

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

GREGORY STUNDER

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2020-3017206

Philadelphia Gas Works

General Rate Increase Request

Topics:

Responses To: Mr. Colton, Dr. Hausman and Mr. Rubin

July 13, 2020

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1 **I. INTRODUCTION**

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

3 A. My name is Gregory Stunder. My position with PGW is Vice President, Regulatory and
4 Legislative Affairs.

5 **Q. DID YOU PREVIOUSLY SUBMIT TESTIMONY IN THIS PROCEEDING ON**
6 **BEHALF OF PGW?**

7 A. Yes. I submitted my direct testimony, PGW St. No. 1 on February 28, 2020.

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

9 A. The purpose of my rebuttal testimony is to respond to the testimony of : 1) Office of
10 Consumer Advocate (“OCA”) Witness Roger Colton on residential collectability and the
11 “Customer Responsibility Program” (“CRP”) cost recovery; 2) Sierra Club and Clean Air
12 Council Witness Ezra D. Hausman, Ph.D. on infrastructure planning and a climate
13 business plan; and 3) OCA Witness Scott J. Rubin on granting rate relief during times of
14 economic distress.

15 **Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.**

16 A. Mr. Colton recommends that PGW adjust the amount it recovers for CRP arrearage
17 forgiveness be reduced by a gross write-off percentage reported to the Pennsylvania
18 Public Utility Commission (“PUC” or “Commission”) for low income customers. Mr.
19 Colton incorrectly infers that PGW recovers gross write-off in base rates and incorrectly
20 concludes that PGW is over-recovering for arrearage forgiveness amounts.

21 Dr. Hausman recommends that PGW’s rate increase be denied pending completion of a
22 Climate Business Plan based on the assumption that natural gas distribution systems are
23 not compatible with addressing climate change. This is contrary to the role that natural

1 gas distribution systems have played in reducing emissions and ignores the emerging
2 technologies that can be deployed by natural gas distribution systems in the future to
3 further reduce emissions.

4 Mr. Rubin recommends that during the economic downturn resulting from the COVID-19
5 pandemic, PGW should not be granted rate relief. Mr. Rubin fails to recognize that PGW
6 was granted significant rate relief in 2008 and 2010 during the Great Recession.

7 **II. RESIDENTIAL COLLECTIBILITY AND CRP COST RECOVERY**

8 **Q. WHAT ISSUES HAVE THE PARTIES RAISED REGARDING ADJUSTMENTS**
9 **TO PGW'S CRP ARREARAGE FORGIVENESS?**

10 A. OCA's witness Mr. Colton recommends (OCA St. 5 at 61) that PGW should only recover
11 78.9% of arrearage forgiveness in the Universal Service Surcharge (which recovers the
12 costs of PGW's CRP) because confirmed low income customers have a gross write-off
13 ratio of 21.1%.

14 **Q. DO YOU AGREE WITH MR. COLTON'S POSITION REGARDING THE BAD**
15 **DEBT AND CARRYING COST OFFSETS?**

16 A. No. Mr. Colton ignores the fact that PGW does not recover gross write-offs in base rates.
17 Rather, PGW recovers bad debt expense.¹ Gross write-offs and bad debt expense are
18 vastly different. Additionally, Mr. Colton conflates "bad debt," "write-offs" and
19 "collection factor" (OCA St. 5 at 63).

20 **Q. WHAT ARE GROSS WRITE-OFFS?**

21 A. PGW writes off account balances 90 days after a final bill is issued.

¹ Bad debt expense is shown as "appropriation for uncollectible reserve" in Exhibits JFG-1 (line 6) and JFG-2 (line 7) Statements of Income.

1 **Q. ARE GROSS WRITE-OFFS EVER RECOVERED?**

2 A. Yes. Payments received after an account is written off are write-off “recoveries.”

3 **Q. WHAT ARE NET WRITE-OFFS?**

4 A. Net write-offs are the netting of gross write-offs and write-off recoveries.

5 **Q. WHAT IS A COLLECTION FACTOR?**

6 A. A collection factor is the result of dividing gas revenue cash receipts by gas revenues.

7 **Q. WHAT IS BAD DEBT EXPENSE?**

8 A. Bad debt expense is the amount that is recorded on PGW’s income statement and it
9 represents the annual adjustment needed for the “Reserve for Uncollectible” account on
10 PGW’s balance sheet for accounts receivable. At each fiscal year end, accounts
11 receivable are assessed for collectability and the total Reserve for Uncollectible is
12 calculated.

13 **Q. ARE GROSS WRITE-OFFS AND BAD DEBT EXPENSE DIFFERENT?**

14 A. Yes. Gross write-offs, as described above, are accounts that are written off 90 days after
15 the final bill is issued. Also, as explained above, some of these write-offs are recovered,
16 and when gross write-offs and recoveries are netted, the results are net write-offs. Bad
17 debt expense is entirely different – it is based on an assessment of the collectability of
18 accounts receivable. Additionally, bad debt expense is recovered in base rates and
19 neither gross write-offs nor net write-offs are recovered in base rates.

20 **Q. WHAT IS PGW’S BAD DEBT EXPENSE PERCENTAGE FOR THE MOST**
21 **RECENT THREE HISTORICAL YEARS?**

22 A. The following is the three year historical bad debt expense amounts and percentages:

1

	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>3-Year Avg.</u>
Bad Debt Expense	\$29,983	\$30,826	\$29,992	
Gas Revenues (Gross)	\$694,067	\$659,080	\$618,406	
Bad Debt Expense %	4.32%	4.68%	4.85%	4.62%

2 As can be seen from the data provided above, Mr. Colton incorrectly asserts the write-off
3 percentages reported in the BCS Annual Report on Collection Performance and Universal
4 Service are the same as the bad debt rate or uncollectible rate. Additionally, the BCS
5 Annual Report only provides gross write-offs and does not subtract write-off recoveries,
6 and therefore, even Mr. Colton's write-off percentage is overstated.

7 **Q. DOES PGW OVER-COLLECT FOR ARREARAGE FOREGIVENESS?**

8 A. No. Arrearage forgiveness is recovered from non-CRP participants through the Universal
9 Service Surcharge. These non-CRP customers also contribute to bad debt expense, just
10 like any other customer, therefore, the arrearage forgiveness recovered through the
11 Universal Service Surcharge is not collected at a rate of 100% as Mr. Colton implies.
12 Based on 3-year average bad debt expense, approximately 4.62% of arrearage
13 forgiveness which had been billed to non-CRP customers will not be collectible.

14 **Q. IS MR. COLTON'S RECOMMENDATION JUSTIFIED?**

15 A. No. First, Mr. Colton wrongly claims that PGW recovers 100% of arrearage forgiveness
16 amounts. Second, Mr. Colton wrongly claims that PGW over-recovers 21.1% of all
17 arrearage forgiveness. Third, PGW recovers less than 100% of arrearage forgiveness
18 because the arrearage forgiveness is billed to all firm customers through the Universal

1 Service Charge. Fourth, the 3-year bad debt percentage average of 4.62% means that
2 PGW recovers approximately 95.38%. Finally, the unrecovered amounts of arrearage
3 forgiveness are included in bad debt expense.

4 I would also note that in neither the PUC's original order approving PGW's proposal to
5 provide arrearage forgiveness to CRP customers and to recover the amounts forgiven in
6 its Universal Service Charge, or its most recent Order approving PGW's Universal
7 Service Plan has the PUC ever suggested that PGW's arrearage forgiveness recovery
8 should be reduced by some amount to reflect the contention that, if the dollars had not
9 been forgiven, some portion would never have been recovered from those customers.

10 **III. INFRASTRUCTURE PLANNING AND CLIMATE BUSINESS PLAN**

11 **Q. DR. HAUSMAN ASSERTS THAT PGW'S RATE INCREASE MUST BE DENIED**
12 **PENDING COMPLETION OF A "CLIMATE BUSINESS PLAN" THAT WOULD**
13 **REVISE ITS ACTIVITIES SO AS TO ELIMINATE THE SALE AND/OR**
14 **DISTRIBUTION OF NATURAL GAS. COULD YOU PLEASE RESPOND?**

15 **A.** Yes. The underlying assumption in Dr. Hausman's testimony is that the use of natural
16 gas as an energy source is not compatible with addressing global warming and natural gas
17 distribution companies have no place in an effort to respond to climate change. As far as
18 I know, the PUC has not reached any such conclusions. All of his contentions regarding
19 the alleged unreasonableness of PGW's present pipeline replacement program and other
20 construction and his demand that PGW formulate (and the PUC approve) a "Climate
21 Business Plan" are all premised on the assumption that a determination has been made
22 that PGW as a natural gas distribution company cannot continue to exist if Pennsylvania
23 is going to address climate change. This is not true.

1 In PGW's view, the use of natural gas by homes and businesses in Philadelphia is and
2 should continue to be part of any responsible and cost-effective effort to address climate
3 change.

4 Natural gas has led the reduction in United States greenhouse gas emissions. Moreover,
5 the natural gas delivery system is flexible, reliable, and versatile, and enables increased
6 integration of renewable energy. The use of natural gas, in combination with renewable
7 energy and efficiency, has contributed to US energy-related carbon dioxide emissions
8 declining to the lowest levels in nearly 25 years.²

9 Nationally, while the use of natural gas has grown, carbon dioxide emissions from the
10 residential, commercial and industrial sectors have not changed materially. For example,
11 since 1970, gas utilities have added 30 million more residential customers with virtually
12 no increase in emissions.³ This is because of customer conservation, stronger energy
13 efficiency standards, and the efforts of natural gas distribution companies to promote
14 energy efficiency, such as PGW's energy efficiency programs, which I will discuss more
15 below.

16 In terms of methane emissions, emissions from natural gas distribution systems have
17 declined 73 percent since 1990 even as natural gas distribution companies added more

² American Gas Association, *Climate Change Position Statement*, available at https://www.aga.org/globalassets/aga_climate-change-document_final.pdf.

³ American Gas Association, *An Increase in Safety Leads to a Decrease in Emissions* (2019), available at <https://www.aga.org/globalassets/2019-increase-in-safety-leads-to-a-decrease-in-emissions-v.3.pdf>.

1 than 760,000 miles of pipeline.⁴ A Washington State University study found that as little
2 as 0.1% of natural gas delivered nationwide is emitted from local distribution systems.⁵

3 For PGW, this can be attributed to its commitment to systematically replacing the
4 facilities that are most at risk of leaking and using a sophisticated main replacement
5 prioritization model to identify the facilities that should be removed. These efforts are
6 primarily geared to making PGW's system safer and more reliable. But they also result
7 in the reduction of gas leaks, which in turn reduces methane emissions. It has been
8 reported that, nationwide, 90% of emission reductions from distribution systems since
9 1990 are due to pipeline replacements.⁶

10 Abandoning PGW's natural gas distribution network in favor of greater electricity use
11 would not eliminate the use of carbon-based fuels as some 39.7% of the electricity
12 produced in the PJM region (which serves Pennsylvania) is generated from natural gas.⁷
13 (Notably, as of July 2020, some 22% is also produced from coal).⁸ However, when
14 electricity is transmitted from a central generation source, such as a gas turbine, more
15 natural gas is needed to produce the same BTU of energy for an end use customer than if
16 that customer burned it at his or her home.⁹ The American Gas Association reports that,
17 from the place where it is extracted to its use in a home appliance, natural gas is 91%

⁴ American Gas Association, *Climate Change Position Statement*, available at https://www.aga.org/globalassets/aga_climate-change-document_final.pdf.

⁵ American Gas Association, *An Increase in Safety Leads to a Decrease in Emissions* (2019), available at <https://www.aga.org/globalassets/2019-increase-in-safety-leads-to-a-decrease-in-emissions-v.3.pdf>.

⁶ *Id.*

⁷ During the first three months on 2020, natural gas units provided 39.7% of total generation, https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2020/2020q1-som-pjm.pdf - page 21.

⁸ <https://www.pjm.com/markets-and-operations.aspx>.

⁹ See 2020 AGA Playbook, page 26, available at <http://playbook.aga.org/>.

1 energy efficient and households with natural gas versus all-electric appliances produce
 2 41% less greenhouse gas emissions.¹⁰

3 **Q. ARE THERE OTHER DOWNSIDES TO ELIMINATING PGW’S NATURAL**
 4 **GAS DISTRIBUTION SYSTEM?**

5 A. Yes. Abandoning PGW’s natural gas distribution systems would eliminate the ability to
 6 use this infrastructure to deliver other types of energy such as renewable energy, storage
 7 and the delivery of renewable gases derived from biogenic sources. The gas system’s
 8 ability to integrate high-value sources of energy like renewable natural gas and hydrogen
 9 could become a valuable approach to reaching carbon emission reduction goals.
 10 Additionally, other technologies are also being developed like “power to gas” which can
 11 utilize excess renewable electricity to create renewable hydrogen and renewable natural
 12 gas.

13 Utilizing natural gas as well as other gases with lower carbon footprints could be
 14 especially important in a City such as Philadelphia. Converting PGW’s some 500,000
 15 customers to electric service would be enormously expensive – far out of the reach of
 16 many PGW customers.¹¹

17 Accordingly, Dr. Hausman’s contentions and underlying assumptions are seriously
 18 flawed and should be rejected.

¹⁰ American Gas Association, *An Increase in Safety Leads to a Decrease in Emissions* (2019), available at <https://www.aga.org/globalassets/2019-increase-in-safety-leads-to-a-decrease-in-emissions-v.3.pdf>.

¹¹ PGW is planning a study to assess the whole system costs of conversion.

1 **Q. WHAT TYPE OF PROGRAMS DOES PGW HAVE IN PLACE TO REDUCE**
 2 **EMISSIONS AND WHAT IS IT PLANNING FOR THE FUTURE?**

3 A. PGW is currently doing several things that reduce emissions and is assessing or planning
 4 other ways to reduce emissions in the future.

5 First, PGW has voluntary and robust energy efficiency programs which have been
 6 approved by the Commission. The following is a summary of these programs:

- 7 • Home Comfort Program
 - 8 ○ PGW’s low income usage reduction program weatherized 21,880 low-income
 - 9 customer homes and 22 multi-family buildings (where a majority of the tenants
 - 10 are low-income) at a cost of \$60 million during FY 2011 to FY 2019.
 - 11 ○ On average, low income customers experience a first year 13% usage reduction
 - 12 from pre-weatherization usage.
- 13 • Energy Sense Program
 - 14 ○ PGW has awarded 6,200 rebates and grants to residential, commercial and
 - 15 industrial customers at a PGW cost of \$9.7 million during FY 2011 to FY 2019.
- 16 • Energy Conservation Program Savings
 - 17 ○ The estimated resources saved are 14.9 Bcf of natural gas and 862,000 metric tons
 - 18 of CO₂e over the lifetime of the conservation measures PGW has installed in low
 - 19 income and other properties during FY 2011 to FY 2019.

20 Second, PGW’s cast iron main replacement program, along with its service replacement
 21 program, have decreased methane emissions by 9,500 metric tons since 1991 (which is
 22 equivalent to 238,000 metric tons of CO₂e). Additionally, PGW has recently joined the
 23 U.S. Environmental Protection Agency’s (EPA) Methane Challenge Program by
 24 voluntarily agreeing to the metrics set forth by the EPA for main and service replacement
 25 which are designed to reduce methane emissions.

26 Third, PGW has reduced emissions and/or waste with the following efforts:

- 27 • Installing new technology at its LNG plant in 2005 that has reduced natural gas usage
- 28 in its natural gas liquefaction process by ~90% and significantly reduced criteria
- 29 pollutants
- 30 • Achieving energy reductions for electricity, heating and hot water by installing a
- 31 Combined Heat and Power unit at PGW headquarters

- 1 • Installing Variable Frequency Drives for HVAC systems
- 2 • Compressed Natural Gas fleet vehicles
- 3 • Water and wastewater management
- 4 • Field Operation GPS trip planning
- 5 • LED Retrofits
- 6 • Electronic waste recycling and paper reduction program
- 7 • Becoming a member of the Zero Waste Partnership

8 Fourth, PGW is currently developing a sustainability program and hired its first Director
9 of Sustainability.

10 Fifth, PGW is voluntarily participating in a diversification study which will provide a
11 roadmap for potential business model strategies that have revenue potential, will reduce
12 carbon and maintain PGW's workforce. The study will also review such issues as
13 market/technology feasibility, cost and legal/regulatory feasibility.

14 Sixth, PGW is currently conducting a Greenhouse Gas (GHG) inventory. When
15 completed, the Company will study ways to reduce its inventory.

16 Seventh, PGW is exploring ways to purchase renewable natural gas and/or distribute it on
17 its system.

18 **Q. WHAT WOULD BE THE EFFECT OF THE PUC ACCEPTING DR.**
19 **HAUSMAN'S DEMAND THAT PGW'S RATE INCREASE BE REJECTED?**

20 A. Among other things, it would seriously threaten PGW's ability to continue to engage in
21 these efforts to reduce its carbon emissions. Dr. Hausman's demands would therefore be
22 counterproductive and short sighted.

1 **IV. GRANTING RATE RELIEF DURING TIMES OF ECONOMIC DISTRESS**

2 **Q. HOW DO YOU RESPOND TO MR. RUBIN’S STATEMENT THAT DURING A**
 3 **TIME OF HIGH UNEMPLOYMENT PGW SHOULD NOT SEEK OR BE**
 4 **GRANTED RATE RELIEF?**

5 A. PGW has sought rate relief two times in the recent past, during the Great Recession,
 6 while Philadelphians were experiencing significantly high levels of unemployment.
 7 PGW sought extraordinary rate relief in November 2008 which was granted by the
 8 Commission in the amount of \$60 million. In December 2009, PGW filed for additional
 9 rate relief and the Commission approved the related settlement agreement in July 2010.
 10 In addition to affirming the \$60 million in extraordinary rate relief, the settlement
 11 agreement provided for recovery of \$16 million annually through an OPEB surcharge.
 12 During this time period, unemployment levels were increasing in Philadelphia and
 13 reached 10% in June 2009.¹² These levels were mostly sustained above 10% and
 14 sometimes were above 11% until 2013.¹³ Additionally, clear improvement in the
 15 Philadelphia job market did not occur until 2014.¹⁴

16 **Q. WHAT ARE THE EXPECTED EMPLOYMENT LEVELS DURING THE FULLY**
 17 **PROJECTED FUTURE TEST YEAR (“FPFTY”)?**

18 A. PGW rebuttal witness Gil Peach, Ph.D. has prepared an analysis that unemployment will
 19 gradually decline through 2021, averaging 10% during the FPFTY.¹⁵ It is also important
 20 to note that, on average, 662,486 Philadelphians will still be employed during the FPFTY

¹² U.S. Bureau of Labor Statistics, available at https://data.bls.gov/timeseries/LAUCN421010000000006?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ See the Rebuttal Testimony of Gil Peach, Ph.D., PGW St. No. 11-R.

1 out of a total labor force of 736,298.¹⁶ I would also like to highlight that before the
 2 pandemic, in February 2020, 43,643 Philadelphians were unemployed which means that
 3 the unemployment differential during the FPPTY when compared to February 2020 is, on
 4 average, 30,168 Philadelphians.¹⁷

5 **Q. MR. RUBIN DISCUSSES THE AFFORDABILITY OF PGW’S BILLS AFTER**
 6 **THE PROPOSED RATE INCREASE. WHAT WERE THE AVERAGE ANNUAL**
 7 **RESIDENTIAL HEATING BILLS DURING THE GREAT RECESSION AND ITS**
 8 **AFTERMATH?**

9 A. Both natural gas market prices and average residential heating customer usage were
 10 higher during the Great Recession. When PGW filed for extraordinary rate relief in
 11 November 2008, the average annual bill was approximately \$2,000 and when PGW filed
 12 for rate relief in December 2009, the average annual bill was approximately \$1,600.
 13 Comparatively, after PGW’s proposed rate increase, the average annual bill will be
 14 approximately \$1,328.

15 **Q. WHAT CAN THE COMMISSION CONCLUDE FROM THE FOREGOING?**

16 A. The Commission can conclude that it has judged rate relief requests in the past during
 17 significant economic downturns and has fairly balanced affordability and the need for
 18 rate relief. During the Great Recession, PGW requested \$60 million in extraordinary rate
 19 relief and the Commission granted it. Then, in July 2010, when Philadelphia
 20 unemployment was at 11.2%,¹⁸ the Commission approved a settlement agreement

¹⁶ This information is provided in the electronic workpapers of Dr. Peach which will be provided to the parties on July 13, 2020.

¹⁷ This information is provided in the electronic workpapers of Dr. Peach which will be provided to the parties on July 13, 2020.

¹⁸ U.S. Bureau of Labor Statistics, available at https://data.bls.gov/timeseries/LAUCN421010000000006?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true.

1 affirming the \$60 million extraordinary rate increase and an additional annual recovery of
2 \$16 million through an OPEB surcharge. All the while, the average annual residential
3 heating bills were about \$2,000 in November 2008, \$1,600 in December 2009 and \$1,500
4 in July 2010. In comparison, the average annual residential heating bill noticed in this
5 rate proceeding is \$1,328. It is also important to note that PGW has provided an analysis
6 showing more Philadelphians working during the FPFTY than today. Additionally, on
7 average, the employed Philadelphia workforce will total 662,486 during the FPFTY
8 while the unemployment increase when compared to February 2020 will total 30,168.

9 **V. CONCLUSION**

10 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

11 **A. Yes.**

VERIFICATION

I, Gregory Stunder, hereby state that: (1) I am the Vice President – Regulatory and Legislative Affairs for Philadelphia Gas Works (“PGW”); (2) the facts set forth in my testimony 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).

July 13, 2020

Dated



Gregory Stunder
Vice President – Regulatory and Legislative Affairs
Philadelphia Gas Works