

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**METROPOLITAN EDISON COMPANY
DOCKET NO. R-2014-2428745**

**PENNSYLVANIA ELECTRIC COMPANY
DOCKET NO. R-2014-2428743**

**PENNSYLVANIA POWER COMPANY
DOCKET NO. R-2014-2428744**

**WEST PENN POWER COMPANY
DOCKET NO. R-2014-2428742**

**Direct Testimony
of
Patricia M. Larkin**

List of Topics Addressed

Cash Working Capital

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1 wholesale tariffs, the development of retail electric rates and the promulgation of
2 rules and regulations ensuring uniform tariff administration and interpretation.

3 **Q. What is your educational background?**

4 A. I graduated from Allentown College St. Francis DeSales in 2000 with a Bachelor
5 of Science degree in Accounting and Alvernia College in 2003 with a Master in
6 Business Administration degree. I have over fourteen years of experience with
7 GPU Energy/FirstEnergy Corp. My work experience is more fully described in
8 Appendix A.

9 **Q. On whose behalf are you testifying in this proceeding?**

10 A. I am testifying in this proceeding on behalf of Met-Ed, Penelec, Penn Power and
11 West Penn. My testimony equally applies to all of the Companies, unless
12 otherwise stated.

13 **Q. Ms. Larkin, have you prepared exhibits to accompany your testimony?**

14 A. Yes. Met-Ed Exhibit PML-1, Penelec Exhibit PML-1, Penn Power Exhibit PML-
15 1 and West Penn Exhibit PML-1 (collectively, "Exhibits PML-1"), were prepared
16 by me or under my supervision and are described in detail in my testimony.

17 **Q. What is the purpose of your direct testimony?**

18 A. The purpose of my direct testimony is to describe the process I used to determine
19 the total Cash Working Capital requirement for each of the Companies as shown
20 on Page 1 of Exhibits PML-1.

1 **II. CASH WORKING CAPITAL - OVERVIEW**

2 **Q. Please define “Cash Working Capital” as it pertains to ratemaking.**

3 A. For ratemaking purposes, Cash Working Capital is generally defined as the
4 average amount of capital provided by investors, over and above the investment
5 in plant and other specifically identified rate base items, to bridge the gap between
6 the time expenditures are required to provide service and the time collections are
7 received for that service. Cash Working Capital is determined for ratemaking
8 purposes by a Lead/Lag Study.

9 **Q. Please define the terms “lead” and “lag” as used in your testimony and**
10 **explain how each is calculated.**

11 A. In general, a lead or a lag measures the time that elapses between receipt of a
12 product or service and receipt of compensation by the party providing that product
13 or service. A lead occurs when payment is made in advance of receiving a
14 product or service. A lag occurs when payment for a product or service occurs
15 after the product has been received or service has been rendered. Exhibits PML-1
16 quantify lead or lag time in days, depict all identified lags as positive figures, and
17 depict all identified leads as negative figures.

18 **Q. What time period was used for the Companies’ Lead/Lag Studies?**

19 A. These studies incorporate projected financial data for the twelve months ended
20 April 30, 2016. Fully normalized Electric Revenues, reflecting distribution
21 revenues at proposed rates, were used to calculate revenue lag.

1 **Q. What was the source of the relevant data used to calculate Cash Working**
2 **Capital?**

3 A. For the most part, I used financial data for the fully projected future test year that
4 underlie the development of the Companies' revenue requirement shown in
5 exhibits accompanying Met-Ed/Penelec/Penn Power/West Penn Statement No. 2,
6 the direct testimony of Richard A. D'Angelo. However, the determination of
7 Cash Working Capital and the development of revenue requirement are
8 interdependent because changes in Cash Working Capital will affect rate base and
9 net income. Performing the Cash Working Capital and revenue requirement
10 calculations on an iterative basis reduces, but does not eliminate, the impact of
11 that interdependence. Appropriate adjustments to the pro forma distribution
12 revenue, federal and state income taxes, and Pennsylvania gross receipts taxes
13 were made in my Cash Working Capital calculations to account for that
14 interdependence.

15 **Q. Have you prepared a summary showing each of the components that**
16 **comprise the Total Cash Working Capital for each Company?**

17 A. Yes, I have. Page 1 of Exhibits PML-1 shows each component of the total Cash
18 Working Capital requirement. Using Met-Ed's Exhibit PML-1 to illustrate, the
19 Cash Working Capital requirement associated with revenue lag is \$152,122,000,
20 as shown at line 3, column 7. The average lag in payment of the Companies'
21 operating expenses reduces the Cash Working Capital requirement. For Met-Ed,
22 this reduction is \$37,061,000 as shown at line 11, column 7. On average, taxes

1 are paid in advance of the service period to which they relate, which adds to Cash
2 Working Capital requirements (\$1,304,000 in the case of Met-Ed as shown at line
3 22, column 7). The Net Cash Working Capital (shown at line 26, column 7) is the
4 sum of those figures – in Met-Ed’s case, \$116,365,000 (line 27, column 7).
5 Prepayments and Unamortized Cash Pension Contributions are other elements of
6 Cash Working Capital, as shown at lines 28 and 29, which bring the Total Cash
7 Working Capital, in Met-Ed’s case, to \$147,828,000, as shown at line 30.
8 Column 8 of the summary identifies the page of Exhibits PML-1 where I
9 developed the lead/lag days for the applicable components of Cash Working
10 Capital.

11 **Q. How did you calculate the lag associated with Electric Revenue?**

12 A. Payment for electric service occurs after service is provided, which produces a lag
13 in receipt of revenues. To calculate total revenue lag, Electric Revenue lag was
14 calculated separately for the periods: (1) from billing to cash collection
15 (“Collection Lag”); (2) from meter reading to billing “Billing Lag”); and (3) from
16 the mid-point of the service period to meter reading (“Service Period Lag”).

17 **Collection Lag** is the period from mailing a customer’s bill until payment
18 is received for that bill. This lag was calculated based on the turn-over in
19 accounts receivable. The ratio of accounts receivable to total billed
20 revenues (identified as “Accounts Receivable Turnover” at page 3 of
21 Exhibits PML-1) is divided into 365 days to derive the average number of
22 days accounts receivable are outstanding or, in other words, the average

1 time between issuing a bill and collecting a bill. That figure, in days, is
2 the Collection Lag, which, in Met-Ed's case, is 48.5 days.

3 **Billing Lag** is the period from the reading of a customer's meter until the
4 bill is mailed. Generally, the bill is prepared the same day the meter is
5 read and is mailed the next day. However, there are exceptions. Reading
6 the meters of large industrial customers can take an additional day because
7 there is more work involved given the nature of the service such customers
8 receive. Also, weekends, holidays, and severe weather may add to the
9 time to read and bill customers. Accounting for these exceptions, the
10 Billing Lag is 1.5 days.

11 **Service Period Lag** is measured from the mid-period of the service period
12 to the date a meter is read. Because bills are typically issued once per
13 month, or twelve times per year, the Service Period Lag is 15.2 days (365
14 $\text{days per year} / 12 \text{ billing cycles per year} / 2$). This calculation assumes that
15 electric usage is uniform throughout the month.

16 The overall Electric Revenue lag is the sum of the Collection Lag, Billing
17 Lag and Service Period Lag, as shown on page 3 at line 21 of Exhibits
18 PML-1. In Met-Ed's case, Total Revenue Lag is 65.2 days.

19

1 **Q. How did you calculate the lead or lag associated with Other Operating**
2 **Revenue?**

3 A. The calculation of the Other Operating Revenue lag is shown on page 4 of
4 Exhibits PML-1, which lists each of the individual components of Other
5 Operating Revenue and their respective lead or lag. Lag in receipt of Late
6 Payment Charges and Miscellaneous Service Revenues were calculated with
7 overall Electric Revenue lag because each component is billed with Electric
8 Revenue. The footnotes at the bottom of page 4 explain how leads and lags were
9 calculated for other components of Other Operating Revenue. Total Other
10 Operating Revenue lag is the dollar-weighted average lag time calculated by
11 dividing total (Lead)/Lag Dollars (line 11, column 6) by Total Other Operating
12 Revenue in (line 11, column 4).

13 **Q. Please explain the lag associated with the payment of Energy Costs.**

14 A. The lag days associated with Energy Costs are shown on page 5 of Exhibits PML-
15 1. This measures the average lag between the Companies' receipt of generation
16 service from suppliers of default generation until the Companies pay for that
17 service. The period from the midpoint to the end of each monthly service period
18 is 15.2 days, which assumes uniform purchases over any given month. The
19 Companies' Default Service Supplier Master Agreements require payment on the
20 first business day after the 19th of the month, or twenty days after the end of the
21 service period. The lag is, therefore, 35.2 days (15.2 + 20 days).

1 **Q. How was the lag associated with Payroll determined?**

2 A. Payroll is divided into five categories: Bi-weekly Payroll, Weekly Payroll,
3 Payroll-Adjustments, Payroll Taxes, and Incentive Compensation. A weighted
4 average lag time was calculated for each component, as shown on page 7 of
5 Exhibits PML-1. The lags for each component of Payroll vary among the
6 Companies due to: (1) differing payroll periods; (2) variations in the use of direct
7 deposit and paper checks; and (3) the ratio of Weekly Payroll to Bi-weekly
8 Payroll. The total dollar-weighted Payroll lag time is calculated on page 6 of
9 Exhibits PML-1 by dividing total (Lead)/Lag dollar (line 6, column 6) by total
10 Payroll (line 6, column 4).

11 **Q. Please identify the components of Employee Benefits and explain how the**
12 **leads and lags were calculated for each component.**

13 A. The principal components of Employee Benefits consist of: (1) Medical
14 Insurance; (2) Life Insurance; (3) Savings Plan Match; (4) Worker's
15 Compensation and Long-Term Disability ("LTD") Insurance; and (5) Other Post-
16 Employment Benefits ("OPEB"). The footnotes on page 8 of Exhibits PML-1
17 describe how the lag was calculated for each category. The total dollar-weighted
18 average lag for Employee Benefits is shown at line 7, column 6, on page 8.

19 **Q. Please explain how you calculated the lag in payment of the Service**
20 **Company O&M Allocation.**

21 A. The lag associated with the Service Company O&M Allocation is based on the
22 period from the midpoint of the monthly service period to the date the

1 intercompany accounting transaction closes. Under the Companies' Service
2 Agreement with FirstEnergy Service Company ("Service Company") and
3 accompanying annual Service Requests, the intercompany accounting transactions
4 occur on the last day of the service period, which is the date when the Service
5 Company bills for those transactions. The bills are paid as part of the monthly
6 accounting close on the same day. Therefore, the lag in payment is 15.2 days.
7 This calculation is shown on page 9 of Exhibits PML-1.

8 **Q. How did you calculate the lag for Other O&M-Distribution?**

9 A. Other O&M-Distribution consists of non-labor related expenses incurred in the
10 normal course of business for products and services that are not addressed elsewhere
11 in Exhibits PML-1. The lag was calculated as the sum of: (1) the period from the
12 midpoint to the end of the monthly service period; and (2) the thirty-day "default"
13 payment period incorporated in the Companies' accounts payable system. This
14 calculation is shown on line 4 of page 9 of Exhibits PML-1.

15 **Q. How did you calculate the lag for Other O&M-Riders?**

16 A. The Companies incur expenses for services and functions provided pursuant to its
17 Universal Service Charge ("USC"), Energy Efficiency and Conservation Charge
18 ("EEC"), Smart Meter Technologies Charge ("SMT"), and Default Service
19 Support ("DSS") Riders. Each of these categories and their associated payment
20 terms are shown on page 10 of Exhibits PML-1 and further explained by
21 footnotes on page 11. The categories and dollar amounts for the USC and EEC
22 Riders are based on the Companies' 2015 Universal Service and Energy

1 Efficiency and Conservation Plans. The categories and dollar amounts associated
2 with the SMT and DSS Riders are based on the Companies' forecast for the
3 twelve months ending April 30, 2016, as adjusted for ratemaking purposes. The
4 lag days for each category consist of the period from the midpoint of the relevant
5 service period to the applicable vendors' payment dates, which were obtained
6 from personnel responsible for administering each of these programs. For any
7 costs that relate to services provided internally, the lag used is the same as the lag
8 for Service Company O&M Allocation discussed previously.

9 **Q. How did you calculate the lag for Uncollectible Accounts expense?**

10 A. Uncollectible Accounts expense is not considered a cash expense and, therefore,
11 was not included in calculating the Cash Working Capital requirement, as
12 explained in footnote (d) on page 9 of Exhibits PML-1.

13 **Q. How did you calculate the leads and lags associated with Taxes?**

14 A. A weighted average lead or lag was calculated based on the required payment
15 dates and percentage of the payment due on those dates for each tax listed on page
16 12 of Exhibits PML-1. The calculation of each weighted average lead or lag is set
17 forth on page 13 of Exhibits PML-1.

18

1 **Q. Why did you assign Depreciation, Amortization, Provision for Deferred**
2 **Income Taxes and Investment Tax Credit a zero lag?**

3 A. These are considered non-cash items by the Commission and, therefore, they were
4 not included in calculating the Cash Working Capital requirement, as shown on
5 page 1, lines 12, 13, 23, and 24 of Exhibits PML-1.

6 **Q. Was any element of the return on invested capital included in the**
7 **Companies' Lead/Lag Studies?**

8 A. No element of the return on invested capital was included in calculating Cash
9 Working Capital in Exhibits PML-1. A return on invested capital, in any form,
10 becomes the property of the utility's investors when service is rendered.
11 Consequently, even if some portion of that stream of income were available for
12 use as working capital before being paid out as interest or dividends, it would
13 represent the use of investor-supplied capital to cover the on-going costs of
14 providing service to customers and, as such, does not reduce the Companies' Cash
15 Working Capital requirement.

16 **Q. Why are Prepayments included in the Companies' Cash Working Capital?**

17 A. The Companies must pay certain costs before such costs are charged to expense
18 for accounting and ratemaking purposes. Prepayments are cash expenditures that,
19 while made in one period are not charged to expense until a future period. The
20 claim for Prepayments is based on a thirteen-month average of the various prepaid
21 items, including Prepaid Commission Assessments, Prepaid Property and
22 Liability Insurance, Prepaid Edison Electric Institute ("EEI") Dues Assessments,

1 and Other Prepaid items, which include rating agency fees, financing fees, line of
2 credit fees, and trustee fees. The detailed calculations of Prepayments are shown
3 on page 14 of Exhibits PML-1.

4 **Q. Please explain the basis for including Unamortized Cash Pension**
5 **Contributions in the Companies' Cash Working Capital claim.**

6 A. In Met-Ed's and Penelec's 2006 base rate cases, the Commission approved the
7 recovery of pension expense calculated on the basis of a ten-year historical
8 average of actual cash contributions. In its Final Order in that case, the
9 Commission stated:

10 Fundamentally, we believe that, regarding the recovery of
11 pension expense, the alternative method requested by MEPN [the
12 Companies] in this proceeding is fair to both ratepayers and
13 stockholders. The Companies' normalization methodology will
14 provide a more consistent and less variable expense claim to be
15 included within base rates as compared to the more significant
16 sums contributed in the two years preceding the 2006 test year in
17 this proceeding. Additionally, we should not ignore this
18 significant benefit to current and former employees just because
19 the Companies' did not make a contribution to the pension fund
20 during any given year.”¹

21 **Q. How does recovering a cash contribution to the pension plan over a ten year**
22 **period create a working capital need?**

23 A. The Companies have made large cash contributions to their pension trust fund
24 over the last ten years. For ratemaking purposes, the Companies recover those
25 cash outlays over ten years. Throughout those ten years, the Companies bear the

¹ *Pa. PUC v. Metropolitan Edison Company, Pennsylvania Electric Company*, Docket Nos. R-00061366, *et. al*, p. 92 (Order entered January 11, 2007).

1 carrying costs associated with the prior period expenditures that they made but
2 have not recovered in base rates. That unrecovered amount constitutes the
3 Unamortized Cash Pension Contributions that form the basis for the Companies'
4 claim, as shown on page 15 of Exhibits PML-1.

5 **Q. Did you consider the effect of the earnings on the pension trust fund in your**
6 **Cash Working Capital claim?**

7 A. Yes. The average earnings on the pension trust fund are reflected in the
8 calculation of the amount of cash contributions and, in that way, reduce the cash
9 contribution. Stated another way, earnings on the cash contributions accrue to the
10 benefit of the fund, reduce the Companies' contribution obligations, and, in that
11 way, provide an "upfront" benefit to customers.

12 **Q. Was Pension expense included in the Companies' Cash Working Capital**
13 **requirement as a component of their Lead/Lag Studies?**

14 A. No, it was not. Pension expense is shown on page 1, line 7, of Exhibits PML-1 at
15 a zero lag. Thus, pension expense is reflected in the Cash Working Capital
16 requirement only once, through the Unamortized Cash Pension Contribution
17 Balance I described above.

18

1 **Q. How does the methodology used to calculate the Total Cash Working Capital**
2 **claim for the Companies in this case compare to that employed by Met-Ed**
3 **and Penelec in their previous base rate proceedings?**

4 A. Except for the inclusion of Unamortized Cash Pension Contributions to reflect the
5 Cash Work Capital requirement associated with pension expense, the Companies
6 are using the same methodology in this case that Met-Ed and Penelec employed in
7 their 2006 base rate cases at Docket Nos. R-00061366 and R-00061367.

8 **III. SUMMARY OF CASH WORKING CAPITAL REQUIREMENTS**

9 **Q. Are all of Met-Ed's lead/lag calculations consistent with the general**
10 **calculations you described above?**

11 A. No. The employees belonging to the International Brotherhood of Electrical
12 Workers Local 777 do not participate in the Company-sponsored medical
13 insurance plan. Therefore, the weighted average lag for Medical Insurance shown
14 on line 1 of page 8 of Met-Ed Exhibit PML-1 was calculated based on the medical
15 insurance lag appropriate to the expenses incurred for Local 777 employees in
16 addition to the balance of Met-Ed's employees who do participate in the
17 Company-sponsored medical insurance plan.

18 **Q. Please summarize your testimony and recommendations regarding Met-Ed.**

19 A. Met-Ed has supported a Total Cash Working Capital requirement of
20 \$147,828,000, as shown on page 1, line 30, of Met-Ed Exhibit PML-1.

21

1 **Q. Are all of Penelec's lead/lag calculations consistent with the general**
2 **calculations you described above?**

3 A. Yes. The calculations set forth in Penelec Exhibit PML-1 are consistent with the
4 calculations I described above.

5 **Q. Please summarize your testimony and recommendations regarding Penelec.**

6 A. Penelec has supported a Total Cash Working Capital requirement of
7 \$124,842,000, as shown on page 1, line 30, of Penelec Exhibit PML-1.

8 **Q. Are all of Penn Power's lead/lag calculations consistent with the general**
9 **calculations you described above?**

10 A. Yes. The calculations on Penn Power Exhibit PML-1 are consistent with the
11 calculations I described above.

12 **Q. Please summarize your testimony and recommendations regarding Penn**
13 **Power.**

14 A. Penn Power has supported a Total Cash Working Capital requirement of
15 \$27,636,000, as shown on page 1, line 30, of Penn Power Exhibit PML-1.

16 **Q. Are all of West Penn's lead/lag calculations consistent with the general**
17 **calculations you described above?**

18 A. Yes. The calculations on West Penn Exhibit PML-1 are consistent with the
19 calculations I described above.

1 **Q. Please summarize your testimony and recommendations regarding West**
2 **Penn.**

3 A. West Penn has supported a Total Cash Working Capital requirement of
4 \$117,080,000, as depicted on page 1, line 30, of West Penn Exhibit PML-1.

5 **Q. Ms. Larkin, does this complete your direct testimony?**

6 A. Yes, it does.

Resume: Education and Experience of Patricia M. Larkin

Education:

- 2000 Bachelor of Science Degree in Accounting – Allentown College of St. Francis de Sales
- 2003 Master of Business Administration Degree – Alvernia College

Experience:

- 6/00 - 8/07 Accountant – Property Accounting Services – GPU Energy
- 8/07 - 9/08 Accountant – Accounting Research – FirstEnergy Service Company
- 9/08 - 6/12 Accountant – General Accounting Services (Regulatory Accounting focus) – FirstEnergy Service Company
- 6/12 – Present Analyst – Rates & Regulatory Affairs – Pennsylvania – FirstEnergy Service Company

Assisted in development and preparation of filings in the following rate-related proceedings:

Pa. P.U.C. Cases: Docket Nos.

P-2013-2391368
P-2013-2391372
P-2013-2391375
P-2013-2391378
P-2011-2273650
P-2011-2273668
P-2011-2273669
P-2011-2273670
R-00061366
R-00061367

P.U.C. Ohio Case: Docket No. 07-551-EL-AIR

West Penn Power Company
Cash Working Capital
Income Statement
For the 12 Months Ending April 30, 2016
 (\$000)

Line No.	Description	Normalized PAPUC Jurisdictional				Daily Amount (5) = (4) / 365	(Lead) / Lag Days (6)	Cash Working Capital (7) = (5) * (6)	Supporting Page of West Penn Exhibit PML-1 (8)
		Distribution (1)	PTC (2)	Riders (3)	PAPUC Total (4)				
Operating revenues									
1	Electric Revenue	\$ 346,138	\$ 356,880	\$ 115,507	\$ 818,525	2,243	56.9	\$ 127,627	2 and 3
2	Other Operating Revenue	14,431	(734)	-	13,697	38	35.0	1,330	4
3	Total Operating Revenue	\$ 360,569	\$ 356,146	\$ 115,507	\$ 832,222			\$ 128,957	
Operating Expenses									
4	Energy Costs	\$ -	\$ 335,571	\$ -	\$ 335,571	919	35.2	\$ 32,349	5
5	Payroll	25,710	-	-	25,710	70	16.5	1,155	6 and 7
6	Employee Benefits	3,961	-	-	3,961	11	33.3	366	8
7	Pension	8,373	-	-	8,373	23	0.0	-	
8	Service Company Labor Allocation	17,196	-	-	17,196	47	15.2	714	9 through 11
9	Service Company OTL Allocation	16,098	-	-	16,098	44	15.2	669	9 through 11
10	Other O&M	35,404	-	85,067	120,471	330	30.2	9,966	9 through 11
11	Operating Expense Before Tax	\$ 106,742	\$ 335,571	\$ 85,067	\$ 527,380			\$ 45,219	
Depreciation and Amortization									
12	Depreciation	\$ 64,506	\$ -	\$ 6,358	\$ 70,864	194	0.0	\$ -	
13	Amortization	5,155	(159)	9,407	14,403	39	0.0	-	
14	Total Depreciation and Amortization	\$ 69,661	\$ (159)	\$ 15,765	\$ 85,267			\$ -	
Taxes									
15	Federal Income Tax	\$ 46,456	\$ (102)	\$ 3,418	\$ 49,772	136	37.5	\$ 5,100	12 and 13
16	Corporate Net Income Tax - PA	14,732	(32)	1,084	15,784	43	29.8	1,281	12 and 13
17	Property / Real Estate Tax	176	-	-	176	-	43.9	-	12 and 13
18	PA Gross Receipts Tax	20,422	21,056	6,815	48,293	132	(71.5)	(9,438)	12 and 13
19	PA Sales and Use Tax	-	-	-	-	-	36.0	-	12 and 13
20	Public Utility Realty Tax	1,877	-	-	1,877	5	(61.0)	(305)	12 and 13
21	Capital Stock	60	-	-	60	-	29.8	-	12 and 13
22	Total Taxes	83,723	20,922	11,317	115,962			(3,362)	
23	Provision for Deferred Income Taxes	\$ 3,475	\$ -	\$ 249	\$ 3,724	10	0.0	\$ -	
24	Investment Tax Credit	\$ (659)	\$ -	\$ -	\$ (659)	(2)	0.0	\$ -	
25	Total Operating Expenses	\$ 262,942	\$ 356,334	\$ 112,398	\$ 731,674			\$ 41,857	
26	Operating Income	\$ 97,627	\$ (188)	\$ 3,109	\$ 100,548			\$ 87,100	
27	Net Cash Working Capital							\$ 87,100	
28	Prepayments							\$ 1,587	14
29	Unamortized Cash Pension Contributions							\$ 28,393	15
30	Total Cash Working Capital							\$ 117,080	

West Penn Power Company
Cash Working Capital
Electric Revenue
For the 12 Months Ending April 30, 2016
 (\$000)

<u>Line No.</u>	<u>Description</u>	<u>Normalized PAPUC Jurisdictional</u>				
		<u>Distribution</u>	<u>PTC</u>	<u>Riders</u>	<u>PAPUC Total</u>	<u>(Lead) / Lag Days</u>
		(1)	(2)	(3)	(4)	(5)
1	Electric Revenue	\$ 346,138	\$ 356,880	\$ 115,507	\$ 818,525	56.9 (a)
2	Total Electric Revenue	\$ 346,138	\$ 356,880	\$ 115,507	\$ 818,525	56.9

Footnote

(a) Lag calculated on Page 3.

**West Penn Power Company
 Cash Working Capital
 Revenue Lag (Based On Actuals)
 For the 12 Months Ended March 31, 2014
 (\$000)**

Line No	Description	Factor (1)	Accounts Rec. Balance (2)	Billed Revenues (3)	A/R Turnover (4)	(Lead) / Lag Days (5) = 365 / (4)
1	Annual Number of Days					<u>365</u>
2	April, 2013		\$ -	\$ 62,828		
3	May		-	\$ 53,188		
4	June		67,415	\$ 56,779		
5	July		-	\$ 66,273		
6	August		-	\$ 64,385		
7	September		67,939	\$ 62,111		
8	October		-	\$ 55,441		
9	November		-	\$ 55,324		
10	December, 2013		85,638	\$ 64,524		
11	January, 2014		-	\$ 76,911		
12	February		-	82,094		
13	March, 2014		<u>120,743</u>	<u>75,671</u>		
14	Total Accounts Receivable Balance		<u>\$ 341,735</u>			
15	Quarterly Average (Line 14 / 4)	4	<u>\$ 85,434</u>			
16	Total Billed Revenues			<u>\$ 775,529</u>		
17	Accounts Receivable Turnover (Line 16 / Line 15)				<u>9.08</u>	
18	Collection Days Lag (Line 1 / Line 17)					40.2 days
19	Lag from Meter Reading to Billing (a)					1.5 days
20	Lag from Service Period to Meter Reading (b)		365 / 12 / 2 =			<u>15.2</u> days
21	Total Revenue Lag					<u>56.9</u> days

Footnotes

- (a) Lag based on On-demand billing with additional lag stemming from weekends and holidays.
- (b) Lag based on a meter being read 12 times annually and service being rendered evenly throughout the meter reading period.

**West Penn Power Company
Cash Working Capital
Other Operating Revenue
For the 12 Months Ending April 30, 2016
(\$000)**

Line No.	Description	FERC Account	Normalized PAPUC Jurisdictional				(Lead) / Lag Days	(Lead) / Lag Dollars
			Distribution	PTC	Riders	PAPUC Total		
			(1)	(2)	(3)	(4)	(5)	(6) = (4) * (5)
1	Sales for Resale	447	\$ -	\$ 2	\$ -	\$ 2	35.2 (a)	70
2	Late Payment Charges	450	2,514	-	-	\$ 2,514	56.9 (b)	143,047
3	Misc. Service Revenues	451	1,898	-	-	\$ 1,898	56.9 (b)	107,996
4	Pole Rentals - Telecom	454	194	-	-	\$ 194	242.5 (c)	47,045
5	Pole Rentals - Cable	454	424	-	-	\$ 424	151.3 (c)	64,151
6	Assoc Co's	454	9,401	-	-	\$ 9,401	15.2 (d)	142,895
7	Other	454	-	-	-	\$ -	35.2 (a)	-
8	Other Revenue	456	-	(2)	-	\$ (2)	35.2 (a)	(70)
9	NITS Contra Revenue	456	-	(734)	-	\$ (734)	35.2 (a)	(25,837)
10	Wheeling Revenues	456	-	-	-	\$ -	35.2 (a)	-
11	Total Other Revenues		\$ 14,431	\$ (734)	\$ -	\$ 13,697	35.0 (e)	\$ 479,297

Footnotes

- (a) Lag based on service midpoint (15.2) + the PJM settlement date, the first common banking day after the 19th of the month (20).
- (b) Lag conservatively based on electric revenue lag, calculated on Page 3.
- (c) Lag based on the weighted average of the five largest customers.
- (d) Lag based on midpoint of service period (15.2). Intercompany accounting transactions occur on the last day of the service period. Service Company bills and the Company pays on the same day.
- (e) Line 11, Column 6 / Line 11, Column 4

West Penn Power Company
Cash Working Capital
Energy Costs
For the 12 Months Ending April 30, 2016
 (\$000)

<u>Line No.</u>	<u>Description</u>	<u>Normalized PAPUC Jurisdictional</u>				<u>(Lead) / Lag Days</u>
		<u>Distribution</u>	<u>PTC</u>	<u>Riders</u>	<u>PAPUC Total</u>	
		(1)	(2)	(3)	(4)	
1	Energy Costs	\$ -	\$ 335,571	\$ -	\$ 335,571	35.2 (a)
2	Total Energy Costs	\$ -	\$ 335,571	\$ -	\$ 335,571	35.2

Footnotes

- (a) Lag based on service midpoint (15.2) + Supplier Master Agreement payment terms, the first common banking day after the 19th of the month (20).

**West Penn Power Company
 Cash Working Capital
 Payroll
 For the 12 Months Ending April 30, 2016
 (\$000)**

<u>Line No.</u>	<u>Description</u>	Normalized PAPUC Jurisdictional				<u>(Lead) / Lag Days</u>	<u>(Lead) / Lag Dollars</u>
		<u>Distribution</u>	<u>PTC</u>	<u>Riders</u>	<u>PAPUC Total</u>		
		(1)	(2)	(3)	(4)		
1	Bi-weekly Payroll	\$ 23,516	\$ -	\$ -	\$ 23,516	11.2 (a)	\$ 263,379
2	Weekly Payroll	-	-	-	-	7.7 (b)	-
3	Payroll - Adjustments	-	-	-	-	11.2 (c)	-
4	Payroll Taxes	1,615	-	-	1,615	13.0 (d)	20,995
5	Incentive Compensation	<u>579</u>	<u>-</u>	<u>-</u>	<u>579</u>	242.5 (e)	<u>140,408</u>
6	Total Payroll	\$ 25,710	\$ -	\$ -	\$ 25,710	16.5 (f)	\$ 424,782

**West Penn Power Company
 Cash Working Capital
 Payroll Expense Lag Days - Footnotes
 For the 12 Months Ending April 30, 2016**

Footnotes	Line No.	Description	Days Until				(Lead) / Lag Payment Days	Weighted (Lead) / Lag Days
			Payment Weighting Factor	Payment Weighting Ratio	Payment After Service Period	Midpoint of Service Period		
			(1)	(2)	(3)	(4)	(5) = (3) + (4)	(6) = (5) * (2)
(a)		BI-WEEKLY PAYROLL (Sunday - Saturday) - Pay date is Friday after the end of the pay period. Direct deposit amounts are withdrawn from the Company's bank account on Wednesday.						
	1	Direct Deposit		88%	4.0	7.0	11.0	9.7
	2	Paper Check		12%	6.0	7.0	13.0	1.6
	3	Total		100%				11.2
(b)		WEEKLY PAYROLL (Sunday - Saturday) - Pay date is Friday after the end of the pay period. Direct deposit amounts are withdrawn from the Company's bank account on Wednesday.						
	4	Direct Deposit		88%	4.0	3.5	7.5	6.6
	5	Paper Check		12%	6.0	3.5	9.5	1.1
	6	Total		100%				7.7
(c)		PAYROLL - ADJUSTMENTS - weighted on bi-weekly and weekly payroll expense using the total lag days calculated in (a) and (b) above.						
	7	Bi-weekly Payroll weighted lag days	\$ 23,516	100%			11.2	11.2
	8	Weekly Payroll weighted lag days	-	0%			7.7	0.0
	9	Total	\$ 23,516	100%				11.2
(d)		PAYROLL TAXES - ADP withdraws Tax Expense from the Company's bank account on payday; Weighted on bi-weekly and weekly payroll expense using the paper check lag days calculated in (a) and (b) above.						
	10	Bi-weekly Payday		100%			13.0	13.0
	11	Weekly Payday		0%			9.5	0.0
	12	Total		100%				13.0
(e)		INCENTIVE COMPENSATION - paid for the entire year in early March of the following year; Assume March 1.						
	13	Payment		100%	60.0	182.5		242.5
(f)		Line 6, Column 6 / Line 6, Column 4						

**West Penn Power Company
 Cash Working Capital
 Employee Benefits
 For the 12 Months Ending April 30, 2016
 (\$000)**

<u>Line No.</u>	<u>Description</u>	Normalized PAPUC Jurisdictional			PAPUC Total	(Lead) / Lag Days	(Lead) / Lag Dollars
		Distribution	PTC	Riders			
		(1)	(2)	(3)	(4)	(5)	(6) = (4) * (5)
1	Medical Insurance	\$ 2,331	\$ -	\$ -	\$ 2,331	42.5 (a)	\$ 99,068
2	Life Insurance	37	-	-	37	30.2 (b)	1,117
3	Savings Plan Match	716	-	-	716	13.0 (c)	9,308
4	Worker's Compensation / LTD	172	-	-	172	13.0 (d)	2,236
5	OPEB - Medical/Health Insurance	257	-	-	257	0.0 (e)	-
6	Other Employee Benefits	<u>448</u>	<u>-</u>	<u>-</u>	<u>448</u>	45.2 (f)	<u>20,250</u>
7	Total Employee Benefits	\$ 3,961	\$ -	\$ -	\$ 3,961	33.3 (g)	\$ 131,979

Footnotes

- (a) Lag based on a typical claim processing time of 1.4 months.
- (b) Lag based on premiums being paid on the 15th of the next month for the current month coverage.
- (c) See the calculation associated with Footnote (d) - Payroll Taxes on Page 7. The Savings Plan Match is also paid on payday.
- (d) Lag based on premiums and claims being paid bi-weekly on a Friday for the prior weeks.
- (e) Lag based on non-cash items being assigned a zero lag.
- (f) Lag based on Accounts Payable defaulting to a 30 day lag if payment terms are not established + 15.2 midpoint
- (g) Line 7, Column 6 / Line 7, Column 4

West Penn Power Company
Cash Working Capital
Service Company O&M Allocation and Other O&M
For the 12 Months Ending April 30, 2016
 (\$000)

Line No.	Description	Normalized PAPUC Jurisdictional				(Lead) / Lag Days	(Lead) / Lag Dollars
		Distribution	PTC	Riders	PAPUC Total		
		(1)	(2)	(3)	(4)		
<u>SERVICE COMPANY O&M ALLOCATION</u>							
1	Service Company Labor Allocation	\$ 17,196	\$ -	\$ -	\$ 17,196	15.2 (a)	\$ 261,379
2	Service Company OTL Allocation	16,098	-	-	16,098	15.2 (a)	244,690
3	Total Service Company O&M (Lines 1 + 2)	\$ 33,294	\$ -	\$ -	\$ 33,294		\$ 506,069
<u>OTHER O&M</u>							
4	Other O&M - Distribution	\$ 31,679	\$ -	\$ -	\$ 31,679	45.2 (b)	\$ 1,431,891
5	Other O&M - Riders	-	-	78,150	78,150	28.3 (c)	2,211,645
6	Uncollectibles	3,725	-	6,917	10,642	0.0 (d)	-
7	Total Other O&M (Lines 4 + 5 + 6)	\$ 35,404	\$ -	\$ 85,067	\$ 120,471	30.2 (e)	\$ 3,643,536

Footnotes

- (a) Lag based on midpoint of service period (15.2). Intercompany accounting transactions occur on the last day of the service period. Service Company bills and the Company pays on the same day.
- (b) Accounts Payable defaults to a 30 day lag.
- (c) Lag calculated on Page 10
- (d) Lag based on non-cash items being assigned a zero lag.
- (e) Line 7, Column 6 / Line 7, Column 4

West Penn Power Company
Cash Working Capital
Other O&M - Riders Lag Days
For the 12 Months Ending April 30, 2016
 (\$000)

Line No.	Description	Normalized PAPUC Jurisdictional				PAPUC Total	(Lead) / Lag Days	(Lead) / Lag Dollars
		USC (1)	EEC (2)	SMT (3)	DSS (4)			
USC (a)								
1	USC - PCAP - Admin	\$ 585				\$ 585	60.2 (c)	\$ 35,217
2	USC - PCAP - Bill Subsidy	11,180				11,180	15.2 (d)	169,936
3	USC - Dollar Energy Fund	45				45	182.5 (e)	8,213
4	USC - Gatekeeper	-				-	15.2 (f)	-
5	USC - CARES	65				65	15.2 (f)	988
6	USC - WARM	4,002				4,002	25.2 (g)	100,850
EEC (a)								
7	EEC - Program Admin		\$ 8,132			8,132	25.2 (g)	204,926
8	EEC - Program Admin		2,304			2,304	60.2 (c)	138,701
9	EEC - Marketing		988			988	25.2 (g)	24,898
10	EEC - M&V		614			614	75.2 (h)	46,173
11	EEC - Incentives		11,121			11,121	15.2 (f)	169,039
12	EEC - Labor		511			511	15.2 (f)	7,767
13	EEC - Tracking and Reporting		309			309	25.2 (g)	7,787
14	EEC - Other		254			254	45.2 (i)	11,481
SMT (b)								
15	SMT - Contractors			\$ 3,227		3,227	25.2 (g)	81,320
16	SMT - Contractors			10,573		10,573	45.2 (i)	477,900
17	SMT - Labor and Program Admin			2,676		2,676	15.2 (f)	40,675
DSS (b)								
18	DSS - Non-Market Based Charges				\$ 10,776	10,776	35.2 (j)	379,315
19	DSS - Retail Enhancements	-	-	-	248	248	45.2 (i)	11,210
20	Total	\$ 15,877	\$ 24,233	\$ 16,476	\$ 11,024	\$ 67,610	28.3	\$ 1,916,396

**West Penn Power Company
Cash Working Capital
Other O&M - Riders Lag Days - Footnotes
For the 12 Months Ending April 30, 2016**

Footnote

- (a) Dollar amounts based on the filed 2015 Plan
- (b) Dollar amounts based on the 12 months ended 4/30/16, as adjusted
- (c) Per interview with internal program manager, billed monthly, net $45 + 15.2 = 60.2$ days
- (d) Subsidy is applied to a bill monthly, assume midpoint of the service period
- (e) Per interview with internal program manager, billed annually, due immediately. $365 \text{ days} / 2 = 182.5$ days
- (f) See the calculation associated with Footnote (a) on Page 9
- (g) Per interview with internal program manager, billed monthly, net $10 + 15.2 = 25.2$ days
- (h) Per interview with internal program manager, billed monthly, net $60 + 15.2 = 75.2$
- (i) See the calculation associated with Footnote (b) on Page 9
- (j) See the calculation associated with Footnote (a) on Page 4.

West Penn Power Company
Cash Working Capital
Taxes
For the 12 Months Ending April 30, 2016
 (\$000)

<u>Line No.</u>	<u>Description</u>	<u>Normalized PAPUC Jurisdictional</u>				<u>(Lead) / Lag Days</u>
		<u>Distribution</u>	<u>PTC</u>	<u>Riders</u>	<u>PAPUC Total</u>	
		(1)	(2)	(3)	(4)	
1	Federal Income Tax	\$ 46,456	\$ (102)	\$ 3,418	\$ 49,772	37.5 (a)
2	Corportate Net Income Tax - PA ("CNI")	14,732	(32)	1,084	\$ 15,784	29.8 (b)
3	Property / Real Estate Tax	176	-	-	\$ 176	43.9 (c)
4	PA Gross Receipts Tax	20,422	21,056	6,815	\$ 48,293	(71.5) (d)
5	PA Sales and Use Tax	-	-	-	\$ -	36.0 (e)
6	Public Utility Realty Tax ("PURTA")	1,877	-	-	\$ 1,877	(61.0) (f)
7	Capital Stock Tax	<u>60</u>	<u>-</u>	<u>-</u>	<u>\$ 60</u>	29.8 (b)
8	Total Taxes	\$ 83,723	\$ 20,922	\$ 11,317	\$ 115,962	

**West Penn Power Company
Cash Working Capital
Taxes Lag Days - Footnotes
For the 12 Months Ending April 30, 2016**

Footnote	Line No.	Description	Payment Percentage	Payment Dates	Midpoint of Service Period	(Lead) / Lag Payment Days	Weighted (Lead) / Lag Days
			(1)	(2)	(3)	(4) = (2) - (3)	(5)
(a)		<u>FEDERAL INCOME TAX</u>					
	1	First Payment	25%	4/15/13	7/1/13	(77)	(19.3)
	2	Second Payment	25%	6/15/13	7/1/13	(16)	(4.0)
	3	Third Payment	25%	9/15/13	7/1/13	76	19.0
	4	Fourth Payment	25%	12/15/13	7/1/13	167	<u>41.8</u>
	5	Total					<u>37.5</u>
(b)		<u>CNI AND CAPITAL STOCK TAX</u>					
	6	First Payment	25%	3/15/13	7/1/13	(108)	(27.0)
	7	Second Payment	25%	6/15/13	7/1/13	(16)	(4.0)
	8	Third Payment	25%	9/15/13	7/1/13	76	19.0
	9	Fourth Payment	25%	12/15/13	7/1/13	167	<u>41.8</u>
	10	Total					<u>29.8</u>
(c)		<u>PA PROPERTY TAX</u>					
	11	First Payment	19%	4/30/13	7/1/13	(62)	(11.8)
	12	Second Payment	60%	8/31/13	7/1/13	61	36.6
	13	Third Payment	21%	9/30/13	7/1/13	91	<u>19.1</u>
	14	Total					<u>43.9</u>
(d)		<u>PA GROSS RECEIPTS TAX</u>					
	15	First Payment	90%	3/15/13	7/1/13	(108)	(97.2)
	16	Second Payment	10%	3/15/14	7/1/13	257	<u>25.7</u>
	17	Total					<u>(71.5)</u>
(e)		<u>PA SALES AND USE TAX</u>					
	18	Payment	100%	8/20/13	7/15/13	36	<u>36.0</u>
(f)		<u>PURTA</u>					
	19	Payment	100%	5/1/13	7/1/13	(61)	<u>(61.0)</u>

**West Penn Power Company
 Cash Working Capital
 Calculation of 13 Month Average Prepayments
 For the 12 Months Ended March 31, 2014
 (\$000)**

<u>Line No.</u>	<u>Year</u>	<u>Month</u>	Prepaid Commission Assessment (1)	Prepaid Property and Liability Insurance (2)	Prepaid EEI Dues Assessment (3)	Other Prepaid (4)	Total (5)
1	2013	March	\$ 633	\$ 133	\$ 109	\$ 127	\$ 1,002
2		April	422	78	96	(11)	585
3		May	211	20	84	20	335
4		June	2,337	526	72	42	2,977
5		July	2,142	519	60	36	2,757
6		August	1,948	441	48	16	2,453
7		September	1,875	384	36	57	2,352
8		October	1,666	419	24	60	2,169
9		November	1,458	361	12	58	1,889
10		December	1,250	301	-	91	1,642
11	2014	January	1,041	241	111	26	1,419
12		February	833	180	101	57	1,171
13		March	625	127	91	65	908
14		Total	<u>\$ 16,441</u>	<u>\$ 3,730</u>	<u>\$ 844</u>	<u>\$ 644</u>	<u>\$ 21,659</u>
15	Thirteen Month Average Balance		\$ 1,265	\$ 287	\$ 65	\$ 50	\$ 1,666
16	Eliminate FERC Jurisdictional (a)			\$ 56	\$ 13	\$ 10	<u>79</u>
17	Amount Allocated to Distribution (Line 15 - Line 16)						<u>\$ 1,587</u>

Footnote

- (a) 19.58% of the Thirteen Month Average Balance was allocated to Transmission -FERC Jurisdiction based on the allocation factor of Distribution Plant.

**West Penn Power Company
Cash Working Capital
Unamortized Cash Pension Contribution Balance**

<u>Line No.</u>	<u>Payment Date</u>	O&M	<u>Amortization End Date</u>	Months	<u>Unamortized Balance</u>
		<u>Payment Amount</u>		<u>Remaining at 4/30/2016</u>	
		(1)		(2)	(3) = (1) * ((2)/120)
1	9/29/2004	\$ 1,232	9/30/2014	-19	\$ -
2	1/13/2005	1,379	1/31/2015	-15	-
3	3/14/2005	1,984	3/31/2015	-13	-
4	4/14/2005	1,379	4/30/2015	-12	-
5	7/14/2005	1,379	7/31/2015	-9	-
6	9/29/2005	4,036	9/30/2015	-7	-
7	3/14/2006	8,942	3/31/2016	-1	-
8	9/28/2006	1,079	9/30/2016	5	45
9	3/14/2007	5,509	3/31/2017	11	505
10	3/13/2008	5,271	3/31/2018	23	1,010
11	9/29/2009	5,473	9/30/2019	42	1,916
12	9/27/2010	8,855	9/30/2020	54	3,985
13	10/14/2010	1,635	10/31/2020	55	749
14	1/13/2011	1,079	1/31/2021	58	522
15	3/14/2011	1,079	3/31/2021	60	540
16	7/14/2011	1,079	7/31/2021	64	575
17	9/29/2011	9,633	9/30/2021	66	5,298
18	1/15/2012	22,710	1/31/2022	70	13,248
		<u>\$ 83,733</u>			<u>\$ 28,393</u>