

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
 :
 v. : Docket No. R-2020-3017206
 :
 Philadelphia Gas Works :

SURREBUTTAL TESTIMONY OF
DR. DAVID S. HABR
ON BEHALF OF THE
OFFICE OF CONSUMER ADVOCATE

July 24, 2020

1 **Q: Please state your name and business address.**

2 A: David S. Habr, 213 Cornuta Way, Nipomo, CA.

3 **Q: Are you the same David S. Habr who previously filed direct testimony in this**
4 **proceeding?**

5 A: Yes, I am.

6 **Q: What is the purpose of your surrebuttal testimony?**

7 A: I will respond to certain comments concerning my direct testimony in the rebuttal
8 testimonies of Messrs. Golden, Hartman, and Walker. Specifically, I address their
9 opinion of the potential impact of my recommended 1.88x debt service coverage
10 ratio and other financial metrics on PGW's bond rating plus I'll make a few
11 observations related to my recommended \$30 million reduction in construction
12 expenditures and cost effectiveness of Paygo versus long-term debt issuances.

13 **Q: Have you prepared any exhibits to accompany your surrebuttal testimony?**

14 A: Yes, I have prepared OCA Exhibits DSH-1SR – DSH- 4SR to accompany my
15 surrebuttal testimony. A brief description of each exhibit follows:

16 DSH-1-SR – “Ratings Methodology – Municipal Utility Debt.”

17 DSH-2-SR – PGW Moody's Financial Strength Analysis.

18 DSH-3-SR – PGW Moody's System Characteristics Analysis.

19 DSH-4-SR – PGW June 2020 Financial Report.

20 DSH-5-SR –OCA Response to PGW Set I, number 13.

21 **Q: How do Messrs. Golden, Hartman, and Walker view the impact of your 1.88x**
22 **debt service coverage ratio on PGW's bond rating?**

1 A: They view it negatively. Mr. Golden opines that my opinion, “if adopted, would
2 weaken PGW’s financial health and would not provide adequate cash for PGW to
3 pay its bills.”¹ Mr. Hartman’s opinion is similar. He observes that the
4 “recommended metrics [financial], particularly from OCA and OSBA, are
5 extremely near-sighted suggestions that will cause a material deterioration in
6 PGW’s financial condition and result in negative rating actions and more limited
7 access to the capital markets.”² Finally, Mr. Walker, in answer to the question, “Is
8 there evidence that OCA is desirous of lowering PGW’s bond rating,” Mr. Walker
9 responded “Yes.”³

10 **Q: Is it your desire to lower PGW’s bond rating?**

11 A: That is not my desire.

12 **Q: Would your 1.88x debt service coverage ratio and 73.5 days of cash lead to
13 Moody’s A3 rating being lowered?**

14 A: No. To check, I used the Financial Strength section of Moody’s Municipal Utility
15 Revenue Bond Scorecard (See Exhibit DSH-1-SR, page 19) to see what the
16 Financial Strength bond rating would be using my 1.88x debt service coverage
17 ratio and the 73.5 days of cash. Moody’s uses the debt to operating revenue rather
18 than the debt to total capital ratio in its Financial Strength section. Based on OCA
19 Exhibits MEG-1 and MEG-4, PGW’s debt to operating revenue ratio is 1.69.

20 **Q: What were the results of this analysis?**

¹ PGW St. No. 2-R, p. 26, lines 13-14.

² PGW St. No. 3-R, p. 3, lines 13-15.

³ PGW St. No. 4-R, p. 9, lines 12-14.

1 A: The weighted score using OCA's values for these three items is 2.24. (See Exhibit
2 DSH-2-SR.) That score is in the Aa3 bond rating range, one whole level above
3 PGW's A3 current Moody's rating. This score would not pull PGW's overall
4 rating below A3.

5 **Q: Did you examine any of the other areas on the Utility Revenue Bond**
6 **Scorecard?**

7 A: Yes. I calculated a weighted score for the System Characteristics. Information for
8 two of the three System Characteristics is included in OCA Exhibits MEG-1 and
9 MEG-4. Median household income data was obtained from the US Census via the
10 St. Louis Federal Reserve Bank.

11 **Q: And what were the results of this analysis?**

12 A: The results are similar to the Financial Strength results. (See Exhibit DSH-3-SR.)
13 The weighted score for the three items making up this section, 2.42, is also in the
14 Aa3 bond rating range and would not pull down PGW's current A3 rating.

15 **Q: Did you examine any of the other categories on the Utility Revenue Bond**
16 **Score Card?**

17 A: No, I did not have the information needed to complete the Management and Legal
18 Provisions sections.

19 **Q: Based on this analysis, do you believe that full implementation of OCA's**
20 **recommendations would cause a reduction in PGW's current A3 Moody's**
21 **rating?**

22 A: Based on that analysis, I do not.

1 **Q: Turning now to your proposed \$30 million reduction in construction**
2 **expenditures, do you agree with Mr. Golden’s statement at PGW St. No. 2-R,**
3 **page 26 beginning at line 19 that “Arbitrarily stopping construction by an**
4 **arbitrary value is not prudent?”**

5 A: No, I do not. Reducing a proposed price increase by delaying \$30 million of
6 proposed customer funded construction expenditures during a pandemic induced
7 recession is quite prudent from the customers’ point of view. This is not the time
8 to treat PGW’s proposed construction expenditures as if they were set in stone.

9 **Q: How should PGW identify which project(s) to delay?**

10 A: PGW should chose projects and/or portions of projects whose delay is least
11 disruptive to the overall process.

12 **Q: Do PGW’s proposed construction expenditures always match their actual**
13 **construction expenditures?**

14 A: No, they do not. PGW’s June 2020 Financial Report shows a \$41 million
15 difference (less) between budgeted and actual capital expenditures. (See Exhibit
16 DSH-4-SR, page 9.)

17 **Q: Moving to Mr. Golden’s discussion of Paygo versus debt financing, do you**
18 **agree with Mr. Golden’s statement at PGW St. No. 2-R, page 18, lines 8-9,**
19 **that “customers will pay more overall when PGW finances its capital via the**
20 **issuance of long-term debt, rather than from [internally generated funds]**
21 **(IGF)?”**

1 A: No, I do not. I was asked the following question in PGW’s Interrogatory Set I:
2 “Refer to OCA Statement 3 – Page 9, Lines 7-20. Please provide an analysis that
3 compares the cost of Paygo Financing for an annual \$100M capital expenditure vs.
4 financing that same amount annually with a series of bond issuances with a cost of
5 debt of 3.3%, taking into account PGW’s 1.5 times coverage requirement. Please
6 show this for 10 years of bond financing verses Paygo financing and show the
7 total cost to customers for a 30 year period starting in FY 2021.”

8 The analysis I performed is presented in Exhibit DSH-5-SR. The results
9 show Paygo having a slightly higher cost than debt financing.

10 **Q: Does this conclude your surrebuttal testimony?**

11 A: Yes it does.

12

RATING METHODOLOGY US Municipal Utility Revenue Debt

This rating methodology replaces "US Municipal Utility Revenue Debt", last revised on December 15, 2014. We have updated some outdated links and removed certain issuer-specific information.

Table of Contents:

SUMMARY	1
FACTOR 1: SYSTEM CHARACTERISTICS (30%)	7
FACTOR 2: FINANCIAL STRENGTH (40%)	10
FACTOR 3: MANAGEMENT (20%)	13
FACTOR 4: LEGAL PROVISIONS (10%)	15
APPENDIX: MUNICIPAL UTILITY REVENUE BOND SCORECARD	19
MOODY'S RELATED PUBLICATIONS	22

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Summary

This methodology explains how we evaluate the credit quality of essential service US municipal utility revenue bonds. The approach described in this methodology applies to six basic categories of municipal utilities: water distribution, gas distribution, electric distribution, sanitary sewerage, stormwater disposal, and solid waste disposal.¹

The primary factors that drive our credit analysis for these types of utilities are the size and health of the system and its service area, the financial strength of its operations, the legal provisions governing its management, and the strength of its rate management and regulatory compliance.

We intend for this methodology to help investors, municipalities, utilities, and other interested market participants understand how key quantitative and qualitative risk factors are likely to affect ratings in the municipal utility sector. This document does not offer an exhaustive treatment of all factors that are reflected in our ratings, but should enable the reader to understand the considerations that are usually most important for ratings in this sector. While reflecting many of the same core principles that we have used in assigning ratings to this sector, this methodology uses a scorecard that quantifies several factors that we previously evaluated in qualitative ways.

The purpose of the scorecard is to provide a reference tool that market participants can use to approximate most credit profiles within the US municipal utility sector. The scorecard provides summarized guidance for the factors that we generally consider most important in assigning ratings to these issuers. However, the scorecard is a summary that does not include every rating consideration. The weights the scorecard shows for each factor represent an approximation of their importance for rating decisions. In addition, the scorecard was built based on historical results, while our ratings are based on forward-looking expectations. As a result, we would not expect the scorecard-indicated outcome to match the actual rating in every case.

THIS RATING METHODOLOGY WAS UPDATED ON OCTOBER 10, 2019. WE HAVE UPDATED SOME OUTDATED REFERENCES AND ALSO MADE SOME MINOR FORMATTING CHANGES.

¹ Different methodologies are used to assign ratings to municipal utility districts, global regulated water utilities, regulated electric and gas utilities, electric generation and transmission cooperatives, and waste to energy projects. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Introduction

This methodology covers debt secured by the revenues generated by US municipal utilities providing monopolistic services essential to public health and functional economies.

The security for a municipal utility revenue bond is typically defined in a bond resolution or a trust indenture, which acts as a contract between the utility and its bondholders. The resolution or indenture most often identifies the bond's security as a lien on the net revenues of the system after the payment of regular operating and maintenance expenses.

The sector is varied and fragmented. US municipal utilities provide many different services whose rates or fees can secure debt. The utilities mostly fall into one or more of six basic categories:

- 1) **Water utilities** take water from the ground, a river, a lake, or in special cases the ocean, treat it to a potable standard, and distribute it to customers for drinking, cleaning, and commercial, industrial, or agricultural uses. These utilities can be involved in any or all of the functions of water supply: water treatment, long-distance transmission, and retail water distribution. Some water utilities have no treatment capacity and purchase potable water wholesale.
- 2) **Gas utilities** take natural gas from a wholesale² pipeline, odorize it for safety detection, and pressurize it and deliver it to customers through a pipe network for uses such as heating, cooking, or commercial and industrial applications. Some municipal gas systems may encompass their own natural gas supplies.
- 3) **Electric utilities** purchase electricity³ from wholesale suppliers and deliver it to residential, commercial, and industrial customers for a wide range of power uses.
- 4) **Sanitary sewer** utilities collect and treat wastewater, discharging it into a waterway or injecting it underground, and landfilling or incinerating the residual sludge. Some sewer utilities with no treatment capacity gather wastewater and transmit it to another utility that treats it.
- 5) **Stormwater** utilities collect and treat rainwater before discharging it into a body of water such as an ocean or a river. While every city or county addresses stormwater drainage as an integral element of its streets and highways, the stormwater systems that require capital markets financing are typically large in scale and are necessary to avert flooding from heavy seasonal rainfall in hilly areas.
- 6) **Solid waste** utilities collect residential or commercial refuse and dispose of it through landfills, waste-to-energy plants, or other waste-disposal processes. A solid waste system can be complete or collection-only, relying on another municipal or private entity for long-haul removal and disposal through landfill or incineration.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moody.com for the most updated credit rating action information and rating history.

² This methodology covers gas distribution utilities. These utilities purchase their supply from providers covered under the regulated electric and gas utilities methodology, or other providers. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

³ Only those municipal electric utilities that generate less than 20% of their own power are covered by this methodology. We rate electric generation utilities under different methodologies. For information, see our methodology that describes general principles related to US public power electric utilities with generation ownership exposure and also our methodology that describes general principles related to US municipal joint action agencies. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Defining the municipal utility universe

This methodology covers essential-service utilities that operate as departments, boards, or independent authorities of US states or local governments.

States and subdivisions of states, such as counties and cities, often issue bonds secured by the net revenues generated by a system operated directly under their auspices, such as a city water department. Other times, states or state subdivisions create an independent authority or special purpose district that operates the system and issues the bonds. This distinction is usually unimportant for rating purposes, although in some cases a separate authority has beneficial management expertise.

This methodology focuses on revenue bonds for essential-service functions. Other types of public utilities issue bonds backed by revenues charged for services such as telephone, cable television, or parking. These services are typically competitive and subject to greater elasticity in pricing and utilization. Bonds secured by revenues generated by these services are not rated under this methodology. Also not rated under this methodology are utility revenue bonds whose rating is ultimately based on a General Obligation guaranty. Lastly, the electric utilities covered under this methodology are typically retail distributors of electricity mostly generated elsewhere. Electric generation utilities, municipal waste-to-energy facilities, and US municipal joint action agencies are rated under separate methodologies.⁴

The credit quality of essential-service utility revenue bonds is generally strong. Its numerous fundamental strengths include:

- 1) The provision of essential services, usually in a government-protected monopoly
- 2) Typically unregulated and independent rate-setting authority
- 3) The ability to discontinue service to delinquent accounts and in many cases to put a lien on the property for nonpayment
- 4) Utility cost burdens that are typically low relative to household income and to tax burdens
- 5) A generally strong federal and state regulatory framework that is designed to keep utilities functioning in order to protect public health and achieve environmental goals
- 6) A "special revenue" designation that may insulate a utility from a parent's bankruptcy

The Relationship Between General Obligation (GO) and Utility Revenue Bond Ratings

A municipality's GO credit quality may directly affect the strength of its associated utility systems. This section outlines the broad principles that apply when assessing the credit linkages between a municipality's GO and utility debt. These broad principles are meant to enhance transparency around our view of the relationship between related ratings and explain why, in most cases, the ratings of GO and associated utility revenue debt are and will remain relatively close.

Municipal utility debt is generally exposed to similar credit strengths and pressures as the GO and can thus expect to experience simultaneous credit improvement or deterioration. Examples of credit linkages between the GO and utility debt include:

- » Economy: Utility systems usually rely on a coterminous or overlapping economic base and service area.

⁴ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

- » Legal structure: Utility bond indentures sometimes contain events of default tied to the bankruptcy or insolvency of the general government.
- » Finances and Debt: Cash can often flow between the two entities, sometimes with a formal funding mechanism. Debt and other long-term liabilities are often paid by the same group of constituents. GO and utility issuers may also be exposed to the same pension plan.
- » Management and Governance: Management of the city and the utility may be the same or have close ties. For instance, city management may appoint the board of the utility or have the power to affect enterprise rates.
- » Capital Markets: The GO and the utility issuer may need to access the same capital markets for funding.

Because of these linkages, in most cases, ratings of a municipality's utility debt will typically be within two notches of its GO rating.

There are, however, cases where a utility's credit strength may be sufficiently independent from its associated GO rating to justify a larger notching difference. We expect these cases to be rare, and they would likely include several of the following characteristics:

- » An unusually weak GO rating which is driven by idiosyncratic factors less relevant to the utility's credit strength.
- » A non-coterminous service area, so that utility revenues are derived from a larger and more diversified base.
- » A closed loop flow of funds, wherein the GO issuer is unable to access utility revenues.
- » A strict separation of accounts and assets.
- » The absence of rating triggers tied to the GO credit quality in utility financings.
- » Separation of management and governance.

Conversely, a utility rating more than two notches below its associated GO generally has one or more of the following characteristics:

- » An unusually weak utility rating which is driven by factors less relevant to the general government's credit strength.
- » A utility service that is narrower and less diverse than the municipality as a whole.
- » A lack of expectation that the general government would transfer funds to assist a utility experiencing financial distress.
- » A strict separation of accounts and assets.
- » The absence of rating triggers tied to the utility credit quality in GO financings.
- » Separation of management and governance.

Essential service revenue bonds in bankruptcy

An important property of public utility revenue bonds is that they enjoy a potential moat from a general government's bankruptcy. Under Chapter 9 of the US bankruptcy code, a lien on "special revenue" bonds remains valid and enforceable even if the issuer is granted bankruptcy protection.

The potential survival through bankruptcy of a lien on the net revenues of a utility system is a key strength. When a debtor is granted bankruptcy protection, its unsecured assets are subject to an automatic stay, which freezes outflows unless approved by the bankruptcy judge. An asset secured by a lien that is not subject to the automatic stay enjoys a credit advantage over a related General Obligation credit that is subject to the stay.

Further, a special revenue bond is less susceptible to adjustment in bankruptcy if its lien leads to an interpretation of the bonds as enjoying secured status.

Although the bankruptcy code establishes these strengths of a special revenue bond, Chapter 9 remains largely untested. Case law offers few precedents, and only a handful of examples to support the assertion that a special revenue designation protects revenue bonds in bankruptcy.

The political reality is that utility systems are often major cash-generating assets that other stakeholders frequently would like to bring into bankruptcy negotiations. Moreover, bankruptcy judges in some cases have allowed the cash flows generated by special revenue systems to pay the legal costs of related parents in bankruptcy.

It is premature to conclude that utility revenue bonds are completely insulated from Chapter 9 bankruptcies, and the risks and costs of a general government bankruptcy remain considerable.

The Scorecard

The municipal utility scorecard (see Exhibit 1) is a tool providing a composite score of a utility's credit profile based on the weighted factors we consider most important, universal and measurable, as well as possible notching factors dependent on individual credit strengths and weaknesses. The scorecard is designed to enhance the transparency of our approach by identifying critical factors as a starting point for analysis, along with additional considerations that may affect the final rating assignment.

The scorecard is not a calculator. Its purpose is not to determine the final rating, but rather to provide a standard platform from which to begin viewing and comparing municipal utility credits. It, therefore, acts as a starting point for a more thorough and detailed analysis.

The scorecard-indicated outcome will not match the actual rating in every case, for a number of reasons including the following:

- » Our methodology considers forward-looking expectations that may not be captured in historical data.
- » The scorecard is a summary that does not include every rating consideration.
- » In some circumstances, the importance of one factor may escalate and transcend its prescribed weight in this methodology.

EXHIBIT 1

Municipal Utility Scorecard Factors

Broad Scorecard Factors	Factor Weighting	Subfactors	Subfactor Weighting
System Characteristics	30%	Asset Condition (Remaining Useful Life)	10%
		Service Area Wealth (Median Family Income)	12.5%
		System Size (O&M)	7.5%
Financial Strength	40%	Annual Debt Service Coverage	15%
		Days Cash on Hand	15%
		Debt to Operating Revenues	10%
Management	20%	Rate Management	10%
		Regulatory Compliance and Capital Planning	10%
Legal Provisions	10%	Rate Covenant	5%
		Debt Service Reserve Requirement	5%
Total	100%	Total	100%

We intentionally limited our scorecard metrics to major rating drivers that are common to most issuers. Outside of these drivers, we may adjust the scorecard score for a variety of "below-the-line" adjustments, which are more idiosyncratic factors that are likely not to apply to all issuers, but that can impact credit strength. The scorecard score is the result of the "above-the-line" score based quantitatively on the above-the-line factors, combined with any "below-the-line" notching adjustments. The scorecard score is a guideline for discussion, but does not determine the final rating. The rating is determined by a rating committee, which considers, but is not bound by, the scorecard score.

Discussion of Scorecard Factors

To arrive at a scorecard-indicated outcome, we begin by assigning a score for each subfactor. We have chosen measures that act as proxies for a variety of different service area characteristics, financial conditions, and governance behaviors that can otherwise be difficult to measure objectively and consistently. Based on the scores and weights for each subfactor, a preliminary score is produced that translates to a given rating level.

We may then move the score up or down a certain number of rating notches based on additional “below-the-line” factors that we believe impact a particular utility’s credit quality in ways not captured by the statistical portion of the scorecard. This is where analytical judgment comes into play. We may also choose to make adjustments to the historical inputs to reflect our forward-looking views of how these statistics may change.

The scorecard score, combined with below-the-line notching, then provides an adjusted score. This adjusted score is not necessarily the final rating. Because some utilities’ credit profiles are idiosyncratic, one factor, regardless of its scorecard weight, can overwhelm other factors, and other considerations may prompt us to consider final ratings that differ from the scorecard-indicated outcome.

Below, we discuss each factor and subfactor, as well as the below-the-line adjustments and other considerations that we analyze within each category of this methodology.

Factor 1: System Characteristics (30%)

EXHIBIT 2

System Characteristics (30%)

		Aaa	Aa	A	Baa	Ba	B and Below
Asset Condition (10%)	Net Fixed Assets/Annual Depreciation :	> 75 years	75 years ≥ n > 25 years	25 years ≥ n > 12 years	12 years ≥ n > 9 years	9 Years ≥ n > 6 Years	≤ 6 Years
System Size (7.5%)	Water and/or sewer / Solid Waste:	O&M > \$65M	\$65M ≥ O&M > \$30M	\$30M ≥ O&M > \$10M	\$10M ≥ O&M > \$3M	\$3M ≥ O&M > \$1M	O&M ≤ \$1M
	Stormwater:	O&M > \$30M	\$30M ≥ O&M > \$15M	\$15M ≥ O&M > \$8M	\$8M ≥ O&M > \$2M	\$2M ≥ O&M > \$750K	O&M ≤ \$750K
	Gas or Electric:	O&M > \$100M	\$100M ≥ O&M > \$50M	\$50M ≥ O&M > \$20M	\$20M ≥ O&M > \$8M	\$8M ≥ O&M > \$3M	O&M ≤ \$3M
Service Area Wealth (12.5%)		> 150% of US median	150% ≥ US median > 90%	90% ≥ US median > 75%	75% ≥ US median > 50%	50% ≥ US median > 40%	≤ 40% of US median

Why it matters

This factor on the scorecard measures a utility’s capacity to fund its operations and capital needs based on the health of its capital assets, the size and diversity of its operations, and the strength and resources of its service base.

The scope of this factor is broad. Each of the subfactors contributes to an analysis of what magnitude of expenditures is necessary to keep the system functioning, and how large, diverse, and flexible the available resources are to meet those expenditures.

Subfactor 1a: Asset condition (10%)

Input: Net fixed assets divided by most recent year's depreciation, expressed in years

The condition of a utility's capital assets determines its ability to comply with environmental regulations and continue delivering adequate service with existing resources.

Depreciation is an accounting concept that acts as a proxy for the rate at which a utility's plant and equipment are aging. Central to our analysis of capital adequacy is an assessment of how utilities "fund depreciation," meaning make capital replacements and repairs to address aging plant and equipment.

The consequences of failing to fund depreciation can be costly. Implicit in this measure is the concept of deferred capital investment. Utilities that delay investing in their systems, replacing aging plant and equipment, and modernizing their facilities often find it more expensive to do so later. Capital investments are ordinarily more expensive when deferred.

Further, systems whose facilities deteriorate often run afoul of environmental regulations. The failure to fund depreciation, which will manifest as a declining useful remaining life, can lead to sewage overflows, inflow and infiltration problems, or non-compliant wastewater discharges, resulting in civil fines, litigation, or regulatory consent decrees. These are usually more expensive than funding depreciation through a prudent multi-year capital plan that replaces assets as they deteriorate or break down.

The inherent differences between types of utilities are manifested in their component parts, which can have very different useful lives. Because a solid waste utility is largely automotive-based, with collection vehicles and earthmoving equipment at the landfill, the useful life of its assets will be well under 20 years, compared to a water utility whose distribution mains and reservoir have useful lives of 40 to 100 years. We generally acknowledge and address these differences below the line.

For utilities whose asset condition ratios are not determinable, such as utilities that utilize cash accounting and do not report net fixed assets or depreciation, we are likely to assess the sufficiency of capital assets based on other available information.

Subfactor 1b: Service area wealth (12.5%)

Input: Median family income of the service area, expressed as a percentage of the US median

Most of the costs of operating a utility and maintaining its capital assets are borne by ratepayers. The income of the residents of the service base conveys the capacity of its ratepayers to bear higher rates to fund operations and capital upgrades. The median family income breakpoints in this scorecard are aligned with the ones in our US local government general obligation debt methodology.⁵

Utilities that serve lower-income ratepayers may have more difficulty implementing higher rates, if utility costs consume a considerable share of residents' budgets. The US Environmental Protection Agency (EPA) considers wastewater costs exceeding 2% of median household income to be a heavy burden, for example, a threshold that would be reached more quickly for a utility serving lower-income ratepayers.

We believe MFI is the best proxy for the wealth of a service base, but other indicators such as the poverty rate, unemployment, home foreclosures, per capita income, and median home value supplement our analysis of ratepayer capacity.

⁵ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Subfactor 1c: System size (7.5%)

Input: Most recent year operations and maintenance expenditures, expressed in dollars

Larger systems tend to be more diverse and enjoy economies of scale. The size of a system implies the flexibility and resilience not only of its operations, but also of its service base.

Small systems present a number of risks. They are less likely to have redundancies, which allow a system to shut down some of its operations in an emergency or to make repairs without interrupting service. Small standalone water or sewer systems will typically depend upon a single supply of water or a single sewage treatment plant. They are more likely to be exposed to a concentrated customer base. They are more susceptible to the departure of a single large customer. An unexpected capital need is likely to be more costly relative to its annual budget. The collective engineering and scientific expertise is likely to be less robust than a larger system's.

We use different breakpoints for different types of systems in this subfactor, recognizing that not all types of utilities have the same cost structure. For instance, an electric distribution system is more expensive to run than a stormwater system. A distribution-only water system is likely to have a lower, more predictable cost base, but also depend on an external system for water supply and pay prices largely out of its control.

Utilities that are wholesalers to municipal government customers may exhibit operating stability not captured by size or service area wealth. Many of a utility's risks may be shifted to its municipal customers if their service contracts prevent these customers from switching providers or decreasing payments. If service contracts are so strongly worded and unconditional that municipal customers would have to pay the utility's debt service under any circumstances, then the utility's bonds may effectively represent a claim on the combined credit quality of the municipal governments.

For utilities that are exclusively wholesalers to municipal customers, we assess the customers' ("participants") credit quality, using our methodologies for general obligation bonds, lease revenue bonds, or other appropriate methodology determined by the nature of the participants' pledge to the utility.⁶ For bonds secured by a utility's net revenue pledge, we incorporate the strength of the municipal customers' credit quality as an important factor in the utility's revenue base. For utilities whose pledges are essentially a pass-through of the municipal customers' underlying pledges, we may rate their bonds using our public sector pool financings methodology, recognizing that bondholders enjoy a direct claim on the underlying municipalities' ability and willingness to pay.⁷

Below-the-line adjustments

Additional service area economic strength or diversity: We would use this adjustment, upward or downward, if the MFI statistic incompletely or inaccurately depicts that capacity of the service base to bear higher rates.

Significant customer concentration: A large exposure to a single user or industry, or a small number of users, poses substantial risks that might not be captured in MFI. We may adjust the scorecard score down if a large share of a utility's revenues comes from one or a small number of customers, or from a single industry. We would be more likely to use this adjustment for volatile, unpredictable, and mobile industries than for longer-standing, more stable ones. We are less likely to consider a wholesale customer as a factor contributing to concentration, as it is purchasing on behalf of end-users.

⁶ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

⁷ A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Revenue per customer greatly over/under regional average: Revenue per customer conveys additional information about users' capacity for higher rates that might not be captured in MFI. We might adjust the above-the-line rating, upward or downward, if revenue per customer implies higher or lower ability to increase rates than MFI suggests.

Exposure to weather volatility, extreme conditions or market fluctuations: Large amounts of rain that infiltrate pipes or storms that destroy equipment are examples of credit risks that could result in below-the-line adjustments. Weather can also affect the prices that distribution systems pay third-party providers for electricity or natural gas.

Resource vulnerability: Water, gas, and electric distribution utilities sell a product whose availability can be limited or expensive in some cases. For instance, a water provider in a drought-stricken region may have to purchase expensive third-party water, and see declines in billable flow due to conservation efforts. We may adjust the scorecard score down if the availability of water, an adequate gas supply, or a dependable source of electricity is vulnerable or in doubt.

Sizeable or insufficient capacity margin: Our useful remaining life calculation is designed to assess the quality of existing capital assets, but it does not measure the adequacy of a system's capacity relative to demand. Areas that are growing need more water, gas, and electricity, and place greater demands on wastewater and trash disposal utilities. Systems that are close to capacity may face greater capital costs to expand in the future, suggesting larger debt burdens and posing additional risks that we may adjust the scorecard score downward for. Alternately, systems with ample capacity may be notched up, given the lack of capital spending requirements implied by the excess capacity. Further, excess capacity can sometimes imply a revenue-generating opportunity, since utilities can often sell their product or service to other parties. We are less likely to view excess capacity as a positive if it is caused by a declining user base.

Unusual depreciation practices relative to industry norms: Utilities typically have some flexibility to determine the depreciation schedules of their assets. Utilizing unreasonably long useful lives or employing other practices that distort depreciation schedules would also distort our remaining useful life calculation. We may notch a score down if an unreasonable depreciation schedule is inflating a utility's remaining useful life. Likewise, we may notch a score up if an unusually rapid depreciation schedule understates remaining useful life.

Factor 2: Financial Strength (40%)

EXHIBIT 3

Financial Strength (40%)	Aaa	Aa	A	Baa	Ba	B and Below
Annual Debt Service Coverage (15%)	> 2.00x	2.00x ≥ n > 1.70x	1.70x ≥ n > 1.25x	1.25x ≥ n > 1.00x	1.00x ≥ n > 0.70x	≤ 0.70x
Days Cash on Hand (15%)	> 250 Days	250 Days ≥ n > > 150 Days	150 Days ≥ n > > 35 Days	35 Days ≥ n > 15 Days	15 Days ≥ n > 7 Days	≤ 7 Days
Debt to Operating Revenues (10%)	< 2.00x	2.00x < n ≤ 4.00x	4.00x < n ≤ 7.00x	7.00x < n ≤ 8.00x	8.00x < n ≤ 9.00x	≥ 9.00x

Why it matters

The financial health of a utility determines its flexibility to respond to contingencies, resilience against potential short-term shocks, and cushion against a long-term unfavorable trend.

We measure utilities' financial health by looking at cash and other liquid reserves, the burden that debt places on operations, and the magnitude by which revenues are sufficient to meet expenditures.

Subfactor 2a: Annual debt service coverage (15%)

Input: Most recent year's net revenues divided by most recent year's debt service, expressed as a multiple

Debt service coverage is a core statistic assessing the financial health of a utility revenue system. The magnitude by which net revenues are sufficient to cover debt service shows a utility's margin to tolerate business risks or declines in demand while still assuring repayment of debt. Higher coverage levels indicate greater flexibility to withstand volatile revenues, unexpected outflows, or customer resistance to higher rates.

Utilities usually enter into a rate covenant under which they pledge to achieve a given level of debt service coverage each year. The covenant ensures that the utility utilizes its assets to generate sufficient income to pay bondholders.

The analysis of a utility system's debt service coverage demands ample context. If debt service escalates in future years, then the utility's current net revenues may be sufficient to cover debt service this year, but not in the future. Systems with greater revenue stability can operate comfortably at lower coverage levels. Systems with greater capital needs are likely to incur more debt, which will lead to increased debt service and decreased coverage. The debt service coverage calculation is the basis for a comprehensive analysis of a utility's financial flexibility and trend over the long term.

Rate covenants define a calculation method. These calculation methods vary, for example in the inclusion or exclusion of connection fees. Our coverage calculation will frequently differ from the coverage utilities report for purposes of complying with their rate covenants. Frequently, our analysis will consider several types of coverage, including maximum annual debt service (MADS) coverage, annual debt service coverage, coverage with and without connection fees, and coverage as calculated for the rate covenant. For entry on the scorecard, we include connection fees (when pledged) in revenues, recognizing that these are pledged revenues that are usually generated annually and are an important source of funding for expansion. If connection fees are particularly volatile, or if they represent an inordinate share of revenues, we may adjust below the line.

Subfactor 2b: Days cash on hand (15%)

Input: Unrestricted cash and liquid investments times 365 divided by operating and maintenance expenses, expressed in days

Cash is the paramount resource utilities have to meet expenses, cope with emergencies, and navigate business interruptions. Utilities with a lot of cash and cash equivalents are able to survive temporary disruptions and cash flow shortfalls without missing important payments. A large cash balance can also partially compensate for the lack of a debt service reserve fund. A low cash balance indicates poor flexibility to manage contingencies.

We include in this measure any cash or cash-equivalent that is both unrestricted and liquid. The measure does not include cash held in a debt service reserve fund, unspent bond proceeds, or cash that is restricted for capital.

Subfactor 2c: Debt to operating revenues (10%)

Input: Net debt divided by most recent year's operating revenues, expressed as a multiple

A utility's debt profile determines its leverage and fixed costs. Systems that carry a lot of debt have less ability to reduce costs if demand shrinks, and are generally more challenged to achieve higher debt service coverage.

A greater debt burden may also prohibit a utility from funding necessary capital upgrades, if a covenant prevents the issuer from incurring the debt necessary to fund those upgrades.

"Net debt" is a utility's long-term debt subtracted by debt service reserve funds.

Below-the-line adjustments

Debt service coverage (annual or MADS) below key thresholds: A debt service coverage ratio below 1 times is an important threshold, because coverage below 1 times indicates the utility is not fully covering debt service with income generated from operations. If a utility fails to achieve 1 times coverage, we may adjust the score down to reflect the financial imbalance of the utility's operations. Another key threshold that would likely prompt us to adjust the score down is if coverage were to fall below the utility's coverage covenant, even if that covenant is higher than 1 times. Management's willingness and ability to operate the system for bondholders' benefit is a crucial credit consideration, and a breach of covenant calls that willingness and ability into question. A coverage level that impedes the issuance of additional bonds under the utility's additional bonds covenant could also prompt us to adjust the score down, if we think it would prevent the utility from funding necessary capital upgrades.

Constrained liquidity position due to oversized transfers: It is common for utilities to transfer cash to their general governments regularly, either to share overhead costs, make payments in lieu of taxes for occupied property, or to help fund shared infrastructure. It is also common for parent governments to tap utilities' cash to fund General Fund operations. We may notch a utility's score down if these types of transfers are large and begin to strain its own liquidity. We are more likely to make this adjustment if the general government is operationally reliant on utility transfers and has the authority to increase them, particularly if the general government is struggling financially. Even if a utility has never transferred cash to its parent, such transfers remain a possibility⁸, one of the reasons for the relationship between a revenue rating and the GO rating of its general government.

Outsized capital needs: A utility with significant capital needs will likely need to incur additional debt not communicated in the existing debt metric. We may adjust the score downward for utilities under regulatory consent decree, or otherwise with great capital needs, that are likely to increase their debt levels.

Oversized adjusted net pension liability relative to debt, or significant actuarial required contribution underpayment: Employees of public utilities are usually members of a municipal pension plan. Most utilities either sponsor their own plan or participate in another entity's plan, and are responsible for funding their share of the plan's pension liabilities. We may adjust the score down if this liability is especially large, or if the utility has underfunded its contributions.

Significant exposure to puttable debt and/or swaps, or other unusual debt structure: The risks of a debt portfolio can be magnified if it is significantly composed of puttable debt. Utilities generally set rates with the intention of covering operating expenses and debt service in the current year. A debt put, accelerated amortization under a term-out, or other unexpected calls on a utility's resources can impose immediate and

⁸ Unless the utility's flow of funds is closed-loop. A closed-loop flow of funds is stronger than an open one for this reason.

substantial, unbudgeted cash outflows and upend that intention. We may notch a score down, potentially by several notches, if the composition of a debt portfolio, or cash-flow demands or unfavorable valuation of a swap, communicates a greater degree of risk than the existing debt metric.

Factor 3: Management (20%)

EXHIBIT 4

Management (20%)	Aaa	Aa	A	Baa	Ba	B and Below
Rate Management (10%)	Excellent rate-setting record; no material political, practical, or regulatory limits on rate increases	Strong rate-setting record; little political, practical, or regulatory limits on rate increases	Average rate-setting record; some political, practical, or regulatory limits on rate increases	Adequate rate-setting record; political, practical, or regulatory impediments place material limits on rate increases	Below average rate-setting record; political, practical, or regulatory impediments place substantial limits on rate increases	Record of insufficiently adjusting rates; political, practical, or regulatory obstacles prevent implementation of necessary rate increases
Regulatory compliance and capital planning (10%)	Fully compliant OR proactively addressing compliance issues; Maintains sophisticated and manageable Capital Improvement Plan that addresses more than a 10-year period	Actively addressing minor compliance issues; Maintains comprehensive and manageable 10-year Capital Improvement Plan	Moderate violations with adopted plan to address issues; Maintains manageable 5-year Capital Improvement Plan	Significant compliance violations with limited solutions adopted; Maintains single year Capital Improvement Plan	Not fully addressing compliance issues; Limited or weak capital planning	Not addressing compliance issues; No capital planning

Why it matters

If the legal provisions establish the minimum level of financial margin at which a utility must be run, the utility's management determines the actual level at which it is run.

Utility management refers to the dynamics of setting rates, planning for capital spending, budgeting for annual expenditures, and complying with environmental regulations. All of these factors interplay with one another to determine the credit strength of a utility system.

The scorecard captures two crucial aspects of management: rate-setting and capital planning. These two aspects encompass most of what is important in running a utility: keeping the system in good working order, and paying for it.

Subfactor 3a: Rate management (10%)

User rates are the primary, and sometimes only, mechanism utilities employ to pay for their operations.

Ideally, rates increase marginally and steadily, rather than choppily. It is common for utilities to split their rates into a “base” charge (flat rate charged to all users) plus a “volumetric” charge (per unit costs based on flow/usage). Utilities funded to a greater extent by the volumetric charge face greater risks, since volume can be economically sensitive or decline because of a shift in consumption patterns.

Management's track record at setting rates appropriately and increasing them when necessary drives this score. We tend to give higher scores to utilities that set rate structures under which increases are automatic, and do not require annual approval for implementation.

Embedded into this factor is the length of time required to implement a rate increase. Many public utilities enjoy the authority to set their own rates, and can enact a rate increase in short order by majority vote of the governing board. Some utilities must give the public a few weeks or months notice before increasing rates, or choose to do so by policy or practice. Some utilities require state approval to increase rates. Utilities that need state approval often have to file a rate case subject to public objection, and in some cases the state takes a long time to approve them or denies the full rate increase.

The longer it takes a utility to implement a rate increase, the less flexibility it has to quickly generate new revenues when faced with cash flow shortfalls.

Subfactor 3b: Regulatory compliance and capital planning (10%)

The public utility sector is heavily regulated. Most public utilities are regulated by federal as well as state agencies.

The EPA enforces the Safe Drinking Water Act for water distribution utilities, the Clean Water Act for sanitary sewer and stormwater utilities, the Resource Conservation and Recovery Act for solid waste disposal systems, and the Clean Air Act for electric utilities. These statutes, and the methods employed to enforce them, are continually evolving, often intensifying over time. Additionally, many states have passed their own environmental regulations and are active enforcers.

This scorecard factor assesses utilities' compliance with relevant regulations and their plans for the capital expenditures required to comply in the future.

In addition to achieving environmental compliance, proper capital planning ensures the continued delivery of the product or service and the ongoing generation of revenues.

During our reviews, we look for indications of potential compliance gaps, such as environmental litigation, a delay in renewing a permit, or a consent decree with a state or federal enforcement body.

Below-the-line adjustments

Unusually strong or weak capital planning: Continued violations of environmental laws and the associated litigation can impose extraordinary costs on utilities. We may notch the score down if these costs threaten to overwhelm a system's resources, in the form of a large consent decree, lawsuit, or other costs. Alternately, we may notch the score up if a utility's capital planning is particularly sophisticated or forward-looking. More sophisticated and forward-looking capital management is more important for systems facing resource vulnerability or extreme weather volatility.

Factor 4: Legal provisions (10%)

EXHIBIT 5

Legal Provisions (10%)	Aaa	Aa	A	Baa	Ba	B and Below
Rate Covenant (5%)	> 1.30x	≥ n 1.30x > 1.20x	≥ n 1.20x > 1.10x	≥ n 1.10x > 1.00x		≤ 1.00x
Debt Service Reserve Requirement (5%)	DSRF funded at MADS	DSRF funded at lesser of standard 3-prong test	DSRF funded at less than 3-prong test OR springing DSRF	NO explicit DSRF; OR funded with speculative grade surety		

Why it matters

The legal provisions of a public utility revenue bond form the backbone of its security.

When a municipality assigns its General Obligation pledge to a bond, it has promised to do whatever it has to do to cover debt service, in most cases from any revenues or resources at its disposal.

A utility revenue bond enjoys no such open-ended pledge, making the legal edifice of the bond critical to bondholder security. Most commonly, the legal security for municipal utility revenue bonds is a lien on the net revenues of the system. Occasionally, bondholders enjoy a lien on the gross revenues of a system. We ordinarily do not consider a gross revenue pledge as materially stronger than a net revenue pledge, because systems need to pay operating and maintenance costs in order to remain functional.

The linchpin of a bond's legal structure is its covenants: the legal compulsions the municipal utility agrees to when issuing the bonds.

Utilities abide by many different types of covenants. We consider three to be the most important: the rate covenant, the additional bonds test, and the debt service reserve fund. Also crucial in the analysis of a revenue bond's legal structure is whether the flow of funds is open-loop (accessible by another government entity) or closed.

Strong covenants bind the utility to utilize its assets to benefit bondholders by operating with a comfortable financial margin, not taking on too much debt, and maintaining adequate cash available to pay debt service. Weak or nonexistent covenants allow the utility to operate on a thin margin or even at a net loss, incur a lot of leverage, transfer its money to other government entities, or maintain inadequate cash, in ways that are detrimental to bondholders.

Covenants specify the minimum factors management must legally abide by. Utilities frequently exceed the minimum. Many of our ratings represent the expectation of performance at levels that exceed the covenants.

Subfactor 4a: Rate covenant (5%)

Input: Covenant governing net revenues (operating revenues minus operating expenditures net of depreciation) divided by annual debt service, expressed as a multiple

The rate covenant is a legal pledge to set rates such that net revenues will be sufficient to cover debt service at a prescribed level. For example, a covenant may bind a utility to ensure that net revenues cover debt service by 1.2 times. If net revenues fall short of this covenant in one year, the utility must raise rates to achieve a compliant coverage level the following year.

The rate covenant takes many forms. Some utilities pledge for net revenues to cover current year annual debt service by a given level. Others pledge to cover average annual debt service throughout the life of the bonds at that level. A strong coverage requirement would be for net revenues to cover maximum annual debt service (MADS) by a certain level.

Some rate covenant formats are materially weaker than this. Some utilities allow a "rolling" calculation, which includes outstanding cash from prior years' surpluses as part of the resources available to cover debt service. Many rate covenants allow connection fees to be included in available operating revenues.

The above-the-line coverage factor assumes the covenant is an annual debt service coverage calculation. We can adjust for any departures from this format below the line, upward or downward.

Subfactor 4b: Debt service reserve requirement (5%)

Input: Debt service reserve requirement

Many issuers agree to hold a specified amount of cash or other resources in a debt service reserve fund (DSRF), which the trustee can tap to pay debt service in the event that net revenues are inadequate. The DSRF covenant ordinarily requires the utility to replenish any draws from the DSRF.

The DSRF protects bondholders by assuring the payment of debt service even if net revenues fall short in one year.

DSRF funds can be funded with cash, or with surety policies from an insurer. We generally consider cash to be superior to a surety, although this is unlikely to materially affect the rating as long as the surety provider is rated investment grade.

One commonly used DSRF requirement is known as the "three-pronged test." Under tax law, the Internal Revenue Service limits the earning of interest on proceeds of a tax-exempt bond unless the invested proceeds comply with the three-pronged test. Under that test, the DSRF must be the lesser of 10% of principal, MADS, or 1.25 times average annual debt service. A DSRF set at the three-pronged test is usually weaker than one funded at MADS.

Revenue bonds have been issued without a DSRF in the past. This has resulted in a number of utilities with some bonds secured by a DSRF and other parity bonds secured by the same lien but no DSRF. We have rarely distinguished ratings between these parity bonds. The DSRF is a last-resort security measure, and most utilities comply with their coverage covenants and never have to tap their DSRF. We are most likely to distinguish between DSRF-secured bonds and bonds with no DSRF if the system holds narrow liquidity. A system operating with abundant liquidity can use its operating cash to meet debt service shortfalls, effectively executing a similar function to the DSRF. The combination of narrow liquidity and no DSRF exposes bondholders to greater risks of interrupted debt service payments, and is therefore more likely to be reflected in ratings.

For a utility whose debt is mostly, but not all, secured by a DSRF, we will still enter the DSRF requirement into the scorecard. For a utility whose debt is mostly not secured by a DSRF, we will adjust the DSRF entry downward⁹.

⁹ For example, if 1/3 of a utility's debt is secured by a DSRF funded at MADS and 2/3 is not secured by a DSRF at all, we may enter the DSRF requirement as a Baa.

Below-the-line adjustments

Coverage covenant other than annual debt service: Our input for the coverage covenant assumes the coverage refers to net revenue coverage of annual debt service. A “rolling” coverage covenant that includes outstanding cash, or some other modification that weakens the meaning of the covenant, may prompt us to notch the score down. Conversely, a MADS coverage covenant may prompt us to notch the score up.

Structural enhancements/complexities: The scorecard is designed to capture covenants as they are most commonly constituted, but cannot account for the myriad structures and complexities that arise in bond transactions throughout the sector. Enhancements such as a lock-box structure for debt service may lead us to notch the score up. Other shortcomings, such as a weak additional bonds test or the inclusion of cash in a coverage covenant, may lead us to notch the score down. Any characteristic of the legal provisions of a bond transaction may lead us to conclude that the scorecard does not adequately capture its risk profile.

Treatment of Different Liens on a US Municipal Utility's Net Revenues

It is common for utilities to issue debt secured by different liens on their net revenues. Senior bonds are secured by a first lien on net revenues, and subordinate bonds or loans secured by a subordinate, or junior, lien. Sometimes, utilities will issue debt secured by a third lien or lower.

Our practice is to evaluate the likelihood of default and the expected recovery in the event of default for each lien independently.

This will most commonly result in a rating distinction of one notch for each lien of subordination. In other words, if a municipal utility's senior lien is rated Aa3, its subordinate lien will most likely be rated A1 and the third lien will most likely be rated A2.

The reason for the typical one-notch-per-lien distinction is that subordinate liens are marginally more likely to default than senior liens, and subordinate liens' expected recovery in the event of default would be lower. Senior liens are typically afforded stronger legal protections under utilities' indentures, senior-lien debt service is usually paid earlier in the flow of funds, and the first lien would likely enjoy a better claim in bankruptcy.

For most investment grade municipal utilities, the probability of default for any lien is small, and so the notching distinction is driven primarily by a greater expected loss severity in the unlikely event of a default. This is comparable to our approach for ratings distinctions for different debt classes of investment grade corporations, where ratings distinctions are driven by differences in expected loss severities.¹⁰ In contrast to corporates, however, there often is not an explicit cross-default of senior municipal debt in the event of a subordinate payment default.

In some instances, we may conclude that an investment grade municipal utility's subordinate lien has a default probability and expected loss severity that is nearly as low or just as low as the senior lien (in which case we may not make a ratings distinction), or a default probability and expected loss severity that is materially higher than the senior lien (in which case we may make a ratings distinction of more than one notch).

Such a conclusion would be based on the municipal utility's management of its system with respect to its liens, and the characteristics of the legal framework governing the liens: rate covenants, additional debt provisions, and cross-default and acceleration provisions in a senior lien's variable rate debt resulting from a default on the subordinate lien, for example. If a utility has only a very small amount of senior lien debt, we may choose not to distinguish between liens.

The distinctions among a municipal utility's liens become starker when it faces a material likelihood of default or bankruptcy. For these situations, the different characteristics of the liens are likely to drive greater disparities in default probabilities and expected recoveries for disparate liens. Thus, we are more likely to employ ratings distinctions other than one notch for speculative grade municipal utilities' different liens as the Loss Given Default approach drives more of the analysis.

In nearly all instances, the ratings on the different liens of the same utility will remain closely related. The reason for this is that municipal utilities are actively managed enterprises that continually need to generate net revenues sufficient not only to cover debt service but also to fund capital needs. Even if senior lien coverage is strong, a utility that is unable to pay its junior lien debt service is not generating excess funds for capital investment and does not have capacity for capital borrowing. Thus, while subordinate liens face greater default probability and higher loss expectations based on their first-loss positions, an increased likelihood of default on a subordinate lien implies an increased likelihood of insolvency for the utility as a whole.

For this reason, we enter the debt-oriented inputs into the scorecard on a consolidated basis. For the debt to revenues factor, we enter total debt (senior and junior). For the debt service coverage factor, we enter total debt service coverage. It is the municipal utility's ability to cover all of its debt service with net revenues that determines its viability as a going concern. Even for a senior lien with a large coverage factor by net revenues, a narrow coverage of all debt service implies pressure to maintain healthy operations and generate funds sufficient for capital reinvestment.

¹⁰ For more information, see our cross-sector methodology that describes the alignment of corporate instrument ratings based on differences in security and priority of claim. A link to an index of our sector and cross-sector methodologies can be found in the "Moody's Related Publications" section.

Appendix: Municipal Utility Revenue Bond Scorecard

EXHIBIT 6

		Aaa	Aa	A	Baa	Ba	B and Below
Numerical score		0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	3.5 to 4.5	4.5 to 5.5	5.5 to 6.5
System Characteristics (30%)							
Asset Condition (10%)	Net Fixed Assets/Annual Depreciation :	> 75 years	75 years ≥ n > 25 years	25 years ≥ n > 12 years	12 years ≥ n > 9 years	9 Years ≥ n > 6 Years	≤ 6 Years
Service Area Wealth (12.5%)		> 150% of US median	150% ≥ US median > 90%	90% ≥ US median > 75%	75% ≥ US median > 50%	50% ≥ US median > 40%	≤ 40% of US median
System Size (7.5%)	Water and/or Sewer/ Solid Waste:	O&M > \$65M	\$65M ≥ O&M > \$30M	\$30M ≥ O&M > \$10M	\$10M ≥ O&M > \$3M	\$3M ≥ O&M > \$1M	O&M ≤ \$1M
	Stormwater:	O&M > \$30M	\$30M ≥ O&M > \$15M	\$15M ≥ O&M > \$8M	\$8M ≥ O&M > \$2M	\$2M ≥ O&M > \$750K	O&M ≤ \$750K
	Gas or Electric:	O&M > \$100M	\$100M ≥ O&M > \$50M	\$50M ≥ O&M > \$20M	\$20M ≥ O&M > \$8M	\$8M ≥ O&M > \$3M	O&M ≤ \$3M
Financial Strength (40%)							
Annual Debt Service Coverage (15%)		> 2.00x	2.00x ≥ n > 1.70x	1.70x ≥ n > 1.25x	1.25x ≥ n > 1.00x	1.00x ≥ n > 0.70x	≤ 0.70x
Days Cash on Hand (15%)		> 250 Days	250 Days ≥ n > 150 Days	150 Days ≥ n > 35 Days	35 Days ≥ n > 15 Days	15 Days ≥ n > 7 Days	≤ 7 Days
Debt to Operating Revenues (10%)		< 2.00x	2.00x < n ≤ 4.00x	4.00x < n ≤ 7.00x	7.00x < n ≤ 8.00x	8.00x < n ≤ 9.00x	≥ 9.00x
Management (20%)							
Rate Management (10%)		Excellent rate-setting record; no material political, practical, or regulatory limits on rate increases	Strong rate-setting record; little political, practical, or regulatory limits on rate increases	Average rate-setting record; some political, practical, or regulatory limits on rate increases	Adequate rate-setting record; political, practical, or regulatory impediments place material limits on rate increases	Below average rate-setting record; political, practical, or regulatory impediments place substantial limits on rate increases	Record of insufficiently adjusting rates; political, practical, or regulatory obstacles prevent implementation of necessary rate increases
Regulatory Compliance and Capital Planning (10%)		Fully compliant OR proactively addressing compliance issues; Maintains sophisticated and manageable Capital Improvement Plan that addresses more than a 10-year period	Actively addressing minor compliance issues; Maintains comprehensive and manageable 10-year Capital Improvement Plan	Moderate violations with adopted plan to address issues; Maintains manageable 5-year Capital Improvement Plan	Significant compliance violations with limited solutions adopted; Maintains single year Capital Improvement Plan	Not fully addressing compliance issues; Limited or weak capital planning	Not addressing compliance issues; No capital planning
Legal Provisions (10%)							
Rate Covenant (5%)		> 1.30x	1.30x ≥ n > 1.20x	1.20x ≥ n > 1.10x	1.10x ≥ n > 1.00x		≤ 1.00x ¹¹
Debt Service Reserve Requirement (5%)		DSRF funded at MADS	DSRF funded at lesser of standard 3-prong test	DSRF funded at less than 3-prong test OR springing DSRF	NO explicit DSRF; OR funded with speculative grade surety ¹²		

¹¹ Scores as a Ba.

¹² Scores as a Baa.

Adjustments/Notching Factors**Factor 1: System Characteristics**

Additional service area economic strength or diversity

Significant customer concentration

Revenue-per-Customer greatly over/under regional average

Exposure to weather volatility or extreme conditions

Resource vulnerability (1/3 or greater)

Sizable or insufficient capacity margin

Weak depreciation/reinvestment practices relative to industry norms

Other analyst adjustment to System Characteristics (Specify)**Factor 2: Financial Strength**

Debt Service Coverage (Annual or MADS) below key thresholds: Additional Bonds Test and 1.00x coverage

Constrained liquidity position due to oversized transfers

Oversized capital needs

Oversized ANPL relative to debt or significant under-payment of actuarial funding requirement

Significant exposure to puttable debt and/or swaps or other unusual debt structure

Other analyst adjustment to Financial Strength factor (Specify)**Factor 3: Legal Provisions**

Structural Enhancements/Complexities

Other analyst adjustment to Legal Provisions factor (Specify)**Factor 4: Management**

Unusually strong or weak operational or capital planning

Other analyst adjustment to Management factor (Specify)**Other**

Credit Event/Trend not yet reflected in existing data set

Scorecard-Indicated Outcome	Overall Weighted Score
Aaa	0.5 to 1.5
Aa1	1.5 to 1.83
Aa2	1.83 to 2.17
Aa3	2.17 to 2.5
A1	2.5 to 2.83
A2	2.83 to 3.17
A3	3.17 to 3.5
Baa1	3.5 to 3.83
Baa2	3.83 to 4.17
Baa3	4.17 to 4.5
Ba1	4.5 to 4.83
Ba2	4.83 to 5.17
Ba3	5.17 to 5.5
B1	5.5 to 5.83
B2	5.83 to 6.17
B3	6.17 to 6.5

Moody's Related Publications

Credit ratings are primarily determined by sector credit rating methodologies. Certain broad methodological considerations (described in one or more cross-sector rating methodologies) may also be relevant to the determination of credit ratings of issuers and instruments. An index of sector and cross-sector credit rating methodologies can be found [here](#).

For data summarizing the historical robustness and predictive power of credit ratings, please click [here](#).

For further information, please refer to *Rating Symbols and Definitions*, which is available [here](#).

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**PGW Financial Metrics Bond Rating Based On
Moody's Methodology**

Financial Metric	Observed	Rating	Rating Range	Rating Numerical Score	Metric Numerical Score	Weight	Weighted Score
Debt Service Coverage	1.88	Aa	2.00 -- 1.70	1.5 to 2.5	1.90	0.38	0.713
Days of Cash	73.5	A	150 -- 35	2.5 to 3.5	3.17	0.38	1.187
Debt to Operating Revenues	1.69	Aaa	0.50 to 1.50	0.0 to 2.00	1.34	0.25	0.336
Financial Metric Weighted Average Score							2.24
Aa3 Rating Range							2.17 to 2.50

Ratings Range Sources: OCA Exhibit DSH-1, pages 19 and 21.

Debt to Operating Revenues Source: OCA Exhibits MEG-4 and MEG-1 respectively.

**PGW Service Characteristics Bond Rating Based
On Moody's Methodology**

System Characteristics	Observed	Rating	Rating Range	Rating Numerical Score	Metric Numerical Score	Weight	Weighted Score
Asset Condition--Net Utility Plant/Depreciation	23	A	25--12	2.5 to 3.5	1.65	0.33	0.552
Service Area Wealth--Median Philadelphia Income/Median US Income	73%	Baa	75% -- 50%	3.5 to 4.5	3.58	0.42	1.492
System Size-- \$Millions O&M Expenses	\$463M	Aaa	>\$100	0.5 to 1.5	1.50	0.25	0.375
Financial Metric Weighted Average Score							2.42
Aa3 Rating Range							2.17 to 2.50

Ratings Range Sources: OCA Exhibit DSH-1, pages 19 and 21.

Debt to Operating Revenues Source: OCA Exhibits MEG-4 and MEG-1 respectively.

Median Income sources: Pages 2 and 4 of this Exhibit.



Categories > U.S. Regional Data > States > Pennsylvania > Counties > Philadelphia County/city, PA

☆ Estimate of Median Household Income for Philadelphia County/city, PA (MHIPA42101A052NCEN)

DOWNLOAD

Observation:
2018: **46,149** (+ more)
Updated: Dec 13, 2019

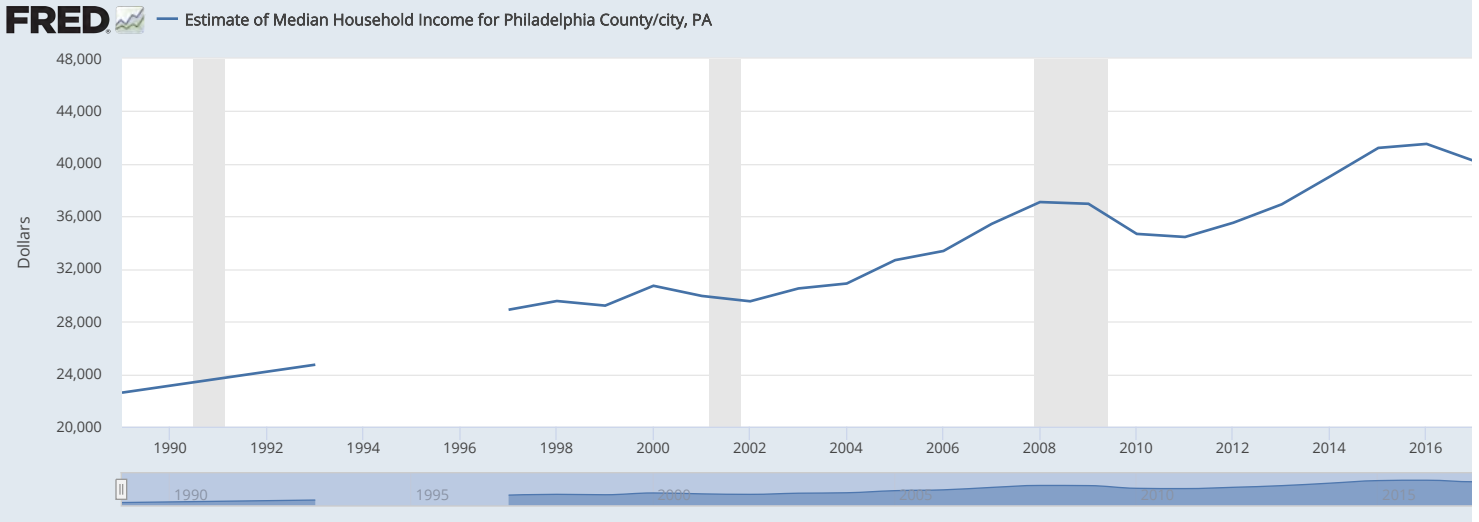
Units:
Dollars,
Not Seasonally Adjusted

Frequency:
Annual

1Y | 5Y | 10Y | Max

EDIT GRAPH
VIEW MAP

1989-01-01 2018-01-01



Shading indicates U.S. recessions; the most recent one is ongoing.

Source: U.S. Census Bureau

Share Links Account Tools



NOTES

Source: [U.S. Census Bureau](#) Release: [Small Area Income and Poverty Estimates](#)

Units: Dollars, Not Seasonally Adjusted

Frequency: Annual

The U.S. Census Bureau provides annual estimates of income and poverty statistics for all school districts, counties, and states through the [Small Area Income and Poverty Estimates](#) (SAIPE) program. The bureau's main objective with this program is to provide estimates of income and poverty for the administration of federal programs and the allocation of federal funds to local jurisdictions. In addition to these federal programs, state and local programs use the income and poverty estimates for distributing funds and managing programs.

Household income includes income of the householder and all other people 15 years and older in the household, whether or not they are related to the householder. Median is the point that divides the household income distributions into two halves: one-half with income above the median and the other with income below the median. The median is based on the income distribution of all households, including those with no income.

Suggested Citation:

U.S. Census Bureau, Estimate of Median Household Income for Philadelphia County/city, PA [MHIPA42101A052NCEN], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MHIPA42101A052NCEN>, July 21, 2020.

RELATED CONTENT

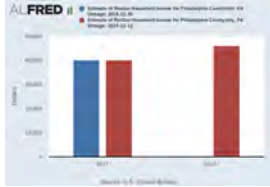
Related Resources



Unemployment Rate in Philadelphia County/City, PA



GeoFRED Map
Estimate of Median Household Income for Philadelphia County/city, PA



ALFRED Vintage Series
Estimate of Median Household Income for Philadelphia County/city, PA

Related Categories

Philadelphia County/city, PA Counties Pennsylvania States U.S. Regional Data

Sources

More Releases from U.S. Census Bureau

Releases

More Series from Small Area Income and Poverty Estimates

Tags

Philadelphia County/City, PA Philadelphia Pennsylvania Median Households Small Area Income & Poverty Estimates Income Prosperity Scorecard Census
County or County Equivalent Annual Public Domain: Citation Requested Not Seasonally Adjusted United States of America



Categories > Population, Employment, & Labor Markets > Income Distribution

★ Median Household Income in the United States (MEHOINUSA646N)

DOWNLOAD

Observation:
2018: 63,179 (+ more)
Updated: Sep 10, 2019Units:
Current Dollars,
Not Seasonally AdjustedFrequency:
Annual

1Y | 5Y | 10Y | Max

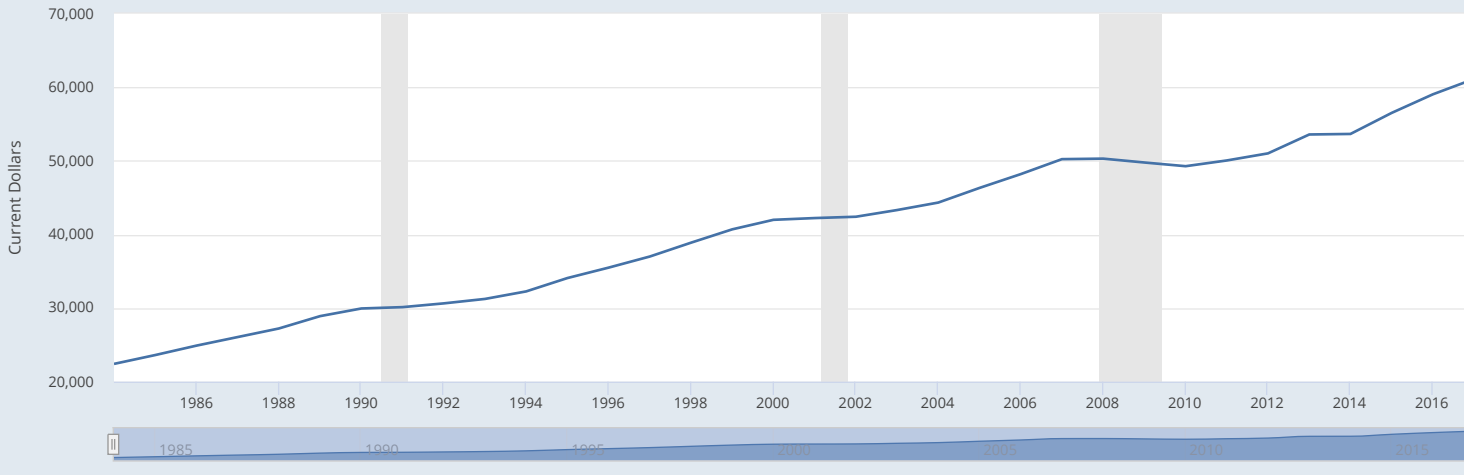
EDIT GRAPH

1984-01-01

2018-01-01

FRED

— Median Household Income in the United States



Shading indicates U.S. recessions; the most recent one is ongoing.

Source: U.S. Census Bureau



Share Links Account Tools



NOTES

Source: [U.S. Census Bureau](#) Release: [Income and Poverty in the United States](#)

Units: Current Dollars, Not Seasonally Adjusted

Frequency: Annual

Household data are collected as of March.

As stated in the Census's "Source and Accuracy of Estimates for Income, Poverty, and Health Insurance Coverage in the United States: 2011" (http://www.census.gov/hhes/www/p60_243sa.pdf):

Estimation of Median Incomes. The Census Bureau has changed the methodology for computing median income over time. The Census Bureau has computed medians using either Pareto interpolation or linear interpolation. Currently, we are using linear interpolation to estimate all medians. Pareto interpolation assumes a decreasing density of population within an income interval, whereas linear interpolation assumes a constant density of population within an income interval. The Census Bureau calculated estimates of median income and associated standard errors for 1979 through 1987 using Pareto interpolation if the estimate was larger than \$20,000 for people or \$40,000 for families and households. This is because the width of the income interval containing the estimate is greater than \$2,500.

We calculated estimates of median income and associated standard errors for 1976, 1977, and 1978 using Pareto interpolation if the estimate was larger than \$12,000 for people or \$18,000 for families and households. This is because the width of the income interval containing the estimate is greater than \$1,000. All other estimates of median income and associated standard errors for 1976 through 2011 (2012 ASEC) and almost all of the estimates of median income and associated standard errors for 1975 and earlier were calculated using linear interpolation.

Thus, use caution when comparing median incomes above \$12,000 for people or \$18,000 for families and households for different years. Median incomes below those levels are more comparable from year to year since they have always been calculated using linear interpolation. For an indication of the comparability of medians calculated using Pareto interpolation with medians calculated using linear interpolation, see Series P-60, Number 114, Money Income in 1976 of Families and Persons in the United States (www2.census.gov/prod2/popscan/p60-114.pdf).

Suggested Citation:

U.S. Census Bureau, Median Household Income in the United States [MEHOINUSA646N], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MEHOINUSA646N>, July 21, 2020.

RELEASE TABLES

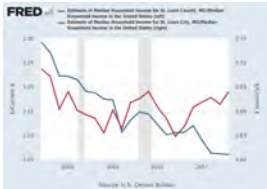
Income and Poverty in the United States

Median Household Income by State, Annual

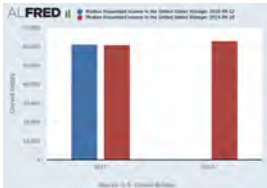
OCA Exhibit DSH-3-SR
Page 5 of 5

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Tags

[Median](#) [Households](#) [Income](#) [Census](#) [Annual](#) [Nation](#) [Public Domain: Citation Requested](#) [Not Seasonally Adjusted](#) [United States of America](#)



PHILADELPHIA GAS WORKS

Joseph F. Golden, Jr. • Executive Vice President & Acting Chief Financial Officer
800 West Montgomery Avenue • Philadelphia, PA 19122
Phone: 215-684-6464 • Fax: 215-684-6628
Email: JGolden@pgworks.com

July 17, 2020

The Honorable Derek S. Green
Chairman
PHILADELPHIA GAS COMMISSION
1515 Arch Street, 9th Floor
Philadelphia, PA 19102

Re: Financial Report

Dear Chairman Green:

Enclosed is an original along with six (6) copies of PGW's Financial Report for the ten months ended June 30, 2020 with supporting schedules.

If you have any questions regarding the enclosed schedules, please feel free to call me.

Very truly yours,

A handwritten signature in black ink that reads "Joseph F. Golden, Jr." in a cursive script.

JFG/de
Enclosures

cc: All Gas Commissioners
Robert W. Ballenger, Esq.
Philip A. Bertocci, Esq.
Michael A. Bleiweis
Andre C. Dasent, Esq.
Raquel Guzman, Esq.
Gemela N. McClendon, Esq.
Douglas A. Moser
Craig E. White
Heidi Wushinske, Esq.



FINANCIAL REPORT

FOR THE TEN MONTHS ENDED JUNE 30, 2020

UNAUDITED

UNAUDITED
PGW
STATEMENT OF INCOME
MONTH OF JUNE 2020 AND 2019 WITH COMPARISONS
(Thousands of Dollars)

Line No.	FY2019 Actual		FY2020		Increase/(Decrease) Actual FY2020 vs. Budget	
			Actual	Budget	Amount	%
		Operating revenues				
1	\$ 1,548	Non-heating	\$ 1,116	\$ 1,440	\$ (324)	(23)
2	3,054	Gas transport service	2,719	2,573	146	6
3	24,554	Heating	22,460	23,258	(798)	(3)
4	(1,128)	Unbilled gas adjustment	(4,694)	(3,715)	(979)	26
5	(1,272)	Appropriation for uncollectible reserve	(7,067)	(1,067)	(6,000)	-
6	26,756	Total gas revenues	14,534	22,489	(7,955)	(35)
7	764	Appliance & other revenues	455	651	(196)	(30)
8	878	Other operating revenues	54	975	(921)	(94)
9	28,398	Total operating revenues	15,043	24,115	(9,072)	(38)
		Operating expenses				
10	6,318	Natural gas	1,274	3,608	(2,334)	(65)
11	-	Other raw material	-	-	-	-
12	6,318	Sub-total fuel	1,274	3,608	(2,334)	(65)
13	22,080	CONTRIBUTION MARGIN	13,769	20,507	(6,738)	(33)
14	1,490	Gas processing	1,714	1,732	(18)	(1)
15	5,568	Field operations	5,798	6,688	(890)	(13)
16	321	Collection	293	354	(61)	(17)
17	914	Customer services	1,026	1,259	(233)	(19)
18	412	Account management	787	752	35	5
19	236	Marketing	303	420	(117)	(28)
20	5,210	Administrative & general	6,023	6,971	(948)	(14)
21	1,445	Health insurance	1,458	2,112	(654)	(31)
22	(711)	Capitalized fringe benefits	(762)	(803)	41	(5)
23	(1,041)	Capitalized administrative charges	(1,036)	(1,417)	381	(27)
24	2,891	Pensions	2,385	2,461	(76)	(3)
25	2,527	Other post-employment benefits	1,491	1,491	-	-
26	666	Taxes	670	718	(48)	(7)
27	-	Cost savings	-	(102)	102	-
28	19,928	Total operating expenses	20,150	22,636	(2,486)	(11)
29	2,152	Operating income before depreciation	(6,381)	(2,129)	(4,252)	-
30	5,051	Net depreciation	5,225	5,425	(200)	(4)
31	31,297	Total operating expenses	26,649	31,669	(5,020)	(16)
32	(2,899)	Operating income	(11,606)	(7,554)	(4,052)	54
33	(1,514)	Investments gain (loss) and other income	220	317	(97)	(31)
34	(4,413)	Income before interest	(11,386)	(7,237)	(4,149)	57
		Interest				
35	3,671	Long-term debt	3,625	3,668	(43)	(1)
36	(438)	Other	(193)	(406)	213	(52)
37	(126)	Allowance for funds used during construction	(68)	(163)	95	(58)
38	3,107	Net interest expense	3,364	3,099	265	9
39	\$ (7,520)	Net income	\$ (14,750)	\$ (10,336)	\$ (4,414)	
40	\$ (1,500)	Distribution to the City	\$ (1,500)	\$ (1,500)		
41	\$ (9,020)	Net Earnings after distribution to the City	\$ (16,250)	\$ (11,836)		

UNAUDITED
PGW
STATEMENT OF INCOME
TEN MONTHS ENDED JUNE 2020 AND 2019 WITH COMPARISONS
(Thousands of Dollars)

Line No.	FY2019 Actual		FY2020		Increase/(Decrease) Actual FY2020 vs. Budget	
			Actual	Budget	Amount	%
		Operating revenues				
1	\$ 22,265	Non-heating	\$ 20,166	\$ 20,522	\$ (356)	(2)
2	58,247	Gas transport service	58,428	57,045	1,383	2
3	563,259	Heating	510,045	556,139	(46,094)	(8)
4	2,326	Unbilled gas adjustment	5,904	1,232	4,672	-
5	(28,652)	Appropriation for uncollectible reserve	(37,643)	(28,643)	(9,000)	31
6	617,445	Total gas revenues	556,900	606,295	(49,395)	(8)
7	6,544	Appliance & other revenues	5,291	5,455	(164)	(3)
8	11,240	Other operating revenues	6,742	9,805	(3,063)	(31)
9	635,229	Total operating revenues	568,933	621,555	(52,622)	(8)
		Operating expenses				
10	195,816	Natural gas	153,390	187,661	(34,271)	(18)
11	21	Other raw material	19	10	9	90
12	195,837	Sub-total fuel	153,409	187,671	(34,262)	(18)
13	439,392	CONTRIBUTION MARGIN	415,524	433,884	(18,360)	(4)
14	15,557	Gas processing	19,263	18,616	647	3
15	65,451	Field operations	64,792	70,666	(5,874)	(8)
16	3,355	Collection	3,068	3,633	(565)	(16)
17	11,538	Customer services	11,664	12,650	(986)	(8)
18	6,719	Account management	6,758	7,683	(925)	(12)
19	3,270	Marketing	3,370	4,093	(723)	(18)
20	61,390	Administrative & general	58,512	69,154	(10,642)	(15)
21	17,400	Health insurance	17,221	21,117	(3,896)	(18)
22	(8,140)	Capitalized fringe benefits	(8,405)	(6,941)	(1,464)	21
23	(8,665)	Capitalized administrative charges	(8,375)	(12,244)	3,869	(32)
24	27,928	Pensions	25,307	24,609	698	3
25	25,271	Other post-employment benefits	14,910	14,910	-	-
26	7,187	Taxes	7,372	7,685	(313)	(4)
27	-	Cost savings	-	319	(319)	-
28	228,261	Total operating expenses	215,457	235,950	(20,493)	(9)
29	211,131	Operating income before depreciation	200,067	197,934	2,133	1
30	51,710	Net depreciation	52,659	54,252	(1,593)	(3)
31	475,808	Total operating expenses	421,525	477,873	(56,348)	(12)
32	159,421	Operating income	147,408	143,682	3,726	3
33	8,904	Investments gain (loss) and other income	5,630	3,999	1,631	41
34	168,325	Income before interest	153,038	147,681	5,357	4
		Interest				
35	39,604	Long-term debt	36,438	36,683	(245)	(1)
36	(4,383)	Other	(3,266)	(4,059)	793	(20)
37	(964)	Allowance for funds used during construction	(1,569)	(1,408)	(161)	11
38	34,257	Net interest expense	31,603	31,216	387	1
39	\$ 134,068	Net income	\$ 121,435	\$ 116,465	\$ 4,970	
40	\$ (15,000)	Distribution to the City	\$ (15,000)	\$ (15,000)		
41	\$ 119,068	Net earnings after distribution to the City	\$ 106,435	\$ 101,465		

PGW
BALANCE SHEETS JUNE 2020 AND 2019
(Thousands of Dollars)

ASSETS

Line No.		FY2020	FY2019
Non-current assets			
Utility plant, at original cost			
1	In service	\$ 2,542,576	\$ 2,411,683
2	Under construction	93,038	122,510
3	Total	2,635,614	2,534,193
4	Less accumulated depreciation	(1,169,813)	(1,109,078)
5	Utility plant - net	1,465,801	1,425,115
6	Sinking fund - revenue bonds	109,231	105,619
7	Capital improvement funds	-	12,321
8	Unamortized bond issuance cost	237	264
9	Regulatory asset - environmental	37,102	31,593
10	Other non-current assets	6,493	9,116
11	Total non-current assets	1,618,863	1,584,028
Current assets			
12	Cash and temporary investments	213,486	186,273
13	Current portion of capital improvement fund	-	61,000
14	Restricted investment workers' compensation	2,736	2,696
Accounts receivable			
15	Customers	179,306	169,881
16	Others	6,181	3,829
17	Accrued gas revenues	10,852	6,953
18	Accumulated provisions for uncollectible accounts	(77,963)	(68,552)
19	Accounts receivable - net	118,376	112,111
20	Materials and supplies	43,348	45,851
21	Other current assets and deferred debits	7,828	17,553
22	Total current assets	385,774	425,484
Deferred outflows of resources			
23	Accumulated fair value of hedging derivatives	11,515	1,777
24	Unamortized loss on bond refunding	32,739	37,653
25	Deferred outflows related to pension	14,421	24,943
26	Deferred outflows related to OPEB	91,175	81,048
27	Total deferred outflows of resources	149,850	145,422
28	Total assets and deferred outflows of resources	<u>\$ 2,154,488</u>	<u>\$ 2,154,934</u>

PGW
BALANCE SHEETS JUNE 2020 AND 2019
(Thousands of Dollars)

EQUITY AND LIABILITIES

			FY2020	FY2019	Line No.
Long term debt					
City of Philadelphia bonds					
<u>Issued</u>	<u>Original amount</u>	<u>Current portion</u>			
2004	207,820	-	30,000	30,000	1
2009	313,285	-	122,810	122,810	2
2010	150,000	3,755	57,080	60,835	3
2011	88,855	4,410	14,750	19,160	4
2015	261,770	15,720	177,970	193,690	5
2016	312,425	21,680	231,885	253,565	6
2017	273,140	4,445	255,435	259,880	7
Total issued		50,010	889,930	939,940	8
Unamortized debt discount/premium		<u>9,458</u>	<u>80,404</u>	<u>89,586</u>	9
Total long-term bond debt		59,468	970,334	1,029,526	10
Current liabilities					
Current portion of revenue bonds			\$ 59,468	\$ 68,185	11
Notes payable			-	-	12
Accounts payable			38,256	33,223	13
Current portion of long-term liabilities			8,153	9,118	14
Customers' deposits			2,430	3,022	15
Other current liabilities and deferred credits			26,685	25,680	16
Accrued accounts:					
Interest, taxes and wages			20,188	19,528	17
Distribution to the City			-	-	18
Total current liabilities			155,180	158,756	19
Non-current liabilities					
Long-term revenue bonds			970,334	1,029,526	20
Net pension liabilities			247,246	261,261	21
Net OPEB liabilities			335,572	388,742	22
Other non-current liabilities			<u>65,486</u>	<u>55,895</u>	23
Total non-current liabilities			1,618,637	1,735,424	24
Deferred inflows of resources					
Deferred inflows related to pension			19,081	17,358	25
Deferred inflows related to OPEB			<u>47,592</u>	<u>12,628</u>	26
Total deferred inflows of resources			66,673	29,987	27
Net position			313,997	230,766	28
Total liabilities, deferred inflows of resources, and net position			<u>\$ 2,154,488</u>	<u>\$ 2,154,934</u>	29

PHILADELPHIA GAS WORKS
NATURAL GAS PRICE - VOLUME ANALYSIS

	<u>JUNE 2020</u>			<u>10 MONTHS ENDED JUNE 30, 2020</u>		
	<u>ACTUAL</u>	<u>BUDGET</u>	<u>DIFFERENCE</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>DIFFERENCE</u>
N.G. Utilization (Mcf)	964,530	1,075,698	(111,168)	39,965,922	45,485,493	(5,519,571)
COMMODITY	\$1,856,502	\$2,223,893	(\$367,391)	\$85,117,891	\$127,663,680	(\$42,545,789)
Average Price	1.9248	2.0674	(0.1426)	2.1298	2.8067	(0.6769)
DEMAND	1,769,624	1,383,678	385,946	70,634,798	59,998,149	10,636,649
Total Demand & Commodity	\$3,626,126	\$3,607,571	\$18,555	\$155,752,689	\$187,661,829	(\$31,909,140)
Average Price	3.759	3.3537	0.4058	3.897	4.1258	(0.2286)
REFUNDS	(\$2,351,884)	-	(\$2,351,884)	(\$2,362,683)	-	(\$2,362,683)
TOTAL	<u>\$1,274,242</u>	<u>\$3,607,571</u>	<u>(\$2,333,329)</u>	<u>\$153,390,005</u>	<u>\$187,661,828</u>	<u>(\$34,271,823)</u>
<u>CHANGE DUE TO:</u>						
Commodity Price	(\$137,563)	(0.1426)	-6.90%	(\$27,054,064)	(0.6769)	-24.12%
Volume	(229,828)	(111,168)	-10.33%	(15,491,725)	(5,519,571)	-12.13%
Demand	385,946			10,636,649		
Total Demand & Commodity	18,555	0.4058	12.10%	(31,909,140)	(0.2286)	-5.54%
Refunds	(2,351,884)			(2,362,683)		
TOTAL VARIANCE	<u>(\$2,333,329)</u>			<u>(\$34,271,823)</u>		

PHILADELPHIA GAS WORKS
PAYROLL EXPENSES
FISCAL YEAR 2019-20

<u>Months</u>	<u>Actual</u>	<u>Empl.</u>	<u>Monthly Budget</u>	<u>Empl.</u>	<u>Diff.</u>	<u>Empl.</u>	<u>Actual</u>	<u>Empl.</u>	<u>Cumulative Budget</u>	<u>Empl.</u>	<u>Diff.</u>	<u>Empl.</u>
September 2019	\$9,651,552	1,637	\$10,293,796	1,674	(\$642,244)	(37)	\$9,651,552	1,637	\$10,293,796	1,674	(\$642,244)	(37)
October	9,846,738	1,644	10,410,914	1,674	(564,176)	(30)	19,498,290	1,641	20,704,710	1,674	(1,206,420)	(34)
November	13,103,072	1,661	13,102,962	1,674	110	(13)	32,601,362	1,647	33,807,672	1,674	(1,206,310)	(27)
December	11,740,237	1,664	10,837,515	1,674	902,722	(10)	44,341,599	1,652	44,645,187	1,674	(303,588)	(23)
January 2020	12,653,215	1,625	13,051,585	1,674	(398,370)	(49)	56,994,814	1,646	57,696,772	1,674	(701,958)	(28)
February	9,867,208	1,626	10,640,900	1,674	(773,692)	(48)	66,862,022	1,643	68,337,672	1,674	(1,475,650)	(31)
March	10,027,558	1,635	10,339,284	1,674	(311,726)	(39)	76,889,580	1,642	78,676,956	1,674	(1,787,376)	(32)
April	9,604,973	1,644	10,280,940	1,674	(675,967)	(30)	86,494,553	1,642	88,957,896	1,674	(2,463,343)	(32)
May	11,922,062	1,641	12,856,555	1,674	(934,493)	(33)	98,416,615	1,642	101,814,451	1,674	(3,397,836)	(32)
June	9,893,528	1,637	10,399,116	1,674	(505,588)	(37)	108,310,143	1,641	112,213,567	1,674	(3,903,424)	(33)
July			12,849,601	1,674					125,063,168			
August 2020			10,875,828	1,674					135,938,996			
Total	<u>\$108,310,143</u>		<u>\$135,938,996</u>		<u>(\$3,903,424)</u>		<u>\$108,310,143</u>		<u>\$135,938,996</u>		<u>(\$3,903,424)</u>	

PHILADELPHIA GAS WORKS
CAPITAL EXPENDITURES
FISCAL YEAR 2019-20

<u>Months</u>	<u>Actual</u>	<u>Monthly Budget</u>	<u>Diff.</u>	<u>Actual</u>	<u>Cumulative Budget</u>	<u>Diff.</u>
September 2019	\$6,006,062	\$9,257,000	(3,250,938)	\$6,006,062	\$9,257,000	(\$3,250,938)
October	4,218,522	8,665,000	(4,446,478)	10,224,584	17,922,000	(7,697,416)
November	9,658,979	8,217,000	1,441,979	19,883,563	26,139,000	(6,255,437)
December	156,714	10,232,000	(10,075,286)	20,040,277	36,371,000	(16,330,723)
January 2020	4,322,575	10,475,000	(6,152,425)	24,362,852	46,846,000	(22,483,148)
February	11,867,914	8,859,000	3,008,914	36,230,765	55,705,000	(19,474,235)
March	4,883,705	12,274,000	(7,390,295)	41,114,470	67,979,000	(26,864,530)
April	4,454,681	12,016,000	(7,561,319)	45,569,151	79,995,000	(34,425,849)
May	9,149,440	11,018,000	(1,868,560)	54,718,591	91,013,000	(36,294,409)
June	8,590,472	13,448,000	(4,857,528)	63,309,063	104,461,000	(41,151,937)
July		14,367,000			118,828,000	
August 2020		16,911,000			135,739,000	
Total	<u>\$63,309,063</u>	<u>\$135,739,000</u>	<u>(\$41,151,937)</u>	<u>\$63,309,063</u>	<u>\$135,739,000</u>	<u>(\$41,151,937)</u>

Total Capital Expenditures for the ten months ended June 30, 2019 were \$68,774,780.

PHILADELPHIA GAS WORKS
CAPITAL SPENDING
FISCAL YEAR 2019-20
(Dollars in Thousands)

<u>Department</u>	<u>Sep-19</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan-20</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug-20</u>	<u>Total</u>
<u>Gas Processing</u>													
Actual	436	32	257	34	289	174	125	124	289	155	-	-	1,914
Budget	523	513	533	552	527	562	611	722	723	687	638	629	7,220
Difference	(87)	(481)	(276)	(518)	(238)	(388)	(486)	(598)	(434)	(532)	(638)	(629)	(5,306)
<u>Distribution</u>													
Actual	4,746	3,975	8,282	(367)	3,555	11,227	4,139	3,751	8,062	7,561	-	-	54,930
Budget	5,012	5,191	4,546	6,546	6,667	5,530	8,778	8,321	7,530	10,139	10,777	12,769	91,806
Difference	(266)	(1,216)	3,736	(6,913)	(3,112)	5,697	(4,639)	(4,570)	532	(2,578)	(10,777)	(12,769)	(36,876)
<u>Field Services</u>													
Actual	322	271	791	108	188	288	321	110	216	454	-	-	3,070
Budget	1,392	1,359	809	1,333	1,303	726	1,308	1,405	860	1,024	1,400	970	13,889
Difference	(1,070)	(1,088)	(18)	(1,225)	(1,115)	(438)	(987)	(1,295)	(644)	(570)	(1,400)	(970)	(10,819)
<u>Fleet</u>													
Actual	92	27	144	340	1	23	1	184	1	(4)	-	-	808
Budget	983	214	662	220	404	556	-	144	-	-	-	356	3,539
Difference	(891)	(187)	(518)	120	(403)	(533)	1	40	1	(4)	-	(356)	(2,731)
<u>Facilities</u>													
Actual	93	(166)	67	4	288	145	149	106	538	132	-	-	1,356
Budget	157	157	465	400	163	264	346	157	724	407	157	1,006	4,403
Difference	(64)	(323)	(398)	(396)	125	(119)	(197)	(51)	(186)	(275)	(157)	(1,006)	(3,047)
<u>Info. Technology</u>													
Actual	311	15	118	38	1	11	67	180	44	293	-	-	1,078
Budget	1,181	1,231	1,191	1,181	1,411	1,221	1,231	1,256	1,181	1,191	1,371	1,181	14,827
Difference	(870)	(1,216)	(1,073)	(1,143)	(1,410)	(1,210)	(1,164)	(1,076)	(1,137)	(898)	(1,371)	(1,181)	(13,749)
<u>Other</u>													
Actual	5	65	0	-	-	-	83	-	-	-	-	-	153
Budget	9	-	11	-	-	-	-	11	-	-	24	-	55
Difference	(4)	65	(11)	-	-	-	83	(11)	-	-	(24)	-	98
<u>Total</u>													
Actual	6,006	4,219	9,659	157	4,323	11,868	4,884	4,455	9,149	8,590	-	-	63,309
Budget	9,257	8,665	8,217	10,232	10,475	8,859	12,274	12,016	11,018	13,448	14,367	16,911	135,739
Difference	(3,251)	(4,446)	1,442	(10,075)	(6,152)	3,009	(7,390)	(7,561)	(1,869)	(4,858)			
To-Date Difference	(3,251)	(7,697)	(6,255)	(16,331)	(22,483)	(19,474)	(26,865)	(34,426)	(36,294)	(41,152)			

PHILADELPHIA GAS WORKS
GAS STORAGE & OTHER MATERIAL INVENTORY LEVELS

	<u>Gas Storages</u>	<u>Other Materials & Supplies</u>	<u>Total Gas Storages, Materials & Supplies</u>
Aug-97	44,811,052	9,400,948	54,212,000
Aug-98	42,747,160	9,700,840	52,448,000
Aug-99	43,622,836	10,227,164	53,850,000
Aug-00	57,690,267	10,008,733	67,699,000
Aug-01	79,249,061	11,984,939	91,234,000
Aug-02	75,412,123	10,655,842	86,067,965
Aug-03	64,607,766	9,420,965	74,028,731
Aug-04	88,820,803	9,646,349	98,467,152
Aug-05	121,266,081	8,717,508	129,983,589
Aug-06	139,869,625	9,567,931	149,437,556
Aug-07	138,388,383	9,381,584	147,769,967
Aug-08	179,750,233	7,788,429	187,538,662
Aug-09	117,888,742	7,133,951	125,022,693
Aug-10	96,096,764	7,036,373	103,133,137
Aug-11	78,578,925	7,414,121	85,993,046
Aug-12	73,085,653	7,999,829	81,085,482
Aug-13	70,637,950	9,595,579	80,233,529
Aug-14	60,088,566	9,900,436	69,989,002
Aug-15	40,790,693	10,117,390	50,908,083
Aug-16	38,555,898	9,335,069	47,890,967
Sep-16	41,420,120	9,185,940	50,606,060
Oct-16	42,657,857	9,243,375	51,901,232
Nov-16	43,589,669	9,150,874	52,740,543
Dec-16	39,926,767	9,038,941	48,965,708
Jan-17	33,645,057	9,175,838	42,820,895
Feb-17	30,842,920	9,003,554	39,846,474
Mar-17	28,841,358	9,114,512	37,955,870
Apr-17	27,270,523	9,045,046	36,315,569
May-17	31,348,739	9,032,269	40,381,008
Jun-17	36,874,885	9,224,528	46,099,413
Jul-17	40,772,888	9,646,601	50,419,489
Aug-17	46,031,091	9,382,695	55,413,786
Sep-17	48,629,471	9,245,353	57,874,824
Oct-17	50,162,046	9,334,148	59,496,194
Nov-17	51,083,882	9,609,015	60,692,897
Dec-17	43,838,463	9,748,668	53,587,131
Jan-18	34,108,793	10,012,771	44,121,564
Feb-18	30,360,686	10,191,822	40,552,508
Mar-18	25,594,325	10,310,924	35,905,249
Apr-18	24,715,667	10,374,305	35,089,972
May-18	28,032,605	11,071,993	39,104,598
Jun-18	32,381,070	11,106,876	43,487,946
Jul-18	36,965,966	10,935,788	47,901,754
Aug-18	41,652,201	10,712,014	52,364,215
Sep-18	46,068,483	10,590,673	56,659,156
Oct-18	50,076,371	10,454,058	60,530,429
Nov-18	48,896,235	10,594,561	59,490,796
Dec-18	47,368,051	10,677,147	58,045,198
Jan-19	36,989,947	10,622,803	47,612,750
Feb-19	30,900,635	10,660,701	41,561,336
Mar-19	27,847,790	10,906,331	38,754,121
Apr-19	29,919,803	10,874,231	40,794,034
May-19	31,760,889	10,973,492	42,734,381
Jun-19	34,924,548	10,925,979	45,850,527
Jul-19	38,246,722	10,776,852	49,023,574
Aug-19	41,263,121	10,428,365	51,691,486
Sep-19	43,324,926	10,369,956	53,694,882
Oct-19	45,615,190	10,454,222	56,069,412
Nov-19	45,356,903	10,909,479	56,266,382
Dec-19	43,011,987	10,830,176	53,842,163
Jan-20	38,163,464	10,541,479	48,704,943
Feb-20	34,033,789	10,570,755	44,604,544
Mar-20	32,122,328	11,476,461	43,598,789
Apr-20	28,745,264	11,645,344	40,390,608
May-20	30,466,678	11,308,367	41,775,045
Jun-20	32,086,119	11,262,366	43,348,485

PHILADELPHIA GAS WORKS
GAS INVENTORY STORAGE VOLUMES / DOLLARS

	PASSYUNK		RICHMOND		TRANSCO-GSS		TETCO-KEYSTONE		TETCO-SSIA	
	MCF	Dollars	MCF	Dollars	MCF	Dollars	MCF	Dollars	MCF	Dollars
Aug-97	250,231	708,302	3,205,457	9,273,129	3,365,568	8,133,926	398,149	911,881	1,953,617	4,629,823
Aug-98	224,492	644,599	2,864,084	8,197,075	2,894,355	7,381,022	381,947	926,319	1,850,837	4,477,831
Aug-99	50,175	155,371	2,860,116	8,453,223	2,780,803	6,261,976	384,359	940,011	1,867,513	4,513,293
Aug-00	152,196	529,225	3,188,868	13,521,505	3,363,364	9,060,746	442,536	1,168,224	2,217,457	5,762,387
Aug-01	201,388	728,737	2,634,327	15,704,157	2,929,109	16,266,478	358,283	1,976,898	1,827,667	9,252,863
Aug-02	129,335	292,470	3,130,558	19,539,982	2,970,252	13,729,769	389,410	1,667,327	1,601,991	7,135,361
Aug-03	207,935	780,985	2,458,522	17,568,088	2,930,881	16,381,162	395,551	2,480,239	1,738,736	10,521,062
Aug-04	140,632	321,643	2,301,167	16,648,004	3,199,766	20,929,969	382,651	2,221,210	2,050,632	12,538,767
Aug-05	177,818	1,263,117	2,428,389	18,293,762	3,179,946	24,253,985	425,722	3,409,011	1,769,753	13,102,718
Aug-06	203,457	1,977,743	2,792,283	27,407,616	3,042,311	24,145,465	389,477	3,161,333	1,882,439	16,029,496
Aug-07	156,591	1,517,223	2,714,066	27,483,648	2,757,451	22,323,078	391,747	3,574,967	1,782,736	14,863,176
Aug-08	177,819	1,727,461	3,451,672	35,343,173	3,050,671	32,317,116	379,298	4,573,114	1,958,508	22,905,213
Aug-09	132,122	1,290,720	2,370,507	23,855,394	2,949,470	18,200,850	382,575	1,816,704	2,022,663	15,083,488
Aug-10	173,403	1,756,192	2,560,417	22,528,208	2,978,163	15,569,490	388,804	1,946,992	1,891,251	11,299,768
Aug-11	174,504	1,786,605	2,418,226	18,223,735	2,993,168	14,664,526	382,357	1,922,059	1,929,115	9,707,863
Aug-12	68,285	445,222	3,140,165	20,482,036	3,090,207	11,385,840	387,411	1,255,873	2,003,394	8,983,061
Aug-13	173,958	1,132,876	3,196,082	18,883,926	3,162,643	12,759,579	-	-	2,067,291	8,789,858
Aug-14	122,491	829,859	1,837,428	11,008,139	2,819,736	12,488,452	-	-	1,910,395	8,200,401
Aug-15	89,054	651,516	1,676,531	8,110,448	2,893,028	9,111,319	-	-	1,818,637	4,603,920
Aug-16	129,654	870,217	2,610,489	10,283,621	3,083,160	7,686,117	-	-	1,995,510	4,216,268
Sep-16	126,359	856,805	2,573,124	10,111,945	3,508,168	8,575,154	-	-	2,194,678	4,469,647
Oct-16	122,794	842,319	2,701,601	10,449,490	3,562,046	8,444,079	-	-	2,442,981	4,698,411
Nov-16	195,792	1,134,165	2,865,411	10,880,883	3,709,444	9,124,189	-	-	2,491,989	4,754,404
Dec-16	200,760	1,153,661	3,095,584	11,554,906	3,183,043	7,625,977	-	-	2,273,056	4,309,346
Jan-17	194,675	1,130,203	3,189,396	11,810,362	2,545,142	5,737,974	-	-	1,848,359	3,368,015
Feb-17	189,430	1,110,146	3,426,022	12,625,708	1,990,513	4,291,970	-	-	1,616,991	2,875,501
Mar-17	183,634	1,085,126	3,565,262	13,071,750	1,417,940	2,753,288	-	-	1,291,735	2,200,137
Apr-17	179,770	1,070,672	3,664,169	13,446,802	1,430,426	2,799,445	-	-	1,229,021	2,135,196
May-17	176,182	1,057,113	3,689,833	13,760,399	1,966,637	4,571,929	-	-	1,444,915	2,777,598
Jun-17	172,318	1,042,304	3,632,091	13,529,792	2,451,384	6,041,374	-	-	1,828,842	3,779,022
Jul-17	168,730	1,027,685	3,571,143	13,281,453	2,956,699	7,353,382	-	-	1,997,690	4,112,345
Aug-17	164,869	1,003,384	3,510,200	14,568,089	3,465,081	8,683,244	-	-	2,110,134	4,411,110
Sep-17	161,559	989,360	3,454,876	14,332,578	3,797,875	9,578,123	-	-	2,235,857	4,639,692
Oct-17	158,249	972,192	3,447,926	14,327,379	3,806,538	9,600,035	-	-	2,496,537	4,985,531
Nov-17	170,098	1,022,814	3,617,662	15,201,589	3,755,741	9,511,125	-	-	2,509,490	5,030,265
Dec-17	159,353	976,794	3,293,070	13,594,697	2,994,888	7,611,369	-	-	2,156,822	4,351,327
Jan-18	127,175	840,980	2,480,362	10,084,629	2,235,705	5,681,537	-	-	1,820,646	3,791,401
Feb-18	206,286	1,175,955	2,600,153	11,009,951	1,530,703	3,845,257	-	-	1,453,196	3,115,539
Mar-18	209,325	1,189,150	2,882,501	11,811,293	904,638	2,201,380	-	-	1,192,021	2,522,589
Apr-18	205,171	1,171,681	3,051,759	12,415,199	745,692	1,843,216	-	-	944,783	1,997,993
May-18	201,016	1,154,350	3,020,255	12,177,966	1,174,492	3,136,194	-	-	1,005,146	2,139,685
Jun-18	197,416	1,139,451	2,959,131	11,904,441	1,713,943	4,801,351	-	-	1,394,439	3,105,595
Jul-18	193,551	1,123,484	2,897,744	11,650,822	2,284,671	6,534,888	-	-	1,583,946	3,604,056
Aug-18	189,687	1,107,514	2,837,185	11,399,327	2,855,961	8,293,856	-	-	1,985,768	4,676,706
Sep-18	186,099	1,092,688	2,780,301	11,164,288	3,406,668	9,936,685	-	-	2,139,635	5,073,656
Oct-18	182,235	1,076,710	2,944,727	12,052,804	3,717,575	10,974,715	-	-	2,384,246	5,703,412
Nov-18	175,336	1,048,196	3,234,449	13,497,094	3,427,363	10,206,614	-	-	2,349,106	5,703,705
Dec-18	169,264	1,022,294	3,374,703	14,594,190	3,238,341	9,787,622	-	-	2,313,919	5,910,416
Jan-19	103,294	731,603	2,953,502	12,848,053	2,382,072	7,163,881	-	-	1,716,070	4,369,721
Feb-19	16,217	344,768	3,074,733	13,705,949	1,710,070	5,096,768	-	-	1,253,999	3,124,175
Mar-19	6,699	315,186	3,368,551	14,775,456	1,458,890	4,313,533	-	-	851,225	2,071,573
Apr-19	1,649	245,008	3,437,229	14,958,835	1,657,727	4,822,397	-	-	882,924	2,133,044
May-19	-	-	3,465,548	15,005,544	2,019,721	5,721,125	-	-	891,216	2,152,142
Jun-19	-	-	3,409,965	14,694,453	2,376,521	6,613,155	-	-	1,191,106	2,833,370
Jul-19	-	-	3,351,446	14,442,278	2,605,507	7,155,004	-	-	1,596,545	3,683,294
Aug-19	-	-	3,291,596	14,182,894	2,975,892	7,988,025	-	-	1,943,866	4,409,449
Sep-19	-	-	3,232,564	13,928,537	3,294,244	8,700,878	-	-	2,192,680	4,848,829
Oct-19	-	-	3,178,888	13,662,844	3,388,277	8,867,351	-	-	2,291,442	4,995,736
Nov-19	-	-	3,536,637	15,024,808	3,492,796	9,155,956	-	-	2,329,449	5,070,411
Dec-19	8,062	34,250	3,853,451	16,078,488	3,121,443	8,112,050	-	-	2,265,526	4,911,014
Jan-20	194,109	810,568	3,706,375	15,336,854	2,653,237	6,857,870	-	-	1,690,388	3,645,448
Feb-20	228,982	954,935	3,833,929	15,609,501	1,823,018	4,626,651	-	-	1,534,531	3,272,182
Mar-20	221,777	925,560	3,763,876	15,393,135	1,854,268	4,610,174	-	-	1,377,137	2,888,135
Apr-20	217,068	906,154	3,780,984	15,367,355	1,594,763	3,947,365	-	-	769,250	1,558,551
May-20	212,359	886,987	3,774,029	15,246,561	1,854,184	4,389,294	-	-	976,797	1,900,702
Jun-20	208,205	870,287	3,712,528	14,982,942	2,352,932	4,981,222	-	-	1,343,108	2,396,230

PHILADELPHIA GAS WORKS
GAS INVENTORY STORAGE VOLUMES / DOLLARS

	TETCO-ANR-FSS		TRANSCO-WSS		TETCO-SS1B		TETCO-GSS		TRANSCO-S-2	
	MCF	Dollars	MCF	Dollars	MCF	Dollars	MCF	Dollars	MCF	Dollars
Aug-97	1,412,947	3,207,766	2,557,080	5,407,456	1,698,197	4,092,322	2,713,920	6,859,867	351,124	804,932
Aug-98	1,400,274	3,340,582	2,247,005	5,022,632	1,782,478	4,361,145	298,339	7,217,250	352,908	887,009
Aug-99	1,406,525	3,435,092	2,405,328	5,107,587	1,666,785	4,159,560	3,381,559	9,634,608	373,857	788,098
Aug-00	1,609,476	4,282,752	2,578,931	6,462,159	1,969,878	5,322,449	3,697,294	10,267,609	422,962	1,092,870
Aug-01	1,225,624	7,184,589	403,321	1,453,364	1,583,855	8,807,844	2,939,530	15,656,999	275,978	1,562,148
Aug-02	1,080,016	4,752,503	1,484,137	5,460,907	1,595,953	7,549,362	3,004,082	11,626,524	417,840	1,848,453
Aug-03	-	-	647,425	3,505,748	1,603,409	9,670,779	-	-	316,987	1,850,562
Aug-04	-	-	-	14,599	1,939,475	11,351,879	3,095,702	21,631,254	323,249	2,309,511
Aug-05	-	-	1,937,511	13,822,841	1,852,175	13,914,655	3,056,494	23,699,092	370,932	2,764,961
Aug-06	-	-	2,196,058	19,164,938	1,877,935	15,616,803	2,915,286	23,864,573	327,405	2,464,323
Aug-07	-	-	2,392,100	20,039,518	1,739,761	14,646,768	2,832,163	24,411,198	328,911	2,603,970
Aug-08	-	-	2,168,610	19,820,555	1,780,319	20,397,260	2,945,092	31,216,721	341,169	3,786,205
Aug-09	-	-	2,078,297	16,131,239	1,803,314	13,834,544	2,884,470	20,479,306	326,497	1,921,320
Aug-10	-	-	1,498,183	9,762,621	1,684,480	9,743,858	3,086,297	16,620,555	333,539	1,715,094
Aug-11	-	-	1,050,342	5,390,063	1,828,474	8,972,517	2,942,384	13,709,587	324,740	1,522,150
Aug-12	-	-	1,403,440	6,037,854	1,783,116	7,504,490	3,016,198	13,876,065	367,492	1,366,679
Aug-13	-	-	1,139,830	4,770,208	1,761,664	7,564,148	2,834,494	13,003,821	363,666	1,440,747
Aug-14	-	-	1,352,617	6,090,059	1,902,115	8,167,242	2,727,281	9,709,784	345,893	1,453,595
Aug-15	-	-	1,323,983	4,797,598	2,158,311	4,519,723	2,738,752	6,089,736	326,746	941,794
Aug-16	-	-	1,957,400	6,053,857	1,987,132	3,636,841	2,750,533	5,005,768	336,959	803,209
Sep-16	-	-	2,176,937	6,665,492	2,345,321	4,060,170	3,148,415	5,763,812	386,522	917,095
Oct-16	-	-	2,199,160	6,719,988	2,409,073	4,085,035	3,488,890	6,422,245	418,536	996,290
Nov-16	-	-	2,213,989	6,752,249	2,431,037	4,105,703	3,167,938	5,768,055	442,392	1,070,021
Dec-16	-	-	2,068,295	6,265,461	2,270,664	3,817,782	2,509,826	4,414,254	336,534	785,380
Jan-17	-	-	1,785,523	5,492,523	1,830,928	2,981,329	1,707,221	2,763,215	207,899	361,436
Feb-17	-	-	1,430,102	4,742,556	1,578,318	2,518,989	1,325,412	2,346,148	127,957	331,902
Mar-17	-	-	1,758,206	6,021,479	1,331,785	2,089,125	857,588	1,372,923	90,869	247,530
Apr-17	-	-	1,151,858	3,793,845	1,332,602	2,264,494	856,441	1,493,779	97,272	266,290
May-17	-	-	1,194,584	3,934,289	1,706,226	3,385,537	820,231	1,432,328	150,374	429,546
Jun-17	-	-	1,208,740	3,979,761	1,851,869	3,698,716	1,798,340	4,213,067	205,110	590,849
Jul-17	-	-	1,337,381	4,369,466	2,218,276	4,445,128	2,369,752	5,430,218	265,006	753,211
Aug-17	-	-	1,903,946	5,211,831	2,203,765	4,507,513	2,969,936	6,709,707	323,753	936,213
Sep-17	-	-	2,100,195	5,811,400	2,312,722	4,713,683	3,362,629	7,476,743	381,706	1,087,892
Oct-17	-	-	2,331,960	6,516,006	2,455,025	4,863,966	3,515,058	7,669,043	438,329	1,227,894
Nov-17	-	-	2,420,412	6,769,892	2,479,659	4,864,224	3,411,673	7,430,069	446,122	1,253,904
Dec-17	-	-	2,230,528	6,243,272	2,207,270	4,278,675	2,669,376	5,794,919	352,132	987,410
Jan-18	-	-	1,899,136	5,300,493	1,925,073	3,690,567	1,819,654	3,919,559	289,164	799,627
Feb-18	-	-	1,779,966	4,969,682	1,491,907	2,773,081	1,376,233	2,925,433	201,573	545,788
Mar-18	-	-	1,582,126	4,409,704	981,780	1,619,485	701,813	1,478,301	137,832	362,423
Apr-18	-	-	1,497,271	4,164,683	890,281	1,443,782	618,580	1,281,663	150,481	397,450
May-18	-	-	1,484,441	4,130,880	1,155,063	2,083,203	1,176,560	2,675,087	202,410	535,240
Jun-18	-	-	1,502,250	4,182,329	1,359,084	2,559,151	1,730,243	4,009,285	255,002	679,467
Jul-18	-	-	1,570,235	4,392,867	1,745,808	3,532,843	2,227,621	5,287,093	309,165	839,913
Aug-18	-	-	1,620,233	4,536,640	1,917,867	3,977,765	2,746,515	6,657,438	366,311	1,002,955
Sep-18	-	-	1,664,854	4,666,249	2,276,544	4,938,987	3,247,059	8,031,361	424,136	1,164,569
Oct-18	-	-	1,733,543	4,863,993	2,395,156	5,256,560	3,577,120	8,898,597	454,805	1,249,580
Nov-18	-	-	1,692,040	4,755,079	2,289,757	5,078,483	2,996,168	7,455,092	418,430	1,151,972
Dec-18	-	-	1,595,193	4,560,982	2,189,670	5,007,384	2,231,439	5,529,562	348,683	955,601
Jan-19	-	-	1,247,064	3,557,504	1,661,336	3,674,750	1,606,342	3,958,537	253,059	685,898
Feb-19	-	-	1,098,393	3,127,105	1,192,264	2,437,279	1,047,192	2,536,043	198,390	528,548
Mar-19	-	-	1,003,041	2,851,253	731,322	1,239,907	750,134	1,805,441	179,611	475,441
Apr-19	-	-	1,017,975	2,893,464	797,951	1,388,758	1,191,769	2,980,001	188,699	498,296
May-19	-	-	1,033,688	2,934,590	882,895	1,584,694	1,518,057	3,749,950	237,600	612,844
Jun-19	-	-	1,046,927	2,969,655	1,135,986	2,171,238	2,008,728	4,925,722	280,295	716,955
Jul-19	-	-	1,144,362	3,224,658	1,545,531	3,077,154	2,440,390	5,847,188	321,910	817,146
Aug-19	-	-	1,125,323	3,177,470	1,917,453	3,857,655	2,867,810	6,731,502	363,783	916,126
Sep-19	-	-	1,153,702	3,242,786	2,179,183	4,325,475	3,177,919	7,282,080	402,420	996,341
Oct-19	-	-	1,375,391	3,763,170	2,337,155	4,575,373	3,460,257	7,704,732	427,297	1,045,984
Nov-19	-	-	1,389,329	3,798,586	2,382,418	4,708,076	2,956,120	6,572,876	418,632	1,026,190
Dec-19	-	-	1,316,468	3,605,031	2,268,530	4,434,279	2,264,216	5,007,153	339,988	829,722
Jan-20	-	-	1,200,957	3,281,716	1,846,062	3,511,280	1,875,523	4,105,823	254,310	613,905
Feb-20	-	-	1,142,808	3,119,504	1,557,222	2,857,517	1,442,916	3,134,258	193,064	459,241
Mar-20	-	-	1,130,195	3,075,083	1,205,674	2,051,393	1,349,873	2,802,712	160,272	376,135
Apr-20	-	-	1,120,768	3,049,387	794,410	1,163,710	1,199,702	2,396,585	152,599	356,157
May-20	-	-	1,148,279	3,099,570	1,049,107	1,552,061	1,544,315	2,975,133	191,399	416,370
Jun-20	-	-	1,187,586	3,169,520	1,150,385	1,708,957	1,904,505	3,490,801	243,714	486,160

PHILADELPHIA GAS WORKS
GAS INVENTORY STORAGE VOLUMES / DOLLARS

	SOUTH JERSEY		TRANSCO-EMINENCE		TRANSCO-LGA		EMINENCE-2		Total	Total	Avg.
	MCF	Dollars	MCF	Dollars	MCF	Dollars	MCF	Dollars	Volume	Dollars	Inv. Value
Aug-97	200,000	517,890	82,053	170,041	36,617	93,717	-	-	18,224,960	44,811,052	Aug-97 \$ 2.46
Aug-98	-	-	80,759	179,881	35,997	111,815	-	-	14,413,475	42,747,160	Aug-98 \$ 2.97
Aug-99	-	-	62,395	123,880	50,137	50,137	-	-	17,289,552	43,622,836	Aug-99 \$ 2.52
Aug-00	-	-	165,899	369,488	(50,137)	(149,147)	-	-	19,758,724	57,690,267	Aug-00 \$ 2.92
Aug-01	-	-	46,461	162,054	-	-	123,148	492,930	14,548,691	79,249,061	Aug-01 \$ 5.45
Aug-02	-	-	100,625	338,237	-	-	431,245	1,471,228	16,335,444	75,412,123	Aug-02 \$ 4.62
Aug-03	-	-	77,384	428,685	-	-	284,475	1,420,456	10,661,305	64,607,766	Aug-03 \$ 6.06
Aug-04	-	-	156,067	840,904	-	-	-	13,063	13,589,341	88,820,803	Aug-04 \$ 6.54
Aug-05	-	-	415,546	2,610,922	-	-	596,834	4,131,017	16,211,120	121,266,081	Aug-05 \$ 7.48
Aug-06	-	-	316,711	2,457,288	-	-	458,955	3,580,047	16,402,317	139,869,625	Aug-06 \$ 8.53
Aug-07	-	-	354,109	2,852,294	-	-	505,241	4,072,543	15,954,876	138,388,383	Aug-07 \$ 8.67
Aug-08	-	-	348,884	3,405,330	-	-	442,264	4,258,085	17,044,306	179,750,233	Aug-08 \$ 10.55
Aug-09	-	-	343,749	2,395,080	-	-	462,562	2,880,097	15,756,226	117,888,742	Aug-09 \$ 7.48
Aug-10	-	-	360,183	2,063,232	-	-	581,703	3,090,754	15,536,423	96,096,764	Aug-10 \$ 6.19
Aug-11	-	-	182,459	860,455	-	-	392,978	1,819,366	14,618,747	78,578,926	Aug-11 \$ 5.38
Aug-12	-	-	229,446	781,792	-	-	280,117	966,741	15,769,271	73,085,653	Aug-12 \$ 4.63
Aug-13	-	-	231,766	964,409	-	-	349,621	1,328,378	15,281,015	70,637,950	Aug-13 \$ 4.62
Aug-14	-	-	180,479	858,531	-	-	268,830	1,282,504	13,467,265	60,088,566	Aug-14 \$ 4.46
Aug-15	-	-	299,662	859,021	-	-	387,624	1,105,618	13,712,328	40,790,693	Aug-15 \$ 2.97
Aug-16	-	-	-	-	-	-	-	-	14,850,837	38,555,898	Aug-16 \$ 2.60
Sep-16	-	-	-	-	-	-	-	-	16,459,524	41,420,120	\$ 2.52
Oct-16	-	-	-	-	-	-	-	-	17,345,081	42,657,857	\$ 2.46
Nov-16	-	-	-	-	-	-	-	-	17,517,992	43,589,669	\$ 2.49
Dec-16	-	-	-	-	-	-	-	-	15,937,762	39,926,767	\$ 2.51
Jan-17	-	-	-	-	-	-	-	-	13,309,143	33,645,057	\$ 2.53
Feb-17	-	-	-	-	-	-	-	-	11,684,745	30,842,920	\$ 2.64
Mar-17	-	-	-	-	-	-	-	-	10,497,019	28,841,358	\$ 2.75
Apr-17	-	-	-	-	-	-	-	-	9,941,559	27,270,523	\$ 2.74
May-17	-	-	-	-	-	-	-	-	11,148,982	31,348,739	\$ 2.81
Jun-17	-	-	-	-	-	-	-	-	13,148,694	36,874,885	\$ 2.80
Jul-17	-	-	-	-	-	-	-	-	14,884,677	40,772,888	\$ 2.74
Aug-17	-	-	-	-	-	-	-	-	16,651,684	46,031,091	Aug-17 \$ 2.76
Sep-17	-	-	-	-	-	-	-	-	17,807,419	48,629,471	\$ 2.73
Oct-17	-	-	-	-	-	-	-	-	18,649,622	50,162,046	\$ 2.69
Nov-17	-	-	-	-	-	-	-	-	18,810,857	51,083,882	\$ 2.72
Dec-17	-	-	-	-	-	-	-	-	16,063,439	43,838,463	\$ 2.73
Jan-18	-	-	-	-	-	-	-	-	12,596,915	34,108,793	\$ 2.71
Feb-18	-	-	-	-	-	-	-	-	10,640,017	30,360,686	\$ 2.85
Mar-18	-	-	-	-	-	-	-	-	8,592,036	25,594,325	\$ 2.98
Apr-18	-	-	-	-	-	-	-	-	8,104,018	24,715,667	\$ 3.05
May-18	-	-	-	-	-	-	-	-	9,419,383	28,032,605	\$ 2.98
Jun-18	-	-	-	-	-	-	-	-	11,111,508	32,381,070	\$ 2.91
Jul-18	-	-	-	-	-	-	-	-	12,812,741	36,965,966	\$ 2.89
Aug-18	-	-	-	-	-	-	-	-	14,519,527	41,652,201	Aug-18 \$ 2.87
Sep-18	-	-	-	-	-	-	-	-	16,125,296	46,068,483	\$ 2.86
Oct-18	-	-	-	-	-	-	-	-	17,389,407	50,076,371	\$ 2.88
Nov-18	-	-	-	-	-	-	-	-	16,582,649	48,896,235	\$ 2.95
Dec-18	-	-	-	-	-	-	-	-	15,461,212	47,368,051	\$ 3.06
Jan-19	-	-	-	-	-	-	-	-	11,922,739	36,989,947	\$ 3.10
Feb-19	-	-	-	-	-	-	-	-	9,591,258	30,900,635	\$ 3.22
Mar-19	-	-	-	-	-	-	-	-	8,349,473	27,847,790	\$ 3.34
Apr-19	-	-	-	-	-	-	-	-	9,175,923	29,919,803	\$ 3.26
May-19	-	-	-	-	-	-	-	-	10,048,725	31,760,889	\$ 3.16
Jun-19	-	-	-	-	-	-	-	-	11,449,528	34,924,548	\$ 3.05
Jul-19	-	-	-	-	-	-	-	-	13,005,691	38,246,722	\$ 2.94
Aug-19	-	-	-	-	-	-	-	-	14,485,723	41,263,121	Aug-19 \$ 2.85
Sep-19	-	-	-	-	-	-	-	-	15,632,712	43,324,926	\$ 2.77
Oct-19	-	-	-	-	-	-	-	-	16,458,707	44,615,190	\$ 2.71
Nov-19	-	-	-	-	-	-	-	-	16,505,381	45,356,903	\$ 2.75
Dec-19	-	-	-	-	-	-	-	-	15,437,684	43,011,987	\$ 2.79
Jan-20	-	-	-	-	-	-	-	-	13,420,961	38,163,464	\$ 2.84
Feb-20	-	-	-	-	-	-	-	-	11,756,470	34,033,789	\$ 2.89
Mar-20	-	-	-	-	-	-	-	-	11,063,072	32,122,328	\$ 2.90
Apr-20	-	-	-	-	-	-	-	-	9,629,544	28,745,264	\$ 2.99
May-20	-	-	-	-	-	-	-	-	10,750,469	30,466,678	\$ 2.83
Jun-20	-	-	-	-	-	-	-	-	12,102,963	32,086,119	Jun-20 \$ 2.65

INVENTORY VALUE BY SUBINVENTORY AND CATEGORY
30-Jun-20

DESCRIPTION	BELFIELD	CASTOR	F/O-TIOGA	METER SHOP	MONT O/S	MONTGOMERY	PASS MINI	PASSYUNK	PORTER	RICHMOND	STATIONERY	TRANSPORT	Grand Total
ADAPTERS			50,934			298	1,789	28	1				53,050
AIR CONDITIONER PARTS	2,254	2,977			918	3,565	6		1,124				10,845
AIR, STEAM & VACUUM TRAPS & PARTS								4,505		2,185			6,690
BLOWERS, COMPRESSORS, EXHAUSTERS								1,213		90,914			92,127
BLOWERS, COMPRESSORS, PUMPS & TURBINES								227,824		413,213			641,036
BUILDERS & GENERAL HARDWARE & EQUIPMENT	3,349	123	52,630			23,868	299	17,870	162	9,741		7,407	115,448
BUSHINGS						8,505	88	1,185		2,634			12,412
CAPS			69,995			13,972	701	156	11	673			85,509
CHEMICALS, COMPOUNDS & GASES	5,888	7	5,536	66		15,554	150	26,839	1,229	4,857			66,676
CHEVROLET AUTOMOTIVE PARTS													24,521
CLAMPS			226,917			882	2,012	340		925			231,077
COCKS, HYDRANTS, VALVES & PARTS	805	1,318	309,043		164	49,495	2,532	40,524	436	53,393			457,712
COMMERCIAL & INDUSTRIAL APPLIANCE PARTS	1,486	812			276	424			156				3,154
CONTROL & MEASURING INSTRUMENTS, PARTS & CHARTS	5,020	630	191,990	348		15,486	123	10,066	387	34,073		464	258,588
CONVEYORS, ELEVATORS, HOISTS								45,118		1,994			47,112
COUPLINGS			780,005			18,100	1,771	1,194	49	2,881		35	804,035
CROSSES						115							115
CUSTODIAL SUPPLIES	2,341	43	1,005			13,560	152	2,168		3,598		2,564	25,431
DRYER & WASHER - DRYER PARTS	1,496	1,609			1,089	2,135			858				7,187
EDP CARD & PAPER STOCKS											1,912		1,912
ELECTRICAL SUPPLIES	4,665	480	265,452	17,354		64,365	287	112,319	688	69,581		402	535,594
ELLS			208,256			60,223	2,118	2,565	74	3,869			277,104
EXPANDER & COMPANDER PLANT SPARE PARTS										622,200			622,200
FASTENERS - BOLTS, NUTS, WASHER & ACCESSORIES	81	4	20,514	651		49,038		3,271		28,650		1,121	103,331
FLANGES	112		16,541			5,860		4,187		456			27,156
FORD AUTOMOTIVE PARTS												20,743	20,743
GAS RANGE PARTS	137	17			165	243			74				636
HAND & POWER TOOLS & PARTS	19,855	2,057	169,345		106	37,384	4,244	1,490	8,001	2,372		4,780	249,635
HEATERS, TREATERS & PURIFIERS										190,560			190,560
HOUSE HEATER PARTS	79,797	97,883			73,060	101,199			61,854				413,793
INSTRUMENTATION								46,097		438,642			484,739
LIQUIFIED PETROLEUM GAS - AIR SYSTEM								32,490		8,554			41,044
LNG BOILERS										7,895			7,895
LUMBER, PLYWOOD & BUILDING FIBERBOARDS												285	285
MECHANICAL EQUIPMENT PARTS												87,707	87,707
METALS - BARS, SHAPES, PLATES, ETC			1,202			104,143		7,276		5,860			118,970
METER REPAIR PARTS			90,143	59,946		2,025	77					16	152,206
MISC			2,405							3,860		72	6,337
MISC APPLIANCE PARTS & SUPPLIES	1,700	2,605			1,280	5,067			956				11,609
MISC AUTOMOTIVE SUPPLIES & ACCESSORIES												161,189	161,189
MISC PARTS & SUPPLIES	4,037	426	126,023	10,027		204,965	1,927	1,702	1,615	729		1,431	352,882
MISC SPARE PARTS								22,061		22,862			44,923
MISCELLANEOUS								19,322		98,371			117,693
MOTOR & PARTS								16,834		91,971			108,806
MOTORS, GENERATORS & SWITCHGEAR								7,325		72,563			79,888
NATURAL GAS EQUIPMENT								108,305		403,495			511,800
NIPPLES			3,161			66,164		3,444	104	5,574			78,446
NON-FERROUS PIPE, TUBE & TUBING	682		213,321			2,609		923	57	123			217,714
OILS, LUBRICANTS & GASOLINE	592		10,553	3,515		10,398	74	1,860		14,522		17,529	59,044
OTHER MAKE AUTOMOTIVE PARTS												999	999
PACKING, GASKETS & SEALS	1,341	79	3,751			10,029	91	11,239		18,423		60	45,013
PAINT, OTHER PROTECTIVE COATING & CLASS			36,632			4,850	788	60		858		678	43,866
PIPE FITTINGS - OTHER			443,552			3,881	49			1,547			449,029
PIPE SPECIAL TIES & PLUMBING PARTS	246				84	2,065		73	81				2,549
PLUGS			7,125	1,205		28,932		679		442			38,986
PNEUMATIC & SHOP TOOL PARTS			23,145					650		97			93,884
PUMPS & PARTS								79,906		39,008			118,914
REDUCERS & RETURNS			41,649										41,649
SLEEVES			537,811				1,245						539,056
STATIONERY - OFFICE SUPPLIES								390		66	38,156	55	38,667
STATIONERY - PRINTED FORMS						322		989			27,141		28,451
STEEL & WROUGHT IRON PIPE, TUBE & TUBING			824,275					2,438		304			827,017
TEES			258,692			20,267	1,121	1,354	28	2,190			283,653
TUBE FITTINGS						9,599		2,637	670	5,406			18,313
UNIONS				1,804		11,891		970	4	2,942			17,611
VALVES - CONTROL, CRYOGENIC & RELIEF								42,488		348,117			390,605
WATER HEATER PARTS	899	1,956			2,607	4,492			997				10,952
WORK CLOTHING, SHOES & SAFETY APPAREL	2,508	244	93,071			39,283	2,931	8,449	938	24,179	1,632	3,535	176,770
Grand Total	139,292	113,272	5,084,674	94,916	79,750	1,015,254	25,904	922,031	80,554	3,157,433	68,840	412,627	11,194,548

Odorant 65,460
Gas In Holder Tanks 2,358

Total Non-Gas Inventory 11,262,366

**GAS SALES & REVENUES "A-1 REPORT"
MONTH END JUNE 2020**

	Actual 2020	Sales - Mcf Budget 2019-2020	Actual 2019	Actual 2020	Revenues - Dollars Budget 2019-2020	Actual 2019
NON-HEATING						
Residential	19,887	14,975	19,508	460,391	396,900	484,252
CRP/Residential Discount	-	861	-	7,860	15,289	8,741
Commercial	41,166	58,914	72,159	497,825	718,258	869,914
Commercial - A/C	27	29	4	107	-	16
Industrial	5,169	5,587	4,004	53,939	67,351	50,742
Municipal	2,196	3,679	3,482	23,067	39,380	39,351
Municipal - A/C	-	92	-	-	415	-
NGV FIRM	31	133	67	259	831	487
TED	-	-	-	-	-	-
Total DSIC Non Heating	-	-	-	58,675	64,887	73,378
Sub-total Firm	68,476	84,270	99,224	1,102,122	1,303,311	1,526,881
INTERRUPTIBLE-coml & Ind						
BPS-S Indirect	-	-	-	-	-	-
3rd Party Sales	-	-	-	-	-	-
CG-Indirect	3,961	41,096	1,120	11,442	127,637	4,072
GTS - Retail Sales	-	-	-	8,231	-	-
GTS - Imbalance Sales	-	-	-	-	-	79
LNG	-	-	-	-	-	-
Sub total Interruptible	3,961	41,096	1,120	19,673	127,637	4,150
Total Billed Non-Heating	72,437	125,366	100,344	1,121,795	1,430,948	1,531,031
GCR Non-Heating Adjustment	-	-	-	(5,278)	8,999	16,539
TOTAL NON-HEATING	72,437	125,366	100,344	1,116,517	1,439,947	1,547,570
HEATING						
Residential	953,519	647,749	826,580	17,718,988	16,350,984	17,049,117
Residential - A/C	-	-	-	57	-	-
CRP/Residential Discount	-	149,650	-	1,821,229	2,626,635	1,505,958
Commercial	167,600	205,813	203,802	2,124,467	2,655,649	2,713,119
Commercial - A/C	-	-	-	-	-	-
Industrial	10,654	11,493	8,891	133,405	149,879	124,720
Municipal	6,620	8,180	17,355	72,927	92,520	197,917
Municipal - A/C	-	-	-	-	-	-
Housing Authority	2,008	5,011	981	27,307	90,702	16,115
TED	1,933	-	-	11,933	-	-
Total Billed Heating	1,142,334	1,027,896	1,057,609	21,910,314	21,966,369	21,606,947
GCR Heating Adjustment	-	-	-	(56,255)	175,299	211,808
Sub Total Heating	1,142,334	1,027,896	1,057,609	21,854,059	22,141,668	21,818,755
Total DSIC Heating	-	-	-	1,162,322	1,115,936	1,140,249
Total WNA	-	-	-	(556,447)	-	1,595,301
Total Heating	1,142,334	1,027,896	1,057,609	22,459,935	23,257,604	24,554,305
Total Gas Sold	1,214,771	1,153,262	1,157,953	23,576,452	24,697,551	26,101,875
FT Non-heating						
FT Residential	1,270	513	974	22,669	19,680	18,214
FT Commercial	18,802	29,835	25,818	133,062	211,318	184,146
FT Industrial	7,948	9,579	8,382	57,594	64,650	55,784
FT Municipal	2,781	2,570	2,993	20,048	19,528	22,133
FT NGV	-	-	-	-	197	-
FT Housing Authority	-	126	-	-	-	-
FT DSIC Non Heat	-	-	-	17,126	23,639	23,155
Sub-total FT Non Heat	30,801	42,623	38,167	250,498	339,012	303,432
FT Heating						
FT Residential	46,882	16,099	38,084	670,695	328,474	544,525
FT Commercial	100,621	118,581	105,601	701,673	846,305	754,014
FT Industrial	7,211	9,959	9,084	50,667	70,551	63,653
FT Municipal	3,450	3,137	3,279	24,250	23,464	24,094
FT Housing Authority	12,212	11,780	10,348	96,151	99,422	86,410
Sub-total FT heating	170,377	159,556	166,396	1,543,436	1,368,216	1,472,696
FT DSIC Heat	-	-	-	115,075	102,617	109,139
FT WNA Total	-	-	-	(37,294)	-	132,430
Total Heating FT	170,377	159,556	166,396	1,621,218	1,470,833	1,714,266
Total FT	201,178	202,179	204,563	1,871,716	1,809,845	2,017,698
GTS- transportation	1,048,720	1,756,053	876,737	16,414	85,105	77,817
GTS- cust/cust choice	658,799	-	855,370	609,062	677,363	754,537
GTS- sup/cust choice	-	-	-	900	1,050	900
GTS - Firm Supplier	-	-	-	221,439	-	202,902
Total GTS	1,707,519	1,756,053	1,732,107	847,815	763,518	1,036,155
TOTAL GTS and FT	1,908,696	1,958,232	1,936,671	2,719,531	2,573,363	3,053,853
Unbilled Gas	(732,827)	(329,220)	(52,446)	(4,694,403)	(3,715,000)	(1,128,152)
Total gas revenues	-	-	-	21,601,580	23,555,914	28,027,576
Utility Use	7,861	-	7,917	-	-	-
Total gas:						
Accounted for	2,398,501	2,782,274	3,050,095	-	-	-
Unaccounted for	435,422	150,802	(42,897)	-	-	-
Total sendout	2,833,923	2,933,076	3,007,198	-	-	-
Unaccounted as a % of:						
Total sendout	15.4	5.1	(1.4)	Senior Citizen Discount	(79,274)	
City sendout	15.4	5.2	(1.4)	Bills	10,430	
CRP DISC. (CHG.)NH.	7,860					
CRP DISC. (CHG.)HTG.	1,821,229					

**GAS SALES & REVENUES "A-2 REPORT"
YEAR TO DATE JUNE 2020**

	Actual 2020	Sales - Mcf Budget 2019-2020	Actual 2019	Actual 2020	Revenues - Dollars Budget 2019-2020	Actual 2019
NON-HEATING						
Residential	391,875	296,657	398,135	7,183,987	6,226,028	7,479,111
CRP/Residential Discount	-	31,013	-	(154,655)	(209,203)	(184,851)
Commercial	713,368	811,548	853,142	8,545,245	9,600,061	10,174,026
Commercial - A/C	27	29	4	163	-	38
Industrial	82,772	108,491	103,992	947,252	1,236,602	1,198,152
Municipal	90,785	108,440	97,012	945,898	1,123,285	1,023,351
Municipal - A/C	112	1,050	627	620	4,670	2,947
NGV FIRM	668	1,341	815	4,931	8,404	5,682
TED	-	-	-	-	-	-
Total DSIC Non Heating	-	-	-	873,502	930,897	1,016,435
Sub-total Firm	1,279,607	1,358,569	1,453,727	18,346,943	18,920,744	20,714,892
INTERRUPTIBLE-coml & Ind						
BPS-S Indirect	-	-	-	-	-	-
3rd Party Sales	58,308	-	189,930	248,719	-	982,359
CG-Indirect	29,591	372,604	10,005	96,558	1,473,101	46,569
GTS - Retail Sales	439,059	42,466	241	1,187,607	-	-
GTS - Imbalance Sales	-	-	-	117,933	-	212,016
LNG	58,718	-	2,428	244,822	-	12,951
Sub total Interruptible	585,676	415,070	202,604	1,895,640	1,473,101	1,253,896
Total Billed Non-Heating	1,865,283	1,773,639	1,656,331	20,242,584	20,393,845	21,968,788
GCR Non-Heating Adjustment	-	-	-	(77,288)	128,247	296,510
TOTAL NON-HEATING	1,865,283	1,773,639	1,656,331	20,165,296	20,522,092	22,265,298
HEATING						
Residential	29,938,795	26,790,840	33,168,937	442,110,853	493,609,063	489,360,704
Residential - A/C	-	-	-	51	-	-
CRP/Residential Discount	-	7,122,222	-	(35,977,388)	(50,806,484)	(45,175,486)
Commercial	5,282,710	5,791,664	5,953,780	61,572,509	67,133,060	69,938,651
Commercial - A/C	-	-	-	-	-	-
Industrial	294,330	356,241	377,589	3,414,085	4,081,235	4,360,409
Municipal	473,071	484,551	473,680	4,929,078	5,025,819	5,004,823
Municipal - A/C	-	-	-	-	-	-
Housing Authority	54,250	215,234	50,264	654,058	2,804,915	614,568
TED	9,572	-	-	65,873	-	-
Total Billed Heating	36,052,730	40,760,752	40,024,250	476,769,120	521,847,608	524,103,670
GCR Heating Adjustment	-	-	-	(2,128,953)	4,191,774	8,490,272
Sub Total Heating	36,052,730	40,760,752	40,024,250	474,640,167	526,039,382	532,593,942
Total DSIC Heating	-	-	-	25,724,068	29,686,771	29,286,642
Total WNA	-	-	-	9,680,394	413,000	1,378,545
Total Heating	36,052,730	40,760,752	40,024,250	510,044,629	556,139,153	563,259,129
Total Gas Sold	37,918,013	42,534,391	41,680,581	530,209,924	576,661,245	585,524,427
FT Non-heating						
FT Residential	23,695	13,230	16,851	308,799	256,515	222,706
FT Commercial	402,096	446,873	422,498	2,680,171	3,098,018	2,906,471
FT Industrial	119,296	129,657	129,799	769,100	865,162	854,347
FT Municipal	67,998	49,009	63,563	427,287	334,698	417,034
FT NGV	-	636	2	-	1,753	319
FT Housing Authority	-	456	1	-	-	-
FT DSIC Non Heat	-	-	-	308,583	341,579	336,314
Sub-total FT Non Heat	613,085	639,861	632,713	4,493,940	4,897,725	4,737,191
FT Heating						
FT Residential	1,376,389	949,444	1,044,563	13,820,871	9,866,656	10,390,140
FT Commercial	2,773,272	3,077,468	2,903,063	18,137,777	21,037,739	19,553,223
FT Industrial	192,996	289,235	225,424	1,247,178	1,936,769	1,488,122
FT Municipal	298,736	289,806	364,455	1,740,705	1,783,746	2,182,840
FT Housing Authority	411,847	380,999	436,166	2,833,403	2,784,673	3,086,512
Sub-total FT heating	5,053,241	4,986,952	4,973,670	37,779,934	37,409,583	36,700,837
FT DSIC Heat	-	-	-	2,798,524	2,805,717	2,760,933
FT WNA Total	-	-	-	1,106,439	23,000	247,201
Total Heating FT	5,053,241	4,986,952	4,973,670	41,684,897	40,238,300	39,708,971
Total FT	5,666,326	5,626,813	5,606,384	46,178,837	45,136,025	44,446,161
GTS- transportation	10,934,636	22,124,428	11,133,888	887,963	862,533	982,992
GTS- cust/cust choice	10,288,900	-	12,348,852	9,172,256	11,036,062	11,314,383
GTS- sup/cust choice	-	-	-	8,850	10,500	9,900
GTS - Firm Supplier	-	-	-	2,180,326	-	1,493,293
Total GTS	21,223,536	22,124,428	23,482,740	12,249,395	11,909,095	13,800,568
TOTAL GTS and FT	26,889,861	27,751,241	29,089,124	58,428,232	57,045,120	58,246,729
Unbilled Gas	255,867	113,423	199,118	5,904,470	1,232,000	2,325,763
Total gas revenues	594,542,627	634,938,365	646,096,919	594,542,627	634,938,365	646,096,919
Utility Use	193,808	-	256,671	-	-	-
Total gas:						
Accounted for	65,257,549	70,399,055	71,225,694	-	-	-
Unaccounted for	1,112,688	2,074,798	1,426,983	-	-	-
Total sendout	66,370,237	66,788,117	72,652,677	-	-	-
Unaccounted as a % of:						
Total sendout	1.7	3.1	2.0			
City sendout	1.7	3.1	2.0			
Senior Citizen Discount						
Disc.					(2,492,995)	
Bills					106,048	
CRP DISC. (CHG.)NH.	(154,655)					
CRP DISC. (CHG.)HTG.	(35,977,388)					

**JUNE 2020
Social Cost Index**

	Projection	Budget	Inc/Dec
CRP Discount	30,139,247	45,022,891	
CRP Forgiveness	8,366,764	10,139,850	
DSM Program	7,046,834	10,988,760	
Senior Citizen Discount	2,616,039	2,603,685	
Bad Debt	39,588,000	30,588,000	
Municipal Rate Discount	653,582	373,541	
Social Cost	88,410,465	99,716,726	-11.34%

CRP Discount		
1	Sept '19	(2,403,563) Actual
2	Oct '19	(1,749,547) Actual
3	Nov '19	2,348,336 Actual
4	Dec '19	7,501,644 Actual
5	Jan '20	10,903,197 Actual
6	Feb '20	10,457,560 Actual
7	Mar '20	6,628,267 Actual
8	Apr '20	3,525,469 Actual
9	May '20	749,769 Actual
10	Jun '20	(1,829,089) Actual
11	Jul '20	(2,912,585) Budget
12	Aug '20	(3,080,211) Budget
		30,139,247

CRP Forgiveness		
	Sept '19	732,550 Actual
	Oct '19	803,371 Actual
	Nov '19	766,558 Actual
	Dec '19	653,112 Actual
	Jan '20	653,527 Actual
	Feb '20	582,602 Actual
	Mar '20	671,480 Actual
	Apr '20	537,175 Actual
	May '20	619,514 Actual
	Jun '20	565,550 Actual
	Jul '20	887,400 Budget
	Aug '20	893,925 Budget
		8,366,764

MCFs

	Actual September	Actual October	Actual November	Actual December	Actual January	Actual February	Actual March	Actual April	Actual May	Actual June	Budget July	Budget August
Non Heating Municipal MCF	2,999	2,338	10,376	12,976	15,334	16,080	10,239	11,474	6,884	2,196	4,159	4,556
Heating Municipal MCF	6,926	8,654	44,621	80,878	92,725	87,783	68,936	43,814	32,116	6,620	7,695	7,062
Heating Housing Authority MCF	774	1,718	4,818	8,259	9,868	8,321	7,930	6,155	4,399	2,008	4,552	4,177
Commercial MCF (Non-Heating)	85,687	32,243	75,263	98,500	106,340	98,729	79,651	49,958	45,830	41,193	55,089	50,543
Commercial MCF (Heating)	188,834	233,174	501,058	890,986	991,355	916,074	675,848	431,341	286,441	167,600	189,074	173,489
	285,220	278,127	636,136	1,091,599	1,215,622	1,126,987	842,604	542,742	375,670	219,617	260,569	239,827

Revenues

	Actual September	Actual October	Actual November	Actual December	Actual January	Actual February	Actual March	Actual April	Actual May	Actual June	Budget July	Budget August
1 Non Heating Municipal	32,234	26,136	110,684	137,178	160,720	168,444	104,681	114,418	68,957	23,067	39,996	39,825
2 Heating Municipal	80,979	99,958	477,170	851,882	969,506	918,138	700,941	435,851	321,726	72,927	87,589	81,144
3 Heating Housing Authority	13,509	25,083	60,268	98,685	116,542	98,017	91,634	70,573	52,438	27,307	85,409	81,101
4 Commercial Non Heating	1,022,203	445,249	916,069	1,171,295	1,250,594	1,165,560	925,577	595,438	555,491	497,932	676,604	627,297
5 Commercial Heating	2,500,182	3,015,486	6,000,993	10,267,010	11,322,408	10,488,527	7,584,572	4,890,458	3,378,405	2,124,467	2,473,789	2,304,484
	3,649,107	3,611,912	7,565,185	12,526,050	13,819,770	12,838,687	9,407,406	6,106,738	4,377,018	2,745,700	3,363,387	3,133,851

	Actual September	Actual October	Actual November	Actual December	Actual January	Actual February	Actual March	Actual April	Actual May	Actual June	Budget July	Budget August
Non Heating Municipal	10.7482	11.1768	10.6673	10.5717	10.4813	10.4753	10.2238	9.9720	10.0172	10.5040	9.6178	8.7416
Heating Municipal	11.6920	11.5505	10.6938	10.5329	10.4557	10.4592	10.1680	9.9478	10.0177	11.0161	11.3822	11.4899
Heating Housing Authority	17.4538	14.6001	12.5090	11.9488	11.8101	11.7795	11.5554	11.4660	11.9199	13.5993	18.7634	19.4142
Commercial Non-Heating	11.9295	13.8092	12.1716	11.8913	11.7603	11.8057	11.6204	11.9188	12.1206	12.0878	12.2820	12.4112
Commercial Heating	13.2401	12.9323	11.9766	11.5232	11.4211	11.4494	11.2223	11.3378	11.7944	12.6758	13.0837	13.2832

Non Heating Municipal	32,234	26,136	110,684	137,178	160,720	168,444	104,681	114,418	68,957	23,067	39,996	39,825
Heating Municipal	80,979	99,958	477,170	851,882	969,506	918,138	700,941	435,851	321,726	72,927	87,589	81,144
Heating Housing Authority	13,509	25,083	60,268	98,685	116,542	98,017	91,634	70,573	52,438	27,307	85,409	81,101
	126,722	151,176	648,122	1,087,745	1,246,768	1,184,599	897,257	620,842	443,122	123,301	212,995	202,070

Commercial Non Heating	35,777	32,291	126,292	154,302	180,333	189,835	118,981	136,756	83,437	26,545	51,076	56,543
Commercial Heating	91,701	111,916	534,410	931,973	1,059,026	1,005,066	773,621	496,754	378,787	83,914	100,682	93,808
Commercial Heating	10,248	22,218	57,703	95,170	112,704	95,271	88,993	69,784	51,886	25,453	59,556	55,490
	137,725	166,425	718,406	1,181,445	1,352,062	1,290,171	981,595	703,294	514,110	135,912	211,314	205,841

Cost	11,003	15,249	70,283	93,700	105,294	105,572	84,338	82,452	70,988	12,611	(1,681)	3,771
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653,582

DSM		
Sept '19	16,882	Actual
Oct '19	603,228	Actual
Nov '19	799,253	Actual
Dec '19	655,187	Actual
Jan '20	56,445	Actual
Feb '20	1,224,136	Actual
Mar '20	683,593	Actual
Apr '20	333,703	Actual
May '20	280,355	Actual
Jun '20	145,387	Actual
Jul '20	1,125,394	Budget
Aug '20	1,123,271	Budget
	7,046,834	

Senior Citizen Discount		
Sept '19	71,469	Actual
Oct '19	93,710	Actual
Nov '19	229,965	Actual
Dec '19	387,035	Actual
Jan '20	472,954	Actual
Feb '20	448,293	Actual
Mar '20	324,925	Actual
Apr '20	233,337	Actual
May '20	152,033	Actual
Jun '20	79,274	Actual
Jul '20	63,432	Budget
Aug '20	59,611	Budget
	2,616,039	

Bad Debt		
1 Sept '19	921,000	Actual
2 Oct '19	1,153,000	Actual
3 Nov '19	2,080,000	Actual
4 Dec '19	3,506,000	Actual
5 Jan '20	6,118,000	Actual
6 Feb '20	5,218,000	Actual
7 Mar '20	4,087,000	Actual
8 Apr '20	3,945,000	Actual
9 May '20	3,548,000	Actual
10 Jun '20	7,067,000	Actual
11 Jul '20	997,000	Budget
12 Aug '20	948,000	Budget
	39,588,000	

PHILADELPHIA GAS WORKS
TOTAL CUSTOMER BILLINGS & RECEIPTS

	July 2017 Through June 2019				July 2018 Through June 2020			
	Customer Billings	Customer Receipts	Receipts as a % of Billings	Rolling 24 Month	Customer Billings	Customer Receipts	Receipts as a % of Billings	Rolling 24 Month
July	24,268,658	33,149,821	136.60%	96.14%	25,136,236	37,665,444	149.85%	94.99%
August	23,520,975	34,160,615	145.23%	96.46%	24,524,143	39,516,953	161.13%	95.44%
September	24,367,784	30,303,019	124.36%	96.36%	25,098,767	28,812,500	114.80%	95.30%
October	26,255,195	34,343,430	130.81%	96.31%	29,783,909	39,692,752	133.27%	95.79%
November	46,023,080	36,042,012	78.31%	96.05%	55,863,456	36,858,305	65.98%	95.31%
December	82,242,465	43,351,661	52.71%	94.31%	86,975,533	52,400,134	60.25%	95.08%
January	138,380,491	74,896,915	54.12%	92.55%	113,062,719	75,076,832	66.40%	95.57%
February	110,013,354	88,836,763	80.75%	92.84%	115,078,314	84,142,929	73.12%	94.85%
March	92,184,454	100,764,435	109.31%	93.31%	98,530,943	99,522,680	101.01%	94.84%
April	74,719,441	85,640,773	114.62%	93.43%	64,524,756	87,154,261	135.07%	96.27%
May	41,008,926	67,344,178	164.22%	94.58%	39,355,267	66,655,927	169.37%	96.26%
June	28,108,145	46,351,809	164.91%	94.83%	30,930,334	41,071,485	132.79%	96.04%
July	25,136,236	37,665,444	149.85%	94.99%	25,960,886	39,895,541	153.68%	96.40%
August	24,524,143	39,516,953	161.13%	95.44%	24,774,842	34,324,324	138.55%	96.33%
September	25,098,767	28,812,500	114.80%	95.30%	26,184,910	31,657,670	120.90%	96.30%
October	29,783,909	39,692,752	133.27%	95.79%	30,063,202	38,499,581	128.06%	96.34%
November	55,863,456	36,858,305	65.98%	95.31%	54,363,817	36,106,549	66.42%	95.78%
December	86,975,533	52,400,134	60.25%	95.08%	88,775,442	53,819,477	60.62%	96.07%
January	113,062,719	75,076,832	66.40%	95.57%	108,251,561	76,810,187	70.96%	98.26%
February	115,078,314	84,142,929	73.12%	94.85%	104,101,128	76,798,079	73.77%	97.81%
March	98,530,943	99,522,680	101.01%	94.84%	77,308,454	84,920,405	109.85%	97.72%
April	64,524,756	87,154,261	135.07%	96.27%	54,945,284	66,839,766	121.65%	97.76%
May	39,355,267	66,655,927	169.37%	96.26%	38,586,932	52,667,339	136.49%	96.86%
June	30,930,334	41,071,485	132.79%	96.04%	27,146,180	45,915,852	169.14%	96.90%
Total To-Date	<u>\$1,419,957,346</u>	<u>\$1,363,755,634</u>	<u>96.04%</u>		<u>\$1,369,327,016</u>	<u>\$1,326,824,974</u>	<u>96.90%</u>	
					<u>\$ (50,630,330)</u>	<u>\$ (36,930,660)</u>	FY 2020 vs FY 2019	
12 Month	\$ 708,864,378	\$ 688,570,202	97.14%	12 Month	\$ 660,462,637	\$ 638,254,772	96.64%	

**PHILADELPHIA GAS WORKS
STATEMENT OF CASHFLOW
MONTH ENDING JUNE 30, 2020
(Millions of Dollars)**

	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ACTUAL	ESTIMATE	ESTIMATE	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	TOTAL
LINE NO.													
OPENING BALANCE	124.1	69.5	62.8	74.9	90.1	113.5	138.7	176.9	188.6	207.2	213.5	215.2	124.1
RECEIPTS													
1. Gas	31.7	38.5	36.1	53.8	76.8	76.8	84.9	66.8	52.7	45.9	38.7	34.6	637.3
2. Other	0.8	2.0	1.0	1.3	0.6	0.8	3.7	3.1	10.2	1.0	11.5	0.2	36.2
3. Drawn from Capital TXCP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. Drawn from Capital Funds - Principal	0.0	0.0	20.0	20.0	20.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0
5. Drawn from Capital Funds - Interest	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	4.4
6. Drawn from Sinking Fund - Principal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. Drawn from Sinking Fund - Interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. Pension Draw	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. TOTAL RECEIPTS	32.5	40.5	57.1	75.1	97.5	87.0	88.6	69.9	62.8	46.9	50.2	34.8	742.9
10. TOTAL	156.6	110.0	119.9	150.0	187.5	200.4	227.3	246.8	251.4	254.1	263.7	250.0	867.0
DISBURSEMENTS													
11. Labor & Payroll Taxes	9.7	12.5	10.7	13.2	10.2	9.9	10.0	12.8	10.8	8.2	12.9	12.5	133.5
12. Natural Gas	12.0	11.0	12.9	19.5	19.3	17.2	14.1	12.5	9.0	10.3	9.9	13.8	161.5
13. Debt Service	31.7	0.0	0.2	0.1	14.0	0.0	0.1	6.6	0.1	0.0	4.9	37.2	94.9
14. Letters of Credit & TXCP Fees	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.0	1.0	2.3
15. Swap Termination Payment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. City Fee	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5	4.5	0.0	0.0	0.0	18.0
17. Other Disbursements	33.6	23.6	21.2	27.1	30.4	30.1	21.7	21.8	19.8	22.1	19.9	24.6	295.9
18. TOTAL DISBURSEMENTS	87.1	47.2	45.0	60.0	74.0	61.7	50.4	58.2	44.2	40.6	48.5	89.1	706.1
19. MONTHLY CASH FLOW	(54.6)	(6.7)	12.1	15.1	23.4	25.2	38.2	11.7	18.6	6.3	1.7	(54.3)	36.8
20. CUMULATIVE CASH FLOW	(54.6)	(61.3)	(49.2)	(34.0)	(10.6)	14.6	52.8	64.5	83.1	89.4	91.1	36.8	
21. OPENING TXCP - OPERATING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22. TXCP ISSUED DURING MONTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. TXCP PAID DOWN DURING MONTH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24. ENDING TXCP - OPERATING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25. OPENING BALANCE - CASH	124.1	69.5	62.8	74.9	90.1	113.5	138.7	176.9	188.6	207.2	213.5	215.2	124.1
26. MONTHLY CASH FLOW	(54.6)	(6.7)	12.1	15.1	23.4	25.2	38.2	11.7	18.6	6.3	1.7	(54.3)	36.8
27. NET TXCP - CAPITAL ACTIVITY MONTHLY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28. ENDING BALANCE - CASH	69.5	62.8	74.9	90.1	113.5	138.7	176.9	188.6	207.2	213.5	215.2	160.9	160.9

13. Refer to OCA Statement 3 – Page 9, Lines 7-20. Please provide an analysis that compares the cost of Payco Financing for an annual \$100M capital expenditure vs. financing that same amount annually with a series of bond issuances with a cost of debt of 3.3%, taking into account PGW's 1.5 times coverage requirement. Please show this for 10 years of bond financing verses Paygo financing and show the total cost to customers for a 30 year period starting in FY 2021.

Response: Please see Attachment I to #13. The results show that over the 30 year period Payco requires more funds from customers than does debt financing.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission :
v. : Docket No. R-2020-3017206
Philadelphia Gas Works :

VERIFICATION

I, David S. Habr hereby state that the facts above set forth in my Surrebuttal Testimony, OCA Statement 3, are true and correct and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: July 24, 2020
*292340

Signature: 
David S. Habr

Consultant Address: Habr Economics
213 Cornuta Way
Nipomo, CA 93444-5020