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May 19, 2022

Via Electronic Filing

Rosemary Chiavetta, Secretary
PA Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Philadelphia Gas Works 2022-2023 1307(f) Gas Cost Rate Filing
Docket Nos. R-2022-3030686, C-2022-3030978, C-2022-3030971

Dear Secretary Chiavetta:

Consistent with Section 5.412a of the Commission’s regulations, 52 Pa. Code § 5.412a, which requires the electronic submission of pre-served testimony, enclosed for electronic filing please find the following testimony and exhibits on behalf Philadelphia Gas Works (“PGW”) in the above matter. This testimony was duly admitted to the record at the hearing held in the above proceeding on April 22, 2022 before Administrative Law Judges Christopher P. Pell and Arlene Ashton.

Testimony	Witness	Exhibits
PGW St. 1	Direct Testimony of Florian Teme	Exhibit FT-1 Exhibit FT-2 (Revised)
PGW St. 2	Direct Testimony of Ryan E. Reeves	None
PGW St. 2-R	Rebuttal Testimony of Ryan E. Reeves	Exhibit RER-1 Exhibit RER-2
PGW St. 2-RJ	Rejoinder Testimony of Ryan E. Reeves	None

All known parties and the presiding officers have been served previously with this Testimony and Exhibits. If you have any questions, please contact me.

Sincerely,

/s/ Lauren M. Burge

Lauren M. Burge
LMB/lww
Enclosure

cc: Hon. Christopher P. Pell w/o enc.
Hon. Arlene Ashton w/o enc.
Cert. of Service w/o enc.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

Florian Teme

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2022-3030686

Philadelphia Gas Works
Proposed 2022-23 Annual GCR Adjustment

March 1, 2022

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND POSITION WITH THE COMPANY.**

3 A. My name is Florian Teme. My position is Vice President, Marketing, Sales and
4 Energy Planning at the Philadelphia Gas Works.

5 **Q. HOW LONG HAVE YOU HELD THIS POSITION?**

6 A. I assumed my present position in December 2020. Prior to this position, I was
7 Vice President, Marketing and Sales.

8 **Q. AS IT PERTAINS TO ENERGY PLANNING AND RATEMAKING,
9 WHAT ARE YOUR JOB RESPONSIBILITIES?**

10 A. In my present position, I am responsible for the short and long term planning of
11 gas demand, gas supply, raw material expense and revenue; overseeing the
12 preparation of sales, sendout, revenue and fuel expense projections; developing
13 peak day/hour load projections; overseeing the development of the various filings
14 before the Pennsylvania Public Utility Commission (PUC) and Philadelphia Gas
15 Commission (PGC), including the quarterly and annual Gas Cost Rate (GCR)
16 filings; preparing the Integrated Resource Planning Report; and providing
17 supporting documentation for gas costs related to PGW's Operating Budget
18 before the PGC.

19 **Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.**

20 A. I have been employed with PGW since August 2003. I became PGW's Vice
21 President, Marketing, Sales and Energy Planning in December 2020. Prior to
22 that, I had various positions with PGW: Vice President, Marketing and Sales
23 (September 2016 – December 2020), Director, Marketing and Sales (April 2013 –
24 September 2016), Manager, Residential and Commercial Sales, Marketing

1 (March 2012 – April 2013); Manager, Controls and Analytics, Supply Chain
2 (January 2010 – March 2012); Project Manager, Information Services (January
3 2007 – January 2010); Supply Analyst, Gas Planning (April 2005 – January
4 2007); and Technical Project Administrator, Marketing (August 2003 – March
5 2005).

6 I received my Bachelor of Business Administration (Management
7 Information Systems) from Temple University - Fox School of Business and
8 Management in 2003 and my Master of Business Administration (Business
9 Intelligence, Six Sigma) from Saint Joseph's University - Erivan K. Haub School
10 of Business in 2011.

11 **Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS**
12 **COMMISSION?**

13 A. Yes, I have provided testimony in PGW's last two base rate cases (Docket Nos.
14 R-20120-3017206 and R-2017-2586783), in PGW's 2019-2020 Gas Cost Rate
15 proceeding (Docket No. R-2019-3007636), and in PGW's 2021-2022 Gas Cost
16 Rate proceeding (Docket No. R-2021-3023970).

17 **Q. HOW IS YOUR TESTIMONY STRUCTURED?**

18 A. First, I describe PGW's rate design and Gas Cost Rate (GCR) calculation
19 methodology. Second, I describe the level of heating degree-days utilized in this
20 filing. Third, I identify the methodology for determining the number of customers
21 and calculating firm sales. Fourth, I discuss the calculation for the Unaccounted
22 for Adjustment Factor (UAF). Fifth, I discuss Off System Sales and Capacity
23 Release credits. Sixth, I discuss PGW's analysis of its projected overcollection of

1 USECP costs verses actual results. Lastly, I will discuss the reasonableness of
2 PGW's gas costs.

3 **II. RATE IMPACTS AND SUPPORTING DOCUMENTS**

4 **Q. PLEASE DESCRIBE THE IMPACT OF THE PROPOSED CHANGE IN**
5 **PGW'S GCR IN THIS PROCEEDING.**

6 A. PGW's GCR on September 1, 2021 was \$4.8745/Mcf, and this rate was increased
7 in the Company's first quarterly GCR filing on December 1, 2021 to \$6.0100.
8 PGW's second quarter GCR filing, also submitted to the PUC concurrently with
9 this filing, decreases the GCR to \$5.6123 effective March 1, 2022. The proposed
10 rate to be effective September 1, 2022 is \$5.6048 (Sch. 1).

11 **Q. PLEASE SUMMARIZE THE EVIDENCE THAT PGW IS SUBMITTING**
12 **IN SUPPORT OF ITS PROPOSED GCR ADJUSTMENT.**

13 A. This filing contains the schedules supporting the filing requirements of Section
14 53.64(a) for the proposed GCR for the period September 1, 2022 through August
15 31, 2023.

16 • Schedule 1 identifies the Levelized Gas Cost Rate. Specifically, this
17 schedule identifies the GCR Firm Sales Volumes in Mcfs ("S"), Total
18 Applicable GCR Expense ("C"), and adjustments for Prior Year
19 Reconciliation and Interest ("E"). An adjustment is also included for the
20 Interruptible Revenue Credit (IRC). Additionally, this schedule calculates
21 the company's total projected recovery plus the load balancing revenue
22 and LNG sales demand revenue to determine if these rates adequately
23 cover the Net Applicable GCR Expense (a Net Over/Under Recovery
24 amount is displayed to prove the calculation). Schedule 1a details the
25 Price to Compare for the PGW rate classes.

- 1 • Schedule 2 identifies the calculation of GCR Firm Sales in Mcfs (“S”) and
2 the Applicable Volumes. The company utilizes Total Volumes and
3 subtracts the volumes associated with Firm Transportation, Interruptible
4 Sales, LNG Sales and AC Sales to arrive at GCR Firm Sales (“S”). Also
5 included in Schedule 2 are the Applicable Volumes which is comprised of
6 GCR Firm Sales less 20% of the sales attributable to Senior Citizens
7 Discount Sales plus the Firm Transportation Volumes.
- 8 • Schedule 3 identifies the Projected Applicable Fuel Expense. Specifically,
9 this schedule identifies PGW’s Net Natural Gas Expense and Total
10 Applicable Expenses. To arrive at the Net Natural Gas Expense, the total
11 cost of commodity and pipeline charges for firm sales are calculated per
12 month. Two credits are then applied for the portion of gas costs recovered
13 from PGW’s Interruptible Sales customers (i.e. the “Interruptible & Firm
14 A/C Credit”) and for gas used by PGW (i.e. “Gas Used by Utility”). Next,
15 the Company calculates the net effect of gas supplies being transferred
16 into and out of storage and LNG. The result is the Net Natural Gas
17 Expense. To arrive at the Total Applicable Expenses in Schedule 3, the
18 fuel expenses for Purchased Electric and miscellaneous are added to the
19 Net Natural Gas Expenses to arrive at Total Applicable Expenses.
- 20 • Schedule 4(a) is the actual/estimated data for FY 22. Schedule 4(b) is the
21 C factor Reconciliation for FY 22. Schedule 4(c) is the E factor
22 Reconciliation for FY 22. Schedule 4(d) is the IRC Revenue Billed for
23 FY 22. Schedule 4(e) is the Reconciliation of Demand Charges for FY 22.

- 1 • Schedule 5(a) (“Interest Calculation”) provides the calculation of the
2 interest expense or credit for the period of September 2021 through
3 August 2022 for the under/over recovery of fuel costs and the interest for
4 the natural gas refunds. Schedule 5(b) (“Interest on Natural Gas
5 Refunds”) provides information on historic refunds that have been
6 received by the Company resulting from various cases before the Federal
7 Energy Regulatory Commission and the interest on these refunds.
8 Schedule 5(c) provides the calculation of the interest for the demand and
9 commodity charges.
- 10 • Schedule 6 presents the load balancing revenue for the forecast period of
11 September 2022 to August 2023.
- 12 • Schedule 7 calculates total projected recovery with the proposed GCR.
- 13 • Schedule 8 shows the changes in rates identifying the proposed changes to
14 the GCR and distribution charge and the impact on the proposed total
15 commodity rate.
- 16 • Schedule 9(a) shows the calculation of the Universal Service & Energy
17 Conservation Surcharge to be effective September 1, 2022. Schedule 9(b)
18 is the reconciliation of the Universal Service & Energy Conservation
19 Surcharge for the period September 2021 to August 2022.
- 20 • Schedule 10(a) shows the calculation of the Interruptible Revenue Credit
21 to be effective September 1, 2022. Schedule 10(b) is the forecasted
22 Interruptible Revenue Margin for Fiscal Year 2023. Schedule 10(c) is the
23 reconciliation of the Interruptible Revenue Credit for Fiscal Year 2022.

- 1 • Schedule 11(a) shows the calculation of the Other Post Employment
- 2 Benefit (OPEB) Surcharge to be effective September 1, 2022. Schedule
- 3 11(b) is the reconciliation of the OPEB Surcharge for Fiscal Year 2022.
- 4 • Schedule 12(a) shows the calculation of the Efficiency Cost Recovery
- 5 Surcharge to be effective September 1, 2022. Schedule 12(b) shows the
- 6 reconciliation of the Efficiency Cost Recovery Surcharge for the Fiscal
- 7 Year 2022.
- 8 • Schedule 13(a) is the calendar year 2021 reconciliation of the Load
- 9 Balancing Charge and Schedule 13(b) is the 2021 Load Balancing
- 10 Expense and Interest Calculation.
- 11 • Schedule 14 sets the Load Balancing Charge to be effective September 1,
- 12 2022 which is an increase from last year.
- 13 • Schedule 15 identifies the natural gas prices that were used in the
- 14 preparation of this filing.
- 15 • Schedule 16 is the annual reconciliation of the retainage rate and lost and
- 16 unaccounted for rate.

17 **Q. IN PRIOR FILINGS, SCHEDULE 17 SHOWED THE FORECASTED**
 18 **OVER/(UNDER) RECOVERY OF THE RESTRUCTURING AND**
 19 **CONSUMER EDUCATION SURCHARGE AND THE RECONCILIATION**
 20 **FROM THE PRIOR YEAR. PLEASE EXPLAIN WHY YOU ARE NOT**
 21 **DISPLAYING THAT SCHEDULE.**

22 A. PGW has not recorded any significant new expenses that would be eligible for
 23 recovery via this Surcharge for several years; the amount that has been claimed
 24 for recovery (or return to customers) was the amounts that PGW had failed to
 25 recover (or over recovered) in prior years. At this point, PGW has a relatively

1 small balance of remaining under recovery (\$5,060) and has decided to forgo
2 attempting to recovery this last amount. In order to provide the Parties with the
3 actual data associated with the surcharge, I am attaching to my testimony (Exhibit
4 FT-1) the schedules that PGW has included in the past as Schedules 17(a), (b) and
5 (c). These schedules are being provided for informational purposes only.

6 **Q. WHAT IS THE TIME PERIOD FOR FORECASTING PGW'S FUTURE**
7 **GAS COSTS?**

8 A. PGW's forecast period is a twenty (20) month period that commences on January
9 1, 2022 (two months before this filing) and eight months before the effective date
10 of the tariff on September 1, 2022. The 2022-23 GCR year is from September 1,
11 2022 to August 31, 2023, however, since the required forecast covers 20 months,
12 it must begin eight months earlier, consistent with Commission regulations.

13 **III. RATE DESIGN AND GCR CALCULATION METHODOLOGY**

14 **Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S RATE**
15 **DESIGN AND GCR CALCULATION METHODOLOGY.**

16 A. The volumetric rates charged to PGW's customers are the distribution charge and
17 the Gas Cost Rate plus the Merchant Function Charge (MFC) and Gas
18 Procurement Charge (GPC). The distribution charge consists of the Delivery
19 Charge; the Universal Service and Energy Conservation Surcharge; the Other Post
20 Retirement Benefit Surcharge; and the Efficiency Cost Recovery Surcharge. The
21 Universal Service and Energy Conservation Surcharge provides for the recovery
22 of Customer Responsibility Program (CRP) discounts; Senior Citizen Discounts;
23 the costs of the Enhanced Low Income Retrofit Program (ELIRP); CRP arrearage
24 forgiveness and the Conservation Incentive Credit. The Other Post Retirement
25 Benefit Surcharge recovers the amount to fund these obligations. The Efficiency

1 Cost Recovery Surcharge recovers the cost of the energy efficiency programs.

2 The second element of the rate is the Gas Cost Rate or GCR factor. This
3 charge is a mechanism used to flow through the costs of natural gas costs and
4 other raw materials in a timely and equitable manner. The specific elements of
5 PGW's GCR are set forth in PGW's Tariff.

6 Generally, the cost of gas purchased to serve the requirements of PGW's
7 customers constitutes the largest single item in the delivered price of gas. In the
8 past, all natural gas costs were recovered through base rates (distribution charge).
9 However, in the early 1970's, the price of gas lost its stability and underwent rapid
10 escalation during and after a worldwide oil crisis. To combat this instability and
11 prevent the economic harm to all parties caused by regulatory lag in reflecting
12 these price fluctuations in base rates, the concept of a fuel adjustment surcharge
13 mechanism was introduced by PGW. This mechanism provides the flexibility to
14 rapidly reflect current conditions without the time delay inherent in a full-scale
15 base rate alteration. The intent is to achieve an annual balance of the costs
16 incurred for fuel and its pass-through to customers. The costs for pipeline
17 transportation, storage capacity and related fuel prices charged by the interstate
18 pipeline suppliers are largely outside of distributor control. The PUC oversees the
19 pass-through of these charges and the balancing activity. The Gas Cost Rate
20 Section in PGW's Tariff identifies the appropriate formula for such a balance and
21 the charges that may be recovered through this mechanism. Charges for natural
22 gas and other raw materials are included in the GCR. In addition, the interest
23 expense for the over or under recovery of gas costs and natural gas refunds are

1 also included in the GCR. No labor or profit component is added by PGW. The
2 GCR represents the direct pass-through of actual costs incurred.

3 Only costs related to meeting customer sendout requirements, including
4 associated plant fuel, may be included as a fuel expense for GCR purposes.
5 Purchases diverted into storage and/or LNG become an expense only when
6 withdrawn for customer delivery. Costs associated with purchases made to
7 supply interruptible customers are excluded from the Total Applicable GCR
8 Expenses used to calculate the GCR. Also, demand costs for pipeline
9 transportation for the firm transportation customers are excluded from the GCR.

10 Various adjustments are then made to the total applicable expenses
11 eligible for the GCR. Natural gas refunds and interest on the refunds are credited
12 in the calculation of the GCR in the fiscal year received. An adjustment is made
13 to correct for any over or under recovery during the previous period resulting
14 from differences between rates used to project the prior GCR and those actually
15 experienced. The interest expense or credit on the over or under recovery is
16 applied to calculate the total adjustment. An additional adjustment is made for the
17 Interruptible Revenue Credit which is a credit that firm sales customers receive
18 for the interruptible sales margin.

19 To determine the unit level of the GCR, the remaining total expenses must
20 be divided by the sum of the volumes over which they can be effectively
21 distributed.

1 **Q. WHAT IS THE BASIS FOR THE PRICES USED IN DETERMINING THE**
2 **GAS COSTS USED IN THIS FILING?**

3 A. The pricing methodology utilized by the Company is consistent with that used in
4 the recent quarterly filings with the inclusion of the additional months in the 20-
5 month forecast. Specifically, the company utilized actual prices for January 2022
6 and the NYMEX Futures close data (as of January 15, 2022) for the 19 forecast
7 months of February 2022 through August 2023.

8 **Q. HOW DOES THE GCR FORECASTED FOR THE 2022-2023 PERIOD**
9 **COMPARE WITH THE GCR FORECASTED IN THE COMPANY'S**
10 **LAST ANNUAL GCR FILING?**

11 A. The GCR forecasted for 2022-2023 is \$1.4687 greater than the level PGW had
12 forecasted for the 2021-2022 GCR (\$4.1361). The level of costs in the 2022-
13 2023 period are being influenced by the increase in demand charges as a result of
14 Spectra Energy's Pipeline Rate Case filing and by the increase in natural gas costs
15 compared to the prior year.

16 **IV. LEVEL OF HEATING DEGREE DAYS**

17 **Q. DESCRIBE THE LEVEL OF HEATING DEGREE-DAYS THAT WERE**
18 **USED IN YOUR ANALYSIS.**

19 A. The Company utilizes the temperatures recorded at the PGW Richmond Plant to
20 calculate the average temperature for a given day. The Company subtracts the
21 average temperature from 65 degrees to calculate the number of degree-days for
22 the day. The degree-days for all of the days in the year are aggregated to arrive at
23 the total number of degree-days for the year. Next, the Company calculates the
24 average heating degree-days for the past 20 years to arrive at the forecasted
25 heating degree-days in a normal year, and in this filing PGW is using the 20 year
26 average of 3893 degree days.

1 **V. METHODOLOGY FOR DETERMINING NUMBER OF CUSTOMERS**
2 **AND CALCULATING FIRM SALES**

3 **Q. HOW HAS THE COMPANY CALCULATED THE NUMBER OF**
4 **CUSTOMERS IN EACH RATE CLASS?**

5 A. PGW determined the actual number of customer billings on December 31, 2021
6 using the PGW Gas Sales and Revenue Reports. Next, the Marketing Department
7 load forecast was used to factor in the addition and loss of customers. Finally, the
8 customer numbers were adjusted for the loss of customers due to non-payment
9 terminations.

10 **Q. WHAT IS THE METHODOLOGY FOR CALCULATING THE WEATHER**
11 **NORMALIZED BILLED SALES?**

12 A. PGW used a two-step process to arrive at the appropriate level of usage per
13 customer. First, a trial domestic factor is developed by class of customers from
14 sales reported for the previous year's summer months. This average factor is then
15 utilized in the sendout formula with the customer counts for the months of July,
16 August and September. A comparison between what the formula calculates and
17 the actual experienced for those three months is ascertained and the trial domestic
18 factors are finalized to replicate the total sendout experienced. The finalized
19 domestic factors (DOMS) are then utilized in conjunction with the actual sales
20 and customer counts for the months of December, January and February to
21 determine the average Mcf per degree day for each of the individual months for
22 the remaining temperature sensitive load. The results are weighted by degree-
23 days to give an average value which is utilized as a trial value for the heating
24 factor.

25 The finalized domestic factor and the trial heating factor developed, as

1 such, are then applied in the sendout calculations together with customer counts
 2 for the months of December, January and February (the peak winter cold period)
 3 to project an estimated sendout for each of these months. The projected sendout
 4 is then compared with the actual sendout experienced. Any variation between the
 5 projected and actual is adjusted to force the replication of the actual sendout
 6 experience, thus resulting in the determination of a finalized heating factor.

7 Utilizing these domestic and heating factors, billed sales are then
 8 forecasted using 3893 degree days and the number of customers.

9 **VI. CALCULATION OF UNACCOUNTED FOR ADJUSTMENT FACTOR**

10 **Q. WHAT IS THE UNACCOUNTED FOR GAS PERCENTAGE USED IN**
 11 **THIS FILING?**

12 **A.** The level of unaccounted for gas and retainage rate used in this filing is 2.3% and
 13 is based on a 3-year average.

14 **VII. OFF SYSTEM SALES AND CAPACITY RELEASE CREDITS**

15 **Q. WHAT IS THE TOTAL AMOUNT OF OFF SYSTEM SALES, CAPACITY**
 16 **RELEASE CREDITS, AND ASSET MANAGEMENT CREDITS THAT**
 17 **ARE INCORPORATED INTO THE GCR?**

18 **A.** PGW has projected the amount of off system sales, capacity release credits, and
 19 asset management credits within the GCR period of 2022-23. This amount is
 20 based on a 3-year average. Of that amount, \$11,401,002 was credited to the GCR
 21 using a 75%/ to GCR/25% to base rates split.

22 **IX RATE BUS**

23 **Q. AS PART OF THE SETTLEMENT IN PGW'S MOST RECENT BASE**
 24 **RATE CASE (R-2020-3017206, ¶ 32), PGW AGREED TO PROVIDE DATA**
 25 **AS PART OF ITS ANNUAL GCR FILINGS ON THE NUMBER OF**
 26 **CUSTOMERS, SALES LEVELS, REVENUES, AND THE COSTS**

1 **INCURRED TO PROVIDE SERVICE UNDER RATE BUS. CAN YOU**
 2 **PROVIDE THOSE DATA?**

3 A. Yes. The information pertaining to the number of customers, sales levels,
 4 revenues, and the capital costs incurred to provide service under Rate BUS is
 5 provided below:

Tariff Rate	Total Customer Count	Total Annual Sales Volume (MCF)	Total Annual Revenue	Total Customer Capital Cost
Back-Up Service – Rate BUS	35	1,525	\$163,934	\$1,072,178

6
 7 **VIII. COMPARISON OF USECP PROJECTION**

8 **Q. DID PGW MAKE ANY OTHER COMMITMENTS IN ITS PRIOR GCR**
 9 **PROCEEDING THAT YOU WISH TO DISCUSS?**

10 A. Yes. In PGW’s last GCR proceeding, PGW committed that it would: “provide a
 11 comparison between its prior FY USECP actual over/under-collection and the
 12 projected USECP over/under-collection from the prior proceeding and identify
 13 the reasons for any material cost and/or revenue variances.

14 **Q. HAVE YOU CONDUCTED SUCH AN ANALYSIS?**

15 A. Yes. It is shown on Exhibit FT-2. As that Exhibit shows, PGW analyzed the
 16 difference between the actual USECP overcollection at FY 21 year end compared
 17 to the projected overcollection.

18 **Q. PLEASE DISCUSS THE RESULTS OF YOUR ANALYSIS.**

19 A. As the Exhibit shows, in FY 2021 PGW experienced an actual USECP
 20 overcollection of some \$7.7 million; PGW’s projected overcollection for this
 21 period, after accounting for several corrections for prior periods, was

1 approximately \$8.8 million. PGW conducted an analysis of the various factors
2 that affect the USECP, and that would result in any projection being over or
3 understated, and was able to identify about one-third of the difference (on a net
4 basis) as related to specific items that either were not fully reflected in the actual
5 results or which are related to the effects of actual weather and/or sales or
6 program activity. As I have noted previously, there should be no expectation that
7 PGW's projection of USECP over/under collection will match actual results.
8 These projections are calculated using "normal" weather and sales, which will
9 never reflect actual results, except by chance. While we were able to identify a
10 number of items that would have affected actual results but which are not, and
11 cannot be, included in the projection, there are also a variety of other factors that
12 will make the projections differ from the actual results in any year, but which can
13 not be identified or easily quantified. These include simplifying assumptions
14 regarding sales forecasts, customer usage and "normal" degree days, the effect of
15 billing cycles, and the effect on CRP discounts and other benefits of extreme
16 differences between normal degree day forecasts and actuals during a particular
17 billing cycle.¹

18 **Q. IN THE 2021 REPORT THAT PGW SUBMITTED ANALYZING THE**
19 **DIFFERENCES BETWEEN THE 2019-2020 USEC PROJECTED AND**
20 **ACTUAL OVER/UNDERCOLLECTION, PGW INDICATED THAT IT**
21 **BELIEVED THAT IT WOULD BE "APPROPRIATE TO REEVALUATE**
22 **THE CURRENT MODEL TO DETERMINE WHETHER IT CAN BE**
23 **IMPROVED AND TO REPORT THE RESULTS OF THAT REVIEW,**
24 **AND ANY CHANGES IT HAS DECIDED TO MAKE IN THE FY 2022-**

¹ See, *Philadelphia Gas Works' Report on the Universal Service and Energy Conservation Surcharge for Fiscal Year 2020*, Docket No. R-2021-3023970 (June 4, 2021).

1 **2023 GCR PROCEEDING.” PLEASE DESCRIBE WHAT PGW HAS**
2 **DONE TO FULFIL THAT COMMITMENT.**

3 A. In the course of preparing the 2021 Report, PGW reviewed virtually every aspect
4 of its projection methodology. Generally, we concluded that our overall
5 methodology was reasonable in that it reasonably projects a level of USECP
6 over/undercollection *assuming normal weather*. Because the projection is based
7 on normal weather, it will only match actual results by chance. There are also
8 other elements of PGW’s billing (i.e., WNA, discount on discount effect) that can
9 not be projected at the time of PGW’s 1307(f) filing. Our goal, therefore, is to
10 attempt to project the elements of the USECP charge that we can project in a
11 reasonable way and to be able to generally understand the reasons why the actual
12 results differ from the projection. We believe our current methodology generally
13 allows us to do that.

14 We did, however, identify one methodological change that, we believe,
15 will improve the accuracy of the forecast. The USECP forecast is prepared in late
16 January of each year. As a result, we have actual data through January 20 and use
17 the actual data to calculate the CRP discount in February. For the rest of the
18 fiscal year, PGW utilizes “normal” weather using normal daily degree days for
19 that calculation. However, in our analysis of our methodology for the purposes of
20 the 2020 report, we noticed that the use of “normal” daily degree days for the
21 remainder of January produced a consistent understatement of the actual degree
22 days and, therefore, an understatement of CRP discount in February. This
23 appears to be because PGW’s “normal” degree day forecast assumes that
24 temperatures will progressively move from colder to warmer as the winter

1 progresses. But our historical experience does not show that pattern in actuality,
 2 at least for the end of January. Accordingly we have decided to utilize a forecast
 3 of actual degree days for the final portion of January to calculate usage and
 4 billings for February. We utilized this refinement for the FY 2022 forecast that
 5 appears in our filing accompanying my testimony. We intend to monitor the
 6 results in order to judge whether this refinement results in a USECP projected
 7 over/undercollection that is more consistent with actual results.

8 **IX. NOTICE OF FUTURE GCR FILINGS**

9 **Q. IN PGW'S PRIOR GCR PROCEEDING DID THE COMMISSION**
 10 **APPROVE CUSTOMER NOTICE PROCEDURES FOR USE FOR THIS**
 11 **CASE?**

12 **A. Yes. In the Settlement of the prior GCR case the Parties agreed as follows:**

13 The parties agree that PGW is requesting in this Settlement
 14 that the Commission permit PGW to continue to proceed as
 15 follows in its 2022-2023 GCR proceedings:

16 (a) provide written notice to customers by bill insert in the
 17 one-month billing cycle commencing on the date of the
 18 annual 1307(f) filing, on March 1, of a tariff addendum and
 19 tariff or tariff supplement reflecting changes in purchased
 20 gas costs and ending no later than thirty (30) days after the
 21 filing of such tariff addendum and tariff or tariff
 22 supplement, instead of beginning such notice with the one-
 23 month billing cycle commencing thirty (30) days prior to
 24 the filing of the tariff addendum and tariff or tariff
 25 supplement as required by 52 Pa. Code § 53.68(a);

26 (b) in company offices in which payments are accepted,
 27 provide public notice on the date of the annual 1307(f)
 28 filing, March 1, of a tariff addendum and tariff or tariff
 29 supplement reflecting changes in purchased gas costs,
 30 instead of thirty (30) days prior to the filing of such tariff
 31 addendum and tariff or tariff supplement as required by 52
 32 Pa. Code §§ 53.68(a) and 53.45(b); and

33 (c) provide estimated data for both January and February in
 34 the March 1 quarterly 1307(f) filing instead of providing

1 actual data for January alone as required by 52 Pa. Code §
2 53.64(i)(5)(i).

3 These procedures were accepted by the Commission and PGW is
4 following these procedures in this case.

5 **Q. DO YOU HAVE A PROPOSAL FOR FUTURE GCR PROCEEDINGS?**

6 A. Yes. PGW proposes that the above procedures be permitted for the next, and all,
7 future GCR proceedings. They have been used for several years without issue.
8 Accordingly, PGW is here requesting that a permanent waiver be granted of
9 contrary PUC regulations and these notice procedures be used on a going forward
10 basis, subject of course to any future orders of the PUC to the contrary.

11 **X. REASONABLENESS OF GAS COSTS**

12 **Q. BASED UPON THE ABOVE SUPPORTING DATA, DO YOU BELIEVE**
13 **THAT PGW'S GAS COSTS ARE REASONABLE?**

14 A. Yes, PGW's GCR only contains the direct pass-through of actual costs incurred
15 and projections of the same (for both gas costs and certain non-gas costs that were
16 previously approved by the PUC). As stated by Mr. Reeves in his testimony,
17 PGW follows a least cost gas procurement strategy.

18 **XI. CONCLUSION**

19 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

20 A. Yes.

**Philadelphia Gas Works
Restructuring & Consumer Education Surcharge
FISCAL YEAR 2022**

FY 2020 Over/(Under) Recovery **\$19,650** Schedule 17(b)

<u>Month</u>		<u>R&CE Volumes</u>	<u>R&CE Surcharge</u>	<u>Revenue Billed</u>
September 2020	Actual	1,135,929	\$0.0017	\$1,931
October	Actual	1,406,052	(\$0.0009)	(\$1,265)
November	Actual	3,150,664	(\$0.0009)	(\$2,836)
December	Actual	6,270,813	(\$0.0009)	(\$5,644)
January 2021	Actual	8,505,193	(\$0.0009)	(\$7,655)
February	Actual	9,694,780	(\$0.0009)	(\$8,725)
March	Actual	6,715,022	(\$0.0004)	(\$2,350)
April	Actual	3,725,922	\$0.0002	\$745
May	Actual	2,014,927	\$0.0002	\$403
June	Actual	1,322,377	\$0.0002	\$264
July	Actual	1,082,919	\$0.0002	\$217
August	Actual	<u>1,024,183</u>	\$0.0002	\$205
Total		46,048,781		(\$24,710)

FY 2021 Act/Est R&CE & FY 2020 Reconciliation **(\$5,060)**

FY 2021 Permitted Recovery **\$0** Schedule 17(c)

Over/(Under) Recovery **(\$5,060)**

Philadelphia Gas Works
Restructuring & Consumer Education Surcharge
FISCAL YEAR 2020

FY 2018 Over/(Under) Recovery (\$147,623)

<u>Month</u>		<u>R&CE Volumes</u>	<u>R&CE Surcharge</u>	<u>Revenue Billed</u>
September 2019	Actual	1,141,774	\$0.0060	\$6,851
October	Actual	1,363,289	\$0.0043	\$5,862
November	Actual	3,767,742	\$0.0043	\$16,201
December	Actual	7,076,152	\$0.0043	\$30,427
January 2020	Actual	8,185,552	\$0.0043	\$35,198
February	Actual	7,537,547	\$0.0043	\$32,411
March	Actual	5,596,295	\$0.0043	\$24,064
April	Actual	4,041,596	\$0.0043	\$17,379
May	Actual	2,868,396	\$0.0043	\$12,334
June	Actual	1,410,071	\$0.0043	\$6,063
July	Actual	1,031,552	\$0.0043	\$4,436
<u>August</u>	Actual	<u>952,170</u>	\$0.0043	<u>\$4,094</u>
Total		44,972,134		\$195,321

FY 2020 Act/Est R&CE & FY 2019 Reconciliation \$47,698

FY 2020 Permitted Recovery \$28,049

Over/(Under) Recovery \$19,650

Exhibit FT-1

Philadelphia Gas Works
Restructuring & Consumer Education Surcharge
Expense

Fiscal Year Month	FY 2020												FY21 Est	
	Sep-19 Actual	Oct-19 Actual	Nov-19 Actual	Dec-19 Actual	Jan-20 Actual	Feb-20 Actual	Mar-20 Actual	Apr-20 Actual	May-20 Actual	Jun-20 Actual	Jul-20 Actual	Aug-20 Actual		
Case														
POR Equip (80%)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,049	\$ -	\$ -
Access Mech (100%)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operating														
Meters (50%)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Access Mech (100%)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Monthly Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,049	\$ -
Compliance Total	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 813,203	\$ 864,251	\$ 864,251

Exhibit FT-2 Revised

Analysis

The following table starts with the projected overcollection of USEC for FY 2021 of \$1.554 as filed on 3/1/2021 and proceeds to show each of the variations.

	Description	Amount	Explanation
1	Original 1307(f) filing projected over-collection, Sch 9(b) as filed on 03/01/2021	\$ 1,554,843	
2	Original FY 20 under-collection as stated on Sch 9(b) as filed on 03/01/2021	\$ (9,447,959)	
3	Adjustment to beginning over-collection for FY 20 under-collection	\$ 2,828,984	FY 20 CRP forgiveness over-collection
4	Revised FY 20 under-collection as stated on Sch 9 as filed on 05/28/2021	\$ (6,618,975)	Made as part of a quarterly filing in the 2020 GCR Proceeding.
5	FY 18 over-recovery as stated on Sch 9 as filed on 05/28/2021	\$ 4,381,978	Made as part of a quarterly filing in the 2020 GCR Proceeding.
6	Revised 1307(f) FY 20 Reconciliation 1307 as stated on Sch 9 as filed on 05/28/2021	\$ (2,236,997)	Made as part of a quarterly filing in the 2020 GCR Proceeding.
7	Rev Analysis	\$ 8,765,805	Revised Original estimate accounting for: (1) Revisions to FY 2020 under-collection, and (2) FY 2018 over-recovery.
8	Original FY 21 Actual, as filed in Sch 12 on 11/30/2021	\$ 7,735,965	Actual USEC for FY 2021, as filed 11/30/2021 in the 2021 GCR Proceeding
9	Difference between estimate and actual	\$ 1,029,840	
	R		
10	FY 18 over-collection	\$ 4,130,329	Amount to be recovered in FY 22. \$251,649 recovered in FY 21
11	Higher actual USC Revenue Billed due to higher sales because of weather	(\$1,290,301)	
12	Seniors Discount	(\$124,299)	Higher actual due to higher sales because of weather
13	ELIRP Expense & Labor	(\$375,025)	Higher expense
14	CRP Forgiveness	(\$430,803)	Addition of the cumulative impact of the omitted CRP Average bill customer Forgiveness for FY 18 and 19 and the impact of the underestimate for FY 2020.
15	CRP Discount – WNA	(\$807,781)	WNA was not part of the USC Estimate but colder weather results in higher CRP Discount
16	CRP Discount on Discount	(\$310,952)	
17	Quantified Differences	\$ 791,168	
18	Unquantified Difference in CRP Discount	\$ 238,672	

VERIFICATION

I, Florian Teme, hereby state that: (1) I am the Vice President of Marketing & Energy Planning for Philadelphia Gas Works ("PGW"); (2) the facts set forth in the foregoing Direct Testimony which I am sponsoring are true and correct to the best of my knowledge, information and belief; and (3) 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).

March 1, 2022

Dated

Florian Teme

Florian Teme
Vice President of Marketing & Energy
Planning
Philadelphia Gas Works

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

Ryan E. Reeves

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2022-3030686

Philadelphia Gas Works
Proposed 2022-2023 Annual GCR Adjustment

March 1, 2022

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V. GAS SUPPLY PURCHASES	10
VI. CONCLUSION	10

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND CURRENT POSITION WITH PGW.**

3 A. My name is Ryan E. Reeves. My position with Philadelphia Gas Works (“PGW” or
4 “Company”) is Director of Gas Supply, Transportation and Control.

5 **Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.**

6 A. I received a Bachelor of Science degree in Chemical Engineering from Drexel University
7 in 2009 and a Master’s degree in Business Administration from Villanova University in
8 2016. I have held the following positions at PGW: Staff Engineer and Operations
9 Engineer at the Richmond LNG Plant, and Manager of Special Projects.

10 **Q. PLEASE DESCRIBE YOUR DUTIES IN YOUR PRESENT POSITION.**

11 A. I develop and monitor PGW’s long-term Gas Supply Strategic Plan that ensures PGW
12 has the financial resources and assets to execute its business strategy. I advance policies,
13 procedures and practices that ensure safe, reliable, competitively priced gas supplies and
14 other energy resources to meet current and future demands on PGW’s system, and I
15 analyze the overall long-term capital and operating budget plans for Gas Supply.

16 **Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THIS**
17 **COMMISSION?**

18 A. Yes. I provided testimony in PGW’s 2021-2022 Gas Cost Rate proceeding (Docket No.
19 R-2021-3023970).

20 **Q. WHAT IS THE FOCUS OF YOUR TESTIMONY IN THIS PROCEEDING?**

21 A. My testimony discusses:

- 22 ● PGW’s gas purchasing policies and strategies applicable to FY 2023 (September
23 1, 2022 through August 31, 2023) and those utilized in FY 2022 (September 1,
24 2021 through August 31, 2022); and
- 25 ● Price analysis and buying advisory service.
- 26

27

1 **Q. PLEASE PROVIDE A GENERAL DESCRIPTION OF PGW'S GAS**
2 **DISTRIBUTION SYSTEM.**

3 A. PGW's gas distribution system is located in Southeastern Pennsylvania in the County and
4 City of Philadelphia. Since this is not a gas-producing area, PGW and its natural gas
5 customers are dependent upon the interstate gas pipeline system to deliver natural gas
6 into the PGW gas distribution system. PGW relies on the interstate pipeline for all
7 natural gas supply, storage, and transportation services, except for PGW's own on-system
8 peak shaving facilities. PGW owns and operates two LNG facilities that are used
9 primarily both to meet intraday, daily and seasonal supply needs as well as to meet peak
10 day requirement.

11 **Q. PLEASE IDENTIFY PGW'S CURRENT INTERSTATE SUPPLIERS.**

12 A. Enbridge's Texas Eastern Transmission pipeline and Williams' Transco Gas Pipeline are
13 the two interstate natural gas pipelines that deliver gas to PGW's city gates. In addition,
14 PGW uses off-system natural gas storage services to meet winter peak requirements.

15 **II. GAS PURCHASING POLICIES AND SUPPLY STRATEGY**

16 **Q. DOES PGW UTILIZE A LEAST-COST PROCUREMENT POLICY IN ITS GAS**
17 **PURCHASING POLICIES AND SUPPLY STRATEGY?**

18 A. Yes. PGW pursues a least cost gas procurement policy in a manner consistent with
19 PGW's obligation to provide safe, adequate and reliable service to its customers.

20 **Q. PLEASE DESCRIBE PGW'S SUPPLY STRATEGY.**

21 A. PGW's supply strategy¹ (which is currently being used during the FY 2022 GCR period
22 and which the Company intends to use for the FY 2023 GCR period) is a portfolio
23 approach in both contract structure and pricing. The portfolio approach of purchasing gas

¹ All natural gas supply strategies are presented to the Company's internal Supply Committee for review and approval. The Supply Committee is comprised of senior corporate management as well as Gas Supply, Gas Planning and Regulatory departmental management. The Supply Committee meets monthly.

1 supply allows PGW to remove some of the volatility in purchasing natural gas supplies
2 for its ratepayers. Without the use of the portfolio approach, firm ratepayer would be
3 totally at the mercy of market volatility.

4 The Company's gas supply portfolio is divided into four distinct categories (1)
5 daily index price swing contracts; (2) physical forward purchased contracts; (3) storage;
6 and (4) LNG.

7 (1) The advantage of daily index priced swing contracts are their operational
8 flexibility which allows PGW to increase and decrease the volume in response to changes
9 in sendout requirements. During certain time periods, these types of contracts also
10 provide security of supply.

11 (2) The Company enters into physical forward purchased contracts for seasonal
12 baseload supplies and long-term baseload supplies, including "pre-paid natural gas"
13 arrangements (discussed below). These contracts permit the Company to make
14 discretionary physical forward purchases on a year-round basis.

15 (3) The Company utilizes storage fields which act as additional sources of
16 supply. The gas procured under these contracts also acts as a physical fixed price counter
17 to market conditions.

18 (4) The Company operates its own LNG peak shaving liquefaction, vaporization,
19 and storage facilities.

20 The Enbridge and Williams Gas Pipelines represent the only interstate pipeline
21 facilities with physical connections to the PGW service territory. As a result, all of
22 PGW's supply contracts utilize these pipelines, and the contracts also recognize pipeline
23 receipt and delivery rights. These contracts contain the ability to "lock up" the price for

1 upcoming months or to have the pricing default to an agreed upon market index if there is
2 no market advantage in fixing a price before the month begins. As a result, PGW not
3 only ensures security of supply from the pipelines but also can take advantage of varying
4 basis differentiated pricing in the market. This differentiated pricing results from the fact
5 that all shippers of natural gas receive their gas at varying locations along the pipeline.
6 PGW uses a city-gate delivered price in comparing the various alternatives available.
7 The city gate delivered price is computed considering the “into the pipe price of gas” plus
8 all incremental charges levied by the transporting pipeline to deliver the gas to the city
9 gate. These prices include, but are not limited to, reservation fees, fuel, transportation
10 charges and FERC Annual Charge Adjustment (“ACA”) charges.

11 Additionally, PGW utilizes storages and LNG to meet operational requirements.
12 Bundled storage contracts give PGW the right to both store and deliver gas via bundled
13 pipeline capacity. Unbundled storage contracts provide storage rights for gas which is
14 transported on PGW’s firm pipeline transportation capacity. These storages provide off-
15 system storage, and LNG provides on-system storage. While both types of storages are
16 important to fulfill operational requirements, PGW’s on-system LNG storage is vital
17 during peak days when customer demand exceeds the amount of gas that can be
18 physically provided through PGW’s city gates.

19 Once operational requirements are met, these assets are then used in the overall
20 cost saving strategies. For example, once design winter sendout requirements are
21 ensured, the Company may utilize bundled storage and LNG as a substitute for higher
22 priced gas. PGW’s summer gas procurement policy uses a similar approach to address
23 system supply and storage refill. The Gas Supply department also uses forecasted prices

1 as a benchmark to purchase gas volumes for both system supply and storage refill below
2 the projected cost (when possible) on a proportional basis, while leaving a portion of its
3 needs to default to first of the month pricing.

4 **Q. DOES PGW PURCHASE GAS FROM ANY AFFILIATED INTEREST?**

5 A. No. PGW does not have any affiliated gas suppliers or pipelines.

6 **Q. DOES PGW TAKE STEPS TO ENSURE SYSTEM RELIABILITY WHILE**
7 **SEEKING TO PROCURE GAS AT THE LEAST COST?**

8 A. Yes. PGW physically sources the gas in accordance with its firm pipeline paths. The
9 pipelines give PGW firm entitlements on their systems for the sourcing of gas for which
10 PGW pays a demand charge. By sourcing supply in this way, PGW ensures its sole
11 entitlement to this space on the pipeline and cannot be accused of infringement.

12 Transporting gas from different locations also mitigates the impact of potential regional
13 disruptions because not all of the supply enters the pipe at the same location. As a result,
14 if there is a disruption at one location, not all of PGW's supply will be affected. PGW's
15 Gas Planning Department also runs a supply status model during the winter operating
16 season which recognizes normal and design winter conditions and the latest actual
17 balance of gas in all storage facilities. Gas Management utilizes the output of this model
18 to make recommendations or changes in its supply operating strategy to ensure that peak
19 day needs and design winter conditions can be met from that point forward.

20 **Q. DOES PGW PERIODICALLY REVIEW ITS EXISTING CONTRACTS TO**
21 **DETERMINE IF THEY ARE APPROPRIATE?**

22 A. Yes. PGW reviews each of its existing contracts on a regular basis to ensure that the
23 contracts are needed to assure reliable supply and that none of the contracts are adverse to
24 its customers' interests. Whenever appropriate, PGW initiates renegotiations (if the
25 contract permits) to change the terms.

1 **Q. IN PGW'S LAST GCR, YOU INDICATED THAT PGW HAD BEGUN TO TAKE**
2 **ADVANTAGE OF A PREPAID GAS PROGRAM MADE POSSIBLE BY**
3 **PROVISIONS IN THE INTERNAL REVENUE CODE THAT PERMITTED**
4 **MUNICIPAL GAS COMPANIES TO OBTAIN GAS COST REDUCTIONS, IS**
5 **THAT CORRECT?**

6 A. Yes. Beginning in FY 2020, PGW has taken advantage of provisions in the Internal
7 Revenue Code that permits municipal gas companies to use tax exempt bond financed
8 prepaid gas purchase arrangements to obtain significant discounts on those purchases, the
9 savings from which are passed on to PGW sales customers.

10 **Q. WHAT IS A PREPAID GAS ARRANGEMENT?**

11 A. A prepaid gas arrangement is an arrangements in which PGW has agreed to purchase gas
12 from a gas supplier for (typically) 25-30 years. (PGW does not pay for the entire 30 years
13 of purchases up front but receives a monthly invoice for gas received by PGW). The
14 natural gas is purchased from a gas supplier, through a government authority. The
15 authority issues a tax-free long-term bond and uses the proceeds to "prepay" for the
16 natural gas it will purchase on behalf of various municipal gas utilities, including PGW.
17 The gas supplier sells the natural gas to the authority (which then, in turn, sells it to
18 PGW) at a discount, in recognition of the fact that the supplier is able to invest the
19 prepayment at taxable rates. In order to share some of this investment income, the
20 supplier provides PGW with natural gas at significant discounts from a market index
21 price. The size of the discount is determined based on the spread between non-taxable
22 and taxable investments. As noted, the gas is purchased on index, but PGW receives a
23 discount from the current index price due to the investment arbitrage.

24 **Q. HOW MANY SUCH ARRANGEMENTS HAS PGW ENTERED INTO?**

25 A. PGW is currently involved in nine (9) prepaid gas arrangements.

1 **Q. WILL THESE ARRANGEMENTS EXIST IN THE 2022-23 GCR PERIOD?**

2 A. Yes. As noted, PGW currently has nine (9) arrangements under signature. Those
3 contracts will reduce the monthly price of gas paid by PGW compared to the price it
4 would otherwise pay. In FY 2022, PGW will save approximately \$4.9 million for gas
5 sales to customers as a result of prepaid gas purchase arrangements. For FY 2023, PGW
6 is projecting that gas sales to customers will save approximately \$5.9 million from the
7 nine prepaid deals.

8 **Q. IN YOUR OPINION, ARE THE GAS COSTS INCURRED BY PGW**
9 **REASONABLE?**

10 A. Yes. The gas costs incurred to date during the 2021-2022 period are the result of the least
11 cost gas procurement strategy outlined in my testimony and are therefore reasonable.
12 The gas costs that PGW is projecting for the 2022-2023 period are also the product of a
13 least cost gas procurement strategy, consistent with PGW's obligation to provide safe,
14 adequate and reliable service to its customers, and are therefore also reasonable.

15 **III. CAPACITY RELEASE, OFF-SYSTEM SALES MARGIN AND ASSET**
16 **MANAGEMENT CREDITS/FEEES**

17 **Q. HAS PGW BEEN RETAINING A PORTION OF NET PROCEEDS FROM**
18 **CAPACITY RELEASE CREDITS, OFF-SYSTEM SALES MARGIN AND ASSET**
19 **MANAGEMENT CREDIT/FEEES?**

20 A. Yes. During the 2008-2009 GCR proceeding (Docket No. R-2008-2021348), the parties
21 agreed that PGW would be permitted to retain 25% of all off-system sales margins and
22 capacity release credits with the remaining 75% applied as an offset to purchased gas
23 costs for the retention period of September 1, 2008 to August 31, 2011. Likewise, the
24 parties agreed that, for the subsequent GCR period, PGW would retain 25% of all off-
25 system sales margins, capacity release credits and margins or fees arising from asset

1 management arrangements² with the remaining 75% applied as an offset to purchased gas
2 costs. This sharing arrangement was approved by the PUC in all subsequent GCR
3 proceedings.

4 **Q. DOES PGW HAVE A RETENTION PROPOSAL FOR THE PERIODS**
5 **BEGINNING ON SEPTEMBER 1, 2022?**

6 A. Yes. PGW proposes to continue the retention of 25% of capacity release credits, off
7 system sales margin and asset management margin/credit/fees and apply the remaining
8 75% to the Gas Cost Rate.

9 **Q. DO OTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION COMPANIES**
10 **(“NGDCS”) HAVE SHARING MECHANISMS FOR CAPACITY OFF SYSTEM**
11 **SALES CREDITS?**

12 A. Yes. All of the largest NGDCs have sharing mechanisms similar to PGW’s and the
13 sharing percentage for all of the NGDCs is 25%.

14 **Q. HOW ARE SHARING MECHANISMS BENEFICIAL TO BOTH RATEPAYERS**
15 **AND UTILITIES?**

16 A. The ratepayers and the utility benefit from the policy because it creates an incentive to
17 maximize efforts to fully utilize gas supply assets by making off-system sales and
18 capacity release transactions, thereby reducing the overall cost of gas supply and the
19 resulting gas cost rate. For PGW, the lesser portion retained by the Company is used to
20 offset the overall cost of service that must be recovered in base rates.

21 **Q. DID PGW ENGAGE IN ANY CAPACITY RELEASE OR OFF-SYSTEM SALES**
22 **IN FY 2022?**

23 A. Yes. PGW contracted for an off-system sales and several capacity releases. For each of
24 these arrangements, the margin in excess of the incremental costs was split 75-25%, with

² Asset management margins/credits/fees are received when PGW enters into a contract with a third party to manage all or part of a storage contract or firm pipeline transportation contract.

1 75% being credited to the GCR. PGW retained the remaining 25% in base rates and used
2 it to offset other costs of operation.

3 **Q. DID PGW ENGAGE IN AN ASSET MANAGEMENT ARRANGEMENT IN FY**
4 **2022?**

5 A. Yes. PGW entered into an AMA arrangement with a counterparty for the winter season
6 of FY 2022. The revenue from the AMA arrangement will be split 75-25%, with 75%
7 being credited to the GCR. PGW retained the remaining 25% in base rates and used it to
8 offset other costs of operation.

9 **IV. PRICE ANALYSIS AND BUYING ADVISORY SERVICE**

10 **Q. DOES PGW CURRENTLY USE A PRICE ANALYSIS AND BUYING**
11 **ADVISORY SERVICE AS PART OF ITS EFFORTS TO OBTAIN GAS AT**
12 **LEAST COST?**

13 A. Yes, it does. PGW utilizes a firm called Planalytics to provide such services.

14 **Q. WHAT TYPES OF SERVICES DOES PLANALYTICS PROVIDE TO PGW?**

15 A. Planalytics provides the following services:

- 16 ● Price feed from Nymex and Globex for natural gas, crude oil, heating oil and
17 RBOB (reformulated gasoline);
- 18 ● Buying suggestions up to 18 months in the future;
- 19 ● A charting tool for technical analysis;
- 20 ● Short and medium range weather forecasts;
- 21 ● Weather alerts (issued in advance of significant weather events);
- 22 ● Planalytics' pre-season hurricane forecast and in-season updates; and
- 23 ● Additional energy buyer features include reporting (i.e., market-to-market,
24 transaction history, etc.) and portfolio/hedging parameters.

1 **Q. WHAT WAS INCORPORATED INTO PGW'S 2021-2022 GCR PROCEEDING**
2 **SETTLEMENT AGREEMENT WITH REGARD TO THE PLANALYTICS**
3 **ENERGY BUYER SERVICES?**

4 A. PGW agreed to the following:

5 PGW is permitted to continue to recover the Planalytics fee for price
6 analysis and buying advisory services (not to exceed \$125,000) for the
7 2021-2022 GCR period. Continued recovery of the fee beyond the 2021-
8 2022 GCR period must be addressed in next year's Purchased Gas Cost
9 proceeding.

10 **Q. DOES PGW WISH TO CONTINUE THE PLANALYTICS BUYING ADVISORY**
11 **SERVICES?**

12 A. Yes. The Planalytics' service provides a comprehensive amount of information that the
13 Company finds useful in the procurement of all gas supply. Nonetheless, PGW
14 understands that it must reach a new agreement as to the continuing recovery of the
15 Planalytics fee. It again proposes that these fees be included in the 2022-23 GCR; PGW
16 looks forward to discussing this issue with the parties involved in this year's proceeding.

17 **V. GAS SUPPLY PURCHASES**

18 **Q. WHERE DID PGW PURCHASE NATURAL GAS SUPPLY ON THE TEXAS**
19 **EASTERN TRANSMISSION CORPORATION ("TETCO") PIPELINE IN FY**
20 **2022?**

21 A. 100% of all baseload and swing supply purchases on the TETCO pipeline were from
22 Market Zone M-2 in FY 2022.

23 **VI. CONCLUSION**

24 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

25 A. Yes it does.

VERIFICATION

I, Ryan E. Reeves, hereby state that: (1) I am the Director of Gas Supply, Transportation and Control for Philadelphia Gas Works (“PGW”); (2) the facts set forth in the foregoing Direct Testimony which I am sponsoring are true and correct to the best of my knowledge, information and belief; and (3) 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).

March 1, 2022

Dated

Ryan E. Reeves

Ryan E. Reeves
Director of Gas Supply, Transportation and
Control
Philadelphia Gas Works

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

Ryan E. Reeves

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2022-3030686

Philadelphia Gas Works
Proposed 2022-23 Annual GCR Adjustment

April 13, 2022

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND POSITION WITH THE COMPANY.**

3 A. My name is Ryan E. Reeves. My position with Philadelphia Gas Works (“PGW”
4 or “Company”) is Director of Gas Supply, Transportation and Control.

5 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. Yes, I provided Direct Testimony (“PGW St. 2”) on March 1, 2022.

8 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

9 A. The purpose of my Rebuttal testimony is to respond to the Direct Testimony of
10 the Office of Consumer Advocate (“OCA”) witness Jerry Mierzwa (“OCA St. No.
11 1”), served on April 1, 2022. Specifically, I will respond to Mr. Mierzwa’s
12 contentions regarding: 1) off-system sales; 2) LNG sales; 3) use of LNG as a
13 substitute for spot gas purchases; and 4) PGW hedging policies.

14

15 **II. OFF-SYSTEM SALES**

16 **Q. PLEASE EXPLAIN YOUR UNDERSTANDING OF MR. MIERZWA’S**
17 **RECOMMENDATION REGARDING THE CALCULATION OF MARGIN**
18 **ASSOCIATED WITH PGW OFF-SYSTEM SALES.**

19 A. Mr. Mierzwa observes that while PGW is proposing to credit 75% of off-system
20 sales margins to GCR customers pursuant to the off-system and capacity release
21 revenue sharing provisions in its Tariff, PGW has allegedly incorrectly calculated
22 the margins associated with those sales. PGW, as it has done consistently,
23 calculated the margin from the sale by subtracting the weighted average cost of
24 gas (“WACOG”) during the month in which each transaction occurred from the
25 price realized from the sale. Mr. Mierzwa claims that PGW should have

1 calculated the margin using the “the incremental cost of gas purchased by PGW
2 on the day each off-system sale occurred.” By using what Mr. Mierzwa claims to
3 be the incremental cost of gas he claims that PGW’s share of margins for the
4 historic review period is reduced from \$100,854 to \$682 (OCA St. 1 at 6-8).

5 **Q. DO YOU BELIEVE THAT MR. MIERZWA’S MARGIN CALCULATION**
6 **METHODOLOGY IS REASONABLE?**

7 A. No. PGW has employed this methodology for calculating the cost of off system
8 sales since 2020 (when it began to make such sales) and this is the first time that
9 our approach has been questioned. Nonetheless, I continue to believe that PGW’s
10 approach is reasonable for PGW. PGW uses its monthly WACOG for most
11 determinations of gas cost and should, in my opinion, use this calculation of
12 average cost for off-system sales margin calculation as well. The WACOG
13 smooths any temporary spikes (or decreases) in gas prices that can happen from
14 day-to-day or between pipelines or zones so that it is more representative of the
15 cost of the gas that PGW has purchased. PGW GCR customers never pay the
16 incremental cost of gas on a particular day or from a particular pipeline and the
17 best representation of the cost of the gas that is used for the sale is the WACOG –
18 not the incremental cost of gas on the day that the sale happens to occur.

19 **Q. MR. MIERZWA ALLEGES THAT THE USE OF THE INCREMENTAL**
20 **COST OF GAS ON THE DAY OF THE SALE IS USED BY ALL THE**
21 **OTHER PENNSYLVANIA NATURAL GAS DISTRIBUTION UTILITIES.**
22 **CAN YOU COMMENT?**

23 A. I was only able to locate specific tariff language for four companies: UGI, PECO,
24 NFGD and Columbia. I set out that language in Exhibit RER-1. My reading of
25 these tariff provisions does not lead me to conclude that any of the other
26 companies are calculating the cost of gas used for “upstream” off-system sales by

1 looking at the “incremental,” i.e., highest, cost of gas on the day of the sale. In
2 fact, except for sales where the gas has been specifically purchased for the off-
3 system sale, they either appear to utilize the average price for the month (PECO,
4 NFGD) or the “daily average city gate commodity cost of the gas supplies
5 purchased by the Company and flowing on the first of the month (WACCOG),”
6 (Columbia). UGI’s language is not crystal clear. For the types of sales at issue
7 here – sales made upstream of PGW’s city gate – UGI’s Tariff states that the price
8 shall be calculated as: “the sum of the cost of natural gas, transportation
9 commodity charges, and fuel retainage, if the sale or exchange is made upstream
10 of the Company's market area...” The Tariff goes on to define the “cost of
11 natural gas” as follows:

12 For purposes of calculating this margin, the cost of gas will be equal to the
13 monthly average commodity cost of gas plus variable transportation costs
14 to deliver the gas to the off-system customer. The monthly average
15 commodity cost of gas shall be defined as the monthly average commodity
16 cost of gas purchases for all supplies scheduled at the beginning of the
17 month; provided, however, that if an additional unscheduled purchase is
18 made during the month specifically for an off-system sale, such purchase
19 shall be considered to be the gas used to make the off-system sale and the
20 commodity cost of such purchase will be assigned to off-system sales up
21 to the volume of the purchase.¹

22
23 Except for the portion discussing unscheduled purchases, this appears to be
24 generally consistent with the way in which PGW calculates the cost of gas for all
25 sales except that UGI uses the monthly average for all gas scheduled at the
26 beginning of the month and PGW uses the monthly average of gas actually
27 purchased. It appears clear that UGI does not use the “incremental [highest]” cost
28 of gas on the day that the sale is made for any part of the calculation. While it

¹ UGI Gas Tariff No. 7, pgs. 51-52.

1 would not be unreasonable to utilize the specific cost of gas associated with a sale
2 when PGW purchases gas specifically to sell it off-system, PGW does not
3 typically engage in those kinds of sales. All of its sales are made out of its
4 existing supply. To price total supply, PGW tries to use average gas prices,
5 reflected in the WACOG whenever possible and believes that it would be
6 reasonable to continue to do so for off-system sales.

7 Also, as a city-owned natural gas company utilizing the cash flow method for
8 setting rates, the margin that is “retained” by PGW goes to base rates and not to
9 shareholders and has the effect of mitigating future base rate increases. So it is
10 not as if the dollars are lost to customers.

11 Finally, the whole purpose of the “sharing” policy is to encourage off-system
12 sales by distribution utilities when they have the opportunity to do so. I fail to see
13 how requiring PGW to utilize the highest price available for natural gas to
14 calculate “cost” – thereby reducing the resulting margin and the amount it is able
15 to retain for base rates – is consistent with creating incentives to continue to make
16 these sales. While all the revenues ultimately go back to customers, PGW does
17 value the additional cash flow that is created when it is able to make an off-
18 system sale and use 25% of the margin to enhance its cash flow. Since this
19 benefits both PGW and its customers I do not believe any change would be
20 appropriate in PGW’s calculation of “cost” for off-system sales.

21

22 III. LNG SALES

23 **Q. MR. MIERZWA ALSO CLAIMS THAT PGW SOLD GAS FROM ITS**
24 **LIQUEFIED NATURAL GAS (“LNG”) FACILITIES TO OFF-SYSTEM**
25 **CUSTOMERS BUT THAT IT IS PROPOSING TO RETAIN 100% OF**

1 **THE NET MARGINS ASSOCIATED WITH ITS OFF-SYSTEM LNG**
2 **SALES. HE AVERS THAT PGW SHOULD BE REQUIRED TO CREDIT**
3 **THE DEMAND COMPONENT OF PGW'S GCR RATE IN**
4 **CALCULATING THE "MARGINS" REALIZED FROM THESE SALES**
5 **BECAUSE PGW USES GCR CAPACITY TO MAKE THESE SALES. IS**
6 **HE CORRECT?**

7 A. No, Mr. Mierzwa is incorrect on several fronts and it would be incorrect and
8 unreasonable to "credit" the GCR for any margins or profits realized from these
9 sales. The revenues from these sales should continue to benefit base rate
10 customers by being credited to base rates.

11 **Q. CAN YOU EXPLAIN WHY?**

12 A. It is first important to more accurately set out how these sales work. These are
13 not "off-system sales"; they are LNG sales. As the Commission is aware, PGW
14 has two LNG storage facilities (one at Richmond and one at Passyunk) that are
15 used by PGW for peak shaving, seasonal and emergency supply. When PGW
16 purchases natural gas to liquify and inject into storage, it does not charge the GCR
17 for those gas costs. This is because virtually all of the costs of PGW's LNG
18 facilities and operations are not recovered in the GCR – they are recovered in base
19 rates (if PGW vaporizes the LNG and uses it for system supply, it then charges
20 the cost of the gas, using the WACOG for that vaporized LNG). When PGW
21 determines that the amount of LNG it has stored is in excess of its projected
22 future needs in the remaining heating season, it looks to reduce the cost to
23 ratepayers of maintaining and operating the LNG storage facilities by selling the
24 excess. To that end, PGW has entered into a contract with a counterparty, Tioga
25 LNG LLC, in which PGW may sell to Tioga some or all of its excess LNG. This
26 contract is pursuant to PGW's LNG-N Rider. When the sales are made, PGW

1 transfers ownership of the LNG in its storage tank from PGW to Tioga. At the
2 present time, the LNG sale is made at the cost of gas (using WACOG) and a
3 calculation of the incremental transmission costs, that PGW incurred to move the
4 gas into LNG Storage. Contrary to Mr. Mierzwa's representation, the \$2,617,477
5 that he references in his testimony is not a "margin;" it is the entire cost of the
6 LNG and represents both the commodity cost AND transmission costs associated
7 with that natural gas. Accordingly, Tioga pays 100% of the incremental cost of
8 gas associated with the LNG.

9 **Q. UNDER THE ARRANGEMENT WITH TIOGA, HOW DO PGW AND ITS**
10 **CUSTOMERS BENEFIT FROM THIS SALE OF LNG?**

11 A. Under the arrangement that will be in place during the FY 2022-23 period, once
12 LNG is sold to Tioga, Tioga is then free to market the LNG to other local
13 distribution companies or end users. Tioga may accomplish these sales by
14 picking up the LNG and delivering it to their purchaser by truck or by
15 displacement (where PGW takes back ownership of the LNG for use for its end
16 user customers and deliver an identical amount of gas to Tioga's customer via
17 displacement on PGW's upstream pipeline). PGW will be paid 60% of any profit
18 generated by Tioga's LNG business activities (the difference between the revenue
19 generated by Tioga and the incremental cost of gas [i.e., the WACOG and
20 incremental transmission costs] that Tioga paid when the LNG was transferred to
21 its account, and Tioga's expenses for making the sale). Again, since these are
22 LNG sales and not natural gas off-system sales, 100% of PGW's share of the
23 profit is credited to base rates.

1 **Q. WHY WOULD IT BE INAPPROPRIATE FOR THE GCR TO BE**
2 **CREDITED “A PORTION OF THE NET MARGIN” OR PROFIT?**

3 A. For several reasons. First, as I have explained, the dollars that Mr. Mierzwa has
4 identified are not actually margin – they are the cost of the LNG itself. But,
5 assuming that Mr. Mierzwa would nonetheless suggest that some GCR crediting
6 would be appropriate if Tioga is able to sell the LNG and realize a profit in which
7 PGW would share, any such crediting to the GCR would be inappropriate. These
8 are clearly LNG sales and not off-system sales. While there is no definition of
9 “off-system sales” in PGW’s Tariff, I understand that since the term appears in
10 the “GCR” portion of PGW’s tariff, it encompasses sales of gas that offset costs
11 charged to the GCR. But all PGW LNG costs are *not* charged through the GCR.
12 In fact, virtually all of the costs of PGW’s LNG facilities are reflected in base
13 rates. Accordingly, any revenues realized from the sale of LNG should also be
14 credited to those same customers – through base rates.

15 Second, as I mentioned, the sales that Mr. Mierzwa is questioning are made
16 pursuant to the Rate LNG-N provisions of PGW’s Tariff (PGW Tariff No. 2, pg.
17 156). Unlike the Tariff provision for the GCR (Tariff, pg. 67) the LNG-N
18 provisions of PGW’s Tariff contain no “sharing provision” for revenues. The
19 tariff states only that “[t]he negotiated rate(s) shall be in excess of the Company’s
20 incremental costs to provide service to the Customer.” PGW’s current profit
21 sharing complies with that provision of its Tariff.

22 **Q. MR. MIERZWA SUGGESTS THAT THE “MARGIN” FROM THESE**
23 **LNG SALES SHOULD BE CREDITED BY AN AMOUNT “EQUAL TO**
24 **THE DEMAND COMPONENT OF PGW’S GCR RATE IN THE MONTH**

1 **THE LNG SALE OCCURRED.... (OCA ST. 1 AT 9).” IS THAT AN**
2 **INCREMENTAL COST OF THE LNG SALES?**

3 A. No, it is not. The GCR Tariff provision (pg. 67) defines the “demand component”
4 as “the *fixed* costs associated with the transportation and storage of natural gas for
5 firm customers.” (Emphasis added.) As the definition makes clear, PGW’s
6 demand costs are fixed and do not change regardless of the amount of natural gas
7 that PGW causes to be transported using that capacity. Those demand charges are
8 incurred by PGW (and passed on to GCR customers) in order to have the right to
9 transport natural gas on its available pipelines in times of peak demand or when
10 one or the other of PGW’s two available pipelines are not available for some
11 reason. In that sense, that capacity is already being used by GCR customers as
12 insurance for firm, essential use customers. All of the LNG sales that PGW
13 makes are with LNG that the Company has determined will be excess during the
14 period in question. Firm customers always have first priority and entitlement to
15 the LNG. Charging the LNG sale for the “demand” charges in these
16 circumstances would be the same as charging natural gas suppliers for a share of
17 these demand charges in the balancing charges they incur when they deliver less
18 natural gas to PGW than directed or that they have nominated, which PGW does
19 not do.

20 **Q. MR. MIERZWA NOTES THAT, FOR SOME PREVIOUS LNG**
21 **TRANSACTIONS, PGW DID CREDIT THE GCR USING A “DEMAND**
22 **CHARGE.” CAN YOU COMMENT?**

23 A. Mr. Mierzwa was referring to LNG trucking sales that PGW made prior to the
24 implementation of PGW’s LNG-N Tariff. Those sales are no longer being made
25 and the margin calculation that was used is inapplicable to the sales issue here.

1 **Q. IS THERE ANY OTHER REASON TO REJECT MR. MIERZWA'S**
 2 **RECOMMENDATION?**

3 A. Yes. While I have explained why it would be incorrect and unjustified to require
 4 PGW to “credit” the GCR for fixed demand charges when these excess LNG sales
 5 are made, I would also point out that requiring dollars to be allocated to the GCR
 6 and not to offset the costs of liquifying and maintaining the LNG would have the
 7 effect of denying those revenues to base rate customers who bear those costs. It is
 8 important to reiterate that, unlike an investor-owned utility, 100% of the revenues
 9 from these sales will be used to benefit customers. All of the revenues will
 10 increase PGW’s cash balances and, in turn, will be available to offset increased
 11 costs and expenses since PGW’s last base rate case (and, correspondingly, reduce
 12 the need for any future rate increase). Not a dime goes to increased “profit.”
 13 If these sales are not made, the LNG will just stay in the tank and produce no
 14 revenues to offset the cost of maintaining the LNG facilities. Therefore, I
 15 respectfully submit that forcing PGW to “credit” the GCR, thus artificially
 16 reducing the cost of gas charged to GCR customers, would be counter-productive
 17 and would not be good utility policy.

18
 19 **IV. USE OF LNG AS A SUBSTITUTE FOR SPOT GAS PURCHASES**

20 **Q. NEXT, MR. MIERZWA ASSERTS THAT, DURING FY2021, PGW DID**
 21 **NOT SUFFICIENTLY USE ITS AVAILABLE LNG AS A SUBSTITUTE**
 22 **FOR THE PURCHASE OF FLOWING GAS, AND BOUGHT FLOWING**
 23 **GAS AT HIGH PRICES ON TWO DAYS IN FEBRUARY 2021. HE**
 24 **RECOMMENDS THAT PGW “MODIFY ITS GAS PROCUREMENT**
 25 **POLICES TO USE LNG RATHER THAN BUYING HIGHER PRICED**
 26 **NATURAL GAS (ST. 1, PGS. 10-11). CAN YOU RESPOND?**

27 A. First let me assure the Commission that it is always PGW’s intention and policy
 28 to utilize the lowest priced natural gas supply available to serve the needs of its

1 firm customers. This includes weighing the relative cost of LNG or other stored
2 gas as an alternative to spot purchases of flowing gas. However, PGW must
3 consider a number of factors when making the determination of which gas supply
4 to call upon. For LNG, PGW is constantly evaluating the amount of LNG it
5 needs to have available in order to meet projected conditions for the rest of the
6 heating season. PGW's LNG capability is an enormously valuable resource that
7 increases the reliability of PGW's system, but only if the LNG is available when
8 it is needed. To make sure that it is available to meet peaks or emergencies, PGW
9 tries to husband this resource so that LNG will be available when needed.
10 Having said that, the high priced gas that PGW purchased on two days in
11 February, 2021 were in the middle of a historic market distortion caused by
12 Winter Storm Uri. PGW actually utilized its LNG supply to reduce swing supply
13 purchases on day two, and did not buy any spot gas on either of those two days.
14 But, because of the requirements of its swing gas purchase contracts, it was not
15 able to completely avoid purchases at these very high rates. Winter Storm Uri
16 affected the entire natural gas market and caused the price of gas at points to
17 exceed \$900 per Dth. It should be reiterated that gas that was purchased at the
18 higher price was PGW's swing contract gas. A swing contract is a contract PGW
19 has with a natural gas supplier that allows PGW to adjust the amount of gas to be
20 purchased from zero to the contract maximum at a price based on Gas Daily Index
21 for the location of purchase. An element of this contract, however, is that PGW
22 must inform the supplier a day before the gas delivery day and commit to how
23 much PGW would like delivered on the gas day. The deadline for this

1 commitment occurs before the gas trading markets become active for the day –
2 8:30 AM. For the first purchase on February 17, 2021, at the time that PGW made
3 its decision to purchase swing gas (the day before the delivery, February 16th,
4 2021) the prices were still within a reasonable range and had not spiked up. I
5 show the daily realized prices in Transco Station 85 (where PGW purchases its
6 swing gas) on Exhibit RER-2. Because it was still in a mode of trying to husband
7 LNG when appropriate (there were 6 more weeks of the heating season left at that
8 time), PGW went ahead with the level of swing gas purchase it would normally
9 make absent market dislocations. However, after PGW made its nomination,
10 prices rose to more than three times their prior days' level. When prices did
11 spike, it was too late to cancel the purchase. On the second day in question, the
12 projections, again, were that the prices would not stay at historically high levels.
13 Nonetheless, PGW decided to reduce its swing gas order to 25,000 and vaporized
14 some 95,000 Dth of LNG to help with load demands. Unfortunately, the prices
15 stayed high for a second day. At that point PGW decided to stop all swing
16 purchases until the market returned to something closer to pre-Uri prices. PGW's
17 use of LNG enabled it to sell off the high priced gas it had been forced to
18 purchase at the cost it paid plus \$.05/Dth. By February 20, 2021, prices had
19 dropped back below pre-emergency levels. As a result, PGW ratepayers avoided
20 most of the effects of the gas price spike caused by the Texas emergency.

21 **Q. WHAT IS YOUR POSITION ON MR. MIERZWA'S**
22 **RECOMMENDATION?**

23 A. PGW has no problem with the sentiment generally because it already does have a
24 policy to use LNG as a substitute for high prices gas supplies when possible, and

1 in fact did exactly what Mr. Mierzwa recommended during the period in question.
2 In my Direct Testimony² I set out PGW's existing gas procurement strategy. One
3 of the key elements of that strategy (as described in my Direct Testimony)³ is the
4 utilization of LNG for gas supply *when appropriate*; but that potential utilization
5 must take into account the need to maintain adequate gas supply to meet peak
6 days and other extreme conditions. It would be inadvisable and imprudent to
7 simply utilize LNG as a substitute for swing or spot purchases whenever the LNG
8 is marginally less expensive. This could well lead to PGW not being able to meet
9 the needs of residential or other essential load (e.g., schools, hospitals) in times of
10 supply stress. In addition, because of the need to make commitments for swing
11 supply the day before the supply is to be delivered, there will always be the
12 potential for unanticipated spikes in pricing that, with twenty-twenty hindsight,
13 might have prompted PGW to utilize its LNG resource. This is what happened on
14 the specific days that Mr. Mierzwa highlights. I do not believe it is necessary or
15 appropriate to modify PGW's policies and procedures to respond to this very
16 extraordinary circumstance. The PUC should be concerned only if the evidence
17 showed a consistent and clear pattern of failing to utilize a lower priced gas
18 resource that could have been used without jeopardizing system reliability. That
19 is not the case here.

20

21 **V. HEDGING PLAN**

22 **Q. FINALLY, MR. MIERZWA OBSERVES THAT, DURING THE**
23 **HISTORIC GCR PERIOD, PGW ENGAGED IN A RELATIVELY LOW**
24 **LEVEL OF PHYSICAL HEDGING AND THAT, GIVEN THE RECENT**

² PGW St. 2 at 3.

³ Id. at 4, lines 19-23.

1 **RUN UP IN NATURAL GAS PRICES, PGW SHOULD ADOPT A**
2 **FORMAL “HEDGING POLICY.” CAN YOU COMMENT?**

3 A. PGW believes that its present practice is adequate. As I explained in my Direct
4 Testimony, PGW’s gas supply decisions are made by a “Gas Supply Committee”
5 of senior executives. Its supply strategy employs a “portfolio” approach and
6 includes four main buying strategies: (1) daily index price swing contracts; (2)
7 physical forward purchase contracts; (3) storage; and (4) LNG.⁴
8 Thus, PGW’s supply strategy already includes hedging – in the form of physical
9 forward purchase contracts. (Physical hedging is the process of buying a certain
10 amount of gas for future months at a price that reflects the current price. That is
11 what a physical forward purchase contract does.) PGW has reduced its physically
12 forward purchase contracts in recent years because natural gas prices were
13 relatively stable and at historic lows. With the relatively recent run up in gas
14 prices, PGW expects to employ more physical hedging.
15 To the extent that Mr. Mierzwa is interested in PGW engaging in hedging in order
16 to keep prices lower, it is important to note that PGW already engages in a
17 significant amount of semi-fixed price forward purchases that has the effect of
18 mitigating gas costs for GCR customers. Since 2018, PGW has used the ability to
19 buy pre-paid gas to mitigate volatility of base load gas purchases. Under the pre-
20 paid gas program, PGW has entered into a long-term contract to purchase a set
21 amount of natural gas each month. The price is set at the first of the month index
22 but a significant discount is applied to the purchase. As I note in my Direct
23 Testimony, in FY 2022, PGW will save approximately \$4.9 million for gas sales

⁴ PGW St. 2 at 3.

1 to customers as a result of prepaid gas purchase arrangements. For FY 2023,
2 PGW is projecting that gas sales to customers will save approximately \$5.9
3 million from the nine prepaid deals.⁵ Gas purchased under these programs
4 account for approximately 35% percent of PGW's gas supply.

5 PGW has not and does not at present expect to engage in financial hedging. PGW
6 is fully conversant with and has the information and expertise to successfully
7 employ physical hedges. The Company is willing to revisit its position on
8 financial hedging if natural gas price volatility gets more pronounced, and the
9 Commission provides clear guidance on the financial hedging program it
10 recommends NGDCs follow.

11 **Q. HOW DOES PGW MAKE A DETERMINATION TO ENGAGE IN**
12 **PHYSICAL HEDGING?**

13 A. PGW has a series of tools that make detailed forecasts about future natural gas
14 prices for the natural gas that would actually be available to PGW for purchase.
15 These tools include subscriptions to professional trend analysis by Larry Marshall
16 and by ICAP, which supplement the buying suggestions of tools such as
17 Planalytics. Each month, the Gas Supply Committee reviews the forward pricing
18 and determines to what extent, if any, it is in PGW's best interest to engage in
19 physical hedging of future gas supply. PGW is currently exploring other tools to
20 help with this process as well and is open to recommendations from the
21 Commission on any tools to be used.

22 **Q. MR. MIERZWA CLAIMS THAT PGW DID NOT FOLLOW THE**
23 **BUYING SUGGESTIONS MADE BY PLANALYTICS IN THE HISTORIC**

⁵ PGW St. 2 at 7.

1 **PERIOD HE EXAMINED. IS THAT TRUE AND, IF IT IS, WHY DID**
2 **THIS HAPPEN?**

3 A. Natural gas supplies are purchased under a portfolio approach with PGW
4 intending to secure the lowest overall price consistent with maintaining reliability
5 and security of supply. Consideration is given to maintaining a diversity of
6 sources and types of supply, coupled with contractual and operational flexibility
7 on both a daily and seasonal basis. Short term purchases from spot market
8 sources are utilized when they reasonably appear to be more economical,
9 available, and transportable. Accordingly, it is important to utilize a variety of
10 tools that consider all of these modalities when considering buying decisions.
11 Planalytics' suggestions are suggestions. PGW uses them as part of the overall
12 prudent operation of the gas supply. PGW did consider the buying
13 recommendations made by Planalytics but did not follow them in many cases
14 because it considered the advice of other tools – and its own understanding of its
15 gas supply assets and pricing – to make its buying decisions. In the future, PGW
16 may very well follow the Planalytics advice more often.

17 **VI. CONCLUSION**

18 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

19 A. Yes. However, I reserve the right to supplement this testimony.

PGW Exhibit RER-1

PECO (PECO Tariff Gas PA PUC No. 4, pg. 40):

Margin revenues derived from sales of gas which is taken from system supply are defined as the unit revenue less the monthly weighted average commodity cost of gas, less any applicable taxes other than income taxes. Margin revenues derived from specific purchase sales (sales where a specific gas supply has been purchased to make a sale) shall be defined as the unit revenue less the specific purchase commodity cost of gas, less any applicable taxes other than income taxes. Specific purchase sales will have no impact on the cost of system supply. Off-system sales for operational purposes such as for meeting mandatory storage withdrawals are excluded from the mechanism.

UGI (PA PUC No. 7, pgs. 51-52):

The net revenues of the sale shall mean the total revenues from the sale of gas to a third party, less: (1) the sum of the cost of natural gas, transportation commodity charges, and fuel retainage, if the sale or exchange is made upstream of the Company's market area or (2) the average city gate commodity cost of all gas purchased and flowing on the first of the month, including the natural gas, transportation commodity, and fuel, if such sale is made at the Company's city gate or in the Company's market area.

* * *

For purposes of calculating this margin, the cost of gas will be equal to the monthly average commodity cost of gas plus variable transportation costs to deliver the gas to the off-system customer. The monthly average commodity cost of gas shall be defined as the monthly average commodity cost of gas purchases for all supplies scheduled at the beginning of the month; provided, however, that if an additional unscheduled purchase is made during the month specifically for an off-system sale, such purchase shall be considered to be the gas used to make the off-system sale and the commodity cost of such purchase will be assigned to off-system sales up to the volume of the purchase.

Columbia Gas (Tariff PA PUC No. 9, pg. 158):

(i) For sales in which a specific purchase is not made, the cost of gas will be defined as the daily average city gate commodity cost of the gas supplies purchased by the Company and flowing on the first of the month (WACCOG). For sales made upstream of the Company's city gate, the cost of transportation, including retainage, from the point of sale to the city gate will be subtracted from the WACCOG. This amount will be further adjusted to include applicable taxes, other than income taxes, and other costs. (ii) For incremental sales in which a specific purchase is made,

the cost of gas will be defined as the purchase price plus transportation costs, including retainage, taxes and other costs that have or will be incurred.

NFG (PA PUC No. 9, pg. 154):

An amount equal to seventy-five percent of the revenues before income taxes from off-system sales over the monthly average commodity cost of gas plus variable transportation costs to deliver the gas to the off system customer. The monthly average commodity cost of gas shall be defined as the monthly average commodity cost of gas purchases for all supplies scheduled at the beginning of the month; provided, however, that, if an additional unscheduled purchase is made during the month specifically for an off-system sale, such purchase shall be considered to be the gas used to make the off-system sale and the commodity cost of such purchase will be assigned to off-system sales up to the volume of the purchase. Off-system sales for 30-day nonrefundable sales commencing on the first of the month shall be treated as specific purchase sales for determining the cost of gas assigned to the sale. Gas will not be withdrawn from storage to make off-system sales, and the prices charged for off-system sales will not reflect the price attributable to gas withdrawn from storage. Any remaining off-system sale not covered by such unscheduled purchase(s) shall be assigned a gas cost equal to the monthly average commodity cost of scheduled purchases.

PGW Exhibit RER-2

Daily Gas Price		
Flow Day	Flow Date	<u>Transco</u> Sta 85
Monday	2/1/2021	\$ 2.715
Tuesday	2/2/2021	\$ 2.885
Wednesday	2/3/2021	\$ 3.300
Thursday	2/4/2021	\$ 2.955
Friday	2/5/2021	\$ 2.940
Saturday	2/6/2021	\$ 3.455
Sunday	2/7/2021	\$ 3.455
Monday	2/8/2021	\$ 3.455
Tuesday	2/9/2021	\$ 3.255
Wednesday	2/10/2021	\$ 3.190
Thursday	2/11/2021	\$ 3.715
Friday	2/12/2021	\$ 5.750
Saturday	2/13/2021	\$ 5.845
Sunday	2/14/2021	\$ 5.845
Monday	2/15/2021	\$ 5.845
Tuesday	2/16/2021	\$ 5.845
Wednesday	2/17/2021	\$ 18.445
Thursday	2/18/2021	\$ 17.420
Friday	2/19/2021	\$ 6.040
Saturday	2/20/2021	\$ 5.495
Sunday	2/21/2021	\$ 5.495
Monday	2/22/2021	\$ 5.495
Tuesday	2/23/2021	\$ 2.825
Wednesday	2/24/2021	\$ 2.765
Thursday	2/25/2021	\$ 2.745
Friday	2/26/2021	\$ 2.595
Saturday	2/27/2021	\$ 2.595
Sunday	2/28/2021	\$ 2.595

VERIFICATION

I, Ryan E. Reeves, hereby state that: (1) I am the Director of Gas Supply, Transportation and Control for Philadelphia Gas Works (“PGW”); (2) the facts set forth in the foregoing Rebuttal Testimony which I am sponsoring are true and correct to the best of my knowledge, information and belief; and (3) 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).

April 13, 2022

Dated

Ryan E. Reeves

Ryan E. Reeves
Director of Gas Supply, Transportation and
Control
Philadelphia Gas Works

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REJOINDER TESTIMONY OF

Ryan E. Reeves

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2022-3030686

Philadelphia Gas Works
Proposed 2022-23 Annual GCR Adjustment

April 20, 2022

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1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND POSITION WITH THE COMPANY.**

3 A. My name is Ryan E. Reeves. My position with Philadelphia Gas Works (“PGW”
4 or “Company”) is Director of Gas Supply, Transportation and Control.

5 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS**
6 **PROCEEDING?**

7 A. Yes, I provided Direct Testimony (“PGW St. 2”) on March 1, 2022 and Rebuttal
8 testimony (“PGW St. 2-R) on April 13, 2022 in this proceeding.

9 **Q. WHAT IS THE PURPOSE OF YOUR REJOINDER TESTIMONY?**

10 A. I wish to provide responses to the Surrebuttal testimony of Mr. Mierzwa on the
11 issues of: 1) calculating the cost of off-system sales; 2) crediting sales made under
12 Rate LNG-N for GCR demand costs; and 3) PGW Hedging.

13

14 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

15 A. No I am not.

16 **II. CALCULATING THE COST OF OFF-SYSTEM SALES**

17 **Q. MR. MIERZWA CONTINUES TO CLAIM THAT THE AVERAGE COST**
18 **OF NATURAL GAS THAT PGW INCURS IS SOMEHOW**
19 **“IRRELEVANT” WHEN DETERMINING THE MARGIN REALIZED**
20 **FROM AN OFF SYSTEM SALE AND THAT PGW SHOULD**
21 **CALCULATE THE “COST” OF AN OFF-SYSTEM SALE ON THE BASIS**
22 **OF THE “INCREMENTAL,” THAT IS, HIGHEST COST OF GAS**
23 **PURCHASED BY PGW ON THE DAY OF THE OFF SYSTEM SALE**
24 **(OCA ST. 1SR AT 2-3). CAN YOU COMMENT?**

25 A. Mr. Mierzwa continues to make the claim that that the cost for these sales should
26 be determined on that day’s incremental cost but fails to respond to my rebuttal
27 testimony in which I showed that the average cost is exactly how all other natural
28 gas distribution companies (NGDCs) that I was able to find calculates “cost,”

1 with the exception of instances in which gas is purchased with the intention of
2 reselling it off-system is at issue. In the case in which PGW sells gas from system
3 supply both PGW and the other NGDCs use an average price to calculate cost
4 because it is impossible to determine exactly which gas is being used for the
5 purchase. To use the highest price gas purchased by PGW on the day of the
6 purchase simply does not make sense in that situation.

7 **Q. MR. MIERZWA CLAIMS THAT OF THE FOUR DAYS ON WHICH PGW**
8 **MADE OFF SYSTEM SALES IN 2021 PGW PURCHASED GAS ON**
9 **THOSE DAY AT A COST HIGHER THAN THE WACOG (OCA ST. 1SR**
10 **AT 4). CAN YOU COMMENT?**

11 A. PGW did purchase gas on each of those days. But those purchases were made
12 under our “swing gas” contracts as part of its established gas procurement
13 strategy. As I explained in my Rebuttal (PGW St. 2-R at 10), PGW’s swing gas
14 contract requires PGW to nominate the amount of gas that the Company is going
15 to purchase the day before the gas delivery day. When PGW does this and then
16 finds that the Company’s anticipated gas demand did not materialize and it can
17 find a counterparty to whom to sell some or a portion of the gas PGW sells the
18 gas at the market price (which mitigates overall cost, to the benefit of GCR
19 customers). But those sales are not of specific PGW purchases. PGW’s purchase
20 of gas on that day, based on prior day determinations of demand, and the sale off-
21 system of gas are not directly connected. However, I do agree with Mr. Mierzwa
22 that if and when PGW purchases natural gas with the intention of reselling it,
23 using the cost of that gas would make sense. PGW would be willing to adopt this
24 convention going forward. Applying it to historical sales would not be

1 appropriate since PGW was using the “WACOG” costing method since the 2020-
 2 21 GCR and no party had previously raised an issue with the methodology.

3

4 **III. LNG SALES**

5 **Q. MR. MIERZWA CLAIMS THAT PGW’S SALE OF LNG IS AN “OFF-
 6 SYSTEM SALE” SINCE IT IS SOLD TO A CUSTOMER NOT SERVED
 7 BY PGW’S DISTRIBUTION SYSTEM (OCA ST. 1SR AT 5). IS HE
 8 CORRECT?**

9 A. No. First, I am informed that there is no such definition of “off-system sale” in
 10 PGW’s tariff; nor has the PUC ever established a definition. Moreover, he is
 11 factually incorrect. As I explained in my rebuttal, these sales are being made
 12 pursuant to PGW’s rate LNG-N (PGW St. 2-R at 5, 7). Physically, the LNG sale
 13 uses (or can use) PGW’s liquefaction, storage, and vaporization facilities, all of
 14 which are part of PGW’s distribution system. The LNG is produced by natural
 15 gas that is delivered into PGW’s system from upstream pipelines, but that
 16 delivery is never charged to the GCR, so the GCR is not burdened with any costs
 17 from these sales. Mr. Mierzwa does not dispute that the demand costs that he
 18 claims should be credited to these sales are fixed costs (1SR at 6, ln. 15); the
 19 LNG-N Tariff specifically states that the LNG-N sales shall cover all of PGW’s
 20 *incremental* costs. Moreover, as fixed costs, they are neither increased nor
 21 decreased by deliveries of gas for liquefaction. The reason for incurring these
 22 demand costs is to insure that PGW will be capable of obtaining the natural gas it
 23 needs to supply customers on peak days and peak seasons. Importantly, if PGW
 24 is ever in a position where it needs that capacity to serve firm customers, those
 25 customers would have first call on PGW’s upstream capacity. The same is true of
 26 the LNG once the natural gas is liquified and stored on PGW’s system. All of the

1 LNG it sells to a third party is excess that PGW has determined will not be needed
 2 to serve firm customers. If that natural gas does turn out to be needed for that
 3 purpose PGW has the right to cancel the sale or declare a *force majeure*. Under
 4 those circumstances I do not believe that crediting the LNG for these fixed costs
 5 makes sense, any more than it would make sense to require that the LNG cost
 6 include a portion of PGW’s gate stations or distribution pipe that is used to deliver
 7 the natural gas that is to be liquified.

8 **Q. DOES PGW INCLUDE FIXED COSTS IN ANY OTHER SALES OF GAS**
 9 **TO OTHER THAN RETAIL CUSTOMERS?**

10 A. No. When PGW sells gas to natural gas suppliers as part of their balancing
 11 charge it calculates the charge on the basis of the cost of gas for that month
 12 without including fixed costs. Similarly, PGW does not include fixed costs in
 13 determining the cost of off system sales, and Mr. Mierzwa has not taken issue
 14 with that aspect of PGW’s cost methodology.

15 **Q. MR. MIERZWA (AGAIN) POINTS OUT THAT THE CREDITING**
 16 **MECHANISM HE IS PROPOSING WAS USED BY PGW FOR LNG**
 17 **TRUCKING SALES MADE PRIOR TO THE IMPLEMENTATION OF**
 18 **RATE LNG-N AND THAT TRUCKING SALES ARE PERMITTED**
 19 **UNDER LNG-N (OCA ST. 1SR AT 7). CAN YOU RESPOND?**

20 A. As he correctly stated, those prior trucking sales were made prior to the existence
 21 of Rate LNG-N. As I have noted, rate LNG-N requires PGW to charge the
 22 “incremental cost” of the sale to the counterparty. If PGW makes any new sales
 23 today it would do so under Rate LNG-N and would not charge the counterparty
 24 any fixed costs, including the GCR demand charge.

25 **IV. HEDGING**

26 **Q. MR. MIERZWA POINTS OUT THAT PGW DID NOT COMMIT TO A**
 27 **SPECIFIC HEDGING PLAN AND DID NOT COMMIT TO USING**

1 **FINANCIAL HEDGING, WHICH HE BELIEVES SHOULD BE**
2 **INCLUDED (OCA ST. 1SR AT 9). CAN YOU COMMENT?**

3 A. PGW does plan to develop a specific hedging strategy in the future. That strategy
4 will include physical hedging. PGW is willing to consider financial hedging but
5 is very concerned about utilizing this tool without specific guidance from the
6 Commission as to what is and is not acceptable and appropriate in terms of types
7 of products and the portion of gas supply that should be hedged using financial
8 products. I would note that neither of the two companies Mr. Mierzwa references
9 as engaging in financial hedging are regulated by the PA PUC and PGW is
10 unaware of the extent to which any other Pennsylvania company uses financial
11 hedging.

12 Finally, I would point out that, as a municipal utility, PGW's gas procurement
13 contracts have to be pre-approved by the Philadelphia Gas Commission and
14 Philadelphia City Council. Any purchase of financial hedging instruments would
15 first have to be approved by those entities and otherwise be consistent with the
16 management authority of PGW.

17 V. **CONCLUSION**

18 Q. **DOES THIS CONCLUDE YOUR TESTIMONY?**

19 A. Yes, it does. I reserve the right to supplement this testimony.

VERIFICATION

I, Ryan E. Reeves, hereby state that: (1) I am the Director of Gas Supply, Transportation and Control for Philadelphia Gas Works (“PGW”); (2) the facts set forth in the foregoing Rejoinder Testimony which I am sponsoring are true and correct to the best of my knowledge, information and belief; and (3) 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).

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Dated

Ryan E. Reeves

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