201	1.8	0.039	0.25	L-Mar.2022	2.0
Sugar and sweets ⁴	0.276	1.1	0.003	0.68	L-Mar.2022	1.3
Sugar and sugar substitutes.....	0.041	2.1	0.001	0.59	S-Apr.2022	-0.8
Candy and chewing gum ^{4, 5}	0.174	0.7	0.001	0.97	L-Mar.2022	0.9
Other sweets ⁵	0.061	1.5	0.001	0.82	S-Feb.2022	0.7
Fats and oils.....	0.245	2.6	0.006	0.59	L-Mar.2022	2.9
Butter and margarine ⁵	0.077	5.0	0.004	1.06	L-Mar.2022	5.8
Butter ⁶		4.8		1.49	L-Mar.2022	6.0
Margarine ^{4, 6}		6.8		1.54	L-Apr.2022	7.1
Salad dressing ⁵	0.056	3.3	0.002	0.96	L-Mar.2022	3.5
Other fats and oils including peanut butter ⁵	0.112	1.1	0.001	0.95	S-Apr.2022	-0.8
Peanut butter ^{4, 5, 6}		-2.0		0.58	S-Aug.2021	-2.8
Other foods.....	1.679	1.8	0.030	0.29	L-Mar.2022	2.0

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Soups.....	0.102	2.0	0.002	1.00	L-Apr.2022	2.3
Frozen and freeze dried prepared foods.....	0.271	2.8	0.008	0.55	L-Mar.2022	2.8
Snacks ⁴	0.364	1.8	0.006	0.58	L-Oct.2021	2.1
Spices, seasonings, condiments, sauces.....	0.323	1.1	0.003	0.48	S-Apr.2022	0.4
Salt and other seasonings and spices ^{5, 6}		0.0		0.73	S-Feb.2022	-0.3
Olives, pickles, relishes ^{4, 5, 6}		0.9		0.86	L-Mar.2022	3.2
Sauces and gravies ^{5, 6}		1.4		1.02	S-Mar.2022	1.4
Other condiments ⁶		2.1		0.71	S-Apr.2022	-1.8
Baby food ^{4, 5}	0.043	1.1	0.000	0.61	L-Apr.2022	3.0
Other miscellaneous foods ⁵	0.575	2.1	0.012	0.60	L-Jan.2022	2.3
Prepared salads ^{7, 6}		3.2		1.61	S-Apr.2022	1.7
Food away from home ⁴	5.099	0.9	0.048	0.11	L-Feb.1981	1.3
Full service meals and snacks ^{4, 5}	2.385	0.8	0.019	0.14	—	—
Limited service meals and snacks ^{4, 5}	2.474	0.7	0.017	0.15	—	—
Food at employee sites and schools ^{4, 5}	0.034	24.2	0.008	2.22	L-EVER	—
Food at elementary and secondary schools ^{4, 8, 6}						
Food from vending machines and mobile vendors ^{4, 5}	0.036	1.8	0.001	0.46	S-Apr.2022	1.5
Other food away from home ^{4, 5}	0.169	1.8	0.003	0.12	L-Apr.2018	2.3
Energy.....	8.665	7.5	0.638	0.14	L-Mar.2022	11.0
Energy commodities.....	5.194	10.4	0.516	0.13	L-Mar.2022	18.1
Fuel oil and other fuels.....	0.267	-0.7	-0.002	0.65	S-Dec.2021	-1.0
Fuel oil ⁴	0.191	-1.2	-0.002	0.67	S-Dec.2021	-2.4
Propane, kerosene, and firewood ⁹	0.076	1.1	0.001	0.83	S-Jan.2022	-3.0
Motor fuel.....	4.927	11.0	0.518	0.13	L-Mar.2022	18.3
Gasoline (all types).....	4.820	11.2	0.513	0.13	L-Mar.2022	18.3
Gasoline, unleaded regular ⁶		11.3		0.39	L-Mar.2022	19.3
Gasoline, unleaded midgrade ^{10, 6}		10.4		0.36	L-Mar.2022	17.4
Gasoline, unleaded premium ⁶		9.4		0.36	L-Mar.2022	17.0
Other motor fuels ^{4, 5}	0.107	3.9	0.004	0.26	S-Jan.2022	0.5
Energy services.....	3.471	3.5	0.121	0.21	L-Jan.2006	3.6
Electricity.....	2.541	1.7	0.044	0.21	L-Mar.2022	2.2
Utility (piped) gas service.....	0.930	8.2	0.077	0.37	L-Oct.2005	13.4
All items less food and energy.....	77.912	0.7	0.551	0.04	L-Jun.2021	0.8
Commodities less food and energy commodities.....	21.249	0.8	0.167	0.10	L-Jan.2022	1.0
Household furnishings and supplies ¹¹	3.930	0.5	0.020	0.24	L-Apr.2022	0.5
Window and floor coverings and other linens ^{4, 5}	0.291	0.3	0.001	1.08	L-Apr.2022	0.8
Floor coverings ^{4, 5}	0.067	1.0	0.001	1.03	S-Apr.2022	0.8
Window coverings ^{4, 5}	0.058	-3.9	-0.002	1.42	S-Feb.2022	-5.5
Other linens ^{4, 5}	0.166	1.6	0.003	1.57	L-Jan.2022	1.8
Furniture and bedding ⁴	0.967	1.1	0.011	0.47	L-Apr.2022	1.5
Bedroom furniture ⁴	0.313	1.1	0.003	0.72	L-Apr.2022	1.7
Living room, kitchen, and dining room furniture ^{4, 5}	0.467	2.1	0.010	0.79	L-Jan.2022	2.2
Other furniture ⁵	0.178	-1.7	-0.003	0.83	S-Aug.2019	-3.0
Appliances ⁵	0.252	0.2	0.000	0.62	L-Mar.2022	1.5
Major appliances ⁵	0.084	0.0	0.000	0.80	L-Mar.2022	2.8
Laundry equipment ^{4, 6}		-0.9		1.08	S-Apr.2022	-3.1
Other appliances ^{4, 5}	0.165	0.8	0.001	0.85	L-Jan.2022	2.3
Other household equipment and furnishings ⁵	0.557	1.2	0.007	0.54	L-Mar.2022	2.4
Clocks, lamps, and decorator items ⁴	0.332	0.5	0.002	0.66	L-Mar.2022	1.9
Indoor plants and flowers ¹²	0.099	0.8	0.001	0.89	L-Mar.2022	1.1
Dishes and flatware ^{4, 5}	0.051	0.3	0.000	1.90	S-Apr.2022	-0.3
Nonelectric cookware and tableware ^{4, 5}	0.075	1.2	0.001	1.17	L-Mar.2022	1.8

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Tools, hardware, outdoor equipment and supplies ⁵ . . .	0.932	-0.2	-0.002	0.34	S-Jan.2021	-1.2
Tools, hardware and supplies ^{4, 5}	0.243	0.4	0.001	0.57	S-Dec.2021	0.4
Outdoor equipment and supplies ⁵	0.464	-0.3	-0.001	0.43	S-Aug.2021	-0.4
Housekeeping supplies ⁴	0.932	1.2	0.012	0.34	L-Apr.2022	1.3
Household cleaning products ^{4, 5}	0.343	0.5	0.002	0.54	L-Apr.2022	1.7
Household paper products ^{4, 5}	0.211	2.2	0.005	0.45	L-Nov.2020	4.0
Miscellaneous household products ^{4, 5}	0.378	1.4	0.005	0.57	S-Apr.2022	1.3
Apparel	2.459	0.8	0.019	0.37	L-Jan.2022	1.1
Men's and boys' apparel	0.625	1.0	0.006	0.69	L-Mar.2022	1.1
Men's apparel	0.482	0.3	0.002	0.83	L-Apr.2022	0.3
Men's suits, sport coats, and outerwear	0.079	1.8	0.001	2.00	L-Apr.2022	6.6
Men's underwear, nightwear, swimwear, and accessories ⁴	0.160	0.8	0.001	1.01	L-Feb.2022	2.4
Men's shirts and sweaters ⁵	0.116	-2.0	-0.002	1.26	S-Feb.2021	-4.2
Men's pants and shorts	0.121	0.4	0.001	1.42	L-Mar.2022	3.6
Boys' apparel	0.143	1.4	0.002	1.14	L-Jan.2022	1.8
Women's and girls' apparel	0.961	0.0	0.000	0.62	S-Apr.2022	-0.9
Women's apparel	0.806	-0.1	-0.001	0.69	S-Apr.2022	-1.0
Women's outerwear	0.058	0.6	0.000	1.73	S-Apr.2022	0.4
Women's dresses	0.089	0.8	0.001	1.69	S-Apr.2022	0.7
Women's suits and separates ⁵	0.385	0.4	0.002	1.10	L-Mar.2022	0.5
Women's underwear, nightwear, swimwear, and accessories ⁵	0.266	-1.5	-0.004	0.96	S-Mar.2022	-2.4
Girls' apparel	0.154	0.5	0.001	1.39	L-Mar.2022	2.2
Footwear	0.600	1.6	0.010	0.51	L-Jan.2019	1.7
Men's footwear ⁴	0.201	1.7	0.003	0.74	L-Sep.2021	1.7
Boys' and girls' footwear	0.116	1.2	0.001	1.15	S-Apr.2022	-1.4
Women's footwear	0.282	0.8	0.002	0.73	L-Jan.2022	0.8
Infants' and toddlers' apparel	0.116	1.3	0.001	1.54	S-Apr.2022	-0.7
Jewelry and watches ⁹	0.157	1.4	0.002	1.23	L-Mar.2022	2.8
Watches ^{4, 9}	0.030	0.1	0.000	1.52	L-Apr.2022	1.1
Jewelry ⁹	0.128	1.5	0.002	1.50	L-Mar.2022	4.4
Transportation commodities less motor fuel ¹¹	8.515	1.1	0.093	0.13	S-Apr.2022	0.4
New vehicles	4.026	0.7	0.026	0.24	S-Mar.2022	0.2
New cars ⁶		0.5		0.36	S-Mar.2022	0.3
New trucks ^{13, 6}		0.8		0.34	S-Mar.2022	0.2
Used cars and trucks	3.975	1.6	0.064	0.02	S-Apr.2022	-0.4
Motor vehicle parts and equipment ⁴	0.428	0.4	0.002	0.42	S-Mar.2022	-0.2
Tires ⁴	0.271	0.7	0.002	0.54	S-Mar.2022	-0.1
Vehicle accessories other than tires ^{4, 5}	0.157	0.0	0.000	0.55	S-Mar.2022	-0.3
Vehicle parts and equipment other than tires ^{4, 6}		-0.7		0.66	S-Feb.2021	-0.8
Motor oil, coolant, and fluids ^{4, 6}		2.6		0.76	L-Apr.2022	3.7
Medical care commodities ⁴	1.480	0.4	0.006	0.20	L-Jan.2022	0.9
Medicinal drugs ^{4, 11}	1.379	0.4	0.005	0.21	L-Feb.2022	0.4
Prescription drugs ⁴	1.009	0.1	0.001	0.17	L-Feb.2022	0.3
Nonprescription drugs ^{4, 11}	0.370	1.2	0.004	0.51	L-Mar.2022	1.3
Medical equipment and supplies ^{4, 11}	0.101	0.6	0.001	0.49	S-Apr.2022	0.3
Recreation commodities ¹¹	1.883	0.4	0.007	0.24	L-Apr.2022	0.5
Video and audio products ¹¹	0.284	-0.2	-0.001	0.43	L-Nov.2021	-0.1
Televisions	0.130	-2.3	-0.003	0.58	L-Apr.2022	-2.2
Other video equipment ⁵	0.026	-0.2	0.000	1.14	S-Apr.2022	-0.7
Audio equipment ⁴	0.072	3.2	0.002	1.11	L-Apr.2019	4.2
Recorded music and music subscriptions ^{4, 5}	0.051	0.3	0.000	0.38	L-Apr.2022	0.6

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Pets and pet products ⁴	0.552	1.0	0.006	0.36	—	—
Pet food ^{4, 5, 6}		1.3		0.36	S-Apr.2022	1.2
Purchase of pets, pet supplies, accessories ^{4, 5, 6}		0.9		0.75	L-Feb.2022	2.3
Sporting goods ⁴	0.554	-0.3	-0.002	0.50	S-Mar.2022	-0.6
Sports vehicles including bicycles ⁴	0.317	-0.6	-0.002	0.74	S-Mar.2022	-0.9
Sports equipment ⁴	0.227	0.1	0.000	0.48	L-Apr.2022	1.2
Photographic equipment and supplies.....	0.020	-0.6	0.000	0.79	S-Apr.2022	-1.4
Photographic equipment ^{5, 6}		-0.2		0.75	S-Apr.2022	-1.2
Recreational reading materials ⁴	0.096	3.1	0.003	0.63	L-Feb.2022	3.5
Newspapers and magazines ^{4, 5}	0.056	4.2	0.002	0.82	L-Feb.2022	5.3
Recreational books ^{4, 5}	0.040	1.6	0.001	0.85	L-Apr.2021	1.7
Other recreational goods ⁵	0.376	0.1	0.001	0.56	S-Jan.2022	0.0
Toys.....	0.291	0.1	0.000	0.67	—	—
Toys, games, hobbies and playground equipment ^{5, 6}		0.1		0.90	L-Apr.2022	0.4
Sewing machines, fabric and supplies ^{4, 5}	0.028	1.9	0.001	1.60	L-Apr.2022	4.6
Music instruments and accessories ^{4, 5}	0.042	-0.1	0.000	0.93	L-Mar.2022	0.8
Education and communication commodities ¹¹	0.772	0.3	0.002	0.55	L-Jan.2022	0.3
Educational books and supplies ⁴	0.087	0.0	0.000	0.85	S-Apr.2022	-0.1
College textbooks ^{4, 14, 6}		0.0		0.73	S-Feb.2022	-0.4
Information technology commodities ¹¹	0.685	0.3	0.002	0.70	L-Sep.2021	0.8
Computers, peripherals, and smart home assistants ^{1, 7}	0.340	1.3	0.004	0.83	L-Apr.2021	5.1
Computer software and accessories ^{4, 5}	0.019	2.3	0.000	1.40	L-Oct.2021	3.3
Telephone hardware, calculators, and other consumer information items ⁵	0.326	-0.9	-0.003	0.85	L-Dec.2021	0.8
Smartphones ^{4, 6, 15}		-0.5		1.16	L-Jan.2022	1.1
Alcoholic beverages.....	0.870	0.4	0.004	0.20	S-Apr.2022	0.4
Alcoholic beverages at home.....	0.579	0.6	0.003	0.25	L-Feb.2022	1.0
Beer, ale, and other malt beverages at home.....	0.220	0.9	0.002	0.38	L-Mar.2022	0.9
Distilled spirits at home ⁴	0.105	0.1	0.000	0.34	—	—
Whiskey at home ^{4, 6}		-0.1		0.42	S-Mar.2022	-0.8
Distilled spirits, excluding whiskey, at home ^{4, 6}		0.1		0.52	S-Mar.2022	-0.6
Wine at home ⁴	0.254	0.5	0.001	0.39	L-Feb.2022	0.7
Alcoholic beverages away from home ⁴	0.291	0.3	0.001	0.24	S-Feb.2022	0.3
Beer, ale, and other malt beverages away from home ^{4, 5, 6}		0.2		0.29	S-Mar.2022	0.2
Wine away from home ^{4, 5, 6}		0.3		0.29	S-Feb.2022	0.2
Distilled spirits away from home ^{4, 5, 6}		0.1		0.31	S-Nov.2021	-0.4
Other goods ¹¹	1.340	0.5	0.007	0.21	S-Apr.2022	0.3
Tobacco and smoking products ⁴	0.514	0.6	0.003	0.20	S-Apr.2022	0.4
Cigarettes ^{4, 5}	0.444	0.6	0.003	0.22	S-Apr.2022	0.5
Tobacco products other than cigarettes ^{4, 5}	0.065	0.3	0.000	0.33	S-Apr.2022	-0.2
Personal care products ⁴	0.638	0.7	0.005	0.26	L-Mar.2022	1.0
Hair, dental, shaving, and miscellaneous personal care products ^{4, 5}	0.328	1.2	0.004	0.33	L-Apr.2022	1.2
Cosmetics, perfume, bath, nail preparations and implements ⁴	0.300	0.2	0.001	0.37	S-Apr.2022	-0.7
Miscellaneous personal goods ^{4, 5}	0.189	-0.4	-0.001	0.88	S-Mar.2022	-0.9
Stationery, stationery supplies, gift wrap ⁶		-0.6		0.71	S-Aug.2020	-3.7
Services less energy services.....	56.663	0.7	0.396	0.05	L-Apr.2022	0.7
Shelter.....	32.285	0.6	0.197	0.06	—	—
Rent of shelter ¹⁶	31.921	0.6	0.190	0.06	—	—
Rent of primary residence.....	7.239	0.8	0.056	0.05	L-Apr.1986	1.0

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Lodging away from home ⁵	1.026	-2.8	-0.028	1.65	S-Jan.2022	-3.9
Housing at school, excluding board ¹⁶	0.123	0.2	0.000	0.05	L-Apr.2022	0.2
Other lodging away from home including hotels and motels.....	0.902	-3.3	-0.028	1.90	S-Jan.2022	-4.2
Owners' equivalent rent of residences ¹⁶	23.657	0.7	0.165	0.05	L-Aug.1990	0.7
Owners' equivalent rent of primary residence ¹⁶ ..	22.427	0.7	0.157	0.05	L-Aug.1990	0.7
Tenants' and household insurance ^{4, 5}	0.364	0.9	0.003	0.12	L-Dec.2014	0.9
Water and sewer and trash collection services ⁵	1.082	0.4	0.004	0.10	L-Feb.2022	0.5
Water and sewerage maintenance.....	0.779	0.3	0.003	0.10	L-Apr.2022	0.3
Garbage and trash collection ^{4, 13}	0.303	0.6	0.002	0.26	L-Feb.2022	1.0
Household operations ^{4, 5}	0.828	0.1	0.001	0.25	S-Sep.2021	-0.2
Domestic services ^{4, 5}	0.237	0.6	0.001	0.38	S-Apr.2022	-1.2
Gardening and lawn care services ^{4, 5}						
Moving, storage, freight expense ^{4, 5}	0.103	0.8	0.001	1.45	S-Mar.2022	-0.4
Repair of household items ^{4, 5}						
Medical care services.....	6.821	0.7	0.050	0.13	L-Oct.2019	0.8
Professional services.....	3.454	0.7	0.025	0.20	L-Feb.2021	1.0
Physicians' services ⁴	1.819	0.1	0.002	0.27	L-Apr.2022	0.2
Dental services.....	0.894	1.9	0.017	0.19	L-EVER	-
Eyeglasses and eye care ^{4, 9}	0.356	0.7	0.003	0.37	L-Aug.2021	0.9
Services by other medical professionals ^{4, 9}	0.385	0.1	0.001	0.10	S-Apr.2022	-0.3
Hospital and related services.....	2.512	0.4	0.009	0.12	-	-
Hospital services ¹⁷	2.146	0.3	0.005	0.13	S-Feb.2022	-0.1
Inpatient hospital services ^{17, 6}		0.1		0.36	S-Feb.2022	-0.1
Outpatient hospital services ^{9, 6}		0.1		0.34	S-Dec.2021	0.1
Nursing homes and adult day services ¹⁷	0.205	1.4	0.003	0.16	L-EVER	-
Care of invalids and elderly at home ^{4, 8}	0.162	0.1	0.000	0.24	L-Apr.2022	0.5
Health insurance ^{4, 8}	0.855	2.1	0.018	0.15	L-Mar.2022	2.2
Transportation services.....	5.855	2.1	0.122	0.19	L-Apr.2022	3.1
Leased cars and trucks ^{4, 14}	0.763		0.061	0.35	-	-
Car and truck rental ⁵	0.152	-2.2	-0.003	1.79	S-Jan.2022	-7.0
Motor vehicle maintenance and repair ⁴	1.016	2.0	0.021	0.21	L-Sep.1974	2.3
Motor vehicle body work ⁴	0.052	1.8	0.001	0.26	L-Dec.2021	2.3
Motor vehicle maintenance and servicing ⁴	0.558	2.0	0.011	0.25	L-EVER	-
Motor vehicle repair ^{4, 5}	0.364	2.1	0.008	0.31	L-Feb.2022	4.3
Motor vehicle insurance.....	2.379	1.9	0.046	0.19	L-Jul.2020	9.5
Motor vehicle fees ^{4, 5}	0.498	0.5	0.002	0.23	L-Jan.2021	0.8
State motor vehicle registration and license fees ^{4, 5}	0.288	0.0	0.000	0.02	S-Apr.2022	0.0
Parking and other fees ^{4, 5}	0.196	1.1	0.002	0.45	L-Jan.2021	1.5
Parking fees and tolls ^{5, 6}		1.5		0.53	L-Jan.2021	2.1
Public transportation.....	1.046	-0.4	-0.004	0.65	S-Sep.2021	-4.7
Airline fares.....	0.756	-1.8	-0.013	0.97	S-Sep.2021	-5.9
Other intercity transportation.....	0.092	0.4	0.000	0.62	L-Feb.2022	1.2
Ship fare ^{4, 5, 6}		-2.1		0.82	S-Oct.2021	-3.3
Intracity transportation ⁴	0.196	0.8	0.002	0.92	L-Mar.2022	1.6
Intracity mass transit ^{4, 11, 6}		0.0		0.26	-	-
Recreation services ¹¹	3.130	0.3	0.008	0.21	S-Dec.2021	0.0
Video and audio services ¹¹	1.156	0.1	0.001	0.17	S-Dec.2021	-0.3
Cable and satellite television service ¹³	1.064	0.0	0.000	0.13	S-Dec.2021	-0.3
Video djcs and other media, including rental of video ^{4, 5}	0.092	1.0	0.001	1.04	S-Apr.2022	0.7
Video discs and other media ^{4, 5, 6}		0.3		1.84	S-Mar.2022	-0.2

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Rental of video discs and other media ^{4, 5, 6}		-0.2		0.22	S-Dec.2021	-0.5
Pet services including veterinary ⁵	0.514	0.3	0.001	0.32	L-Apr.2022	1.1
Pet services ^{4, 5, 6}		-0.7		0.39	S-May 2021	-0.9
Veterinarian services ^{5, 6}		0.6		0.60	L-Apr.2022	0.7
Photographers and photo processing ^{4, 5}	0.030	-0.5	0.000	0.45	S-Dec.2021	-1.5
Other recreation services ⁵	1.430	0.4	0.006	0.41	L-Feb.2022	0.7
Club membership for shopping clubs, fraternal, or other organizations, or participant sports fees ^{4, 5}	0.631	-0.3	-0.002	0.28	S-May 2021	-0.4
Admissions ⁴	0.444	1.7	0.007	0.87	L-Oct.2021	3.2
Admission to movies, theaters, and concerts ^{4, 5, 6}		0.9		0.61	L-Apr.2022	1.1
Admission to sporting events ^{4, 5, 6}		2.9		4.15	L-Oct.2021	8.3
Fees for lessons or instructions ^{4, 9}	0.168	-0.3	0.000	0.43	S-Sep.2021	-0.6
Education and communication services ¹¹	5.307	0.2	0.008	0.06	—	—
Tuition, other school fees, and childcare.....	2.480	0.4	0.011	0.08	L-Sep.2021	0.4
College tuition and fees.....	1.423	0.3	0.004	0.09	L-Sep.2021	0.4
Elementary and high school tuition and fees.....	0.314	0.5	0.002	0.05	S-Apr.2022	0.1
Day care and preschool ¹²	0.616	0.7	0.005	0.09	L-Aug.2018	0.8
Technical and business school tuition and fees ^{4, 5}	0.038	0.3	0.000	0.11	—	—
Postage and delivery services ⁵	0.083	0.3	0.000	0.06	S-Feb.2022	-1.4
Postage.....	0.074	0.4	0.000	0.01	—	—
Delivery services ⁵	0.009	-0.7	0.000	0.30	S-Sep.2021	-1.4
Telephone services ^{4, 5}	1.807	-0.1	-0.002	0.07	S-Mar.2022	-0.6
Wireless telephone services ^{4, 5}	1.502	-0.1	-0.002	0.04	S-Mar.2022	-0.7
Residential telephone services ^{4, 11}	0.305	0.1	0.000	0.27	L-Apr.2022	0.7
Internet services and electronic information providers ^{4, 5}	0.929	-0.1	-0.001	0.20	S-Feb.2022	-0.1
Other personal services ^{4, 11}	1.356	0.4	0.006	0.19	L-Apr.2022	0.5
Personal care services ⁴	0.536	0.3	0.002	0.28	S-Mar.2022	-0.4
Haircuts and other personal care services ^{4, 5}	0.536	0.3	0.002	0.28	S-Mar.2022	-0.4
Miscellaneous personal services ⁴	0.820	0.5	0.004	0.18	L-Apr.2022	0.6
Legal services ^{4, 9}						
Funeral expenses ^{4, 9}	0.145	0.1	0.000	0.13	S-Sep.2021	0.0
Laundry and dry cleaning services ^{4, 5}	0.152	0.8	0.001	0.39	L-Feb.2022	0.9
Apparel services other than laundry and dry cleaning ^{4, 5}	0.017	1.0	0.000	0.45	L-Mar.2022	3.8
Financial services ^{4, 9}	0.192	-0.5	-0.001	0.50	L-Apr.2022	0.4
Checking account and other bank services ^{4, 5, 6}		0.0		0.30	—	—
Tax return preparation and other accounting fees ^{4, 5, 6}				0.51	—	—
Special aggregate indexes						
All items less food.....	86.577	1.4	1.189	0.04	L-Sep.2005	1.5
All items less shelter.....	67.715	1.7	1.125	0.05	L-Sep.2005	2.1
All items less food and shelter.....	54.292	1.8	0.992	0.05	L-Sep.2005	2.5
All items less food, shelter, and energy.....	45.627	0.8	0.355	0.06	L-Jan.2022	0.8
All items less food, shelter, energy, and used cars and trucks.....	41.652	0.7	0.291	0.06	L-Apr.2022	0.7
All items less medical care.....	91.699	1.4	1.267	0.04	L-Sep.2005	1.4
All items less energy.....	91.335	0.7	0.685	0.04	—	—
Commodities.....	39.866	2.1	0.816	0.07	L-Mar.2022	2.1

See footnotes at end of table.

Table 6. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 1-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	One Month				
		Seasonally adjusted percent change May 2022-Jun. 2022	Seasonally adjusted effect on All Items May 2022-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) seasonally adjusted change since: ³	
					Date	Percent change
Commodities less food, energy, and used cars and trucks.....	17.275	0.6	0.103	0.12	L-Feb.2022	0.6
Commodities less food.....	26.443	2.6	0.683	0.09	L-Mar.2022	2.7
Commodities less food and beverages.....	25.573	2.7	0.680	0.09	L-Mar.2022	2.8
Services.....	60.134	0.9	0.517	0.05	L-Jan.2001	0.9
Services less rent of shelter ¹⁶	28.213	1.1	0.307	0.06	L-Apr.2022	1.1
Services less medical care services.....	53.313	0.8	0.438	0.05	—	—
Durables.....	12.689	0.7	0.093	0.14	L-Jan.2022	1.2
Nondurables.....	27.176	2.8	0.747	0.07	L-Mar.2022	3.2
Nondurables less food.....	13.754	4.4	0.603	0.12	L-Mar.2022	6.0
Nondurables less food and beverages.....	12.884	4.7	0.600	0.13	L-Mar.2022	6.4
Nondurables less food, beverages, and apparel.....	10.425	5.5	0.567	0.11	L-Mar.2022	8.5
Nondurables less food and apparel.....	11.295	5.1	0.567	0.10	L-Mar.2022	8.2
Housing.....	41.863	0.8	0.339	0.06	—	—
Education and communication ⁵	6.079	0.2	0.010	0.07	L-Sep.2021	0.4
Education ⁵	2.567	0.4	0.011	0.08	L-Mar.2019	0.4
Communication ⁵	3.512	0.0	0.000	0.10	L-Jan.2022	0.0
Information and information processing ⁵	3.429	0.0	-0.001	0.11	L-Jan.2022	0.1
Information technology, hardware and services ¹⁸	1.622	0.1	0.001	0.25	L-Jan.2022	0.1
Recreation ⁵	5.013	0.3	0.015	0.17	S-Mar.2022	0.2
Video and audio ⁵	1.441	0.0	0.000	0.17	S-Mar.2022	-0.1
Pets, pet products and services ⁵	1.066	0.7	0.007	0.29	L-Apr.2022	0.9
Photography ⁵	0.051	-0.5	0.000	0.42	S-Dec.2021	-0.6
Food and beverages.....	14.293	1.0	0.137	0.08	S-Apr.2022	0.8
Domestically produced farm food ⁴	7.004	1.1	0.075	0.14	S-Dec.2021	0.4
Other services.....	9.793	0.2	0.022	0.08	S-Mar.2022	0.1
Apparel less footwear.....	1.859	0.5	0.010	0.46	S-Apr.2022	-0.6
Fuels and utilities.....	4.820	2.5	0.124	0.16	S-Apr.2022	1.2
Household energy.....	3.738	3.2	0.119	0.20	S-Apr.2022	1.5
Medical care.....	8.301	0.7	0.056	0.12	L-Jan.2022	0.7
Transportation.....	19.297	3.8	0.733	0.10	L-Mar.2022	3.9
Private transportation.....	18.250	4.1	0.738	0.09	L-Jun.2009	5.3
New and used motor vehicles ⁵	9.003	1.6	0.149	0.13	L-Dec.2021	1.9
Utilities and public transportation.....	8.470	1.3	0.112	0.12	S-Mar.2022	1.1
Household furnishings and operations.....	4.758	0.4	0.019	0.20	—	—
Other goods and services.....	2.696	0.5	0.013	0.14	—	—
Personal care ⁴	2.182	0.4	0.010	0.16	—	—

¹ The 'effect' of an item category is a measure of that item's contribution to the All items price change. For example, if the Food index had an effect of 0.40, and the All items index rose 1.2 percent, then the increase in food prices contributed 0.40 / 1.2, or 33.3 percent, to that All items increase. Said another way, had food prices been unchanged for that month the change in the All items index would have been 1.2 percent minus 0.40, or 0.8 percent. Effects can be negative as well. For example, if the effect of food was a negative 0.1, and the All items index rose 0.5 percent, the All items index actually would have been 0.1 percent higher (or 0.6 percent) had food prices been unchanged. Since food prices fell while prices overall were rising, the contribution of food to the All items price change was negative (in this case, -0.1 / 0.5, or minus 20 percent).

² A statistic's margin of error is often expressed as its point estimate plus or minus two standard errors. For example, if a CPI category rose 0.6 percent, and its standard error was 0.15 percent, the margin of error on this item's 1-month percent change would be 0.6 percent, plus or minus 0.3 percent.

³ If the current seasonally adjusted 1-month percent change is greater than the previous published 1-month percent change, then this column identifies the closest prior month with a 1-month percent change as (L)arger as or (L)arger than the current 1-month change. If the current 1-month percent change is smaller than the previous published 1-month percent change, the most recent month with a change as (S)maller or (S)maller than the current month change is identified. If the current and previous published 1-month percent changes are equal, a dash will appear. Standard numerical comparisons are used. For example, 0.8% is greater than 0.6%, -0.4% is less than -0.2%, and -0.2% is less than 0.0%. Note that a (L)arger change can be a smaller decline, for example, a -0.2% change is larger than a -0.4% change, but still represents a decline in the price index. Likewise, (S)maller changes can be increases, for example, a 0.6% change is smaller than 0.8%, but still represents an increase in the price index. In this context, a -0.2% change is considered to be smaller than a 0.0% change.

⁴ Not seasonally adjusted.

⁵ Indexes on a December 1997=100 base.

⁶ Special indexes based on a substantially smaller sample. These series do not contribute to the all items index aggregation and therefore do not have a relative importance or effect.

- ⁷ Indexes on a December 2007=100 base.
- ⁸ Indexes on a December 2005=100 base.
- ⁹ Indexes on a December 1986=100 base.
- ¹⁰ Indexes on a December 1993=100 base.
- ¹¹ Indexes on a December 2009=100 base.
- ¹² Indexes on a December 1990=100 base.
- ¹³ Indexes on a December 1983=100 base.
- ¹⁴ Indexes on a December 2001=100 base.
- ¹⁵ Indexes on a December 2019=100 base.
- ¹⁶ Indexes on a December 1982=100 base.
- ¹⁷ Indexes on a December 1996=100 base.
- ¹⁸ Indexes on a December 1988=100 base.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
All items.....	100.000	9.1		0.09	L-Nov.1981	9.6
Food.....	13.423	10.4	1.404	0.19	L-Feb.1981	10.5
Food at home.....	8.324	12.2	0.969	0.29	L-Apr.1979	12.3
Cereals and bakery products.....	1.058	13.8	0.139	0.54	L-May 1975	14.0
Cereals and cereal products.....	0.342	15.1	0.048	0.79	L-Aug.1980	15.1
Flour and prepared flour mixes.....	0.054	19.2	0.010	1.42	L-Dec.2008	21.0
Breakfast cereal.....	0.144	14.2	0.020	1.23	L-Jun.1981	14.6
Rice, pasta, cornmeal.....	0.144	14.2	0.019	1.21	L-Mar.2009	15.7
Rice ^{4, 5}		11.9		1.30	S-Apr.2022	9.2
Bakery products.....	0.716	13.2	0.091	0.71	L-EVER	-
Bread ⁴	0.199	10.8	0.021	1.38	L-Jan.2009	10.8
White bread ⁵		10.1		1.37	L-Jan.2009	10.3
Bread other than white ⁵		11.6		1.36	L-Aug.2011	12.2
Fresh biscuits, rolls, muffins ⁴	0.107	13.2	0.014	1.72	L-Dec.2008	13.5
Cakes, cupcakes, and cookies.....	0.177	13.4	0.023	1.68	L-Feb.1981	13.4
Cookies ⁵		14.7		1.15	L-Jan.1981	15.3
Fresh cakes and cupcakes ⁵		11.6		2.20	L-Jul.1981	11.6
Other bakery products.....	0.233	15.3	0.033	1.16	L-EVER	-
Fresh sweetrolls, coffeecakes, doughnuts ⁵		14.6		1.67	L-EVER	-
Crackers, bread, and cracker products ⁵		16.6		1.72	L-EVER	-
Frozen and refrigerated bakery products, pies, tarts, turnovers ⁵		17.2		1.90	L-EVER	-
Meats, poultry, fish, and eggs.....	1.906	11.7	0.212	0.71	S-Sep.2021	10.5
Meats, poultry, and fish.....	1.778	10.4	0.179	0.71	S-Sep.2021	10.4
Meats.....	1.125	8.2	0.090	0.92	S-Jul.2021	5.9
Beef and veal.....	0.522	4.1	0.021	0.97	S-Jun.2021	-2.8
Uncooked ground beef.....	0.191	9.7	0.017	1.12	S-Aug.2021	6.9
Uncooked beef roasts ⁴	0.079	3.6	0.003	2.91	S-Jun.2021	-2.4
Uncooked beef steaks ⁴	0.202	-0.3	-0.001	1.56	S-Feb.2018	-0.4
Uncooked other beef and veal ⁴	0.051	3.4	0.001	2.50	S-Jun.2021	3.1
Pork.....	0.361	9.0	0.031	1.71	S-Jul.2021	7.8
Bacon, breakfast sausage, and related products ⁴	0.162	11.9	0.017	1.89	S-Jul.2021	8.1
Bacon and related products ⁵		10.8		2.17	S-Jun.2021	8.4
Breakfast sausage and related products ^{4, 5}		13.6		1.90	S-Mar.2022	13.5
Ham.....	0.063	9.6	0.006	2.87	S-Apr.2022	8.8
Ham, excluding canned ⁵		9.3		3.44	S-Apr.2022	8.1
Pork chops.....	0.051	4.2	0.002	2.62	S-Jun.2021	-2.9
Other pork including roasts, steaks, and ribs ⁴	0.085	7.2	0.006	3.71	S-Jun.2021	6.5
Other meats.....	0.242	16.7	0.037	1.13	L-May 1979	16.9
Frankfurters ⁵		16.3		2.39	L-Jun.1979	17.3
Lunchmeats ^{4, 5}		18.0		1.01	L-EVER	-
Poultry.....	0.362	17.3	0.058	1.24	L-May 1989	20.4
Chicken ⁴	0.294	18.6	0.050	1.29	L-EVER	-
Fresh whole chicken ⁵		15.5		2.09	L-Aug.2004	17.4
Fresh and frozen chicken parts ⁵		20.4		1.71	L-May 1989	22.3
Other uncooked poultry including turkey ⁴	0.068	11.7	0.008	3.14	S-Apr.2022	10.7
Fish and seafood.....	0.292	11.0	0.031	0.99	S-Mar.2022	10.9
Fresh fish and seafood ⁴	0.149	10.6	0.015	1.61	S-Dec.2021	10.2
Processed fish and seafood ⁴	0.142	11.4	0.016	1.08	L-EVER	-
Shelf stable fish and seafood ⁵		7.4		1.70	L-Feb.2019	9.1
Frozen fish and seafood ⁵		14.1		1.66	L-Jun.1987	14.2
Eggs.....	0.128	33.1	0.034	2.04	L-Sep.2015	36.2

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Dairy and related products.....	0.785	13.5	0.102	0.49	L-Nov.2007	14.0
Milk ⁴	0.206	16.4	0.032	1.24	L-Feb.2008	16.8
Fresh whole milk ⁵		17.1		1.43	L-Feb.2008	18.8
Fresh milk other than whole ^{4, 5}		16.7		1.15	L-Dec.2007	16.9
Cheese and related products.....	0.256	9.7	0.025	0.84	L-Feb.2012	10.0
Ice cream and related products.....	0.114	12.5	0.014	1.24	L-Apr.1981	14.1
Other dairy and related products ⁴	0.209	15.9	0.031	0.93	L-EVER	—
Fruits and vegetables.....	1.425	8.1	0.112	0.64	S-Apr.2022	7.8
Fresh fruits and vegetables.....	1.090	7.0	0.075	0.74	S-Jan.2022	5.6
Fresh fruits.....	0.595	7.3	0.042	1.20	S-Nov.2021	5.8
Apples.....	0.077	6.0	0.005	2.17	S-Aug.2021	5.6
Bananas.....	0.079	6.6	0.005	1.54	L-May 2011	7.3
Citrus fruits ⁴	0.176	9.3	0.016	2.18	S-Nov.2021	2.6
Oranges, including tangerines ⁵		10.9		2.06	S-Jan.2022	10.2
Other fresh fruits ⁴	0.263	6.5	0.016	1.94	L-Mar.2022	6.9
Fresh vegetables.....	0.495	6.5	0.033	0.78	L-Mar.2019	7.7
Potatoes.....	0.079	9.0	0.007	1.82	L-Jun.2020	13.3
Lettuce.....	0.059	11.4	0.007	1.66	—	—
Tomatoes.....	0.078	0.6	0.000	2.02	S-Apr.2022	0.4
Other fresh vegetables.....	0.280	6.5	0.018	0.97	L-Mar.2022	6.5
Processed fruits and vegetables ⁴	0.335	11.6	0.037	0.91	L-Mar.2009	13.3
Canned fruits and vegetables ⁴	0.172	13.4	0.022	1.47	L-May 2009	13.4
Canned fruits ^{4, 5}		11.6		1.39	S-Apr.2022	7.9
Canned vegetables ^{4, 5}		14.3		1.63	L-Jun.2009	14.5
Frozen fruits and vegetables ⁴	0.099	10.2	0.010	1.48	L-EVER	—
Frozen vegetables ⁵		9.8		1.57	L-Aug.1989	10.2
Other processed fruits and vegetables including dried ⁴	0.063	9.0	0.005	1.86	L-Apr.2009	9.3
Dried beans, peas, and lentils ^{4, 5}		9.9		2.73	S-Apr.2022	9.8
Nonalcoholic beverages and beverage materials.....	0.950	11.9	0.109	0.65	S-Apr.2022	9.8
Juices and nonalcoholic drinks ⁴	0.667	11.6	0.075	0.84	S-Apr.2022	9.2
Carbonated drinks.....	0.279	11.0	0.030	1.76	S-Apr.2022	9.2
Frozen noncarbonated juices and drinks ⁴	0.007	8.4	0.001	1.09	L-Jun.2012	9.4
Nonfrozen noncarbonated juices and drinks ⁴	0.381	12.1	0.045	0.87	L-EVER	—
Beverage materials including coffee and tea ⁴	0.283	12.4	0.034	0.83	—	—
Coffee.....	0.184	15.8	0.027	1.15	L-Dec.2011	19.3
Roasted coffee ⁵		16.8		1.31	L-Jan.2012	16.8
Instant coffee ⁵		11.2		1.79	S-Apr.2022	7.8
Other beverage materials including tea ⁴	0.099	6.4	0.007	1.65	S-Mar.2022	4.7
Other food at home.....	2.201	14.4	0.295	0.40	L-Feb.1978	15.0
Sugar and sweets.....	0.276	9.4	0.025	0.88	L-Jan.2009	9.6
Sugar and sugar substitutes.....	0.041	11.4	0.005	1.43	L-Sep.2006	12.1
Candy and chewing gum ⁴	0.174	6.9	0.012	1.17	L-Apr.2022	7.3
Other sweets ⁴	0.061	15.7	0.009	1.37	L-EVER	—
Fats and oils.....	0.245	19.5	0.043	1.12	L-Apr.1975	23.6
Butter and margarine ⁴	0.077	26.3	0.018	1.57	L-EVER	—
Butter ⁵		21.3		2.25	L-Dec.2014	22.5
Margarine ⁵		34.5		1.83	L-Mar.1975	36.0
Salad dressing ⁴	0.056	15.0	0.008	1.54	L-EVER	—
Other fats and oils including peanut butter ⁴	0.112	17.1	0.018	1.77	L-Jan.2012	18.8
Peanut butter ^{4, 5}		9.5		1.63	S-Dec.2021	3.8
Other foods.....	1.679	14.6	0.226	0.46	L-May 1975	18.2
Soups.....	0.102	16.0	0.015	1.69	L-EVER	—
Frozen and freeze dried prepared foods.....	0.271	17.7	0.045	0.86	L-EVER	—

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Snacks.....	0.364	14.3	0.049	1.02	L-Oct.1981	16.4
Spices, seasonings, condiments, sauces.....	0.323	12.2	0.037	0.78	L-Nov.1980	13.4
Salt and other seasonings and spices ^{4, 5}		11.9		1.35	L-EVER	-
Olives, pickles, relishes ^{4, 5}		12.6		1.31	L-Dec.2008	13.0
Sauces and gravies ^{4, 5}		13.6		1.38	L-EVER	-
Other condiments ⁵		10.7		1.28	L-Sep.2008	11.9
Baby food ⁴	0.043	14.0	0.006	1.33	L-EVER	-
Other miscellaneous foods ⁴	0.575	14.5	0.074	0.87	L-EVER	-
Prepared salads ^{6, 5}		17.6		1.72	L-EVER	-
Food away from home.....	5.099	7.7	0.435	0.28	L-Nov.1981	8.0
Full service meals and snacks ⁴	2.385	8.9	0.242	0.35	S-Apr.2022	8.7
Limited service meals and snacks ⁴	2.474	7.4	0.198	0.44	L-Feb.2022	8.0
Food at employee sites and schools ⁴	0.034	-14.1	-0.019	3.39	L-Jan.2021	-14.1
Food at elementary and secondary schools ^{7, 5}						
Food from vending machines and mobile vendors ⁴	0.036	7.6	0.003	0.99	S-Apr.2022	7.1
Other food away from home ⁴	0.169	6.8	0.012	0.68	L-EVER	-
Energy.....	8.665	41.6	2.954	0.35	L-Apr.1980	43.5
Energy commodities.....	5.194	60.6	2.319	0.65	L-Mar.1980	66.2
Fuel oil and other fuels.....	0.267	70.4	0.117	1.86	S-Apr.2022	58.8
Fuel oil.....	0.191	98.5	0.100	2.71	S-Apr.2022	80.5
Propane, kerosene, and firewood ⁸	0.076	26.1	0.017	2.45	S-Mar.2022	24.4
Motor fuel.....	4.927	60.2	2.202	0.68	L-Mar.1980	68.2
Gasoline (all types).....	4.820	59.9	2.149	0.70	L-Mar.1980	68.1
Gasoline, unleaded regular ⁵		61.1		1.12	L-Mar.1980	65.9
Gasoline, unleaded midgrade ^{9, 5}		56.4		0.96	L-EVER	-
Gasoline, unleaded premium ⁵		52.1		0.91	L-EVER	-
Other motor fuels ⁴	0.107	75.8	0.053	1.05	L-EVER	-
Energy services.....	3.471	19.4	0.635	0.42	L-Feb.2006	19.6
Electricity.....	2.541	13.7	0.342	0.47	L-Apr.2006	14.8
Utility (pipel) gas service.....	0.930	38.4	0.293	0.87	L-Oct.2005	45.3
All items less food and energy.....	77.912	5.9	4.702	0.11	S-Dec.2021	5.5
Commodities less food and energy commodities.....	21.249	7.2	1.510	0.22	S-May 2021	6.5
Household furnishings and supplies ¹⁰	3.930	10.2	0.387	0.60	L-Apr.2022	10.6
Window and floor coverings and other linens ⁴	0.291	5.6	0.016	2.43	S-Oct.2021	4.9
Floor coverings ⁴	0.067	8.8	0.006	2.37	S-Jan.2022	7.2
Window coverings ⁴	0.058	15.9	0.009	4.65	S-Feb.2022	11.2
Other linens ⁴	0.166	0.8	0.002	3.39	S-Aug.2021	-3.3
Furniture and bedding.....	0.967	13.1	0.124	1.37	L-Apr.2022	15.0
Bedroom furniture.....	0.313	10.3	0.033	2.10	S-Nov.2021	9.9
Living room, kitchen, and dining room furniture ⁴	0.467	15.4	0.071	2.01	L-Mar.2022	16.8
Other furniture ⁴	0.178	12.0	0.019	2.81	S-Dec.2021	10.4
Appliances ⁴	0.252	6.5	0.016	1.61	L-Apr.2022	7.8
Major appliances ⁴	0.084	7.5	0.006	3.13	S-Nov.2021	5.5
Laundry equipment ⁵		-1.6		6.20	S-Jun.2020	-6.0
Other appliances ⁴	0.165	6.0	0.010	2.12	L-Jan.2022	7.7
Other household equipment and furnishings ⁴	0.557	7.3	0.040	1.66	L-Apr.2022	8.1
Clocks, lamps, and decorator items.....	0.332	7.9	0.025	2.59	L-Apr.2022	10.3
Indoor plants and flowers ¹¹	0.099	5.6	0.005	2.70	L-Mar.2022	5.8
Dishes and flatware ⁴	0.051	4.5	0.002	4.12	S-Mar.2022	4.0
Nonelectric cookware and tableware ⁴	0.075	9.6	0.007	2.27	L-EVER	-
Tools, hardware, outdoor equipment and supplies ⁴	0.932	10.5	0.093	0.90	S-Dec.2021	7.2
Tools, hardware and supplies ⁴	0.243	10.2	0.024	1.19	S-Mar.2022	8.6
Outdoor equipment and supplies ⁴	0.464	10.8	0.048	1.17	S-Dec.2021	7.8

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Housekeeping supplies.....	0.932	10.7	0.097	0.88	L-Apr.1981	10.9
Household cleaning products ⁴	0.343	11.3	0.038	1.24	L-EVER	-
Household paper products ⁴	0.211	9.4	0.020	1.66	L-Aug.2020	9.9
Miscellaneous household products ⁴	0.378	11.0	0.039	1.51	L-EVER	-
Apparel.....	2.459	5.2	0.132	0.85	L-Apr.2022	5.4
Men's and boys' apparel.....	0.625	8.1	0.052	1.47	L-Feb.2022	8.6
Men's apparel.....	0.482	8.7	0.043	1.65	L-Mar.2022	8.8
Men's suits, sport coats, and outerwear.....	0.079	24.9	0.019	4.72	L-EVER	-
Men's underwear, nightwear, swimwear, and accessories.....	0.160	8.2	0.013	2.63	L-Mar.2022	8.7
Men's shirts and sweaters ⁴	0.116	8.7	0.012	2.95	S-Jan.2022	7.2
Men's pants and shorts.....	0.121	-0.5	-0.001	3.94	L-Apr.2022	0.1
Boys' apparel.....	0.143	6.5	0.009	2.64	L-Feb.2022	9.1
Women's and girls' apparel.....	0.961	3.2	0.030	1.37	S-Oct.2021	2.1
Women's apparel.....	0.806	3.5	0.028	1.51	S-Oct.2021	2.5
Women's outerwear.....	0.058	7.6	0.005	4.67	S-Dec.2021	6.0
Women's dresses.....	0.089	5.8	0.005	3.19	S-Apr.2021	-1.2
Women's suits and separates ⁴	0.385	3.1	0.012	2.25	S-Feb.2022	2.5
Women's underwear, nightwear, swimwear, and accessories ⁴	0.266	2.4	0.006	2.82	S-Nov.2021	1.4
Girls' apparel.....	0.154	1.8	0.002	4.60	L-Apr.2022	4.7
Footwear.....	0.600	5.8	0.036	1.13	L-Mar.2022	6.6
Men's footwear.....	0.201	5.1	0.011	1.67	L-Mar.2022	5.1
Boys' and girls' footwear.....	0.116	6.7	0.008	2.88	L-Mar.2022	11.0
Women's footwear.....	0.282	6.0	0.017	1.75	L-Apr.2022	6.4
Infants' and toddlers' apparel.....	0.116	10.0	0.012	5.09	S-Apr.2022	8.8
Jewelry and watches ⁸	0.157	1.1	0.002	3.48	L-Mar.2022	2.7
Watches ⁸	0.030	-1.1	-0.001	2.94	S-Oct.2019	-7.5
Jewelry ⁸	0.128	1.4	0.003	4.37	L-Mar.2022	2.8
Transportation commodities less motor fuel ¹⁰	8.515	9.5	0.773	0.36	S-Apr.2021	9.2
New vehicles.....	4.026	11.4	0.434	0.65	S-Nov.2021	11.1
New cars ⁵		12.5		0.67	S-Feb.2022	12.1
New trucks ^{12, 5}		11.1		0.78	S-Oct.2021	10.2
Used cars and trucks.....	3.975	7.1	0.265	0.10	S-Aug.2020	4.0
Motor vehicle parts and equipment.....	0.428	14.9	0.059	0.79	S-Apr.2022	14.5
Tires.....	0.271	15.4	0.039	0.91	S-Feb.2022	15.4
Vehicle accessories other than tires ⁴	0.157	14.1	0.020	1.56	S-Apr.2022	12.5
Vehicle parts and equipment other than tires ⁵		11.6		1.37	S-Apr.2022	9.5
Motor oil, coolant, and fluids ⁵		18.7		2.37	L-Feb.2009	21.7
Medical care commodities.....	1.480	3.2	0.049	0.56	L-Jul.2017	3.7
Medicinal drugs ¹⁰	1.379	3.1	0.044	0.57	L-Jul.2017	3.8
Prescription drugs.....	1.009	2.5	0.026	0.67	L-Jan.2020	2.5
Nonprescription drugs ¹⁰	0.370	4.7	0.018	1.24	L-EVER	-
Medical equipment and supplies ¹⁰	0.101	5.9	0.005	1.33	L-Dec.2021	5.9
Recreation commodities ¹⁰	1.883	4.5	0.087	0.57	L-Mar.2022	4.7
Video and audio products ¹⁰	0.284	-5.6	-0.017	1.16	S-Jul.2020	-6.8
Televisions.....	0.130	-12.7	-0.017	1.72	S-Jul.2020	-13.8
Other video equipment ⁴	0.026	-4.4	-0.002	2.15	S-Apr.2022	-4.8
Audio equipment.....	0.072	3.3	0.002	3.21	L-Apr.2019	3.8
Recorded music and music subscriptions ⁴	0.051	-1.7	-0.001	1.24	S-Nov.2021	-1.9
Pets and pet products.....	0.552	9.7	0.055	0.79	L-May 2009	10.1
Pet food ^{4, 5}		10.3		1.21	L-Jun.2009	10.4
Purchase of pets, pet supplies, accessories ^{4, 5}		9.3		1.93	L-EVER	-
Sporting goods.....	0.554	5.3	0.031	1.45	S-Mar.2021	4.8

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Sports vehicles including bicycles.....	0.317	3.6	0.013	2.09	S-Jan.2021	1.0
Sports equipment.....	0.227	8.0	0.018	1.94	L-Oct.2021	8.0
Photographic equipment and supplies.....	0.020	2.1	0.000	2.22	S-Apr.2021	-0.2
Photographic equipment ^{4, 5}		1.8		2.67	S-Apr.2021	1.0
Recreational reading materials.....	0.096	7.4	0.007	1.28	L-Jul.1985	7.5
Newspapers and magazines ⁴	0.056	10.9	0.006	1.67	L-EVER	—
Recreational books ⁴	0.040	2.6	0.001	1.82	L-Apr.2021	3.0
Other recreational goods ⁴	0.376	2.7	0.010	1.36	L-Mar.2022	2.7
Toys.....	0.291	1.9	0.006	1.65	L-Mar.2022	2.0
Toys, games, hobbies and playground equipment ^{4, 5}		4.8		2.20	L-Feb.2022	6.7
Sewing machines, fabric and supplies ⁴	0.028	3.7	0.002	3.11	L-Dec.2021	4.6
Music instruments and accessories ⁴	0.042	5.6	0.002	2.39	L-Apr.2022	6.7
Education and communication commodities ¹⁰	0.772	-5.7	-0.047	1.66	L-Apr.2022	-4.0
Educational books and supplies.....	0.087	3.7	0.003	2.04	—	—
College textbooks ^{13, 5}		5.0		2.25	S-Apr.2022	3.1
Information technology commodities ¹⁰	0.685	-6.7	-0.050	1.97	L-Apr.2022	-4.7
Computers, peripherals, and smart home assistants ⁵	0.340	-0.6	-0.002	2.76	L-Apr.2022	0.2
Computer software and accessories ⁴	0.019	0.1	0.000	3.69	L-Oct.2021	3.6
Telephone hardware, calculators, and other consumer information items ⁴	0.326	-13.0	-0.049	2.38	L-Apr.2022	-11.4
Smartphones ^{5, 14}		-20.0		3.54	S-Oct.2021	-20.7
Alcoholic beverages.....	0.870	4.0	0.038	0.73	—	—
Alcoholic beverages at home.....	0.579	2.9	0.018	0.90	L-Nov.2020	2.9
Beer, ale, and other malt beverages at home.....	0.220	4.3	0.010	1.63	S-Mar.2022	4.1
Distilled spirits at home.....	0.105	1.3	0.001	1.09	S-Aug.2020	-0.1
Whiskey at home ⁵		2.5		1.62	S-Feb.2022	1.6
Distilled spirits, excluding whiskey, at home ⁵		0.8		1.55	L-Mar.2022	0.8
Wine at home.....	0.254	2.3	0.006	1.33	L-Jan.2021	2.4
Alcoholic beverages away from home.....	0.291	5.6	0.020	1.13	S-Apr.2022	5.1
Beer, ale, and other malt beverages away from home ^{4, 5}		6.0		1.31	L-EVER	—
Wine away from home ^{4, 5}		6.6		0.95	L-Jul.2002	7.5
Distilled spirits away from home ^{4, 5}		3.9		1.44	S-Feb.2022	3.5
Other goods ¹⁰	1.340	6.6	0.092	0.44	L-EVER	—
Tobacco and smoking products.....	0.514	7.9	0.045	0.77	—	—
Cigarettes ⁴	0.444	8.1	0.040	0.87	S-Apr.2022	7.5
Tobacco products other than cigarettes ⁴	0.065	6.0	0.004	0.75	L-Oct.2017	6.2
Personal care products.....	0.638	3.8	0.025	0.57	L-Sep.1998	3.8
Hair, dental, shaving, and miscellaneous personal care products ⁴	0.328	6.0	0.020	0.69	L-EVER	—
Cosmetics, perfume, bath, nail preparations and implements.....	0.300	1.3	0.005	1.08	L-Aug.2016	1.8
Miscellaneous personal goods ⁴	0.189	11.4	0.021	1.63	S-Apr.2022	8.8
Stationery, stationery supplies, gift wrap ⁵		13.0		2.75	S-Feb.2022	12.1
Services less energy services.....	56.663	5.5	3.192	0.12	L-May 1991	5.5
Shelter.....	32.285	5.6	1.846	0.14	L-Feb.1991	5.9
Rent of shelter ¹⁵	31.921	5.7	1.844	0.14	L-Feb.1991	5.9
Rent of primary residence.....	7.239	5.8	0.433	0.15	L-Jul.1986	6.2
Lodging away from home ⁴	1.026	10.0	0.097	2.60	S-May 2021	9.0
Housing at school, excluding board ¹⁵	0.123	1.6	0.002	0.31	—	—
Other lodging away from home including hotels and motels.....	0.902	11.5	0.095	2.99	S-May 2021	10.0
Owners' equivalent rent of residences ¹⁵	23.657	5.5	1.314	0.12	L-Sep.1990	6.0

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Owners' equivalent rent of primary residence ¹⁵ ..	22.427	5.5	1.248	0.12	L-Sep.1990	6.0
Tenants' and household insurance ⁴	0.364	0.3	0.001	0.79	L-Jan.2021	0.8
Water and sewer and trash collection services ⁴	1.082	4.4	0.049	0.30	—	—
Water and sewerage maintenance.....	0.779	3.9	0.031	0.25	S-Mar.2022	3.9
Garbage and trash collection ¹²	0.303	5.9	0.018	0.76	L-Dec.2018	7.1
Household operations ⁴	0.828	6.5	0.056	0.54	L-Nov.2021	8.4
Domestic services ⁴	0.237	5.1	0.014	1.16	L-Apr.2022	7.3
Gardening and lawn care services ⁴						
Moving, storage, freight expense ⁴	0.103	2.7	0.003	2.55	S-Aug.2020	-0.5
Repair of household items ⁴						
Medical care services.....	6.821	4.8	0.340	0.34	L-Sep.2020	4.9
Professional services.....	3.454	2.6	0.093	0.43	L-Jan.2022	2.6
Physicians' services.....	1.819	1.0	0.018	0.69	S-Mar.2022	0.7
Dental services.....	0.894	4.7	0.044	0.74	L-Sep.2008	4.7
Eyeglasses and eye care ⁹	0.356	3.3	0.012	1.04	L-May 2012	3.3
Services by other medical professionals ⁸	0.385	4.7	0.019	0.64	L-Feb.2022	4.8
Hospital and related services.....	2.512	3.9	0.099	0.55	L-Oct.2021	4.1
Hospital services ¹⁶	2.146	3.9	0.085	0.60	—	—
Inpatient hospital services ^{16, 5}		3.9		1.16	—	—
Outpatient hospital services ^{8, 5}		3.3		0.99	S-Apr.2022	3.3
Nursing homes and adult day services ¹⁶	0.205	4.6	0.009	0.52	L-Mar.2008	4.7
Care of invalids and elderly at home ⁷	0.162	2.0	0.005	1.96	S-Feb.2020	1.6
Health insurance ⁷	0.855	17.3	0.148	0.34	L-Aug.2020	17.4
Transportation services.....	5.855	8.8	0.540	0.57	L-Jun.2021	10.4
Leased cars and trucks ¹³	0.763		0.140	1.69	—	—
Car and truck rental ⁴	0.152	-7.7	-0.017	3.92	S-May 2020	-19.2
Motor vehicle maintenance and repair.....	1.016	7.9	0.083	0.62	L-Aug.1982	8.0
Motor vehicle body work.....	0.052	14.4	0.008	0.94	L-EVER	—
Motor vehicle maintenance and servicing.....	0.558	6.6	0.039	0.77	L-Feb.2009	7.0
Motor vehicle repair ⁴	0.364	9.0	0.032	1.33	L-EVER	—
Motor vehicle insurance.....	2.379	6.0	0.150	0.97	L-Oct.2021	6.3
Motor vehicle fees ⁴	0.498	1.5	0.008	0.75	L-Dec.2021	1.9
State motor vehicle registration and license fees ⁴	0.288	0.7	0.002	0.28	L-Jun.2021	0.7
Parking and other fees ⁴	0.196	2.6	0.006	1.55	L-Dec.2021	3.7
Parking fees and tolls ^{4, 5}		3.6		2.29	L-Dec.2021	5.1
Public transportation.....	1.046	23.7	0.176	1.44	S-Apr.2022	21.8
Airline fares.....	0.756	34.1	0.178	2.32	S-Apr.2022	33.3
Other intercity transportation.....	0.092	-4.3	-0.008	2.93	S-Sep.2020	-6.1
Ship fare ^{4, 5}		-7.8		2.37	S-Sep.2020	-9.6
Intracity transportation.....	0.196	2.8	0.005	1.51	S-Apr.2022	2.7
Intracity mass transit ^{10, 5}		0.8		4.43	S-Sep.2021	-2.7
Recreation services ¹⁰	3.130	4.7	0.159	0.47	S-Apr.2022	4.4
Video and audio services ¹⁰	1.156	4.9	0.058	0.43	S-Apr.2022	4.4
Cable and satellite television service ¹²	1.064	4.9	0.054	0.44	S-Apr.2022	4.6
Video discs and other media, including rental of video ⁴	0.092	4.7	0.005	4.53	L-Jun.2019	5.2
Video discs and other media ^{4, 5}		4.5		5.35	L-Jun.2019	5.0
Rental of video discs and other media ^{4, 5}		6.0		1.34	S-Apr.2022	5.2
Pet services including veterinary ⁴	0.514	7.9	0.041	0.68	L-Apr.2022	9.0
Pet services ^{4, 5}		6.2		1.11	S-Apr.2022	5.9
Veterinarian services ^{4, 5}		7.5		1.31	L-Apr.2022	9.8
Photographers and photo processing ⁴	0.030	5.6	0.002	1.15	—	—
Other recreation services ⁴	1.430	3.4	0.058	0.92	L-Mar.2022	4.3

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month				
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³	
					Date	Percent change
Club membership for shopping clubs, fraternal, or other organizations, or participant sports fees ⁴	0.631	3.5	0.023	0.85	S-Apr.2022	2.8
Admissions.....	0.444	3.8	0.023	1.76	L-Mar.2022	7.0
Admission to movies, theaters, and concerts ^{4, 5}		6.4		1.65	—	—
Admission to sporting events ^{4, 5}		-6.1		6.53	L-Mar.2022	8.7
Fees for lessons or instructions ⁸	0.168	0.8	0.001	1.75	S-Jun.2020	0.8
Education and communication services ¹⁰	5.307	1.7	0.101	0.22	—	—
Tuition, other school fees, and childcare.....	2.480	2.7	0.074	0.33	L-Jul.2019	3.2
College tuition and fees.....	1.423	2.2	0.033	0.41	L-Sep.2019	2.4
Elementary and high school tuition and fees.....	0.314	3.1	0.011	0.36	L-Aug.2021	3.1
Day care and preschool ¹¹	0.616	3.7	0.026	0.71	L-Apr.2022	3.7
Technical and business school tuition and fees ⁴	0.038	1.2	0.000	0.48	L-Nov.2021	1.2
Postage and delivery services ⁴	0.083	4.1	0.004	0.13	S-Apr.2022	4.1
Postage.....	0.074	3.0	0.003	0.11	—	—
Delivery services ⁴	0.009	14.4	0.001	0.74	S-Apr.2022	13.9
Telephone services ⁴	1.807	-0.1	0.000	0.30	S-Oct.2019	-0.7
Wireless telephone services ⁴	1.502	-0.9	-0.014	0.38	S-Oct.2019	-2.9
Residential telephone services ¹⁰	0.305	4.0	0.014	0.89	S-Apr.2021	3.6
Internet services and electronic information providers ⁴	0.929	2.6	0.023	0.78	L-Feb.2022	2.8
Other personal services ¹⁰	1.356	6.7	0.100	0.50	L-EVER	—
Personal care services.....	0.536	6.3	0.038	1.02	L-Apr.1982	6.4
Haircuts and other personal care services ⁴	0.536	6.3	0.038	1.02	L-EVER	—
Miscellaneous personal services.....	0.820	7.0	0.062	0.37	L-Apr.2022	7.0
Legal services ⁸						
Funeral expenses ⁸	0.145	2.8	0.004	0.52	L-Apr.2022	2.9
Laundry and dry cleaning services ⁴	0.152	10.2	0.019	0.82	L-Apr.2022	10.3
Apparel services other than laundry and dry cleaning ⁴	0.017	8.1	0.002	1.06	L-Apr.2022	10.5
Financial services ⁸	0.192	4.6	0.010	0.78	S-Dec.2021	3.2
Checking account and other bank services ^{4, 5}		3.0		2.34	S-Apr.2022	2.9
Tax return preparation and other accounting fees ^{4, 5}		7.1		1.07	S-Nov.2021	4.1
Special aggregate indexes						
All items less food.....	86.577	8.8	7.656	0.10	L-Jan.1982	9.2
All items less shelter.....	67.715	10.8	7.214	0.10	L-Feb.1981	10.9
All items less food and shelter.....	54.292	10.8	5.810	0.12	L-Feb.1981	10.9
All items less food, shelter, and energy.....	45.627	6.1	2.856	0.14	S-Nov.2021	5.7
All items less food, shelter, energy, and used cars and trucks.....	41.652	6.1	2.592	0.15	L-Oct.1982	6.2
All items less medical care.....	91.699	9.5	8.670	0.09	L-Oct.1981	10.2
All items less energy.....	91.335	6.6	6.106	0.09	—	—
Commodities.....	39.866	13.6	5.233	0.14	L-Mar.2022	14.2
Commodities less food, energy, and used cars and trucks.....	17.275	7.2	1.246	0.26	—	—
Commodities less food.....	26.443	15.3	3.830	0.20	L-Mar.2022	17.2
Commodities less food and beverages.....	25.573	15.7	3.792	0.22	L-Mar.2022	17.8
Services.....	60.134	6.2	3.827	0.11	L-Feb.1991	6.3
Services less rent of shelter ¹⁵	28.213	6.9	1.982	0.16	L-EVER	—
Services less medical care services.....	53.313	6.4	3.486	0.12	L-Sep.1982	6.6
Durables.....	12.689	8.4	1.011	0.31	S-Apr.2021	7.3
Nondurables.....	27.176	16.2	4.222	0.17	L-Jun.1947	25.4

See footnotes at end of table.

Table 7. Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, June 2022, 12-month analysis table — Continued
 [1982-84=100, unless otherwise noted]

Expenditure category	Relative importance May 2022	Twelve Month					
		Unadjusted percent change Jun. 2021-Jun. 2022	Unadjusted effect on All Items Jun. 2021-Jun. 2022 ¹	Standard error, median price change ²	Largest (L) or Smallest (S) unadjusted change since: ³		
					Date	Percent change	
Nondurables less food.....	13.754	22.3	2.819	0.28	L-Apr.1980	23.7	
Nondurables less food and beverages.....	12.884	23.8	2.781	0.29	L-Apr.1980	24.7	
Nondurables less food, beverages, and apparel.....	10.425	28.9	2.649	0.29	L-May 1980	29.1	
Nondurables less food and apparel.....	11.295	26.6	2.686	0.27	L-May 1980	27.4	
Housing.....	41.863	7.3	3.089	0.12	L-Jul.1982	7.4	
Education and communication ⁴	6.079	0.8	0.054	0.25	—	—	
Education ⁴	2.567	2.7	0.077	0.33	L-Jul.2019	2.9	
Communication ⁴	3.512	-0.6	-0.023	0.38	S-Oct.2019	-0.9	
Information and information processing ⁴	3.429	-0.7	-0.027	0.39	S-Oct.2019	-1.1	
Information technology, hardware and services ¹⁷	1.622	-1.2	-0.027	0.88	L-Apr.2022	-0.9	
Recreation ⁴	5.013	4.6	0.246	0.38	L-Mar.2022	4.8	
Video and audio ⁴	1.441	2.7	0.041	0.45	S-Apr.2022	2.7	
Pets, pet products and services ⁴	1.066	8.8	0.096	0.53	L-Apr.2009	8.8	
Photography ⁴	0.051	4.2	0.002	1.07	S-Apr.2022	4.1	
Food and beverages.....	14.293	10.0	1.441	0.19	L-Mar.1981	10.0	
Domestically produced farm food.....	7.004	12.4	0.824	0.30	L-May 1979	12.8	
Other services.....	9.793	3.3	0.361	0.19	—	—	
Apparel less footwear.....	1.859	5.1	0.096	1.01	—	—	
Fuels and utilities.....	4.820	17.6	0.800	0.29	L-Jan.2006	19.1	
Household energy.....	3.738	21.9	0.752	0.41	L-Jan.2006	22.2	
Medical care.....	8.301	4.5	0.390	0.29	L-Aug.2020	4.5	
Transportation.....	19.297	19.7	3.515	0.28	L-Apr.2022	19.9	
Private transportation.....	18.250	20.0	3.340	0.26	L-Apr.2022	20.2	
New and used motor vehicles ⁴	9.003	9.7	0.837	0.39	S-Apr.2021	9.6	
Utilities and public transportation.....	8.470	10.9	0.913	0.24	L-Jan.2006	10.9	
Household furnishings and operations.....	4.758	9.5	0.443	0.50	L-Apr.2022	9.9	
Other goods and services.....	2.696	6.7	0.192	0.36	L-Feb.2010	7.6	
Personal care.....	2.182	6.4	0.147	0.37	L-Dec.1982	6.5	

¹ The 'effect' of an item category is a measure of that item's contribution to the All items price change. For example, if the Food index had an effect of 0.40, and the All items index rose 1.2 percent, then the increase in food prices contributed 0.40 / 1.2, or 33.3 percent, to that All items increase. Said another way, had food prices been unchanged for that year the change in the All items index would have been 1.2 percent minus 0.40, or 0.8 percent. Effects can be negative as well. For example, if the effect of food was a negative 0.1, and the All items index rose 0.5 percent, the All items index actually would have been 0.1 percent higher (or 0.6 percent) had food prices been unchanged. Since food prices fell while prices overall were rising, the contribution of food to the All items price change was negative (in this case, -0.1 / 0.5, or minus 20 percent).

² A statistic's margin of error is often expressed as its point estimate plus or minus two standard errors. For example, if a CPI category rose 2.6 percent, and its standard error was 0.25 percent, the margin of error on this item's 12-month percent change would be 2.6 percent, plus or minus 0.5 percent.

³ If the current 12-month percent change is greater than the previous published 12-month percent change, then this column identifies the closest prior month with a 12-month percent change as (L)arge as or (L)arger than the current 12-month change. If the current 12-month percent change is smaller than the previous published 12-month percent change, the most recent month with a change as (S)mall or (S)maller than the current month change is identified. If the current and previous published 12-month percent changes are equal, a dash will appear. Standard numerical comparison is used. For example, 2.0% is greater than 0.6%, -4.4% is less than -2.0%, and -2.0% is less than 0.0%. Note that a (L)arger change can be a smaller decline, for example, a -0.2% change is larger than a -0.4% change, but still represents a decline in the price index. Likewise, (S)maller changes can be increases, for example, a 0.6% change is smaller than 0.8%, but still represents an increase in the price index. In this context, a -0.2% change is considered to be smaller than a 0.0% change.

⁴ Indexes on a December 1997=100 base.

⁵ Special indexes based on a substantially smaller sample. These series do not contribute to the all items index aggregation and therefore do not have a relative importance or effect.

⁶ Indexes on a December 2007=100 base.

⁷ Indexes on a December 2005=100 base.

⁸ Indexes on a December 1986=100 base.

⁹ Indexes on a December 1993=100 base.

¹⁰ Indexes on a December 2009=100 base.

¹¹ Indexes on a December 1990=100 base.

¹² Indexes on a December 1983=100 base.

¹³ Indexes on a December 2001=100 base.

¹⁴ Indexes on a December 2019=100 base.

¹⁵ Indexes on a December 1982=100 base.

¹⁶ Indexes on a December 1996=100 base.

¹⁷ Indexes on a December 1988=100 base.

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

OCA-I-28 Refer to Statement No. 3 page 6. Please provide all surveys that were used to develop the salary levels of employees. Please provide the results of the performance evaluation process that was used to determine the prevailing pay increases used to set salary in this proceeding. (base compensation).

Response:

The wage and salary plan is reviewed annually utilizing the NRECA compensation survey. Also, annually we utilize other data from cooperatives- locally and nationally, social security and employer cost index inflation rate to determine the cost of living adjustment. For the adjustment from the 2021 to 2022, that data included the following information:

- Pennsylvania Co-ops who were willing to share information reported plans to implement increases of 3.5% to 5.0%
- Cooperatives participating in the NRECA List serve site reported plans to implement increases of 3% to 6%
- The Social Security increase for 2022 was announced at 5.9%
- Employer Cost Index was 2.3% ending June 2021
- Inflation rate was 5.4% through September
- SHRM – Society Human Resource Management survey showed average increase is 3%
- Tower Watson – Nasdaq – Kiplinger and many others report 3% as well. Many of these also reported that 12% of the organizations surveyed intend to give at least 4 to 5% and 91% of companies surveyed said they would award bonuses to their top performers (at 16% of their salary).
- An additional factor was the pandemic-related worker shortages that have created the scenario of more jobs than we have people willing and able to work.
 - The Pennsylvania unemployment rate in September was 6.4%, in October it was 6%
 - National Unemployment rate for November is at 4.2%
 - *State Unemployment rate as of October 6%. -*
 - *October Unemployment rate for Bradford County is 4.7% compared to 5.9% in 2021 and Tioga County is at 5.9% compared to 7.2 in 2021 – Potter County's October Unemployment rate was at 5.8%*

Based on all of these factors, the C&T Board of Directors approved a base compensation adjustment for 2022 of 4.5%. This base compensation adjustment is not a performance-based adjustment.

**Response Provided by: Melissa Sullivan, Chief Financial Officer
C&T Enterprises, Inc.**

Date: July 12, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

OCA-I-31 Refer to Statement No. 3 page 8. Please provide a breakdown of the Company's Employee Benefits and Pension expense and Injuries and Damages for the periods 2020 through 2023. (Workpaper 3 to Schedule C page 6 of 10).

Response:

Please see response to I&E-RE-27-D for employee benefits breakdown.

Please see response to I&E-RE-15-D for Injuries and Damages breakdown.

Please see response to I&E-RE-14-D for Insurance Premium breakdown.

**Response Provided by: Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: July 14, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
BUREAU OF INVESTIGATION AND ENFORCEMENT'S DATA REQUEST
DOCKET NO. R-2022-3032369**

I&E-RE-27-D Reference Company Exhibit HSG-1, Schedule C1-1, p. 2, concerning Employee Pension and Benefits (Account 926). Provide the following:

- A. Breakdown of employee pension and benefit expense by benefit type for: 2019 - \$453; 2020 - (\$5,422); HTY 2021 - \$1,756; FTY 2022 - \$23,000; FPFTY 2023 - \$23,690;
- B. A detailed explanation with supporting documentation for the \$21,244 increase between HTY 2021 and the FTY 2022.
- C. A detailed explanation for the nature of the \$23,690 FPFTY 2023 claim and to what it relates.

Response:

- A. The table below presents the detail requested. Pension and Benefits expense is charged to the accounts where Labor is recorded, in the Overhead category. The amounts charged to Account 926 are listed below.

Account 926	2019	2020	2021	2022	2023
Officer Life Ins.	(13,711)	(14,072)	(10,987)	10,000	10,000
Employee Recognition	14,164	8,650	12,743	13,000	13,690
Total	\$453	(\$5,422)	\$1,756	\$23,000	\$23,690

- B-C. Please see Attachment A to IE-RE-27-D for historical detail of employee recognition expenses. 2020 expenses were reduced due to COVID. 2022 and 2023 expenses are projected to return to normal levels. The Officer Life Insurance was negative during 2019, 2020 and 2021 due to the annual adjustment made to record the value appreciation of the policy investments. The 2022 and 2023 Officer Life Insurance costs of \$10,000 per year are based on the board approved annual premium payment.

**Response Provided by: Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: June 22, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
BUREAU OF INVESTIGATION AND ENFORCEMENT'S DATA REQUEST
DOCKET NO. R-2022-3032369**

I&E-RE-15-D Reference Company Exhibit HSG-1, Schedule C1-1, p. 2 concerning Injuries & Damages (Account 925), provide a detailed breakdown for the following:

- A. 2019 - \$25,409;
- B. 2020 - \$26,136;
- C. HTY 2021 - \$26,647;
- D. FTY 2022 - \$33,810; and
- E. FPFTY 2023 - \$34,824.

Response:

Account 925 includes costs for General Liability, Director, Officer and Manager Liability, and Umbrella insurances. The table below presents the amounts charged to Account 925 for years 2019-2023.

Account 925	2019	2020	2021	2022	2023
Other	25,409	26,136	26,647	33,810	34,824
Total	\$25,409	\$26,136	\$26,647	\$33,810	\$34,824

**Response Provided by: Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: June 15, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

**REBUTTAL TESTIMONY
AND EXHIBITS
OF
KATHY STAUDER**

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : **Docket No. R-2022-3032369**
 :
Citizens' Electric Company of Lewisburg, PA :

**REBUTTAL TESTIMONY OF KATHY STAUDER
ON BEHALF OF CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA**

Q. Please state your name and business address.

A. My name is Kathy Stauder, and my business address is 1775 Industrial Blvd., Lewisburg, Pennsylvania.

Q. Are you the same Kathy Stauder who previously submitted Direct Testimony in this proceeding on behalf of Citizens' Electric Company of Lewisburg, PA ("Citizens" or "Company")?

A. Yes. Terms defined in my direct testimony have the same meaning in this rebuttal testimony.

Q. What is the purpose of your testimony today?

A. The purpose of my testimony is to rebut the testimony of OCA Witness Mugrace regarding his adjustments to the Company's Payroll Tax and certain Admin and General expenses.

Q. Please summarize OCA's proposed adjustment to the Company's Payroll Tax expense (OCA Statement No. 1 at 19).

A. OCA proposes to adjust the Payroll Tax expense to reflect an average of the Company's expenses over the period 2021 – 2023. This adjustment is connected with the OCA's Salary

and Wages adjustment, which Mr. Kelchner rebuts in his testimony. The Payroll Tax adjustment should be rejected for the same reasons as the Salary and Wage adjustment.

Q. The OCA expresses confusion over how the payroll tax claim was calculated. Can you discuss this issue?

A. Yes. The FTY labor balance of \$667,699 shown on the Company's Attachment A to I&E-RE-20-D is not consistent with the FTY labor balance of \$997,418 shown on Exhibit HSG-1 Schedule WP3_C (CU) because the two calculations reflect different timing. OCA is comparing apples to oranges as the information on I&E-RE-20-D and the information in Exhibit HSG-1 Schedule WP3_C (CU) were compiled at different points in the FTY. As the parties agree on the applicable payroll tax rate, the updated payroll tax calculation in Company Witness Gorman's Rebuttal Testimony is correct.

Q. What Admin and General adjustments are you addressing?

A. I am addressing Office Supplies and Expense (Account 921), Outside Services (Account 923), Property Insurance, and Injury and Damages.

Q. Does Citizens' agree with OCA's adjustment to Office Supplies and Expense?

A. No. OCA proposes to normalize the Company's Office Supplies and Expense over the period 2021-2023. This proposal would reduce the Company's Office Supplies and Expense by \$2,173. Normalizing the Company's Office Supplies and Expense claim for this period ignores the impacts of COVID-19 on the Company's operations. Office Supplies and Expense includes items like meals, travel, and training costs. Our meals, travel and training costs were lower in 2021 due to the continued impacts of the COVID-19 pandemic, which eliminated or changed the format of many conferences (going from in-person to remote attendance). As the Company continues to emerge from the pandemic,

these expenses will increase over the FPFTY. Normalizing Office Supplies and Expense would understate the Company's FPFTY costs due to an abnormal and extraordinary event that impacted the HTY.

Q. Does Citizens' agree with OCA's adjustment to Outside Services expense?

A. No. OCA's proposal to normalize Outside Services expense would unreasonably reduce the Company's claim by \$24,658. As detailed in Citizens' response to I&E-RE-13-D (attached as Exhibit__KS-1R), the Company's Outside Services expenses decrease substantially in 2021 due to the combination of two factors: (a) the creation of C&T's in-house legal department; and (b) an allocation credit for short-term (2021 only) shared services that attribute to regulatory and legal activities performed on substantial regulatory projects for Tri-County Rural Electric Cooperative and Claverack Rural Electric Cooperative that was credited against outside legal services in Account 923. In 2022, the projects for Tri-County and Claverack that resulted in the allocation credit have concluded, which means that the substantial allocation credit will not be occurring in future years. For these reasons, the Company's full claim should be approved.

Q. Do you have any comments to OCA's proposed Property Insurance adjustment (OCA Statement No. 1 at 31)?

A. Yes. OCA proposes a \$408 reduction to the Company's Property Insurance expense claim based on normalization of historical expenses instead of accepting the Company's proposed FPFTY expense. Exhibit__(KS-2R) attaches the Company's response to OCA-I-24 showing this expense has steadily increased every year from 2018 – 2022. Consistently increased expenses should not be normalized. The Company's proposed FPFTY claim is appropriate and should be approved.

Q. Does this conclude your Rebuttal Testimony?

A. Yes.

BEFORE

THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	
	:	
v.	:	Docket No. R-2022-3032369
	:	
Citizens' Electric Company of Lewisburg, PA	:	

EXHIBITS
OF
KATHY STAUDER

ON BEHALF OF

CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA

AUGUST 16, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
BUREAU OF INVESTIGATION AND ENFORCEMENT'S DATA REQUEST
DOCKET NO. R-2022-3032369**

I&E-RE-13-D Reference Company Exhibit HSG-1, Schedule C1-1, p. 2 concerning Outside Services Employed (Account 923), provide the following:

- A. A detailed breakdown for the following: 2019 - \$57,287; 2020 - \$107,143; HTY 2021 - \$5,525; FTY 2022 - \$75,000; FPFTY 2023 - \$77,250;
- B. A detailed explanation with supporting documentation for the increase of \$49,856 between 2019 and 2020;
- C. A detailed explanation with supporting documentation for the decrease of (\$101,618) between 2020 and the HTY 2021;
- D. A detailed explanation with supporting documentation for the increase of \$69,475 between the HTY 2021 and the FTY 2022; and
- E. A detailed explanation with supporting documentation for the increase of \$2,250 between the FTY 2022 and the FPFTY 2023.

Response:

A. The table below presents the detail requested.

Account 923	2019	2020	2021	2022	2023
Accounting	24,765	27,566	28,024	25,000	25,750
Legal	31,582	46,823	(22,687)	50,000	51,500
Other	0	23,339	258	0	0
COVID	0	9,415	(70)	0	0
Total	\$57,287	\$107,143	\$5,525	\$75,000	\$77,250

- B. The change reflects a one-time Arc Assessment project and Fees to re-finance existing loan balances.
- C. The change is due to the addition of C&T's in-house legal department and an allocation credit for shared services that is attributable to regulatory and legal activities performed for Tri-County Rural Electric Cooperative and Claverack Rural Electric Cooperative.
- D. It is assumed that the allocation credit for shared services will not continue as the specific projects that the legal department performed for the cooperatives in 2021 are winding down or concluded.
- E. The change reflects the company's expected cost increases due to labor and benefits increases for the C&T legal department.

**Response Provided by: Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: June 22, 2022

**CITIZENS' ELECTRIC COMPANY OF LEWISBURG, PA RESPONSE TO
OFFICE OF CONSUMER ADVOCATE INTERROGATORIES REQUEST
DOCKET NO. R-2022-3032369**

OCA-I-24 Refer to Exhibit HSG-1 Workpaper 1 to Schedule C. Please provide a schedule and a breakdown of all Property Insurance Expenses for the periods 2018 through 2021 and projected costs for 2022 and 2023. How is Property Insurance allocated between and among the regulated subsidiaries from C&T Enterprises?

Response:

Property Insurance is allocated on a company specific calculation completed by the insurance company based on data supplied.

Account 924	2018	2019	2020	2021	2022	2023
Property Ins.	10,082	10,381	10,798	11,112	11,639	11,988
Total	\$10,082	\$10,381	\$10,798	\$11,112	\$11,639	\$11,988

**Response Provided by: Kathy Stauder, Chief Financial Officer
Citizens' Electric Company of Lewisburg, PA**

Date: July 13, 2022