PGW St. No. 3

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

TESTIMONY OF

DANIEL J. HARTMAN

ON BEHALF OF

PHILADELPHIA GAS WORKS

DOCKET No. R-2017-2586783

February 2017

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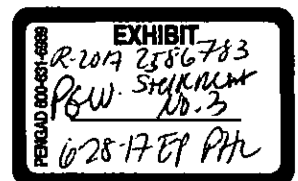


1 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

2 A. Daniel J. Hartman, Managing Director, PFM Financial Advisors LLC, 4350 North
3 Fairfax Road, Arlington, Virginia 22203, (703) 741-0175. I am a financial advisor to
4 state and local governments and authorities.

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

6 A. I am employed by The PFM Group and work in its municipal advisory practice through
7 its subsidiary PFM Financial Advisors LLC ("PFM"). I am a Managing Director and
8 shareholder in the firm.

9 **Q. SUMMARIZE YOUR PROFESSIONAL QUALIFICATIONS.**

10 A. At PFM, I co-lead the national Public Utilities group, which assists our clients on all
11 aspects of capital markets transactions – debt structuring, rating agency and investor
12 communication, and transaction execution. PFM is the nation's largest independent
13 financial advisor to state and local governments and a registered municipal advisor with
14 the SEC and MSRB. PFM is the leading advisor to public utility clients (gas, power,
15 water and sewer) and participates in a greater share of capital markets transactions for
16 public utility clients than any other firm in the municipal capital markets. Prior to re-
17 joining PFM in 2006, I was a Managing Director for Bear Stearns Capital Markets and
18 Citigroup Global Markets, where I provided investment banking and advisory services to
19 utility clients.

20 As the co-head of PFM's public utilities group, I have been involved in over $50
21 billion of debt transactions, many of which are for the largest gas systems throughout the
22 United States. These include advisory roles to the Philadelphia Gas Works (PGW), CPS
23 Energy (San Antonio Electric and Gas), Long Beach (CA) Gas & Oil, and Colorado

1 Springs Utilities. Several billion dollars of these financings have been undertaken to
2 finance gas distribution system improvements and natural gas supply.
3 In addition to my general expertise on public utility capital markets transactions, I
4 have extensive experience working on debt structuring, credit structuring and
5 rating/investor issues for utility systems that have similar characteristics as the PGW's
6 system. PFM has particular expertise in providing advisory services for capital markets
7 transactions and routinely works on several billion of municipal utility financings at any
8 point in time that provide direct interface with rating analysts from the three major rating
9 agencies as well as large institutional investors active in the municipal bond market.

10 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

11 A. I have a Bachelor of Arts degree from the University of North Carolina – Chapel Hill in
12 Economics. I also studied at the London School of Economics.

13 **Q. HAVE YOU EVER TESTIFIED BEFORE ANY REGULATORY AGENCIES OR**
14 **LEGAL PROCEEDINGS?**

15 A. Yes, I have testified before the California Public Utilities Commission on certain matters
16 relating to electric deregulation restructuring and its impact on municipal utilities. I have
17 also been an expert witness in certain public utility bankruptcy proceedings.

18 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

19 A. The purpose my testimony is four fold: 1) to provide an update on PGW's standing in the
20 municipal capital markets and the critical role of maintaining its financial standing with
21 rating agencies and investors; 2) to explain why it is crucial that the Pennsylvania Public
22 Utility Commission (the "Commission") grant PGW's requested rate increase in order to
23 maintain PGW's level of financial performance, such as debt service coverage and
24 liquidity, at necessary levels to ensure access to the municipal capital markets; 3) to

1 identify the financial consequences, both positive and negative, if the Commission
2 approves or does not approve the a substantial portion of the requested rate amount; and
3 4) to explain why it is crucial and necessary for the Commission to consider and approve
4 the actions that PGW is undertaking to fund its future capital improvement program and
5 prior debt obligations.

6 Q. **PLEASE PROVIDE AN OVERVIEW OF KEY FINANCIAL EVENTS FOR PGW**
7 **SINCE THE COMMISSION GRANTED PGW EXTRAORDINARY RATE**
8 **RELIEF IN 2008.**

9 A. PGW has undergone a significant financial and management turnaround in the last
10 several years, particularly since November 2008 when PGW received extraordinary rate
11 relief, which was subsequently made permanent. At the point of the recession and credit
12 crisis in 2008, PGW's finances were near a disastrous position, with ratings teetering on
13 the brink of "junk" status (below Baa3/BBB-) and PGW's access to capital markets all
14 but gone. Only with the clear backing of the Commission in 2008 with the extraordinary
15 rate relief did PGW stave off the potential for an event of default on its debt and the
16 acceleration of certain financial obligations. As has been stated in testimony from PFM
17 previously in 2010, the 2008 extraordinary rate relief effectively saved PGW financially
18 by maintaining its access to the commercial paper market with its commercial paper
19 program and to the fixed rate bond market, as well as the ability to procure credit
20 facilities for its variable rate programs. This Commission action was critical to the
21 stabilization of PGW's finances, allowing PGW to arrest and reverse the deterioration in
22 its financial position.

23 Over the course of the next eight years since the extraordinary rate relief of $60
24 million, the Commission has objectively reviewed and supported a number of rate
25 requests put forward by PGW. These measures have stabilized PGW's finances and

1 afforded PGW the ability the regain its footing in the municipal market, both with respect
2 to procuring necessary credit facilities and to maintaining access in the fixed rate bond
3 market with lower borrowing costs.
4 Critical to the stabilization of PGW's finances were the prior Commission rate
5 actions in July 2010 to make permanent the extraordinary rate relief of $60 million
6 granted in 2008, the 2010 decision (and subsequent actions) that allowed PGW to start
7 funding its significant other post-employment benefit (OPEB) liability, and the 2013
8 implementation of the Distribution System Improvement Charge (DSIC) and subsequent
9 positive actions to increase the funding of its distribution system improvements. These
10 stabilizing actions by the Commission allowed PGW to improve its financial
11 performance and metrics consistent with its "A" rated municipal utility peers. This had
12 simply not been the case in the period of 1995-2008.

13 Q. **WHAT WAS THE RESPONSE FROM THE CAPITAL MARKETS,**
14 **PARTICULARLY BOND INVESTORS AND RATING AGENCIES?**

15 A. Reflecting this stabilization of PGW's finances, the major bond rating agencies of
16 Moody's Investor Service (Moody's), Standard & Poor's Ratings Group (S&P) and Fitch
17 Investor Service (Fitch) have all improved their bond ratings from the precipice of junk
18 status (below Baa3 or BBB-) to at least a couple of rating notches above that mark. In
19 2010, PGW had ratings of Baa2/BBB+/BBB for their senior lien rating, and those have
20 now risen to Baa1/A/BBB+. While still at rating levels below most of their municipal
21 utility peers, the improvement of PGW's bond ratings reflect both the constructive
22 support of the Commission and management's ability to implement its financial plan.
23 Specific to the rating criteria and the rating agency's actions with respect to PGW,
24 the rating agencies have each cited the strong track record of regulatory approval of

1 required rate increases to meet required cost recovery and its bond ordinance rate
2 covenant. Without any question, the current and improving investment grade ratings are
3 predicated on the Commission's careful review of PGW's finances and its appropriate
4 support of PGW rate increases necessary to comply with its legal covenants and to
5 support the credit position of bondholders.

6 Ratings for municipal utilities – which in turn provide access to the capital
7 markets and determine the cost of those borrowed funds – are heavily weighted on the
8 willingness and ability of the governing body to permit the utility to charge rates that
9 cover its costs and maintain its financial stability, particularly since all but a few
10 municipal utilities set their own rates without regulatory oversight from a public utility
11 commission. Thus, in the case of PGW, the application of the municipal utility rating
12 methodology simply shifts this analysis of willingness and ability to raise rates to include
13 the Commission. The rating agencies have repeatedly stated in public reports that the
14 very constructive relationship between PGW and the Commission, and the necessary rate
15 support in the last few years is the most critical factor that has allowed PGW's rating to
16 stabilize and improve to its current bond rating levels.

17 **Q. WHAT WOULD HAPPEN IF THE COMMISSION DID NOT CONTINUE TO**
18 **EVIDENCE ITS SUPPORT FOR PGW?**

19 A. While the Commission's rate support during 2008-2016 has been very constructive in
20 stabilizing PGW's finances, any wavering of the Commission support for PGW's
21 necessary rate increases will be met with a decisively negative reaction. Often in the area
22 of municipal utility ratings, the minute that a governing body fails to objectively review
23 and support a necessary rate increase, credit ratings and access to capital markets quickly
24 deteriorate. Municipal credit ratings are often very slow to rise (as evidenced by the slow

1 recovery of PGW's ratings over the last eight years), but can go down precipitously.
2 Thus, it is critical to assure rating agencies and investors of the long-term commitment to
3 cost recovery and stability of PGW's finances, not just sufficiency for any given year.
4 Bond investors and credit facility providers also react similarly to any failure to
5 support needed rate increases by a governing political or regulatory body. So while PGW
6 has been able to maintain access to, and improve its borrowing costs for, long-term bond
7 transactions in the last few years, as well as maintain access to credit facilities for its
8 variable rate and commercial paper programs, there is certainly no guarantee that the
9 favorable support will continue. And the frequency with which PGW must access the
10 bond market and/or renew its credit facilities emphasize the criticality of maintaining
11 investor and credit provider confidence in the rate setting function of the utility.

12 **Q. HOW HAVE THE PRIOR COMMISSION ACTIONS TRANSLATED TO PGW'S**
13 **FINANCIAL METRICS AND CURRENT FINANCIAL POSITION?**

14 A. As discussed considerably above, PGW maintains a significant amount of risk to its
15 ongoing ability to obtain regulatory approval from the Commission for its requested rate
16 increases. Failure to get approval of requested cost recovery certainly entails much
17 greater scrutiny from investors and rating agencies that financial margins and liquidity
18 will not be maintained. This is particularly true for PGW, as many of its financial metrics,
19 such as days cash on hand, are already fairly modest to begin with, and debt to
20 capitalization ratios already at the high end of the spectrum. Without PGW's ability to
21 secure necessary rate support, this significantly increases the chance of a credit
22 downgrade.
23 While PGW's financial metrics have improved materially in the last five years,
24 they are not at levels that allow much margin of error. One key metric is the debt service

1 coverage ratio, which is net revenues of PGW divided by debt service, a measure of
2 protection that bondholders have to changes in net revenues. PGW's debt service
3 coverage over the last five years has risen to slightly over 2.0x coverage in FY 2016
4 from 1.75x in FY 2012 (and above the minimum 1.50x legal requirement in PGW's bond
5 ordinance), pushing up PGW's bond ratings and outlook along the way. However, the
6 apparent strength of this credit metric is masked by PGW's financial commitment to
7 transfer $18 million of net revenue to the City of Philadelphia General Fund, the
8 obligation to fund PGW's OPEB required annual contribution of $18.5 million, and the
9 $33 million of cash funded annual capital improvement from the dedicated DSIC. These
10 obligations, all of which have been approved by the Commission, effectively usurp much
11 of the current financial margin in the 2.0x coverage ratio, let alone the minimum 1.50x in
12 the legal covenants that the Commission methodology explicitly allows. That is, much of
13 the apparent cushion between the minimum 1.50x coverage and the 2.0x coverage ratio is
14 absorbed by the three continuing obligations listed above. When looking at the core debt
15 coverage and the rating agencies' adjusted coverage metrics, PGW is well below that of
16 its peers at the "A" level and more in line with poorly rated and financially challenged
17 utilities in the lower "BBB" rating levels. PGW's financial forecast now requires at least
18 $70 million to maintain the debt coverage levels that exist today at or just above the 2.0x
19 coverage level. Without that rate support from the Commission, PGW's debt service
20 coverage metric falls rapidly to bare minimum levels of 1.50x and exposes PGW to
21 significant financial difficulties in funding ongoing operations and its capital program,
22 particularly the Commission-supported main replacement program. If a substantial
23 portion of the amount of the requested levels cannot be obtained, it clearly has negative

1 implications for maintaining the same protections for investors moving forward and
2 allowing PGW's bond rating to stay in the same rating category.
3 A second metric that also improved in the past five years, but exhibits the
4 potential weakness, is the amount of leverage (total debt) that PGW maintains. PGW has
5 reduced its total debt in recent years, based on debt to capitalization ratios, with the ratio
6 going from 80% to 75% . The rating agencies have all cited the high debt burden as a
7 limiting factor in the ratings, since a high debt burden minimizes the ability to fund
8 necessary programs, if pay as you go funding (from current operations) is not viable
9 moving forward. In other words, PGW cannot simply keep borrowing an ever increasing
10 amount of dollars if the corresponding rate support is not evident.
11 Assuming PGW receives the requested rate increase, the Company's projections
12 continue to show significant de-leveraging in the system – particularly with the
13 Commission approved cash funding for the distribution system repair and improvement
14 program – and total debt to capitalization is projected to be lowered to 65% by FY 2021.
15 To the extent that a material portion of PGW's requested rates are not received, it will
16 force substantial additional leverage back on the system, quickly reversing the favorable
17 trend and the flexibility that PGW would have obtained moving forward.
18 A third financial metric that has shown improvement for PGW, but remains
19 financially susceptible if approved rates do not provide substantial cost recovery, is its
20 liquidity or days cash on hand. PGW ended FY2016 with actual days cash on hand of
21 $91 million (77 days cash on hand), which is up from $75 million in FY 2012 (54 days
22 cash), but not at rating agency medians for "A" to "AAA" rated municipal utilities (150
23 days cash on hand). Further, for certain rating agency metrics calculations, PGW's

1 commercial paper program provides an additional $75-120 million of liquidity (typically
2 reserved for emergency needs), depending upon the amount drawn for other capital
3 purposes. But at current liquidity levels, there is very little margin of error in PGW's
4 financing plan. Even while the Commission has approved cost recovery in prior rate
5 cases, such as making the extraordinary rate relief permanent, PGW would exhaust its
6 liquidity very quickly without the rate support requested. To the extent that PGW does
7 not get the rate recovery that it is seeking currently, it would immediately put significant
8 pressure on liquidity to cover shortfalls in operations and the capital improvement
9 program. While PGW could shift to additional debt funding to absorb some of the
10 shortfalls, the immediate front line impact is on PGW's liquidity position. At its cash
11 position in the pro forma test year, failure to get approved rates will cause PGW to
12 effectively run out of cash, demonstrated by the negative cash position of PGW in the
13 Forecast Period (the fiscal years FY 2019 through FY 2022), as shown in Exhibit JFG-1.
14 To offset that negative cash flow would require substantial structural changes in PGW's
15 financial plan, which are likely not to be feasible. Given these improving but still
16 susceptible financial metrics, it is highly likely that any failure of the PUC to provide
17 substantial rate support for needed cost recovery would generate troubling rating
18 downgrades for PGW. Each of the rating agencies repeatedly cites the factors that would
19 lead to downgrades, and all three of the rating agencies have identified a less supportive
20 rate regulatory environment as the critical factor that could lead to a credit downgrade or
21 change in credit profile. Further, associated with that less supportive rate regulatory
22 environment are greater leverage, less debt coverage, and reduced liquidity, all of which
23 are expected immediate by-products of a less supportive regulatory environment. It

1 would be hard to imagine that PGW could keep the improvements in its bond ratings to
2 Baa1/A/BBB+ that it has achieved, and would quickly fall back in the "BBB" category
3 near junk status without Commission rate support.

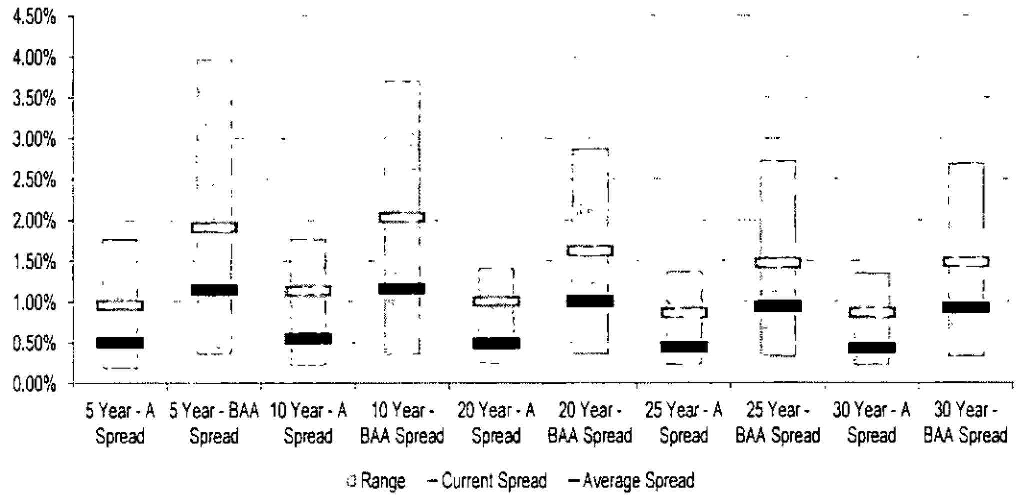
4 **Q. WHAT ARE THE POTENTIAL POSITIVE IMPACTS OF PGW'S ABILITY TO**
5 **GAIN APPROVAL OF ITS FULL REQUESTED RATE INCREASE?**

6 A. The full requested rate increase is needed for the day to day operational needs of PGW
7 and to fund its ongoing capital improvement program, including the cast iron main
8 replacement program. As such, the approval of the requested rate increase ensures
9 funding for the safety and reliability of the system. However, if the rate increase did
10 unexpectedly generate more net revenue for PGW or if PGW was able to capture greater
11 operating efficiencies moving forward, any additional income would stay with the PGW
12 system and be used for system purposes (because PGW does not have shareholders like
13 an investor owned utility (IOU)). PGW may decide to further accelerate the
14 implementation of the main replacement program and/or reduce or delay future rate
15 increases. Additionally, the continuation of Commission support for PGW's financial
16 performance will also preserve the financial metric improvement of the last few years and
17 may allow further improvement in PGW's bond ratings, particularly the Moody's and
18 Fitch ratings at Baa1/BBB+. By demonstrating the ability to consistently achieve the
19 current financial metrics through PGW's forecast period, it may allow PGW to push its
20 bond ratings into the "A" rating category from all of the rating agencies. Certainly, with
21 such potential rating upgrades, PGW could access the municipal capital markets at lower
22 costs for its financing and credit facility needs. Again, such improvements in reducing
23 PGW's financing costs would inure to the full benefit of PGW's ratepayers and its system
24 needs, not to a third party or outside investor.

1 Q. **WHAT ARE THE CONSEQUENCES OF LIMITING OR REDUCING PGW'S**
2 **REQUESTED RATE INCREASE?**

3 A. Without the a substantial cost recovery that PGW is seeking in its current rate case of $70
4 million annually, there would be immediate and substantial consequences to such a
5 regulatory action. These actions may start with rating downgrades of PGW and then
6 impose immediate financial costs to PGW in the form of substantially higher borrowing
7 costs, limited opportunities for PGW to refinance its existing debt costs, the imposition of
8 higher credit facility fees, and potential termination and acceleration of certain financial
9 arrangements.

10 The costs of rating downgrades are certain to ripple across all aspects of PGW's
11 operations, but the most certain and immediate costs will be recognized in its municipal
12 bond offerings to fund PGW's capital improvement program. PGW has identified bond
13 transactions of approximately $450 million over the next four years - $270 million in late
14 FY 2017 and $180 million in FY 2020 - for its capital improvement program. With the
15 expectation that PGW's failure to get positive regulatory rate support now would lead to
16 downgrades across the Board into the "BBB" rating category by all agencies, it is
17 expected that PGW's borrowing costs would rise substantially. The following table
18 effectively shows the impact to the borrowing cost of PGW for its bond transaction with
19 "BBB" category ratings from all agencies, with the assumption that they would average
20 "BBB" for 1998 Bond Ordinance senior lien. Since PGW is expected to borrow over
21 time, it is not clear where interest rates will be at each borrowing, so the graphic
22 effectively shows the expected additional costs based upon both current market and
23 historical credit spreads for all "BBB" ratings vs the current "Baa1/A/BBB+" ratings:
24



Statistic	5 Year - A Spread	5 Year - BAA Spread	10 Year - A Spread	10 Year - BAA Spread	20 Year - A Spread	20 Year - BAA Spread	25 Year - A Spread	25 Year - BAA Spread	30 Year - A Spread	30 Year - BAA Spread
1/13/2017	0.41%	0.72%	0.59%	0.95%	0.63%	0.99%	0.63%	0.99%	0.63%	0.99%
Average	0.65%	1.47%	0.81%	1.56%	0.79%	1.41%	0.74%	1.32%	0.72%	1.30%
Spread to Avg.	-0.24%	-0.75%	-0.22%	-0.61%	-0.16%	-0.42%	-0.11%	-0.33%	-0.09%	-0.31%
Minimum	0.20%	0.34%	0.21%	0.35%	0.23%	0.35%	0.21%	0.32%	0.21%	0.32%
Spread to Min.	0.21%	0.38%	0.38%	0.60%	0.40%	0.64%	0.42%	0.67%	0.42%	0.67%
Maximum	1.78%	3.98%	1.78%	3.72%	1.42%	2.88%	1.38%	2.73%	1.36%	2.70%
Spread to Max.	-1.37%	-3.26%	-1.19%	-2.77%	-0.79%	-1.89%	-0.75%	-1.74%	-0.73%	-1.71%

1. MMD is the benchmark tax-exempt index for long-term debt with the AAA-rated GO MMD index as the key index against which credit spread are measured.

Based upon these current and historical increases in borrowing costs that PGW should expect to result from the inability to get substantial regulatory rate approval, the following table shows the range of gross and present value debt increases over the life of the $450 million planned borrowings.

1

	PGW - Current Rating			PGW - Downgrade to BBB		
Credit Spreads	Average (10-yr History)	Minimum (10-yr History)	Maximum (10-yr History)	Average (10-yr History)	Minimum (10-yr History)	Maximum (10-yr History)
Base Rates	10-yr Average MMD	10-yr Average MMD	10-yr Average MMD	10-yr Average MMD	10-yr Average MMD	10-yr Average MMD
Total Debt Service	$ 679,450,853	$ 655,715,431	$ 718,508,793	$ 711,377,096	$ 660,417,356	$ 831,925,868
PV of Debt Service to August 2017 (4.0%)	$ 432,825,932	$ 417,621,629	$ 457,856,798	$ 453,281,252	$ 420,635,282	$ 530,276,187
All-in TIC	4.07%	3.69%	4.66%	4.55%	3.77%	6.37%

	Difference in Cost if PGW Downgraded		
Credit Spreads	Average (10-yr History)	Minimum (10-yr History)	Maximum (10-yr History)
Base Rates	10-yr Average MMD	10-yr Average MMD	10-yr Average MMD
Total Debt Service	$ 31,926,242	$ 4,701,925	$ 113,417,075
PV of Debt Service to August 2017 (4.0%)	$ 20,455,320	$ 3,013,653	$ 72,419,389
All-in TIC	0.48%	0.08%	1.71%

Note: Assumes bond issues funding projects of $270,000,000 and $180,000,000, respectively, in August 2017 and August 2020. Cost of issuance assumed at $500,000 plus assumed $4/bond underwriter's discount. Assumes base MMD scale of 10-year average AAA MMD, plus credit spreads.

2

3 PGW has also utilized a number of credit facilities historically, including various letters
4 of credit on its variable rate bonds and its commercial paper program. These include the
5 Series 5A-2, Series 8B, Series 8C, Series 8D, and Series 8E, which currently total $152.8
6 million outstanding. PGW has procured five different banks to secure these letters of
7 credit, with an average annual cost of approximately 0.80% on the total principal
8 outstanding. PGW also maintains $120 million in letters of credit for its commercial
9 paper program at a similar cost. More than half of these facilities expire within the next
10 year or eighteen months, and almost all of these agreements have termination clauses and
11 cost escalation clauses should PGW's ratings fall below certain ratings thresholds. To the
12 extent that PGW's credit rating is downgraded to the "BBB" level as a result of the
13 inability to get rate approvals, PGW could face a sizeable problem with these facilities.

1 Not only would the cost go up substantially and exact annual cost increases of over $1
2 million annually to maintain these letters of credit, there is also the possibility that PGW
3 may not be able to extend some or all of these letters of credit. In such a scenario (and
4 noting that the agreements are slightly different), there is the potential for all of the
5 outstanding principal amounts to be accelerated over five years in equal semi-annual
6 installments. These "term out" options would force enormous accelerated debt costs of
7 up to $35 million annually into the next five years, fully eroding PGW's liquidity
8 position. While other financing options may exist to refinance the bonds, it underscores
9 the importance of maintaining stronger investment grade ratings, and the potential for
10 significant problems should PGW's bond ratings be downgraded only a few notches from
11 their existing levels.
12 In addition to the variable rate bond programs maintained by PGW, many of these
13 bonds were issued in coordination with interest rate swap agreements. which at the time
14 of their use, generated substantially lower cost funding for PGW. However, much like
15 the credit facilities that support the variable rate bond programs, these interest rate swaps
16 which total approximately $122.8 million of notional amount, corresponding to the Series
17 8B, Series 8C, Series 8D, and Series 8E Bonds, have events of defaults triggered by
18 PGW related credit events and Assured Guaranty, which insures the swap payments.
19 Each of these interest rate swaps has a termination event if both the swap insurer Assured
20 Guaranty has its ratings falls below A2/A, and PGW's ratings are downgraded below
21 Baa2/BBB. At this current time, Assured's Moody's rating is right at the minimum
22 threshold, potentially leaving the termination event for the swaps only dependent upon
23 PGW's ratings. And clearly, falling below Baa2 or BBB is not a big leap, if PGW's

1 regulatory rate process no longer affords it the substantial cost recovery it needs. As
2 such, like the acceleration of the credit facility amount, a PGW downgrade could lead to
3 the termination of the interest rate swaps, and the current market value requires payment
4 by PGW to its interest rate swap counterparty of $22.74 million as of January 1, 2017.
5 PGW might be able to bond finance that amount; however, at a time of increased
6 leverage, reduced rate support and other accelerated obligations, PGW would face a
7 difficult time trying to come up with the necessary funds to repay the termination value
8 on the interest rate swaps.

9 The credit downgrade would also simply limit PGW's refinancing options moving
10 forward. Whether for simple refinancings of existing debt for debt service savings or
11 related to unforeseen terminations and accelerated principal amortization or termination
12 fees, the access to the municipal capital markets at a rating of "BBB" or below is
13 considerably more difficult, particularly given the negative events for PGW that would be
14 driving such a scenario. As noted several times before, investors' willingness to buy
15 PGW long-term debt is predicated upon the ability of PGW to recover its just and
16 reasonable costs through regulatory rate support, and any doubt cast on that central tenet
17 quickly leads to investors and other credit providers being unwilling to lend more or
18 charging considerably greater cost to do so. That effectively limits PGW from borrowing
19 substantially greater amounts than already outstanding and puts even greater pressure on
20 pay as you go funding from internally generated funds. Thus, there is a very quick
21 negative spiral that stems from a lack of regulatory rate support and lower municipal
22 bond ratings.

1 The failure of Commission rate support for PGW ultimately results in greater
2 increases in costs to PGW ratepayers over the long-term. Failure to get timely cost
3 recovery through the regulatory process is likely to lead to bond credit downgrades that
4 will cause investors and other credit providers to charge significantly higher costs starting
5 immediately and extending over the next 5-10 years. These increased costs will almost
6 certainly compound the issue of rate recovery and require even greater rate support
7 moving forward. Thus, it remains extremely important to maintain the constructive
8 relationship between PGW and the Commission that has existed in the past several years
9 to avoid significant deterioration in PGW's ongoing path to financial stability.

10 **Q. PLEASE SUMMARIZE YOUR TESTIMONY?**

11 A. Notwithstanding the substantial improvement that PGW's finances and its bond rating
12 have shown in the period between FY 2010 – FY 2016, PGW still has limited financial
13 flexibility and its projected financial results for FY 2018, the fully projected future test
14 year (FPFTY), show that PGW requires the requested rate increase in order to maintain
15 its financial metrics at the levels needed to justify its current bond rating.

16 The inability of PGW to obtain necessary rate relief and cost recovery for its
17 operating and capital requirements would cause immediate financial damage to PGW and
18 breach the most critical component of municipal utility rating criteria in the current
19 environment. The likely results of such a scenario with respect to PGW's rate case are
20 substantially greater financing costs due to credit downgrades by the financial
21 community, and the remedy of that is a substantial process that requires long-term
22 positive performance (a by-product of which is larger and more frequent rate increases).
23 The granting of a substantial portion of the requested amount will send a positive signal

1 of support and could help to improve PGW's current bond rating, a move that would save
2 customers tens of millions of dollars over time.
3 Ultimately, it is critical that PGW and the Commission maintain a constructive
4 regulatory process in which appropriate cost recovery approval is maintained. That
5 course of action will result in continued improvement in PGW's credit, maintaining a
6 capital structure that produces the lowest debt service cost to PGW, and minimizing
7 future debt service costs to PGW. This, in turn, will mitigate the size and need of future
8 rate requests, thus maintaining the most just and reasonable rates possible for PGW's
9 customers and ratepayers.

10 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

11 A. Yes.

Exhibit DJH-1

Professional Bio

The PFM Group

DANIEL J. HARTMAN

Role
- Managing Director

Expertise
- Capital Market Transactions
- Public Utility Finance
- Municipal bond ratings
- Capital Planning and Debt Structuring

Education
- BA – Economics, from University of North Carolina – Chapel Hill

PROFESSIONAL BACKGROUND

- Managing Director, Public Financial Management, Inc., 2006 to present
- Managing Director, Bear Stearns Capital Markets, 2005-2006
- Director, Citigroup Global Markets, 1999-2005
- Managing Director, Public Financial Management, Inc., 1991-1999

EDUCATION

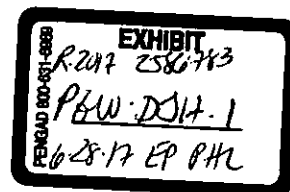
- University of North Carolina – Chapel Hill, BA 1991
- Memphis University School, Memphis, TN

Dan Hartman is a Managing Director in the Washington DC area office. Mr. Hartman worked for PFM from 1990-1999, and rejoined the firm in 2006. Mr. Hartman currently co-heads the firm's national utilities group and works exclusively with utility clients across the country.

Mr. Hartman has served as a financial advisor or senior managing underwriter to many of the largest water, wastewater, gas and public power agencies throughout the United States. These clients have included, among others, DC Water, the Los Angeles Department of Water and Power, Orlando Utilities Commission, the Great Lakes Water Authority, and the San Antonio Water System. For these clients, Mr. Hartman has been directly involved in the issuance of over $50 billion of utility bonds and has worked on some of the largest and most complex transactions in the municipal market.

As part of Mr. Hartman's client engagements, he has managed the development of complex financing plans for large capital programs, led educational workshops with Boards and elected officials, devised and implemented rating and investor strategies for new and existing credits, evaluated and implemented derivative product applications. On behalf of his municipal clients, Mr. Hartman has also provided expert witness testimony to legislative and regulatory bodies.

Mr. Hartman served as a Managing Director with Bear Stearns and Citigroup Global Markets from 1999-2006, where he worked extensively with utility issuers.



PGW St. No. 3-R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF

DANIEL J. HARTMAN

ON BEHALF OF
PHILADELPHIA GAS WORKS

Docket No. R-2017-2586783

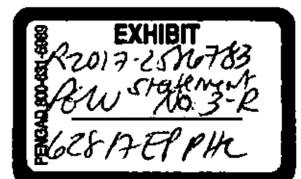
Philadelphia Gas Works

General Rate Increase Request

Topic Addressed:

Financial Metrics

June 9, 2017



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1 Q. **PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.**

2 A. Daniel J. Hartman, Managing Director, PFM Financial Advisors LLC, 4350 North
3 Fairfax Road, Arlington, Virginia 22203, (703) 741-0175. I am a financial advisor to
4 state and local governments and authorities.

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. 3 on February 27, 2017.

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

9 A. The purpose of my rebuttal testimony is to address the alternative metrics that have been
10 put forward by the direct testimony of other parties in this proceeding as the basis for
11 determining PGW's revenue requirement.

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

13 A. My rebuttal testimony addresses the financial metrics claimed by other parties' direct
14 testimony to be adequate for PGW and on which its claim for a $70 million rate increase
15 should be judged. Specifically, my rebuttal testimony refutes the inadequate debt
16 coverage and liquidity levels that have been offered as alternatives to the debt coverage
17 and liquidity levels that the other PGW witnesses and I recommend that PGW should be
18 permitted to attempt to maintain. It appears that the other parties who offer alternative
19 metrics simply back-in to these numbers in order to support lower customer rates.
20 Generally, these parties have not supported their recommendations with adequate regard
21 for the requirements of the municipal capital markets and PGW's financial viability.

22 Q. **PLEASE DISCUSS THE DEVELOPMENT OF THE APPROPRIATE DEBT**
23 **SERVICE COVERAGE BY OCA WITNESS DAVID HABR.**

24 A. The debt service coverage ratio advocated by Dr. Habr simply relies on 5- and 10-year
25 averages of debt service coverage for PGW. Dr. Habr's methodology ignores the

1 changing annual capital improvement program funding requirements, the current balance
2 sheet, and other key financial metrics of PGW, as well as the evolving rating
3 methodology and framework. At no point does Dr. Habr identify the rating level or other
4 key financial metrics that his proposed 1.85x debt coverage ratio is intended to produce.
5 Rather, he appears to back-in to that ratio so as to simply limit the PGW rate increase to
6 an artificially low level.

7 Q. **DO YOU HAVE ANY OTHER OBSERVATIONS TO SUPPORT YOUR**
8 **CONTENTION THAT DR. HABR "BACKED IN" TO THE 1.85 DEBT**
9 **COVERAGE RATIO?**

10 A. Dr. Habr's recommendations do not attempt to achieve any specific financial metrics,
11 whether for debt coverage or other key metrics like days cash on hand and debt to total
12 capitalization or equity percentage. Rather, 1.85x coverage is effectively a minimum
13 amount of coverage for PGW, given the Commission's prior approval of approximately
14 $70 million of annual expenses (payment to City, distribution system improvements, and
15 OPEB payments) that are paid after debt service and therefore included in the numerator
16 of the debt coverage calculation. And when other necessary requirements after debt
17 service lower cash on hand to inappropriately low levels, Dr. Habr responds that these are
18 not significantly different than historical levels. Those historical levels include levels
19 that resulted in credit downgrades to near junk bond status. At 1.85x debt coverage,
20 PGW has no realistic ability to fund additional critical capital improvements, other than
21 the substantial use of additional debt. Shifting such a substantial part of the capital
22 program to debt creates substantial problems in future years that are not addressed by Dr.
23 Habr.

24 Q. **DO YOU AGREE WITH DR. HABR THAT UPGRADES TO PGW BOND**
25 **RATINGS WILL CREATE AN UNDUE BURDEN FOR PGW'S CUSTOMERS?**

1 A. No, I do not. Dr. Habr appears to argue that PGW's claimed $70 million rate increase is
2 designed to raise PGW's bond rating. In fact, in my opinion the rate increase requested is
3 necessary to assure that its present bond rating is maintained. PGW's requested rate
4 increase puts PGW on a path to long-term financial stability, consistent with minimizing
5 customer rates over the next several years. This demonstrated long-term financial
6 stability may lead to rating upgrades into the low "A" rating category by the three rating
7 agencies, but the requested rate increase is still likely to lead to ratings for PGW at the
8 low end of the range for its municipal utility peers.

9 **Q. WHAT ELSE DOES DR. HABR IGNORE IN HIS TESTIMONY?**

10 A. Dr. Habr also fails to recognize that the requested rate increase is necessary to provide
11 debt coverage, as well as to fund a portion of the annual capital improvement program.
12 The requested rate increase by PGW balances the funding of improvements with debt
13 amortizing over the useful lives of the assets financed, with the reality of achieving a
14 sustainable debt to equity ratio.

15 **Q. WHAT EFFECT WILL THE DR. HABR-RECOMMENDED 1.85 DEBT**
16 **SERVICE COVERAGE RATIO HAVE ON PGW'S CREDIT RATING?**

17 A. The lower targeted coverage level will have a decisively negative impact on PGW.
18 While the 1.85x target appears to correlate to a higher credit quality level, most of that
19 coverage is required to address Commission approved annual expenses related to PGW's
20 OPEB liability, the contribution to the City of Philadelphia, and the distribution system.
21 Dr. Habr's reliance on averaging historical coverage ratios does not take account of the
22 increasing annual requirements, approved by the Commission, that must be paid from the
23 excess coverage. The 1.85x debt coverage level produces little excess cash flow
24 annually, and it would force PGW to use too much leverage (additional debt) to fund

1 necessary capital improvements. Such additional leverage – at a time when S&P already
2 cites the current "high system leverage" as a credit challenge – will put substantial stress
3 on the PGW balance sheet. The 1.85x coverage level is simply not consistent with an
4 adequate allowance using the cash flow methodology.

5 **Q. DO YOU AGREE WITH I&E WITNESS MS. MAURER'S DISCUSSION OF**
6 **MOODY'S ASSUMED RATING OF PGW'S BONDS UNDER PRESENT RATES?**

7 A. No, I do not. The transparency of Moody's rating criteria is helpful to assess the ratings
8 of a municipal utility and the impact of certain ratemaking decisions on financial metrics
9 and ratings. However, in the case of Moody's ratings for PGW, it is important to
10 consider that the current Baa1 rating by Moody's already considers financial metrics for
11 PGW (including debt coverage and debt/equity ratio) that are above what is being
12 advocated by Ms. Maurer. Further, the rating analysis must consider projections on the
13 key metrics comprising Moody's criteria – such that lowering cash on hand, increasing
14 leverage and increasing debt service provide a trajectory toward decisively worse
15 financial results, away from the "A" category that is noted for a number of the variables.
16 Ratings are not a snapshot of PGW finances at any one point in time, but rather a
17 dynamic analysis of prior and projected results. And finally, Moody's analysts have
18 significant latitude to adjust the bond rating, based on critical items like management's
19 ability to obtain necessary rate support from the PUC. As I have discussed at
20 considerable length in my direct testimony, the critical component for municipal utility
21 ratings – and what really drives the ratings – is the ability to get support for necessary
22 rate increases. Raising the leverage, and lowering cash on hand, effectively "kicks the
23 can down the road" which will be a decisively negative factor in the Moody's analysts
24 discretionary portion of the PGW rating review.

1 Q. **DO YOU AGREE WITH MS. MAURER'S DISCUSSION OF YOUR CASH ON**
2 **HAND ASSESSMENT?**

3 A. No, I do not. PGW has slowly restored its days cash on hand in the last five years to an
4 appropriate level of around 80-85 days cash on hand, an important element in reversing
5 its credit rating slide and gaining confidence among municipal investors. Ms. Maurer's
6 plan to intentionally lower cash, while increasing the amount of debt and debt service
7 (without ongoing rate support) would likely lower cash on hand moving forward.

8 Q. **WHY DO RATING AGENCIES HAVE A WIDE RANGE OF DAYS CASH ON**
9 **HAND FOR AN "A" RATING?**

10 A. Liquidity is an important component of a utility's balance sheet to protect against
11 unforeseen results. It becomes particularly important for a municipal utility that is not
12 self-regulated and does not approve its own rates. The lower end of Moody's "A"
13 category liquidity range would apply to utilities that have rate increase processes, in
14 which a municipal utility could approve and implement a rate increase in as few as 30
15 days. In the case of PGW, which must obtain PUC approval for rate adjustments over a
16 nine month process, higher liquidity (and closer to the 150 day range of an "A" rating) is
17 certainly necessary to address unforeseen circumstances and be able to pay for such costs
18 on an extended basis.

19 Q. **WHY IS IT IMPORTANT FOR THE COMMISSION TO REJECT MS.**
20 **MAURER'S SUGGESTED CASH RESERVE LEVEL?**

21 A. Any decisive move by the PUC to intentionally target a lower cash reserve level would
22 send a negative message to rating agencies and investors. It is not only important for
23 maintaining the rating and improving credit standing, but it is also important for
24 maintaining PGW's ability to secure credit facilities for its commercial paper program
25 that augments is liquidity position under certain rating agency calculations.

1 **Q. DO YOU AGREE WITH THE RECOMMENDATION OF I&E WITNESS**
2 **MAURER THAT PGW MOVE TOWARD A MORE DEBT-HEAVY CAPITAL**
3 **STRUCTURE?**

4 A. No, I do not. There has been an intentional deleveraging of the PGW balance sheet over
5 the last several years and the current rate increase recommended by PGW maintains a
6 reasonable 50/50 debt equity funding ratio for incremental investment. The clear intent
7 to lower leverage ratios has been a critical component to improvement in the credit rating
8 and the perception of municipal investors – notwithstanding that Standard & Poor's
9 continues to note "high leverage" as a credit weakness – particularly as the pension and
10 OPEB liabilities will be included on the PGW balance sheet moving forward. The
11 Commission's action on the distribution system improvement charge – to pay for funding
12 entirely on a "pay as you go" basis – is an obvious endorsement of PGW's strategy with
13 respect to maintaining a prudent amount of debt and not excessively leveraging the
14 system.

15 **Q. DO YOU AGREE WITH THE ADJUSTMENTS MS. MAURER HAS MADE TO**
16 **ACCOUNT FOR AN INCREASE IN DEBT FINANCING FOR CAPITAL**
17 **EXPENDITURES?**

18 A. Ms. Maurer recommends substantial additional leverage for needed capital improvements
19 at a time when PGW has finally moved the balance sheet closer to an appropriate debt-
20 equity ratio. Ms. Maurer's proposed "adjustment" of the 50/50 funding strategy (to a
21 60% debt, 50% IGF balance) will push PGW's debt-to-equity levels even higher – closer
22 to 95% in the test year. To use almost 100% debt for capital improvements (outside of
23 the distribution system improvements) would be tantamount to a household maxing out a
24 credit card. It can survive in the near-term, but ultimately the increased debt puts too
25 much pressure on the budget and appropriate financial margins cannot be maintained.

1 **Q. DO YOU AGREE WITH MS. MAURER'S PROPOSED DEBT SERVICE**
2 **COVERAGE RATIO?**

3 A. No. Ms. Maurer's debt service coverage ratio is short-sighted and does not generate
4 enough cash to fund critical infrastructure needs over the long-term. This level of debt
5 coverage appears to be a backed-in number, such that it supports a lower rate increase by
6 PGW today, without looking at the impact in the longer-term planning horizon
7 considered by rating analysts and investors. The 1.82x recommendation of Ms. Maurer
8 (and 1.65x including the payment to the City) appears appropriate within the context of
9 rating targets, but it must be considered that the Commission has already effectively
10 approved almost $70 million of cash funded obligations AFTER debt service – payment
11 to the City, OPEB funding, and the distribution system improvements – that take up
12 almost all of the 1.82x coverage. Normally, most of the debt coverage amount is free
13 cash flow, available for any purpose of the utility. To reinforce this view is the
14 adjustment that all rating agencies make for coverage regarding a City payment or
15 transfer (as referenced in the Maurer testimony and coverage targets, as well as the
16 Moody's criteria), because the rating agencies realize the additional amount for the City
17 payment is really not margin. Thus, with a 1.82x coverage target at PGW that has little
18 free cash flow, very critical infrastructure needs must be bond financed over the next
19 several years, resulting in substantially greater leverage and much higher ongoing debt
20 service. Further, the increased use of debt really has no funding source moving forward,
21 and thus will start to lower the debt coverage and effectively "cannibalize" much of the
22 ability to fund necessary capital improvements out of "pay as you go" funds or the
23 funding source to pay additional debt service. Finally, a 1.82x coverage, which produces
24 only enough to cover debt service and remaining cash items leaves the Company with no

1 cushion to handle unforeseen events such as extremely warm weather (that would not be
2 protected by the WNA) or other unforeseen major events. As such, the 1.82x proposed
3 coverage ratio is not appropriate in the context of PGW's specific financials.

4 **Q. ARE YOU FAMILIAR WITH THE TESTIMONY OF OSBA WITNESS ROBERT**
5 **KNECHT?**

6 A. Yes, I am.

7 **Q. DO YOU AGREE WITH MR. KNECHT'S ASSERTION THAT ONE WAY FOR**
8 **THE COMMISSION TO ENSURE THAT CONTRIBUTIONS BY RATEPAYERS**
9 **BENEFIT RATEPAYERS AND NOT OTHER PARTIES IS TO "STARVE THE**
10 **BEAST?"**

11 A. I strongly disagree with that approach. The concept of "keeping rate increases to the bare
12 minimum necessary to avoid a financial crisis" is not a prudent strategy for the financial
13 management of an essential service utility, especially one that is municipally owned and
14 regulated on the "Cash Flow" basis, where the firm only receives from ratepayers the
15 cash it actually needs to run the business. Rather, that strategy would recklessly put
16 PGW's financial standing on the brink of disaster, with the potential to trigger financial
17 consequences and acceleration of costs that would put an enormous burden on current
18 PGW ratepayers.

19 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

20 A. Yes.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission	:	R-2017-2586783
Office of Consumer Advocate	:	C-2017-2592092
Office of Small Business Advocate	:	C-2017-2593497
Philadelphia Industrial & Commercial	:	
Gas Users Group	:	C-2017-2595147
William Dingfelder	:	C-2017-2593903
	:	
v.	:	
	:	
Philadelphia Gas Works	:	

VERIFIED STATEMENT

I, Daniel J. Hartman, hereby state that the facts set forth below are true and correct to the best of my knowledge, information and belief and I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

1. I have submitted testimony in this proceeding on behalf of Philadelphia Gas Works and am authorized to make this statement on its behalf.

2. I prepared PGW St. No. 3 which includes Exhibit DJH-1 and was served on the parties in this proceeding on February 27, 2017.

3. I have a correction to PGW St. No. 3. Table 13 on page 13, lines 1-2 contained incorrect values in the minimum credit spread columns that have been corrected.

4. I prepared PGW St. No. 3-R which was served on the parties in this proceeding on June 9, 2017.

5. Subject to the above-referenced correction, if I were asked the same questions set forth in each of these statements today, my answers would be the same.

Date: June 26, 2017

Daniel J. Hartman

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