BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

VOLUME I (PART 2 OF 3)

RESPONSES TO FILING REQUIREMENTS

ON BEHALF OF
PHILADELPHIA GAS WORKS

PHILADELPHIA GAS WORKS

R-2017-2586783

FEBRUARY 2017

II. RATE OF RETURN

II.A.5. Supply projected capital requirements and sources of Company, Parent and System (consolidated) for each of future three years.

RESPONSE:

Attached are PGW's sources and uses of cash for capital improvement expenditures for Fiscal Years 2013 through 2022.

PHILADELPHIA GAS WORKS
SOURCES & USES OF CASH FOR CAPITAL IMPROVEMENT EXPENDITURES
FISCAL YEARS 2013 THROUGH 2022
(DOLLARS IN THOUSANDS)

	Actual 2013	Actual 2014	Actual 2015	Actual 2016	Estimate 2017	Budget 2018	Forecast 2019	Forecast 2020	Forecast 2021	Forecast 2022
CAPITAL EXPENDITURES										
SOURCES:										
Bond Proceeds	45,018	33,294	10,000	-	65,000	52,000	57,000	55,000	57,000	59,000
TXCP - Capital	-	-	30,000	41,000	-	-	-	-	-	-
DSIC Surcharge	681	13,914	13,764	26,253	32,541	30,579	30,895	31,214	31,518	31,846
Internally Generated Funds	26,676	36,123	31,735	33,080	35,091	26,431	27,733	26,935	28,491	30,150
Total Sources	72,375	83,331	85,499	100,333	132,632	109,010	115,628	113,149	117,009	120,996
% Internally Generated Funds	37.8%	60.0%	53.2%	59.1%	51.0%	52.3%	50.7%	51.4%	51.3%	51.2%
% Debt Financing	62.2%	40.0%	46.8%	40.9%	49.0%	47.7%	49.3%	48.6%	48.7%	48.8%
USES:										
Gas Processing	3,095	5,350	2,569	1,726	8,639	7,287	8,897	4,776	2,286	3,873
Distribution	57,394	61,768	65,220	82,592	95,812	89,625	96,070	98,291	100,563	102,888
Field Services	3,727	5,393	6,055	6,384	6,770	7,733	7,970	8,082	8,356	8,487
Fleet Services	1,111	2,233	3,085	2,592	13,126	2,157	1,276	551	4,317	4,229
Facilities Management	2,440	7,646	4,177	2,642	4,813	750	655	671	688	704
Information Technology	4,093	683	2,632	1,481	3,110	811	760	778	799	815
Other	515	258	1,761	2,916	362	647	-	-	-	-
Total Uses	72,375	83,331	85,499	100,333	132,632	109,010	115,628	113,149	117,009	120,996
CAPITAL IMPROVEMENT FUND										
SOURCES:										
Bond Proceeds @ Par Amount	$ -	$ -	$ -	$ -	$ 270,000	$ -	$ -	$ 180,000	$ -	$ -
Other Financings	-	-	-	-	-	-	-	-	-	-
Total Sources	-	-	-	-	270,000	-	-	180,000	-	-
USES:										
Cash Deposit to Capital Improvement Fund	-	-	-	-	248,890	-	-	167,700	-	-
Discount & Issuance Expense	-	-	-	-	3,510	-	-	500	-	-
Cash Deposit to Sinking Fund	-	-	-	-	17,600	-	-	11,800	-	-
Total Uses	-	-	-	-	270,000	-	-	180,000	-	-
Cash Deposit to Capital Improvement Fund	-	-	-	-	248,890	-	-	167,700	-	-
Interest - Gains or (Losses)_	235	89	-	-	713	761	378	493	796	364
Drawdown - Proceeds and Interest Earned	(45,018)	(44,144)	-	-	(136,000)	(52,500)	(57,500)	(55,500)	(57,800)	(59,500)
Changes in Fund	(44,783)	(44,055)	-	-	113,603	(51,739)	(57,122)	112,693	(57,004)	(59,136)
Balance End of Period	**$ 44,055**	**$ -**	**$ -**	**$ -**	**$ 113,603**	**$ 61,864**	**$ 4,742**	**$ 117,435**	**$ 60,431**	**$ 1,295**

II. RATE OF RETURN

II.A.6. Provide a schedule of debt and preferred stock of Company, Parent and System (consolidated) as of test year-end and latest date, detailing for each issue (if applicable):

II.A.6.a. Date of issue

II.A.6.b. Date of maturity

II.A.6.c. Amount issued

II.A.6.d. Amount outstanding

II.A.6.e. Amount retired

II.A.6.f. Amount reacquired

II.A.6.g. Gain on reacquisition

II.A.6.h. Coupon rate

II.A.6.i. Discount or premium at issuance

II.A.6.j. Issuance expenses

II.A.6.k. Net proceeds

II.A.6.l. Sinking Fund requirements

II.A.6.m. Effective interest rate

II.A.6.n. Dividend rate

II.A.6.o. Effective cost rate

II.A.6.p. Total average weighted effective Cost Rate

RESPONSE:

Please see the attached Fiscal Year 2016, 2017, and 2018 debt schedules for the response to: a, b, c, d, e, h, i, j, k, l, and m.

II.A.6.f.	Not applicable	II.A.6.o.	Not applicable
II.A.6.g.	Not applicable	II.A.6.p.	Not applicable
II.A.6.n.	Not applicable		

PHILADELPHIA GAS WORKS
DEBT SCHEDULE
Fiscal Year 2016

Name of Bond	A Date of Issue	B Date of Maturity	C Amount Issued	D Amount Outstanding	E Amount Retired	H Coupon Rate	I Discount at Issuance	I Premium at Issuance	J Issuance Expenses	K Net Proceeds
1998 Bond Ordinance										
FIFTH SERIES A-2	October 14, 2004	2035	30,000,000.00	30,000,000.00	-	VARIABLE	119,436.03	-	374,464.50	29,506,099.47
SEVENTH SERIES	May 15, 2007	2038	200,000,000.00	4,615,000.00	195,385,000.00	4.00%-5.00%	1,089,808.40	(11,657,912.30)	4,562,587.27	206,005,516.63
SEVENTH SERIES Refunding	May 15, 2007	2029	30,900,000.00	11,455,000.00	19,445,000.00	5.00%	168,081.08	(2,214,398.80)	601,865.35	32,344,452.37
EIGHT SERIES A	August 20, 2009	2017	58,285,000.00	7,840,000.00	50,445,000.00	4.00%-5.25%	-	(422,616.90)	689,542.21	58,018,074.69
EIGHT SERIES B	August 20, 2009	2031	105,000,000.00	27,370,000.00	77,630,000.00	VARIABLE	-	-	665,467.59	104,334,532.41
EIGHT SERIES C	August 20, 2009	2031	50,000,000.00	27,225,000.00	22,775,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES D	August 20, 2009	2031	50,000,000.00	40,845,000.00	9,155,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES E	August 20, 2009	2031	50,000,000.00	27,370,000.00	22,630,000.00	VARIABLE	-	-	-	50,000,000.00
Ninth Series (98)	August 26, 2010	2040	150,000,000.00	67,860,000.00	82,140,000.00	2.00%-5.25%	-	(1,419,649.25)	909,819.58	150,509,829.67
Tenth Series (98)	September 28, 2011	2026	72,610,000.00	35,355,000.00	37,255,000.00	3.00%-5.00%	-	(4,638,776.45)	362,053.69	76,886,722.76
Thirteenth Series (98)	August 18, 2015	2034	261,770,000.00	245,470,000.00	16,300,000.00	3.00%-5.00%	-	(32,496,893.55)	1,111,871.60	293,155,021.95
Fourteenth Series (98)	August 30, 2016	2037	312,425,000.00	312,425,000.00	-	2.00%-5.00%	-	(57,188,109.40)	1,154,296.70	368,458,812.70
				837,830,000.00						

BOND DEBT	L Sinking Fund Requirements			Total Outstanding Debt	Interest Expense	M Effective Interest Rate
2016	83,811,247.20	FY 2015-16	Revenue Bonds	837,830,000.00	23,620,864.28	2.8193%

PHILADELPHIA GAS WORKS
DEBT SCHEDULE
Fiscal Year 2017

Name of Bond	A Date of Issue	B Date of Maturity	C Amount Issued	D Amount Outstanding	E Amount Retired	H Coupon Rate	I Discount at Issuance	I Premium at Issuance	J Issuance Expenses	K Net Proceeds
1998 Bond Ordinance										
FIFTH SERIES A-2	October 14, 2004	2035	30,000,000.00	30,000,000.00	-	VARIABLE	119,436.03	-	374,464.50	29,506,099.47
SEVENTH SERIES	May 15, 2007	2038	200,000,000.00	4,615,000.00	195,385,000.00	4.00%-5.00%	1,089,808.40	(11,657,912.30)	4,562,587.27	206,005,516.63
SEVENTH SERIES Refunding	May 15, 2007	2029	30,900,000.00	11,455,000.00	19,445,000.00	5.00%	168,081.08	(2,214,398.80)	601,865.35	32,344,452.37
EIGHT SERIES A	August 20, 2009	2017	58,285,000.00	-	58,285,000.00	4.00%-5.25%	-	(422,616.90)	689,542.21	58,018,074.69
EIGHT SERIES B	August 20, 2009	2031	105,000,000.00	27,370,000.00	77,630,000.00	VARIABLE	-	-	665,467.59	104,334,532.41
EIGHT SERIES C	August 20, 2009	2031	50,000,000.00	27,225,000.00	22,775,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES D	August 20, 2009	2031	50,000,000.00	40,845,000.00	9,155,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES E	August 20, 2009	2031	50,000,000.00	27,370,000.00	22,630,000.00	VARIABLE	-	-	-	50,000,000.00
Ninth Series (98)	August 26, 2010	2040	150,000,000.00	67,860,000.00	82,140,000.00	2.00%-5.25%	-	(1,419,649.25)	909,819.58	150,509,829.67
Tenth Series (98)	September 28, 2011	2026	72,610,000.00	29,460,000.00	43,150,000.00	3.00%-5.00%	-	(4,638,776.45)	362,053.69	76,886,722.76
Thirteenth Series (98)	August 18, 2015	2034	261,770,000.00	227,395,000.00	34,375,000.00	3.00%-5.00%	-	(32,496,893.55)	1,111,871.60	293,155,021.95
Fourteenth Series (98)	August 30, 2016	2037	312,425,000.00	309,445,000.00	2,980,000.00	2.00%-5.00%	-	(57,188,109.40)	1,154,296.70	368,458,812.70
FIFTEENTH Series (98)*	July 1, 2017	2047	270,000,000.00	270,000,000.00	-	5.00%	-	-	2,700,000.00	267,300,000.00
				1,073,040,000.00						

BOND DEBT	L Sinking Fund Requirements			Total Outstanding Debt	Interest Expense	M Effective Interest Rate
2017	100,903,747.20		FY 2016-17	Revenue Bonds	1,073,040,000.00	31,679,441.78	2.9523%

* Preliminary new money issuance on July 1, 2017 and subject to change.

PHILADELPHIA GAS WORKS
DEBT SCHEDULE
Fiscal Year 2018

Name of Bond	A Date of Issue	B Date of Maturity	C Amount Issued	D Amount Outstanding	E Amount Retired	H Coupon Rate	I Discount at Issuance	I Premium at Issuance	J Issuance Expenses	K Net Proceeds
1998 Bond Ordinance										
FIFTH SERIES A-2	October 14, 2004	2035	30,000,000.00	30,000,000.00	-	VARIABLE	119,436.03	-	374,464.50	29,506,099.47
SEVENTH SERIES	May 15, 2007	2038	200,000,000.00	-	200,000,000.00	4.00%-5.00%	1,089,808.40	(11,657,912.30)	4,562,587.27	206,005,516.63
SEVENTH SERIES Refunding	May 15, 2007	2029	30,900,000.00	7,345,000.00	23,555,000.00	5.00%	168,081.08	(2,214,398.80)	601,865.35	32,344,452.37
EIGHT SERIES A	August 20, 2009	2017	58,285,000.00	-	58,285,000.00	4.00%-5.25%	-	(422,616.90)	689,542.21	58,018,074.69
EIGHT SERIES B	August 20, 2009	2031	105,000,000.00	27,370,000.00	77,630,000.00	VARIABLE	-	-	665,467.59	104,334,532.41
EIGHT SERIES C	August 20, 2009	2031	50,000,000.00	27,225,000.00	22,775,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES D	August 20, 2009	2031	50,000,000.00	40,845,000.00	9,155,000.00	VARIABLE	-	-	-	50,000,000.00
EIGHT SERIES E	August 20, 2009	2031	50,000,000.00	27,370,000.00	22,630,000.00	VARIABLE	-	-	-	50,000,000.00
Ninth Series (98)	August 26, 2010	2040	150,000,000.00	64,415,000.00	85,585,000.00	2.00%-5.25%	-	(1,419,649.25)	909,819.58	150,509,829.67
Tenth Series (98)	September 28, 2011	2026	72,610,000.00	24,075,000.00	48,535,000.00	3.00%-5.00%	-	(4,638,776.45)	362,053.69	76,886,722.76
Thirteenth Series (98)	August 18, 2015	2034	261,770,000.00	210,125,000.00	51,645,000.00	3.00%-5.00%	-	(32,496,893.55)	1,111,871.60	293,155,021.95
Fourteenth Series (98)	August 30, 2016	2037	312,425,000.00	296,500,000.00	15,925,000.00	2.00%-5.00%	-	(57,188,109.40)	1,154,296.70	368,458,812.70
FIFTEENTH Series (98)*	July 1, 2017	2047	270,000,000.00	261,700,000.00	8,300,000.00	5.00%	-	-	2,700,000.00	267,300,000.00
				1,016,970,000.00						

BOND DEBT	L Sinking Fund Requirements			Total Outstanding Debt	Interest Expense	M Effective Interest Rate
2018	100,903,747.20	FY 2017-18	Revenue Bonds	1,016,970,000.00	44,833,747.20	4.4086%

* Preliminary new money issuance on July 1, 2017 and subject to change.

II. RATE OF RETURN

II.A.7. Supply financial data of Company and/or Parent for last five years:

II.A.7.a. Earnings-price ratio (average)

II.A. 7.b. Earnings-book value ratio (per share basis) (avg. book value)

II.A.7.c. Dividend yield (average)

II.A.7.d. Earnings per share (dollars)

II.A.7.e. Dividends per share (dollars)

II.A.7.f. Average book value per share yearly

II.A.7.g. Average yearly market price per share (monthly high-low basis)

II.A.7.h. Pre-tax funded debt interest coverage

II.A.7.i. Post-tax funded debt interest coverage

II.A.7. j. Market price-book value ratio

RESPONSE: Not applicable to a municipally-owned, cash flow method company.

II. RATE OF RETURN

II.A.8. State amount of debt interest utilized for income tax calculations, and details of debt interest computations, under each of the following rate case bases:

II.A.8.a. Actual test year

II.A.8.b. Annualized test year-end

II.A.8.c. Proposed test year-end

RESPONSE: Not applicable to a municipally-owned, cash flow method company.

II. RATE OF RETURN

II.A.9. State amount of debt interest utilized for income tax calculations which has been allocated from the debt interest of an affiliate, and details of the allocation, under each of the following rate case bases:

II.A.9.a. Actual test year

II.A.9.b. Annualized test year-end

II.A.9.c. Proposed test year-end

RESPONSE: Not applicable to a municipally-owned, cash flow method company.

II. RATE OF RETURN

II.A.10. Under Section 1552 of the Internal Revenue Code and Regulations 1.1552-1 thereunder, if applicable, Parent Company, in filing a consolidated income tax return for the group, must choose one of four options by which it must allocate total income tax liability of the group to the participating members to determine each member's tax liability to the federal government. (If this interrogatory is not applicable, so state.)

II.A.10.a. State what option has been chosen by the group.

II.A.10.b. Provide, in summary form, the amount of tax liability that has been allocated to each of the participating members in the consolidated income tax return.

II.A.10.c. Provide a schedule, in summary form, of contributions, which were determined on the basis of separate tax return calculations, made by each of the participating members to the tax liability indicated in the consolidated group tax return. Provide total amounts of actual payments to the tax depository for the tax year, as computed on the basis of separate returns of members.

II.A.10.d. Provide annual income tax return for group, and if income tax return shows net operating loss, provide details of amount of net operating loss allocated to the income tax returns of each of the members of the consolidated group.

RESPONSE: Not applicable to a municipally-owned, cash flow method company.

II. RATE OF RETURN

II.A.11. Provide AFUDC charged by company at test year-end and latest date, and explain method by which rate was calculated.

RESPONSE:

	12 Months Ended August 31, 2016	Five Months Ended January 31, 2017
Philadelphia Gas Works	$1,119,714	$612,740

AFUDC is calculated in accordance with the formula prescribed by the Federal Energy Regulatory Commission.

II. RATE OF RETURN

II.A.12. Set forth provisions of Company's and Parent's charter and indentures (if applicable) which describe coverage requirements, limits on proportions of types of capital outstanding, and restrictions on dividend payouts.

RESPONSE:

The following documents are attached:

- General Gas Works Revenue Bond Ordinance of 1998;
- Supplemental General Gas Works Revenue Bond Ordinance of 1998;
- Commercial Paper Notes Ordinance.

City of Philadelphia

(Bill No. 980232)

AN ORDINANCE

Authorizing, generally, the issuance of Gas Works Revenue Bonds of the City of Philadelphia which shall be subordinate to bonds issued under the General Gas Works Revenue Bond Ordinance of 1975, which ordinance is hereby amended to limit issuances of bonds thereunder, prescribing the form of bonds issued hereunder and providing for their execution, transfer, exchange, payment and redemption, prescribing the conditions precedent to the issue of specific series of bonds, including supplemental authorizing ordinances, pledging certain revenues of the Gas Works as security, adopting a rate covenant, and directing the Gas Commission to impose rates sufficient to comply therewith, designating a fiscal agent and sinking fund depositary, establishing a Sinking Fund, including a Sinking Fund Reserve, and providing for its management, providing remedies upon default, and providing for amendments and modifications.

THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:

SECTION 1.

ARTICLE I

City of Philadelphia

Bill No. 980232 Certified Copy

AUTHORIZATION, SCOPE AND PURPOSE
SHORT TITLE

This Ordinance is enacted pursuant to the provisions of The First Class City Revenue Bond Act approved October 18, 1972 (Act No. 234, 53 P.S. 15901 et seq.), as amended, for the purpose of authorizing the issuance from time to time of revenue bonds of the City to be secured by a pledge of certain revenues of the Gas Works as security, in such principal amounts as shall from time to time be authorized by further ordinances of the Council of the City as more particularly hereinafter set forth. This Ordinance shall be known as the General Gas Works Revenue Bond Ordinance of 1998.

ARTICLE II

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

SECTION 2.01. **Definitions.** For all purposes of this Ordinance and any ordinance supplemental hereto, except as otherwise expressly provided or unless the context otherwise requires:

Accreted Value means, with respect to any Capital Appreciation Bond, as of any specified date, the Original Value of such Bond, plus interest accreted on such Bond to such date, all as may be provided in an applicable Supplemental Ordinance.

Act means The First Class City Revenue Bond Act approved October 18, 1972 (Act No. 234, 53 P.S. 15901 to 15224), as from time to time amended. The words and phrases which are defined in the Act shall have such defined meanings when used in this Ordinance.

City of Philadelphia

Bond or Bonds means any Gas Works revenue bond or note of the City issued and outstanding pursuant to the Act under this Ordinance and any Supplemental Ordinance.

Bond Counsel means any firm of nationally recognized bond counsel acceptable to the City.

Bondholder or Holder means the registered owner of any Bond.

Bond Register means the list of the names and addresses of Bondholders and the principal amounts and numbers of the Bonds held by them maintained by the Fiscal Agent on behalf of the City.

Bond Year for any Series of Bonds means each one-year period (or shorter period from the date of issue) that ends at the close of business on the date in the calendar year that is selected by the City as permitted under the Code. If no day is selected by the City before the earlier of the final maturity date of the Series of Bonds or the date that is five (5) years after the issue date, the Bond Year with respect to such Series of Bonds shall end on each anniversary of the issue date and on the final maturity date.

Business Day means a day other than a Saturday, Sunday or holiday on which the Fiscal Agent is authorized or required to be closed under applicable state or federal law.

Capital Appreciation Bonds means any Bonds issued hereunder which do not pay interest until maturity or until a specified date prior to maturity, but whose Original Value accretes periodically to the amount due on the maturity date.

City means The City of Philadelphia, Pennsylvania.

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City Charges means the proportionate charges, if any, for services performed for the Gas Works by all officers, departments, boards or commissions of the City which are contained in the computation of operating expenses of the Gas Works, including, without limitation, the expenses of the Gas Commission, and also means the base payments to the City contained in the Management Agreement and all other payments made to the City from Gas Works Revenues.

City Controller means the head of the City's auditing department as provided by the Philadelphia Home Rule Charter.

City Solicitor means the head of the City's law department as provided by the Philadelphia Home Rule Charter.

Code means the Internal Revenue Code of 1986, as amended, or any successor legislation, and the regulations and published rulings promulgated thereunder or applicable thereto.

Credit Facility means any letter of credit, standby bond purchase agreement, line of credit, surety bond, insurance policy or other insurance commitment or similar agreement (other than a Qualified Swap or an Exchange Agreement) that is provided by a commercial bank, insurance company or other institution, with a current long term rating (or whose obligations thereunder are guaranteed by a financial institution with a long term rating) from Moody's and S&P not lower than "A."

Credit Facility Issuer or issuer of a Credit Facility means each issuer of a Credit Facility then in effect, and its successors. References herein to the Credit Facility Issuer shall be read to mean the issuer of the Credit Facility applicable to a particular Series of Bonds or each issuer of a Credit Facility, as

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the context requires.

Debt Service Requirements means, for a specified period, the sum of (i) the principal of (whether at maturity or pursuant to mandatory redemption) and interest (other than capitalized interest) on Outstanding Bonds payable during the period and (ii) all net amounts due and payable by the City under Qualified Swaps and Exchange Agreements during the period. For purposes of estimating Debt Service Requirements for any future period, (i) any Option Bond outstanding during such period shall be assumed to mature on the stated maturity date thereof, except that the principal amount of any Option Bond tendered for payment and cancellation before its stated maturity date shall be deemed to accrue on the date required for payment pursuant to such tender; (ii) Debt Service Requirements on Bonds for which the City has entered into a Qualified Swap or an Exchange Agreement shall be calculated assuming that the interest rate on such Bonds shall equal the stated fixed or variable rate payable by the City on the Qualified Swap or Exchange Agreement or, if applicable and if greater than such stated rate, the applicable rate for any Bonds issued in connection with the Qualified Swap or Exchange Agreement adjusted, in the case of variable rate obligations, as provided in Section 4.03(b); and (iii) Debt Service Requirements with respect to Variable Rate Bonds shall be subject to adjustments as permitted by Section 4.03(b).

Director of Finance means the chief financial, accounting and budget officer of the City as established by the Philadelphia Home Rule Charter, including a person acting as Director of Finance under applicable law.

Exchange Agreement means, with respect to a Series of Bonds, or any portion thereof to the extent from time to time permitted by applicable law, any interest exchange agreement,

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interest rate swap agreement, currency swap agreement or other contract or agreement, other than a Qualified Swap, authorized, recognized and approved by a Supplemental Ordinance as an Exchange Agreement and providing for payments to and from an entity whose senior long term debt obligations, other senior unsecured long term obligations, or claims paying ability or whose obligations under an Exchange Agreement are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, are rated not less than A3 by Moody's, A- by S&P or A- by Fitch, or the equivalent thereof by any successor thereto as of the date the Exchange Agreement is entered into, which payments are calculated by reference to fixed or variable rates and constituting a financial accommodation between the City and the counterparty.

Fiscal Agent means any bank, bank and trust company or trust company named as such in Section 6.02 or its successor.

Fiscal Year means the fiscal year of the Gas Works.

Fitch means Fitch IBCA, Inc., a corporation organized and existing under the laws of the State of New York, its successors and assigns and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City. Whenever rating categories of Fitch are specified in this Ordinance, such categories shall be irrespective of gradations within a category.

Gas Commission means the Gas Commission provided for by the Philadelphia Home Rule Charter as presently constituted or hereafter reconstituted in accordance with law.

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Gas Works means all property, real and personal, owned by the City and used in the acquisition or manufacture, storage and distribution of natural, liquefied, synthetic or manufactured gas or in the maintenance, management or administration thereof and all activities ancillary and related thereto, and also means, as the context may require, the business entity managed by the Manager.

Gas Works Revenues means all operating and nonoperating revenues of the Gas Works derived from its activities and assets involved in the supply, manufacture, storage and distribution of gas, including all rents, rates and charges imposed or charged by the City upon the owners or occupants of properties connected to, and upon all users of, gas distributed by the Gas Works and all other revenues derived therefrom and all other income derived by the City from the Gas Works. Revenues derived from activities unrelated to the supply, manufacture, storage and distribution of gas or assets related thereto shall not be included in Gas Works Revenues, provided that the Gas Works receives fair payment for the use of gas related assets and personnel of the Gas Works used in such activities, which payments shall be included in Gas Works Revenues. In particular, Gas Works Revenue shall not include revenue from enterprises or functions not related to gas activities (e.g., activities involving the supply, generation or distribution of electricity). Gas Works Revenues shall not include those portions of the Gas Works' rents, rates and charges which are securitized and sold pursuant to Section 4.03(b). Gas Works Revenues may be divided into separate components in one or more Supplemental Ordinances and any Series of Bonds issued thereafter may be limited as to source of payment to one or more of such components as provided in the Supplemental Ordinance authorizing the particular Series of Bonds.

Government Obligations means any of the following which

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are noncallable and which at the time of investment are legal investments under the Act for the moneys proposed to be invested therein:

(a) direct general obligations of, or obligations the payment of principal of and interest on which are unconditionally guaranteed as to full and timely payment by, the United States of America;

(b) direct obligations and fully guaranteed certificates of beneficial interest of the Export-Import Bank of the United States; consolidated debt obligations and letter of credit-backed issues of the Federal Home Loan Banks; participation certificates and senior debt obligations of the Federal Home Loan Mortgage Corporation; debentures of the Federal Housing Administration; mortgage-backed securities (except stripped mortgage securities which are valued greater than par on the portion of unpaid principal) and senior debt obligations of the Federal National Mortgage Association; participation certificates of the General Services Administration; guaranteed mortgage-backed securities and guaranteed participation certificates of the Government National Mortgage Association; guaranteed participation certificates and guaranteed pool certificates of the Small Business Administration; debt obligations and letter of credit-backed issues of the Student Loan Marketing Association; local authority bonds of the U.S. Department of Housing & Urban Development; guaranteed Title XI financings of the U.S. Maritime Administration; or

(c) obligations issued by the Resolution Funding Corporation pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (the "FIRRE Act"), (i) the principal of which obligations is payable when due from payments of the maturing principal of non-interest bearing direct obligations of the United States of America which are

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issued by the Secretary of the Treasury and deposited in the Funding Corporation Principal Fund established pursuant to the FIRRE Act, and (ii) the interest on which obligations, to the extent not paid from other specified sources, is payable when due by the Secretary of the Treasury pursuant to the FIRRE Act.

Independent means a person who is not a salaried employee or elected or appointed official of the City; provided, however, that the fact that such person is retained regularly by or transacts business with the City shall not make such person an employee within the meaning of this definition.

Interim Debt means any bond anticipation notes or other temporary borrowing which the City anticipates permanently financing with Bonds or other long term indebtedness under this Ordinance or otherwise.

Management Agreement means the Agreement dated December 29, 1972 between the City and the Manager for the management and operation of the Gas Works, as presently or hereafter amended, or any successor agreement which may be entered into by the City pertaining to the management of the Gas Works.

Manager means Philadelphia Facilities Management Corporation, currently managing the Gas Works pursuant to the Management Agreement, or its successor or such other person, corporation, board, commission or department of the City which may be designated by the City to manage the Gas Works.

Mayor means the Mayor of the City.

Moody's means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State

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of Delaware, its successors and assigns, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City. Whenever rating categories of Moody's are specified in this Ordinance, such categories shall be irrespective of gradations.

Net Operating Expenses means Operating Expenses exclusive of City Charges.

1975 Ordinance means the General Gas Works Revenue Bond Ordinance of 1975, as amended.

Office of the Fiscal Agent means the corporate trust office of the Fiscal Agent designated by the Fiscal Agent.

Operating Expenses means all costs and expenses of the Gas Works necessary and appropriate to operate and maintain the Gas Works in good operable condition during each Fiscal Year, and shall include, without limitation, the Manager's fee, salaries and wages, purchases of service by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement thereof or for any work or project, related to the Gas Works, which does not have a probable useful life of at least five years, pension and welfare plan and workmen's compensation requirements, provision for claims, refunds and uncollectible receivables and for City Charges, all in accordance with generally accepted municipal accounting principles consistently applied, but shall exclude depreciation and interest and sinking fund charges. Operating Expenses shall not include Unrelated Expenses.

Option Bond means any Bond which by its terms may be tendered by and at the option of the Holder thereof for payment

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by the City prior to its stated maturity date or the maturity date of which may be extended by and at the option of the Holder thereof.

Ordinance means this Ordinance, as from time to time amended.

Original Value, with respect to a Series of Bonds issued as Capital Appreciation Bonds, means the principal amount paid by the initial purchasers thereof on the date of original issuance.

Outstanding, when used with reference to the Bonds, means, as of any particular date, all Bonds which have been authenticated and delivered under this Ordinance, except:

(a) Bonds canceled after purchase in the open market or because of payment or redemption prior to maturity;

(b) Bonds for the payment or redemption of which sufficient moneys shall have been theretofore deposited with the Fiscal Agent (whether upon or prior to the maturity or redemption date of any such Bonds), provided that, if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as provided in Section 5.02 or arrangements satisfactory to the Fiscal Agent shall have been made therefor, or waiver of such notice satisfactory in form to the Fiscal Agent shall have been filed with the Fiscal Agent; and

(c) Bonds in lieu of which or in substitution for which others have been authenticated and delivered under Section 3.04.

Bonds paid with the proceeds of any Credit Facility shall be

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Outstanding until the issuer of such Credit Facility has been reimbursed for the amount of the payment or has presented the Bonds for cancellation.

Philadelphia Home Rule Charter means the Philadelphia Home Rule Charter, as amended or superseded by any new home rule charter, adopted pursuant to authorization of the First Class City Home Rule Act approved April 21, 1949, P.L. 665, sec. 1 et seq. (53 P.S. 13101 et seq.).

Prior Obligations means the obligations of the Gas Works to The Philadelphia Municipal Authority existing on the date of adoption of this Ordinance.

Qualified Escrow Securities means funds which are represented by (i) demand deposits, interest-bearing time accounts, savings deposits or certificates of deposit, but only to the extent such deposits or accounts are fully insured by the Federal Deposit Insurance Corporation or any successor United States governmental agency, or to the extent not insured, fully secured and collateralized by Government Obligations having a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such deposits or accounts, (ii) if at the time permitted under the Act, obligations of any state or political subdivision thereof or any agency or instrumentality of such state or political subdivision for which cash, Government Obligations or a combination thereof have been irrevocably pledged to or deposited in a segregated escrow account for the payment when due of principal or redemption price of and interest on such obligations, and any such cash or Government Obligations pledged and deposited are payable as to principal or interest in such amounts and on such dates as may be necessary without reinvestment to provide for the payment when due of the principal or redemption price of and interest on such obligations, and such obligations are rated by

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any Rating Agency in the highest rating category assigned by such Rating Agency to obligations of the same type, or (iii) noncallable Government Obligations. In each case such funds (i) are subject to withdrawal, mature or are payable at the option of the holder at or prior to the dates needed for disbursement, provided such deposits or accounts, whether deposited by the City or by such depository, are insured or secured as public deposits with securities having at all times a market value exclusive of accrued interest equal to the principal amount thereof, (ii) are irrevocably pledged for the payment of such obligations and (iii) are sufficient, together with the interest to the disbursement date payable with respect thereto, if also pledged, to meet such obligations in full.

Qualified Swap or Swap Agreement means, with respect to a Series of Bonds or any portion thereof, any financial arrangement that (i) is entered into by the City with an entity that is a Qualified Swap Provider at the time the arrangement is entered into; (ii) provides that (a) the City shall pay to such entity an amount based on the interest accruing at a fixed rate on an amount equal to the principal amount of the Outstanding Bonds of such Series or portion thereof, and that such entity shall pay to the City an amount based on the interest accruing on a principal amount initially equal to the same principal amount of such Bonds, at either a variable rate of interest or a fixed rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement or (b) the City shall pay to such entity an amount based on the interest accruing on the principal amount of the Outstanding Bonds of such Series or portion thereof at a variable rate of interest as set forth in the arrangement and that such entity shall pay to the City an amount based on interest accruing on a principal amount equal to the same principal amount of such Bonds at a

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variable rate of interest or a fixed rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by the Bonds) or that one shall pay to the other any net amount due under such arrangement; and (iii) which has been designated in writing to the Fiscal Agent by the City as a Qualified Swap with respect to such Bonds.

Qualified Swap Provider means, with respect to a Series of Bonds, an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, or whose payment obligations under a Qualified Swap are guaranteed by an entity whose senior long term debt obligations, other senior unsecured long term obligations or claims paying ability, are rated (at the time the subject Qualified Swap is entered into) at least as high as Aa by Moody's and AA by S&P, or the equivalent thereof by any successor thereto.

Rate Covenant means the rate covenant contained in subsection (b) of Section 4.03.

Rating Agency means Moody's, S&P or Fitch, to the extent that any of such rating services have issued a credit rating on any of the Outstanding Bonds or, upon discontinuance of any of such rating services, such other nationally recognized rating service or services if any such rating service has issued a credit rating on any of the Outstanding Bonds.

Rebate Amount means the amount with respect to a Series of Bonds which is required to be paid to the United States of America, as of any computation date, in compliance with the restrictions imposed by Section 148(f) of the Code.

S & P means Standard & Poor's Ratings Services, a corporation organized and existing under the laws of the State

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of New York, its successors and assigns, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City. Whenever rating categories of S&P are specified in this Ordinance, such categories shall be irrespective of gradations within a category.

Senior Bonds means Bonds which shall be first in right of payment and as to which the coverage requirement under the Rate Covenant shall be 150%.

Series, when applied to Bonds, means collectively all of the Bonds of a given issue authorized by Supplemental Ordinance as provided in Article IV hereof and may also mean, if appropriate, a subseries of any such issue if, for any reason, the City should determine to divide any such issue into one or more subseries of Bonds.

Sinking Fund means the 1998 Ordinance Gas Works Revenue Bond Sinking Fund established by Section 6.01.

Sinking Fund Depositary means the Fiscal Agent or any other bank, bank and trust company or trust company appointed as such by the City.

Sinking Fund Reserve means the Sinking Fund Reserve established by Section 6.04.

Sinking Fund Reserve Requirement means, with respect to all Bonds secured by the Sinking Fund Reserve, an amount equal to the greatest amount of Debt Service Requirements payable in any Fiscal Year (except that such Debt Service Requirements will be computed as if any Qualified Swap did not exist and the Debt Service Requirements attributable to any

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Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Supplemental Ordinance for such Bonds), determined as of any particular date.

Subordinate Bonds means those Bonds which shall be subordinate in right of payment to Senior Bonds and as to which the coverage requirement under the Rate Covenant shall be 100%.

Supplemental Ordinance means an ordinance supplemental hereto enacted pursuant to the Act and this Ordinance by the Council of the City authorizing the issuance of a Series of Bonds.

Uncertificated Bond means any Bond which is fully registered as a to principal and interest and which is not represented by an instrument.

Unrelated Expenses means expenses unrelated to the supply, manufacture, storage and distribution of gas or assets related thereto.

Variable Rate Bond means any Bond, the rate of interest on which is subject to change prior to maturity and cannot be determined in advance of such change.

SECTION 2.02. **Interpretation.** All references in this Ordinance to articles, sections and other sub-divisions are to the designated articles, sections or other sub-divisions of this Ordinance as from time to time amended. The words "herein," "hereof," "hereby" and "hereunder" and other words of similar import refer to this Ordinance as a whole and not to any particular article, section or other subdivision.

SECTION 2.03. **Descriptive Headings.** The descriptive

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headings of the several articles and sections of this Ordinance are inserted for convenience only and shall not control or affect the meaning or construction of any of its provisions.

SECTION 2.04. **Severability.** In case any one or more of the provisions contained in this Ordinance or in any Bond issued pursuant hereto shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Ordinance or of said Bonds, and this Ordinance or said Bonds shall be construed and enforced as if such invalid, illegal or unenforceable provisions had never been contained therein.

ARTICLE III

CONCERNING THE BONDS

SECTION 3.01. **Forms Generally.** All Bonds shall be in substantially the form set forth in this Article III, with such appropriate insertions, omissions, substitutions and other variations, including, without limitation, provisions for optional and mandatory redemption, variable interest rates, capital appreciation, book entry and coupon form, as are required or permitted by this Ordinance or any Supplemental Ordinance, and may be designated as of such Series by date, number, letter or otherwise and may also have such individual letters, identifying numbers or other marks, legends or endorsements placed thereon, as may, consistently with this Ordinance and the Act, be determined by a Supplemental Ordinance or by the Director of Finance. The Supplemental Ordinance or the Director of Finance shall also determine whether or not a Series of Bonds is to be issued in a manner whereby interest thereon

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will be excluded from gross income for Federal income tax purposes and whether or not a Series of Bonds is to be secured by the Sinking Fund Reserve. The Bonds may also have printed thereon or on the reverse thereof the text of an approving legal opinion with respect thereto and an appropriate certificate as to its correspondence with an executed counterpart may be included on the face or on the reverse of the Bonds. A statement of bond insurance applicable to any Bonds may also be printed on such Bonds. Any portion of the text of any Bond may be set forth on the reverse thereof with an appropriate reference on the face of the Bond.

SECTION 3.02. **Form of Fully Registered Bond.** Bonds shall be substantially in the following form, subject to modification as provided in Section 3.01:

(Form of Fully Registered Bond)

No. R- $

UNITED STATES OF AMERICA

COMMONWEALTH OF PENNSYLVANIA

CITY OF PHILADELPHIA GAS WORKS REVENUE BOND
(1998 General Ordinance) Series of

Interest Rate	Maturity Date	Dated Date	CUSIP

REGISTERED OWNER:

City of Philadelphia

Bill No. 980232 Certified Copy
PRINCIPAL AMOUNT: DOLLARS

The City of Philadelphia, Pennsylvania (the "City"), for value received, hereby promises to pay, but only out of Pledged Amounts (as hereinafter defined), to the Registered Owner identified above or registered assigns (the "Holder"), on the Maturity Date identified above, upon the presentation and surrender hereof, the Principal Amount identified above and to pay (but only out of the Pledged Amounts) interest on said Principal Amount at the annual rate specified above, from the most recent Interest Payment Date (as hereinafter defined) to which interest has been paid or duly provided for, or, if no interest has been paid, from ,
on and
in each year (each an "Interest Payment Date"), commencing , until payment of the principal sum shall have been made or provided for.

The principal of this Bond, upon maturity or redemption, is payable at the Principal Office of , or its successor, as Fiscal Agent (the "Fiscal Agent"). Interest on this Bond will be paid by the Fiscal Agent on each Interest Payment Date by check or draft mailed to the person in whose name this Bond is registered on the registration books of the City (the "Bond Register") maintained by the Fiscal Agent and at the address appearing thereon on the [last] [fifteenth] day of the month preceding such Interest Payment Date (the "Record Date") or in lieu thereof, if so requested in a written notice provided to the Fiscal Agent not less than ten (10) days prior to the relevant Interest Payment Date by a Bondholder of $1,000,000 or more in aggregate principal amount of Bonds, by wire transfer to an account in a bank located in the United States designated by such Bondholder. Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the registered owner hereof as of the Record Date and shall be

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payable to the person who is the registered owner hereof at the close of business on the fifteenth (15th) day prior to the date set for the payment of such defaulted interest (the "Special Payment Date"). Such Special Payment Date shall be fixed by the Fiscal Agent in accordance with Section 2.03 of the Ordinance (as hereinafter defined). The principal of and interest on this Bond are payable in lawful money of the United States of America.

Interest on this Bond shall be paid on each Interest Payment Date and shall be computed on the basis of a year of 360 days consisting of twelve 30-day months and the actual number of days elapsed.

This Bond is fully registered in the name of the owner on the Bond Register kept for that purpose at the Office of the Fiscal Agent. No transfer shall be valid as against the City or the Fiscal Agent unless made by the registered owner in person or by his duly authorized attorney or legal representative and similarly noted upon the Bond Register and hereon. Upon any such transfer or exchange, the City and the Fiscal Agent shall execute and deliver to or upon the order of the registered owner, a new registered Bond or Bonds, in authorized denominations aggregating the principal amount hereof, maturing on the same date, bearing interest at the same rate, bearing the same series designation as this Bond and registered in such names as shall be requested.

The City and the Fiscal Agent may treat the person in whose name this Bond is registered as the absolute owner of this Bond for all purposes whether or not this Bond shall be overdue, and the City and the Fiscal Agent shall not be affected by any notice to the contrary. All payments of the principal, interest or redemption price made to the registered owner hereof in the manner set forth herein and in the Ordinance (as hereinafter defined) shall be valid and effectual to satisfy and discharge the

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liability upon this Bond to the extent of the sum or sums so paid, whether or not notation of the same be made hereon, and any consent, waiver or action taken by such registered owner pursuant to the provisions of the Ordinance shall be conclusive and binding upon such registered owner, such owner's heirs, successors and assigns, and upon all transferees hereof, whether or not notation thereof be made hereon or on any Bond issued in exchange therefor.

This Bond is one of a duly authorized issue of bonds of the City designated as its Gas Works Revenue Bonds (1998 General Ordinance) of the Series designated hereon (the "Bonds"), limited in aggregate principal amount to $ issued or to be issued pursuant to The First Class City Revenue Bond Act (Act No. 234 of the Pennsylvania General Assembly approved October 18, 1972, as amended, 53 P.S. 15901 et seq.) (the "Act") under the General Gas Works Revenue Bond Ordinance of 1998 (the "Ordinance") and the supplemental ordinance dated (the "Supplemental Ordinance"). (Terms used herein, unless defined herein, shall have the meanings given in the Ordinance or the Supplemental Ordinance.) The Bonds, together with all previous bonds of the City, if any, issued under the Ordinance and under previous supplemental ordinances and together with all bonds of the City hereafter issued under the Ordinance and all subsequent supplemental ordinances, are and will be secured under the Ordinance by a pledge of all the rents, rates and charges imposed or charged by the City for the use of or services rendered by the Gas Works of the City and of certain other moneys derived from the Gas Works and from the investment of such revenue (the "Gas Works Revenues") and amounts held in the Sinking Fund Reserve established under the Ordinance (collectively, the "Pledged Amounts"). This Bond is a [Senior] [Subordinate] Bond and is [prior] [subordinate] in right of payment to other bonds issued under the Ordinance except other [Senior]

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[Subordinate] Bonds, as to which it is equally and ratably secured. The Ordinance requires Gas Works Revenues to be applied in order of priority to (1) Net Operating Expenses then payable, (2) debt service on bonds issued under the General Gas Works Revenue Bond Ordinance of 1975, as amended, and amounts required to be paid into the sinking fund reserve thereunder, (3) debt service on Senior Bonds, payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to Senior Bonds and payments due in respect of obligations of the Gas Works to The Philadelphia Municipal Authority existing on the date of adoption of the Ordinance, (4) payments due to issuers of Credit Facilities related to Senior Bonds, (5) debt service on Subordinate Bonds and payments due in respect of obligations of the Gas Works on a parity with Subordinate Bonds (including notes issued under the City's General Inventory and Receivables Gas Works Revenue Note Ordinance of 1993, or any similar ordinance, and amounts payable to the provider of a Credit Facility in respect of such notes) and payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to Subordinate Bonds, (6) payments due to issuers of Credit Facilities related to Subordinate Bonds, (7) required payments of the Rebate Amount to the United States, (8) replenishment of any deficiency in the Sinking Fund Reserve, (9) payment of general obligation bonds of the City adjudged to be self-liquidating from Gas Works revenues, (10) debt service on other general obligation bonds issued for the Gas Works, and (11) City charges and any other proper purpose of the Gas Works (including any termination payments to issuers of Qualified Swaps and Exchange Agreements), except Unrelated Expenses.

The City covenants, so long as this Bond shall remain outstanding, to make payments of interest on the indebtedness represented by this Bond, out of the Sinking Fund, in the semi-

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annual amount shown hereon on each interest payment date of this Bond, or, as the case may be, the proportionate part thereof from the date hereof to the next interest payment date, and to pay, upon surrender hereof, from the Sinking Fund on the maturity date hereof or, if this Bond shall be selected for mandatory or optional redemption, then on the applicable redemption date, the principal amount hereof with the applicable premium, if any, plus, in the case of redemption, all interest accrued to the redemption date.

Reference is hereby made to the Ordinance for a statement of the terms and conditions under which previous bonds, if any, have been issued, under which the Bonds are issued and under which additional bonds will be issued, and for a statement of the particular rentals, revenues and moneys pledged for the security and payment of all bonds issued under the Ordinance, the nature, extent and manner of enforcement of the security, the terms and conditions under which the Ordinance may be amended or modified, and the rights of the holders or registered owners of the Bonds with respect to such security. The City hereby represents to and covenants with the registered owner of this Bond that, except for bonds issued under the General Gas Works Revenue Bond Ordinance of 1975 (which has been closed to future bond issuances other than refunding bonds and bonds issued upon exchanges, transfers or replacements), and in the case of Subordinate Bonds, outstanding and future Senior Bonds, (i) no Gas Works revenue bonds of the City have been or will be issued for the payment of which the holder has or shall have a prior lien on or security interest in the revenues pledged for the payment of this Bond or a prior right to payment therefrom and (ii) all Gas Works revenue bonds which have been or will be equally and ratably secured by such pledged revenues have and will be issued in accordance with the provisions of the Ordinance. However, nothing herein contained shall be construed to prevent the City from financing

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Gas Works projects by the issuance of its general obligation bonds or by the issuance of Gas Works revenue bonds under other authorization for the payment of which project revenues of the Gas Works may be pledged subject and subordinate in each fiscal year to the prior payment from such revenues of all principal, premium, interest and sinking fund requirements payable during such fiscal year under the Ordinance in respect of Gas Works revenue bonds issued and outstanding thereunder.

[Insert redemption provisions.]

Notice of Redemption

When the City shall determine to redeem Bonds, upon prior written notice to the Fiscal Agent of the redemption date and the principal amount of Bonds to be redeemed, or whenever the Fiscal Agent shall be required to redeem Bonds from moneys in the Sinking Fund, without action on the part of the City, the Fiscal Agent, at the City's expense, shall cause a notice of redemption to be mailed to the Bondholders. Such notice shall, among other things, state the redemption price and the date fixed for redemption, that on such date the Bonds called for redemption will be due and become payable at the Office of the Fiscal Agent, and that from and after such date interest thereon shall cease to accrue; provided, however, that the Holders of any Bonds to be redeemed may file written waivers of notice with the Fiscal Agent, and if so waived, such Bonds may be redeemed and all rights and liabilities of said Holders shall mature and accrue on the date set for such redemption without the requirement of written notice. If a notice is given with respect to an optional redemption prior to moneys for such redemption being deposited with the Fiscal Agent, such notice shall be conditioned upon the deposit of moneys with the Fiscal Agent on or before the date fixed for redemption and such

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notice shall be of no effect unless such moneys are so deposited.

The notice to Bondholders shall be deposited by the Fiscal Agent in the United States mail, first-class postage prepaid, at least thirty (30) days, but not more than sixty (60) days prior to the redemption date, addressed to the Holders of Bonds called for redemption at the addresses appearing upon the Bond Register. Any notice of redemption mailed in accordance with the requirements set forth herein shall be conclusively presumed to have been duly given, whether or not such notice is actually received by the Bondholder. No defect in the notice with respect to any Bond (whether in the form of notice or the mailing thereof) shall affect the validity of the redemption proceedings for any other Bonds.

No covenant or agreement contained in this Bond or in the Ordinance shall be deemed to be a covenant or agreement of any official, officer, agent or employee of the City in his individual capacity, and any official executing this Bond nor any such officer, agent or employee shall be liable personally on this Bond or under the Ordinance or the Supplemental Ordinance or be subject to any personal liability or accountability by reason of the issuance or sale of this Bond, all such liability of such members, officers, agents and employees being released as a condition of and as consideration for the adoption of the Ordinance and the Supplemental Ordinance and the issuance of this Bond.

THIS BOND IS A SPECIAL OBLIGATION OF THE CITY PAYABLE SOLELY FROM THE PLEDGED AMOUNTS AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE CITY IS PLEDGED FOR THE PAYMENT OF THE PRINCIPAL OF, OR PREMIUM, IF ANY, OR INTEREST ON, THIS BOND, NOR SHALL THIS BOND BE DEEMED TO BE A GENERAL OBLIGATION OF THE CITY.

City of Philadelphia

Bill No. 980232 Certified Copy

It is hereby certified that all conditions, acts and things required to exist, happen and be performed under the Act and under the Ordinance precedent to and in the issuance of this Bond, exist, have happened and have been performed, and that the issuance and delivery of this Bond have been duly authorized by ordinance of the City duly adopted.

IN WITNESS WHEREOF, The City of Philadelphia, Pennsylvania has caused this Bond to be properly executed by its Fiscal Agent, by two duly authorized officers thereof, and the facsimile of the seal of the City of Philadelphia to be imprinted hereon, and to be duly countersigned and attested by a facsimile signature of the City Controller, as of

THE CITY OF PHILADELPHIA, PENNSYLVANIA

By:_____
Fiscal Agent

Countersigned and Attested by (Facsimile Signature)

By:_____
Authorized Officer

City Controller

By:_____
Authorized Officer

SECTION 3.03. **General Form, Content and Payment of Bonds.** The Bonds shall be generally designated as Gas Works Revenue Bonds (1998 General Ordinance) of the City and shall be issued in such Series and within such Series in such subseries as the City may from time to time determine. The aggregate principal amount of Bonds which may be issued,

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authenticated and delivered under this Ordinance is unlimited, but prior to issuance of each Series of Bonds, the City shall adopt a Supplemental Ordinance authorizing such Series.

The Bonds of each Series shall be issued in such aggregate principal amount, shall be dated on or as of such date or dates, shall be in such denominations, shall mature or be subject to mandatory redemption in such principal amounts and on such dates, shall bear interest from such date or dates and at such rate or rates (including, without limitation, variable, adjustable and convertible rates), shall be subject to optional redemption at such times and upon such terms, shall be designated as Senior Bonds or Subordinate Bonds (and within such categories may be designated as subordinate to other Bonds in such category and may be limited as to source of payment to one or more specific components of Gas Works Revenues), and shall contain such other terms and conditions not inconsistent with this Ordinance or the Act, all as shall be determined by the City and set forth in the Supplemental Ordinance under which such Bonds are issued, or as shall be determined by a designated officer or officers of the City thereunto authorized by the Supplemental Ordinance or, in the absence of such provisions or designation, as shall be determined by the Director of Finance as specified in Section 4.05.

If permitted by applicable law, any Series of Bonds may be issued as Uncertificated Bonds and the foregoing provisions specifying the form of Bonds shall be inapplicable to such Series of Bonds.

A Series of Bonds may be secured by a Credit Facility meeting the requirements of this Ordinance and the applicable Supplemental Ordinance. In connection with the issuance of its Bonds or at any time thereafter so long as a Series of Bonds remains Outstanding, the City also may enter into Qualified

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Swaps or Exchange Agreements if a majority of the Mayor, the City Controller and the City Solicitor determines that such Qualified Swap or Exchange Agreement will assist the City in more effectively managing its interest costs or its interest rate exposure. The City's payment obligation under any Qualified Swap or Exchange Agreement shall be made only from Gas Works Revenues. Unless otherwise acknowledged by each Rating Agency by virtue of its confirmation of the existing credit ratings on the City's Outstanding Bonds, the City will not enter into any Qualified Swap or Exchange Agreement unless it gives at least fifteen (15) days advance notice of its intention to do so to each of the Rating Agencies, which notice shall specify the identify of the Qualified Swap Provider or Exchange Agreement counterparty, as the case may be.

The principal of, premium, if any, and interest on Bonds issued hereunder shall be payable in lawful money of the United States of America, which at the time of payment is legal tender for the payment of public and private debts; provided that, if applicable law permits, the principal or redemption price of and the interest on a Series of Bonds may be payable in such foreign currency as may be specified in the Supplemental Ordinance authorizing such Series of Bonds. Principal of and premium, if any, on Bonds shall be payable at the Office of the Fiscal Agent, upon presentation and surrender of the Bonds as the same shall become due and payable. Interest on the Bonds shall be paid by the Fiscal Agent on each interest payment date by check or draft mailed to the person in whose name a Bond is registered on the registration books maintained by the Fiscal Agent (as hereinafter provided) at the close of business on the associated record date, and at the address appearing on such registration books or in lieu thereof, if so requested in a written notice provided to the Fiscal Agent not less than ten (10) days prior to the relevant interest payment date by a Bondholder of $1,000,000 or more in aggregate principal amount of Bonds, by

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wire transfer to an account in a bank located in the United States designated by such Bondholder. Any such interest not so timely paid or duly provided for shall cease to be payable to the person who is the registered owner thereof as of the associated record date, and shall be payable to the person who is the registered owner thereof (or of one or more predecessor bonds) at the close of business on the special record date preceding the special payment date set by the Fiscal Agent whenever moneys become available for payment of such interest. Notice of such special payment date shall be given by the Fiscal Agent to registered owners as of the special record date not less than ten (10) days prior to the special payment date. All Bonds shall provide that principal or redemption price and interest in respect thereof shall be payable only out of Gas Works Revenues, moneys in the Sinking Fund Reserve and proceeds of any applicable letter of credit, bond insurance policy or other Credit Facility then in effect.

Each Bond executed and delivered upon any transfer, exchange or substitution, shall carry all the rights to interest accrued and unpaid, and to accrue, which were carried by the Bond or Bonds surrendered upon such transfer or exchange, or, as the case may be, the part thereof represented by such new Bond, and, notwithstanding anything to the contrary contained in this Ordinance, such new Bond shall be so dated that neither gain nor loss in interest shall result from such transfer, exchange or substitution.

The foregoing provisions of this Section 3.03, any other provision in this Ordinance to the contrary notwithstanding, are subject to the express understanding that the principal of and interest on all Bonds issued hereunder and the premium, if any, payable on redemption thereof, shall be payable only from the rentals, revenues and moneys of the City pledged for the payment thereof pursuant to this Ordinance and not otherwise.

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SECTION 3.04. **Registration, Transfer and Exchange of Bonds; Persons Treated as Bondholders.** The Fiscal Agent shall maintain and keep on behalf of the City, at its Principal Office, the Bond Register, which shall, at all reasonable times, be open for inspection by the City; and, upon presentation for such purpose of any Bond entitled to registration or registration of exchange or transfer at the Office of the Fiscal Agent, the Fiscal Agent shall register or register the exchange or transfer of such Bond in the Bond Register, under the provisions hereof and such reasonable regulations as the City and the Fiscal Agent may prescribe. The Fiscal Agent shall make all necessary provisions to permit the exchange or transfer of Bonds at its Principal Office.

The transfer of any Bond shall be registered in the Bond Register at the written request of the Bondholder thereof or his attorney duly authorized in writing, upon surrender and cancellation thereof at the Office of the Fiscal Agent, together with a written instrument of transfer satisfactory to the Fiscal Agent duly executed by the Bondholder or his duly authorized attorney. Upon the registration of transfer of any such Bond or Bonds, the City shall issue in the name of the transferee, in authorized denominations, a new fully registered Bond or Bonds in the same aggregate principal amount and of like tenor as the surrendered Bond or Bonds.

The Bonds, upon surrender thereof at the Office of the Fiscal Agent, may, at the option of the Bondholder thereof or his attorney duly authorized in writing, be exchanged for an equal aggregate principal amount of any authorized denominations of Bonds of the same Series and maturity and having the same interest rate as the surrendered Bonds.

In all cases in which the privilege of exchanging or transferring Bonds is exercised, the City shall execute and the

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Fiscal Agent shall authenticate and deliver Bonds in accordance with the provisions of this Ordinance. For every such exchange or transfer of Bonds, whether temporary or definitive, the City or the Fiscal Agent may make a charge sufficient to reimburse it for any tax or other governmental charge required to be paid with respect to such exchange or transfer, which sum or sums shall be paid by the person requesting such exchange or transfer as a condition precedent to the exercise of the privilege of making such exchange or transfer.

The Fiscal Agent shall not be required to make any exchange or transfer of any Bonds during the period of fifteen Business Days next preceding any interest payment date for such Bonds or during the period of twenty Business Days next preceding the first mailing of any notice of redemption of such Bonds or to make any exchange or transfer of any Bonds called for redemption.

All Bonds executed, authenticated and delivered in exchange for Bonds surrendered or upon the transfer of surrendered Bonds shall be valid obligations of the City, evidencing the same debt as the Bonds surrendered, and shall be secured by this Ordinance to the same extent as such surrendered Bonds.

The City and the Fiscal Agent may deem and treat the Bondholder of any Bond as the absolute owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment of, or on account of, the principal of and interest on such Bond and for all other purposes, and the City and the Fiscal Agent shall not be affected by any notice to the contrary. All such payments so made to any such Holder or upon his order shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid. Any consent, waiver or other action taken by the Holder of any Bond pursuant to the provisions of this

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Ordinance shall be conclusive and binding upon such Holder, such Holder's heirs, successors or assigns and upon all transferees of such Bond, whether or not notation thereof is made on such Bond or any Bond issued in exchange therefor.

SECTION 3.05. **Bonds are Negotiable Instruments.** The Bonds shall have the qualities of negotiable instruments under the law merchant and the laws pertaining to negotiable instruments of the Commonwealth of Pennsylvania, subject to the provisions for registration and transfer contained in Section 3.04 and in the Bonds.

SECTION 3.06. **Temporary Bonds.** Until Bonds in definitive form are ready for delivery, the City and the Fiscal Agent may execute and deliver to the purchasers thereof, subject to the provisions, limitations and conditions set forth above, one or more Bonds in temporary form, whether printed, typewritten, lithographed or otherwise produced, substantially in the form of the definitive Bonds, with appropriate omissions, variations and insertions, and in authorized denominations. Until exchanged for Bonds in definitive form, such Bonds in temporary form shall be entitled to the lien and benefit of this Ordinance, including the right to transfer and exchange any Bond in temporary form for other Bonds in temporary form. Upon the presentation and surrender of any Bond or Bonds in temporary form, the City and the Fiscal Agent shall, without unreasonable delay, prepare, execute and deliver to the Holder or Holders thereof, in exchange therefor, a Bond or Bonds in definitive form. Such exchange shall be made without making any charge therefor to the Holders of such Bonds in temporary form.

SECTION 3.07. **Execution of Bonds.** The Bonds shall be executed on behalf of the City by the Fiscal Agent by the manual signatures of two of its duly authorized officers, under

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the seal of the City which shall be either affixed or reproduced thereon in facsimile and shall be countersigned and attested by the manual or facsimile signature of the City Controller, all in accordance with the Act of March 24, 1949, P. L. 312, or in such other manner as shall be authorized by law and prescribed by Supplemental Ordinance. Any such Bonds may be executed, issued and delivered notwithstanding that one or more of the officers signing such Bonds or whose facsimile signature shall be upon such Bonds, shall have ceased to be such officer or officers at the time when such Bonds shall actually be delivered, and although at the nominal date of such Bonds any such person shall not have been such officer.

SECTION 3.08. **Mutilated, Destroyed, Lost or Stolen Bonds.** Upon receipt by the Fiscal Agent and the City of evidence satisfactory to both of them that any Outstanding Bond has been mutilated, destroyed, lost or stolen, and of indemnity satisfactory to both of them, the City and the Fiscal Agent shall execute and deliver a new Bond of the same Series, maturity date, principal amount and interest rate in exchange and substitution for, and upon surrender and cancellation of, the mutilated Bond or in lieu of and in substitution for the Bond so destroyed, lost or stolen.

The City may, for each new Bond authenticated and delivered under the provisions of this Section 3.08, require the payment of the expenses, including counsel fees, which may be incurred by the City and the Fiscal Agent in connection therewith. In case any such mutilated, destroyed, lost or stolen Bond has become or is about to become due and payable, the City, in its discretion, may, instead of issuing a new Bond, direct the payment thereof at maturity and the Fiscal Agent shall thereupon pay the same.

Any Bond issued under the provisions of this Section 3.08

in lieu of any Bond alleged to be destroyed, lost or stolen shall constitute an original additional contractual obligation on the part of the City, whether or not the Bond so alleged to be destroyed, lost or stolen is at any time enforceable by anyone, and shall be equally and proportionately entitled to the benefit of this Ordinance with all other Bonds issued under this Ordinance.

SECTION 3.09. **Credit Enhancement; Exchange Agreements; Qualified Swaps.** As provided by Supplemental Ordinance and subject to the requirements of this Ordinance, the City may provide for a Credit Facility, Exchange Agreement or Qualified Swap with respect to any Series of Bonds or portion thereof.

ARTICLE IV

ISSUANCE OF BONDS; PLEDGE OF REVENUES; COVENANTS

SECTION 4.01. **Purpose of Bonds.** The Bonds issued under this Ordinance shall be issued for the purpose of paying the cost of projects, as such term is defined in the Act, related to the Gas Works, of reimbursing any fund of the City from which such costs have been paid or advanced, of funding any of such costs for which the City shall have outstanding bond anticipation notes or other obligations, of refunding any bonds of the City issued for the foregoing purposes under the Act, of refunding general obligation bonds of the City issued for the foregoing purposes or of financing anything else relating to the Gas Works permitted under the Act.

SECTION 4.02. **Pledge of Revenues; Grant of Security Interest; Application of Revenues; Limitation on Recourse.**

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Bill No. 980232 Certified Copy

The City hereby pledges for the security and payment of all Bonds issued under this Ordinance and hereby grants a lien on and security interest in, all Gas Works Revenues, all accounts, contract rights and general intangibles representing the Gas Works Revenues and all funds and accounts established under this Ordinance, and in each case, the proceeds of the foregoing, except as limited for a Series of Bonds in the Supplemental Ordinance authorizing the issuance of such Series of Bonds; provided, however, that the pledge of this Ordinance may also be for the benefit of the provider of a Credit Facility, Qualified Swap or Exchange Agreement, or any other person who undertakes to provide moneys for the account of the City for the payment of principal or redemption price of and interest on any Series of Bonds on an equal and ratable basis with the related Series of Bonds, to the extent provided by any Supplemental Ordinance. For the purpose of compliance with the filing requirements of the Uniform Commercial Code in order to perfect the security interest herein granted, the Fiscal Agent shall be deemed to be, and the City hereby recognizes the Fiscal Agent as, the representative of Bondholders to execute financing statements as the secured party. All Gas Works Revenues as and when collected in each Fiscal Year shall be applied in order of priority, to the extent then payable, to (1) Net Operating Expenses then payable, (2) debt service on bonds issued under the 1975 Ordinance and amounts required to be paid into the sinking fund reserve under the 1975 Ordinance, (3) debt service on Senior Bonds, payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to Senior Bonds and payments due in respect of obligations of the Gas Works to The Philadelphia Municipal Authority existing on the date of adoption of the Ordinance, (4) payments due to issuers of Credit Facilities related to Senior Bonds, (5) debt service on Subordinate Bonds and payments due in respect of obligations of the Gas Works on a parity with Subordinate Bonds

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(including notes issued under the City's General Inventory and Receivables Gas Works Revenue Note Ordinance of 1993, or any similar ordinance, and amounts payable to the provider of a Credit Facility in respect of such notes) and payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to Subordinate Bonds, (6) payments due to issuers of Credit Facilities related to Subordinate Bonds, (7) required payments of the Rebate Amount to the United States, (8) replenishment of any deficiency in the Sinking Fund Reserve, (9) payment of general obligation bonds of the City adjudged to be self-liquidating from Gas Works Revenues, (10) debt service on other general obligation bonds issued for the Gas Works, and (11) City charges and any other proper purpose of the Gas Works (including any termination payments to issuers of Qualified Swaps and Exchange Agreements), except Unrelated Expenses. The foregoing provisions shall not be construed to require the segregation of revenues upon collection.

Neither the Bonds nor the City's reimbursement or other contractual obligations with respect to any Credit Facility, Qualified Swap or Exchange Agreement shall constitute a general indebtedness or a pledge of the full faith and credit of the City within the meaning of any constitutional or statutory provision or limitation of indebtedness. No Bondholder or beneficiary of any of the foregoing agreements shall ever have the right, directly or indirectly, to require or compel the exercise of the ad valorem taxing power of the City for the payment of the principal and redemption price of or interest on the Bonds or the making of any payments hereunder. The Bonds and the obligations evidenced thereby and by the foregoing agreements shall not constitute a lien on any property of the City other than the Gas Works Revenues.

SECTION 4.03. Particular Covenants. The City

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covenants with the Holders of all Bonds from time to time and at the time outstanding under this Ordinance, that so long as any such Bonds shall remain outstanding:

(a) No Bonds will be issued by the City hereunder or under any ordinance supplemental hereto unless the financial report of the chief fiscal officer of the City required by Section 8 of the Act is filed with the Council of the City. Such report may be given in reliance on an engineering report of an Independent consulting engineer or an Independent firm of consulting engineers, in either case having broad experience in the design and analysis of the operation of gas works or gas distribution systems of the magnitude and scope of the Gas Works and a favorable reputation for competence in such field (the "Engineer") setting forth the qualifications of the Engineer and

(i) containing a statement that the Engineer has made such investigation of the physical properties included in the Gas Works and of the books and records of the Gas Works maintained by the City or by the Manager, as it deemed necessary; and

(ii) on the basis of such investigation containing:

(aa) the same matters, statements and opinion as are required by Section 8 of the Act to be contained in the financial report of the chief fiscal officer supported by appropriate schedules and summaries;

(bb) a statement that the Gas Works rents, rates and charges, on the basis of which the statements required by the foregoing clause (aa) are made, are currently and will be sufficient to comply with the Rate Covenant set forth in Section 4.03(b); and

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(cc) a statement that, in the opinion of the Engineer, the Gas Works are in good operating condition or that adequate steps are being taken to make them so.

(b) It will, at a minimum, impose, charge and collect in each Fiscal Year such gas rates and charges as shall, together with all other Gas Works Revenues to be received in such Fiscal Year, equal not less than the greater of:

A. The sum of:

(i) all Net Operating Expenses payable during such Fiscal Year;

(ii) all principal of and interest on bonds issued and outstanding under the 1975 Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 Ordinance during such Fiscal Year;

(iii) 150% of the amount required to pay Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding Senior Bonds and 100% of the amounts payable in respect of the Prior Obligations during such Fiscal Year;

(iv) the amount required to pay Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding Subordinate Bonds and other obligations of the Gas Works on a parity with Subordinate Bonds payable during such Fiscal Year;

(v) the amount, if any, required to be paid into the Sinking Fund Reserve during such Fiscal Year;

(vi) the Rebate Amount required to be paid to the

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United States during such Fiscal Year; and

(vii) the amounts required to be paid to the issuers of Credit Facilities and the providers of Qualified Swaps and Exchange Agreements during such Fiscal Year; or

B. The sum of:

(i) all Net Operating Expenses payable during such Fiscal Year;

(ii) all principal of and interest on bonds issued and outstanding under the 1975 Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 Ordinance during such Fiscal Year;

(iii) all Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding Bonds and all amounts payable in respect of obligations of the Gas Works which are on a parity with any of the Bonds and in respect of general obligation bonds issued for improvements to the Gas Works and all amounts, if any, required during such Fiscal Year to be paid into the Sinking Fund Reserve;

(iv) the Rebate Amount required to be paid to the United States during such Fiscal Year; and

(v) the amounts required to be paid to the issuers of Credit Facilities and the providers of Qualified Swaps and Exchange Agreements during such Fiscal Year.

For purposes of estimating Sinking Fund deposits with respect to Interim Debt and Variable Rate Bonds, the City shall be entitled to assume that (1) Interim Debt will be amortized

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over a period of up to the maximum term permitted by the Act, but not in excess of the useful life of the assets to be financed, on an approximately level debt service basis and bear interest at the average interest rate on bonds of a similar maturity and credit rating (without any credit enhancement) as the Bonds Outstanding under this Ordinance and (2) Variable Rate Bonds will bear interest at a rate equal to the average interest rate on such Variable Rate Bonds during the period of twenty-four (24) consecutive calendar months immediately preceding the date of calculation or during such shorter period that such Variable Rate Bonds have been Outstanding.

The Gas Commission is hereby authorized and directed, without further authorization, to impose and charge and to collect, or cause to be collected, rents, rates and charges which shall be sufficient in each Fiscal Year to comply with the foregoing Rate Covenant.

Notwithstanding the requirements of this Section 4.03(b) and the pledge under Section 4.02, the City may, at such time as there are no bonds outstanding under the 1975 Ordinance, pursuant to a Supplemental Ordinance, securitize and sell that portion of the Gas Works rents, rates and charges which relate to assets which are designated as non-performing by the Gas Commission and as to which the Gas Commission has designated specific rents, rates or charges; provided that prior to any such securitization and sale the City delivers to the Fiscal Agent (1) an Engineer's report including a statement that, for the three year period following such securitization and sale, the Gas Works rents, rates and charges (excluding those securitized and sold) are currently and will be sufficient to comply with the Rate Covenant set forth in Section 4.03(b) applied as if the percentage in subsection A(iii) were 175% rather than 150% and (2) an opinion of Bond Counsel that such securitization and sale will not adversely affect the exclusion

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from gross income for Federal income tax purposes of interest on any Outstanding Bonds the interest on which is intended to be so excluded. Proceeds received from any such securitization and sale shall be excluded from Gas Works Revenues in all calculations relating to the Rate Covenant and, notwithstanding any provision of this Ordinance to the contrary, may be used to redeem or refund obligations issued to finance the related assets designated as non-performing.

(c) It will pay or cause the Fiscal Agent or any paying agent appointed by the City to pay from the Gas Works Revenues deposited in the Sinking Fund the principal of, and premium, if any, and interest on, all Bonds as the same shall become due and payable and as more particularly set forth in the Bonds.

(d) It will continuously maintain in good condition and continuously operate the Gas Works.

(e) It will not in any Fiscal Year pay from the Gas Works Revenues any City Charges or deposit from the Gas Works Revenues in the general sinking fund of the City any sinking fund charges in respect of general obligation bonds of the City unless prior thereto or concurrently therewith all sinking fund charges then payable in respect of Outstanding Bonds shall have been deposited in the Sinking Fund, all amounts then payable in respect of obligations of the Gas Works which are on a parity with Bonds shall have been paid, all amounts then payable to issuers of Credit Facilities and providers of Qualified Swaps and Exchange Agreements shall have been paid and all deposits then required to the Sinking Fund Reserve shall have been made.

(f) It will, not later than 120 days following the close of each Fiscal Year, file with the Fiscal Agent a report of the

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operation of the Gas Works setting forth, among other things, in reasonable detail financial data concerning the Gas Works for such Fiscal Year, including a balance sheet, statements of income, equity, and changes in financial condition, and an analysis of funds available to cover debt service (in each case not inconsistent with the statements of income, expenses, and other accounts of the City audited by the City Controller) prepared by the Manager in accordance with generally recognized municipal accounting principles consistently applied, showing compliance with the Rate Covenant, accompanied by a certificate of the Manager that the Gas Works are in good operating condition and by a certificate of the Director of Finance that as of the date of such report the City has complied with all of the covenants in this Ordinance and in all ordinances supplemental hereto on its part to be performed. Such report shall be furnished to the Fiscal Agent in such reasonable number of copies as shall be required to meet the written requests of Bondholders therefor on a first come first served basis. The Fiscal Agent shall keep on file a copy of each report and its accompanying certificates for a period of ten (10) years and shall exhibit the same to, and permit the copying thereof by, any Bondholder or his authorized representative at all reasonable times.

SECTION 4.04. **Parity and Priority of Bonds.** All Bonds issued hereunder shall be secured by the pledge of, and grant of a security interest in, the Gas Works Revenues, except as limited for a Series of Bonds in the Supplemental Ordinance authorizing the issuance of such Series of Bonds. Subordinate Bonds shall be subordinate to Senior Bonds in right of payment of principal, premium, if any, and interest. Senior Bonds and Subordinate Bonds shall not have any preference, priority or distinction as to lien or otherwise, except as otherwise provided herein or in a Supplemental Ordinance, over any other Senior Bonds or Subordinate Bonds, respectively.

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The City hereby reserves the right, and nothing herein shall be construed to impair such right, to finance improvements to its Gas Works by the issuance of its general obligation bonds or by the issuance, under ordinances other than Supplemental Ordinances, of Gas Works obligations for the payment of which Gas Works Revenues may be pledged subject and subordinate in each Fiscal Year to the prior payment from such revenues of all principal, premium, interest and sinking fund requirements payable during such Fiscal Year under this Ordinance, as from time to time supplemented and amended, in respect of Bonds.

SECTION 4.05. **Sale of Bonds; Taxes Not to be Assumed; Terms and Provisions; Authority of Director of Finance.** To the extent that the Supplemental Ordinance authorizing any Series of Bonds hereunder shall not otherwise provide pursuant to Section 4.06:

(a) All Bonds shall be sold at public, private or invited sale upon such terms not inconsistent with the Act as a majority of the Mayor, the City Controller and the City Solicitor may determine to be in the best interest of the City and, if sold at competitive public sale, shall be sold to the purchaser or purchasers submitting the highest and best bid upon such terms and conditions of the bidding as shall be specified in an official notice of sale issued in the name of the City by the Director of Finance;

(b) no covenant to pay or assume any taxes shall be included in such Bonds; and

(c) subject to the foregoing, the terms upon which or the prices for which the Bonds are to be sold or exchanged, and the form, terms and provisions of the Bonds, including, without limitation, the matters referred to in Section 5 of the Act and in the second paragraph of Section 3.03, shall be determined by

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the Director of Finance, who is hereby designated as the officer of the City to make such determinations based, to the extent applicable, on the prices, interest rates or other terms set forth in the highest and best proposal conforming to the bidding specifications as ascertained and accepted on behalf of the City by the Director of Finance.

SECTION 4.06. **Conditions of Issuing Bonds, Supplemental Ordinance; Filing of Transcript; Use of Proceeds; Refunding Bonds.** Prior to the issuance of any Series of Bonds, the Council of the City shall adopt an ordinance supplemental hereto specifying the aggregate principal amount or maximum aggregate principal amount, and authorizing the issuance of such Bonds; stating that such Bonds are issued in respect of capital costs of a Gas Works project or projects of the City or to fund or refund bond anticipation or other obligations of the City issued in respect thereof or for the purpose of refunding debt issued for such purpose; making a finding based on the report of the Director of Finance required by Section 8 of the Act that the Gas Works Revenues pledged hereunder will be sufficient to comply with the Rate Covenant and also to pay all costs, expenses and payments required to be paid therefrom and in the order and priority stated in Section 4.02; and containing the covenant as to the payment of debt service required by Article IX, Section 10 of the Pennsylvania Constitution. Such Supplemental Ordinance may specify such form, terms and provisions of the Bonds to be issued thereunder; may specify a particular method of sale; may specify the terms upon which, or the prices for which, the Bonds are to be sold or exchanged, including, if applicable, competitive bidding specifications; may contain such amendments to this Ordinance, including amendments or rescission of the covenants herein contained, and may contain or authorize such further covenants and agreements, including such covenants as may be appropriate under existing regulations

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so that the Bonds may not be deemed to be "arbitrage bonds" as such term is defined in the Code and applicable regulations, all as the Council of the City may deem appropriate and proper and as shall be authorized or permitted by the Act, but no such amendments, provisions, terms, covenants or agreements (other than those permitted under Section 9.01 and adopted pursuant thereto) which shall be inconsistent with the provisions of, or if they would impair a prior covenant contained in, this Ordinance as at the time amended or supplemented, shall become effective until all Bonds the holders of which are entitled to the protection of, or to enforce compliance with, such prior covenant shall cease to be outstanding.

Prior to the issuance of any Series of Bonds hereunder, the Director of Finance shall, in addition to the filing requirements of Section 12 of the Act, file with the Fiscal Agent a transcript of the proceedings authorizing the issuance of such Series of Bonds which shall include (i) a certified copy of this Ordinance (unless previously so filed); (ii) a certified copy of the Supplemental Ordinance; (iii) an executed or certified copy of the report of the Director of Finance required by subsection (a) of Section 8 of the Act; (iv) an executed copy of the opinion of the City Solicitor required by subsection (b) of Section 8 of the Act; and (v) an opinion of Bond Counsel to the effect that (1) the Series of Bonds has been duly issued for a permitted purpose under the Act and under this Ordinance, (2) all conditions precedent to the issuance of the Series of Bonds pursuant to the Act and this Ordinance have been satisfied, (3) the Series of Bonds has been duly authorized, executed and delivered and constitutes the legal, valid and binding obligation of the City and (4) if the interest on the Series of Bonds is intended to be excluded from gross income for Federal income tax purposes, interest on the Series of Bonds will be so excluded; and thereupon the proper officers of the City and the Fiscal Agent shall be authorized to execute and deliver the

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Bonds so authorized, to receipt for the purchase price thereof and to execute and deliver on behalf of the City the usual closing statements, affidavits and certificates.

The Director of Finance, the City Solicitor, the City Controller and such other officers of the City as may be appropriate are authorized, in connection with the issuance of any Series of Bonds hereunder, to prepare, execute and file on behalf of the City such statements, documents or other material as may accurately and properly reflect the financial condition of the City or other matters relevant to the issuance or payment of such Bonds and as may be required or appropriate to comply with applicable state or federal laws or regulations.

Unless otherwise provided in the Supplemental Ordinance, the proceeds of sale of all Bonds issued hereunder shall be deposited in the consolidated cash account of the City to the credit of the capital improvement funds and shall be disbursed therefrom, in accordance with established procedures, for the costs of the project or projects (as such term is defined in the Act) for which the Bonds were issued; provided, however, that, if such Bonds shall be issued for the purpose of funding or refunding bonds or notes previously issued by the City, such proceeds shall, unless otherwise directed by the Supplemental Ordinance, be deposited in a special account in the Sinking Fund and deposited, invested (if appropriate) and disbursed under the direction of the Director of Finance for the purpose of retiring the bonds or notes being funded or refunded, and provided further that proceeds of the sale of any Series of Bonds representing capitalized interest on such Series of Bonds shall be deposited in a separate account in the Sinking Fund and applied, together with any profit from investment thereof, only to pay interest on such Series of Bonds.

If the City shall, by Supplemental Ordinance, authorize the

issuance of revenue refunding bonds pursuant to Section 10 of the Act, in the absence of specific direction or inconsistent authorization contained in the Supplemental Ordinance, the Director of Finance is hereby authorized in the name and on behalf of the City to take all such action, including the irrevocable pledge of proceeds and the income and profit from the investment thereof for the payment and redemption of the funded or refunded bonds or notes and, if a Qualified Swap or Exchange Agreement has been provided with respect to Bonds to be refunded, provision for the payment of all amounts due and payable by the City to the provider of such Qualified Swap or Exchange Agreement upon the refunding of such Bonds and the mailing of all required redemption notices or the giving of irrevocable instructions therefor, as may be necessary or appropriate to accomplish the funding or refunding and to comply with the requirements of Section 10 of the Act.

ARTICLE V

REDEMPTION OF BONDS

SECTION 5.01. **General Provisions for Redemption.** Bonds issued hereunder shall be subject to redemption at such times, in such order, at such redemption prices, upon such notice, unless waived, and upon such terms and conditions as may be expressed in the particular Bonds, or, as the case may be, in the pertinent Supplemental Ordinance. Notwithstanding or in limitation of the foregoing, a Supplemental Ordinance for a Series of Bonds may contain provisions for optional redemption of such Series of Bonds which may be retained by the City as a call option or may be held by the City or sold simultaneously with such Series of Bonds or at future dates as determined by such Supplemental Ordinance. Unless otherwise

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specified in the Bonds or the pertinent Supplemental Ordinance, Bonds subject to optional redemption may be redeemed in such order of maturity as specified by the Director of Finance and within a maturity by lot. Whenever Bonds to be redeemed are required to be selected by lot, the Fiscal Agent shall be authorized to draw by lot the numbers of the Bonds to be redeemed in any manner deemed reasonable by the Fiscal Agent. In the case of a Bond of a denomination greater than the minimum authorized denomination, the Fiscal Agent shall treat such Bond as representing such number of separate Bonds as is obtained by dividing the actual principal amount of such Bond by the minimum authorized denomination.

SECTION 5.02. **Notice of Redemption.** Unless otherwise provided by Supplemental Ordinance, when the City shall determine to redeem Bonds, upon prior written notice to the Fiscal Agent of the redemption date and the principal amount of Bonds to be redeemed, or whenever the Fiscal Agent shall be required to redeem Bonds from moneys in the Sinking Fund without action on the part of the City, the Fiscal Agent, at the City's expense, shall cause a notice of redemption to be mailed to the Holders of the Bonds being redeemed. Such notice shall specify (i) the complete official name of the Series of Bonds being redeemed; (ii) if less than all then Outstanding Bonds of a Series are to be redeemed, the numbers, including CUSIP numbers if applicable, of the Bonds to be redeemed, which may, if appropriate, be expressed in designated blocks of numbers, (iii) the date of issue of each Bond being redeemed as originally issued, (iv) the rate of interest borne by each Bond being redeemed, (v) the maturity date of each Bond being redeemed and (vi) any other descriptive information considered appropriate by the City to accurately identify the Bonds being redeemed. Such notice shall also state the redemption price and the date fixed for redemption, that on such date the Bonds called for redemption will be due and become payable at the

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Office of the Fiscal Agent, and that from and after such date, interest thereon shall cease to accrue; provided, however, that the Holders of any Bonds being redeemed may file written waivers of notice with the Fiscal Agent, and if so waived, such Bonds may be redeemed and all rights and liabilities of said Holders shall mature and accrue on the date set for such redemption without the requirement of written notice. If a notice is given with respect to an optional redemption prior to moneys for such redemption being deposited with the Fiscal Agent, such notice shall be conditioned upon the deposit of moneys with the Fiscal Agent on or before the date fixed for redemption and such notice shall be of no effect unless such moneys are so deposited.

The notices required to be given by this Section 5.02 shall state that no representation is made as to correctness or accuracy of the CUSIP numbers listed in such notice or stated on the Bonds.

The notice to Bondholders shall be deposited by the Fiscal Agent in the United States mail, first-class postage prepaid, at least thirty (30) days, but not more than sixty (60) days, unless otherwise provided with respect to any Series of Bonds in the Supplemental Ordinance authorizing such Series of Bonds, prior to the redemption date, addressed to the Holders of Bonds called for redemption at the addresses appearing in the Bond Register. Any notice of redemption mailed in accordance with the requirements set forth herein shall be conclusively presumed to have been duly given, whether or not such notice is actually received by the Bondholders. No defect in the notice with respect to any Bond (whether in the form of notice or the mailing thereof) shall affect the validity of the redemption proceedings for any other Bonds.

When notice of redemption is mailed to Bondholders, the

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Fiscal Agent shall mail a similar notice to The Bond Buyer and each Rating Agency then maintaining a rating on such Bonds, but failure to mail any such notice referred to in this paragraph or any defect in such mailed notice or in the mailing thereof shall not affect the validity of the redemption notice.

Not more than sixty (60) days following the applicable redemption date, a further notice shall be mailed as provided above to the Bondholders of any Bonds called for redemption and not then presented for payment containing substantially the same information set forth above.

SECTION 5.03. **Effect of Redemption; Payment.** Notice having been given in the manner hereinbefore provided in this Article V or irrevocable instructions to give such notice having been delivered to the Fiscal Agent to pay said Bonds or portions thereof, and funds complying with the provisions of subparagraph (1) of Section 10 of the Act having been deposited in trust with the Fiscal Agent or having been set aside with the Sinking Fund Depositary in a special account in the Sinking Fund, on or prior to the date fixed for redemption, the Bonds or portions thereof so called for redemption, shall become due and payable on the redemption date so designated, and interest on such Bonds or portions thereof shall cease from such redemption date, whether such Bonds be presented for redemption or not. The principal amount of all Bonds or portions thereof so called for redemption, together with the premium, if any, and accrued interest thereon, shall be paid by the Fiscal Agent, upon presentation and surrender thereof.

SECTION 5.04. **Partial Redemption.** Upon presentation of any Bond which is to be redeemed in part only, the City and the Fiscal Agent shall execute and deliver to the Holder thereof, at the expense of the City, a new Bond or Bonds of authorized denominations in aggregate principal amount equal to and of the

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same Series and maturity as the unredeemed portion of the Bond or Bonds so presented.

ARTICLE VI

SINKING FUND

SECTION 6.01. **Establishment and Investment of Sinking Fund.** There is hereby established a sinking fund to be known as the City of Philadelphia 1998 Ordinance Gas Works Revenue Bond Sinking Fund (referred to in this Ordinance as the "Sinking Fund") for the benefit and security of the Holders of all Bonds. The Sinking Fund shall be held in the name of the City in an account or accounts separate and apart from all other accounts of the City and payments therefrom shall be made only as hereinafter in this Ordinance provided.

The City covenants and the Director of Finance is directed to deposit in, and there is hereby appropriated to, the Sinking Fund from the Gas Works Revenues in each Fiscal Year such amounts as will, together with interest and profits earned and to be earned on investments held therein, be sufficient to accumulate therein (exclusive of the amount in the Sinking Fund Reserve), on or before each interest and principal payment date of the Bonds, the amounts required to pay the principal of and the interest on the Bonds then becoming due and payable. Payment into the Sinking Fund shall be scheduled at such times and in such amounts in relation to the receipt of revenues and the operation and maintenance requirements of the Gas Works as the Director of Finance shall determine.

The Fiscal Agent shall establish such accounts in the Sinking Fund as it deems appropriate to identify the source or

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use of moneys therein. Without limiting the generality of the preceding sentence, moneys deposited in the Sinking Fund to pay the redemption price of particular Bonds shall be held in separate accounts and applied only for such redemption.

SECTION 6.02. **Fiscal Agent.** Such state or federally chartered bank, bank and trust company or trust company as may from time to time be appointed by the City in accordance with law, shall act as Fiscal Agent in respect of all Bonds issued under this Ordinance or in respect of any particular Series of Bonds. The Fiscal Agent shall also act as Sinking Fund Depositary of the Sinking Fund and as paying agent and registrar of the Bonds in respect of which it is the Fiscal Agent, unless others are appointed in such capacities by the City. Nothing in this Ordinance shall be construed to prevent the City from engaging other or additional Fiscal Agents from time to time or from engaging other or additional Sinking Fund Depositaries, paying agents or registrars of the Bonds or any Series thereof.

Subject to the foregoing, the proper officers of the City are authorized to enter into contracts or to confirm existing agreements governing the maintenance of accounts and records, the disposal of canceled Bonds, the rights, duties, privileges and immunities of the Fiscal Agent, and such other matters as are authorized by the Act and as are customary and appropriate and to confirm the agreement of the Fiscal Agent, in its several capacities, to comply with the provisions of the Act and of this Ordinance.

SECTION 6.03. **Payments From the Sinking Fund.** The Sinking Fund Depositary shall, on direction of the Director of Finance, or if for any reason he should fail to give such direction, on the direction of the Fiscal Agent, liquidate investments, if necessary, and pay over from the Sinking Fund

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in cash to the Fiscal Agent not later than the due date thereof the full amount of the principal, interest on, and premium, if any, payable upon redemption of, Bonds.

Any excess moneys in the Sinking Fund, including any excess amount in the Sinking Fund Reserve, shall be transferred to the operating accounts of the Gas Works.

SECTION 6.04. **Sinking Fund Reserve.** There is hereby established a Sinking Fund Reserve which shall be held by the Sinking Fund Depositary as part of the Sinking Fund but for which a separate account shall be maintained. Unless otherwise provided in the applicable Supplemental Ordinance in compliance with this Section 6.04, the City shall, under direction of the Director of Finance, deposit in the Sinking Fund Reserve from the proceeds of sale of each Series of Bonds issued hereunder and/or Gas Works Revenues an amount which, together with other amounts in the Sinking Fund Reserve, will cause the amount in the Sinking Fund Reserve to equal the Sinking Fund Reserve Requirement. The money and investments (valued at market) in the Sinking Fund Reserve and amounts which can be drawn under Credit Facilities held for the Sinking Fund Reserve shall be held and maintained in an amount equal to the Sinking Fund Reserve Requirement.

In lieu of a deposit to the Sinking Fund Reserve or in substitution for amounts in the Sinking Fund Reserve, the City may provide one or more letters of credit or other Credit Facilities in the same aggregate amount issued by a provider or providers whose credit facilities are such that bonds secured by such credit facilities are rated in one of the three highest rating categories by Moody's or S&P, provided that (1) in the case of a substitution for moneys in the Sinking Fund Reserve, an opinion of Bond Counsel is delivered to the Fiscal Agent that such substitution will not adversely affect the exclusion from

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gross income for Federal income tax purposes of interest on the Bonds the interest on which is intended to be so excluded, (2) each such Credit Facility permits the Fiscal Agent to make a draw thereon up to the principal amount thereof if the Sinking Fund Reserve is needed to cover a shortfall in the Sinking Fund and other moneys in the Sinking Fund Reserve are insufficient and (3) each such Credit Facility provides that a draw will be made thereon to replenish the Sinking Fund Reserve on the expiration thereof unless the City has otherwise made such deposit to the Sinking Fund Reserve or has obtained another Credit Facility meeting the requirements of this Section 6.04.

If, at any time and for any reason, the moneys in the Sinking Fund, other than in the Sinking Fund Reserve, shall be insufficient to pay as and when due, the principal of, and premium, if any, and interest on, any Bond or Bonds secured by the Sinking Fund Reserve, the Sinking Fund Depositary is hereby authorized and directed to withdraw from the Sinking Fund Reserve and to draw on Credit Facilities held for the Sinking Fund Reserve and pay over to the Fiscal Agent the amount of such deficiency. If by reason of such withdrawal (including draws on any Credit Facilities held to satisfy the Sinking Fund Reserve Requirement) or for any other reason there shall be a deficiency in the Sinking Fund Reserve, the City hereby covenants to restore such deficiency (either by a deposit of funds or the reinstatement of the cash limits of Credit Facilities) within twelve months. The Sinking Fund Reserve shall be valued by the Sinking Fund Depositary promptly after any withdrawal from the Sinking Fund Reserve or any other event indicating a possible deficiency in the Sinking Fund Reserve and on August 31 of each Fiscal Year.

SECTION 6.05. **Consolidated Fund.** The Sinking Fund shall be a consolidated fund for the equal and proportionate benefit of the Holders of all Bonds from time to time

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Outstanding hereunder and may be invested and reinvested on a consolidated basis. The principal of and interest on and profits (and losses if any) realized on investments in the Sinking Fund shall be allocated pro rata for the Series of Bonds or the specific Bonds in respect of which such investments were made without distinction or priority, but moneys (and the investments thereof) specifically deposited for the payment of any particular installment of principal, interest (including capitalized interest) or premium in respect of particular Bonds shall be held and applied exclusively to the payment of such particular principal, interest or premium.

ARTICLE VII

INVESTMENT OF FUNDS

SECTION 7.01. **Management of Funds and Accounts.** The moneys on deposit in the funds and accounts established hereunder, to the extent not currently required, shall be invested and secured as required by Section 9 of the Act, all at the direction and under the management of the Director of Finance.

SECTION 7.02. **Investment of Funds and Accounts.** All moneys deposited in any fund or account established hereunder or under any Supplemental Ordinance may be invested by the Fiscal Agent, at the oral or written direction of the Director of Finance, in any investments then permitted by law; provided that any investments with respect to amounts on deposit in the funds and accounts established hereunder shall mature or shall be subject to redemption by the holder thereof upon demand at par no later than the date when such amounts are needed for the purposes of such funds or accounts.

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SECTION 7.03. **Valuation of Funds and Accounts.** In computing the assets of any fund or account established hereunder, investments and accrued interest therein shall be deemed a part thereof. Such investments shall be valued on June 30 of each Fiscal Year at the current market value thereof, valuing any Credit Facility held for the Sinking Fund Reserve at the amount which can then be drawn thereunder; provided that any fund or account created by a Supplemental Ordinance may be valued as provided in such Supplemental Ordinance. The annual valuation shall apply for all purposes of this Ordinance except if Bonds are issued or a deficit in the Sinking Fund Reserve occurs, in which cases a valuation shall be made on the date Bonds are issued or the deficit is eliminated, as the case may be. Investment earnings shall be included in Gas Works Revenues and, to the extent not required to be retained in the fund or account to which such earnings relate, shall be transferred to the operating accounts of the Gas Works.

ARTICLE VIII

DEFAULTS AND REMEDIES

SECTION 8.01. **Defaults and Statutory Remedies.** If the City shall fail or neglect to pay or to cause to be paid the principal of, or the redemption premium, if any, or the interest on, any Bond, whether at stated maturity or upon call for prior redemption, or if the City, after written notice to it, shall fail or neglect to make any payment owed by it to the provider of a Credit Facility, a Qualified Swap or an Exchange Agreement provided with respect to the Bonds and such provider gives the Fiscal Agent written notice of such failure or neglect, or if the City shall fail to comply with any provision of the Bonds or with any covenant of the City contained in this Ordinance or an

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applicable Supplemental Ordinance, then, under and subject to the terms and conditions stated in the Act, the Holder or Holders of any Bond or Bonds shall be entitled to all of the rights and remedies provided in the Act, including the appointment of a trustee; provided, however, that the remedy provided in Section 20(b)(4) of the Act may be exercised only upon the failure of the City to pay, when due, principal and redemption price of (including principal due as a result of a scheduled mandatory redemption) and interest on a Series of Bonds.

Upon the occurrence of an event of default specified in this Section 8.01, the Fiscal Agent shall, within thirty (30) days, give written notice thereof by first-class mail to all Bondholders.

SECTION 8.02. **Remedies Not Exclusive; Effect of Delay In Exercise of Remedies.** No remedy herein or in the Act conferred upon or reserved to the trustee, if one be appointed, or to the Holder of any Bond is intended to be exclusive (except as specifically provided in the Act) of any other remedy or remedies, and each and every such remedy shall be cumulative, and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

No delay or omission of the trustee, if one be appointed, or of any Holder of any Bond to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default, or an acquiescence therein; and every power and remedy given by this Article VIII, by the Act or otherwise may be exercised from time to time and as often as may be deemed expedient.

SECTION 8.03. **Remedies to be Enforced Only Against Pledged Revenues.** Any decree or judgment for the payment

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of money against the City by reason of default hereunder shall be enforceable only against the Gas Works Revenues, amounts in the Sinking Fund Reserve and other amounts which may be specifically pledged therefor and the investments thereof and no decree or judgment against the City upon an action brought hereunder shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

ARTICLE IX

AMENDMENTS AND MODIFICATIONS

SECTION 9.01. In addition to the adoption of Supplemental Ordinances supplementing or amending this Ordinance as provided in Section 4.06 in connection with the issuance of successive Series of Bonds, this Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission herein or therein; (b) to make such provisions in regard to matters or questions arising hereunder or thereunder which shall not be inconsistent with the provisions hereof or thereof and which shall not adversely affect the interests of Bondholders; (c) to grant to or confer upon Bondholders or a trustee, if any, for the benefit of Bondholders any additional rights, remedies, powers, authority or security that may be lawfully granted or conferred; (d) to incorporate modifications requested by any Rating Agency to obtain or maintain a credit rating on any Series of Bonds; (e) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Bonds, but no amendment or modification shall be made with

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respect to any Outstanding Bonds to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or to alter the redemption provisions thereof without the written consent of the Holders of all affected Outstanding Bonds; and (f) except as aforesaid, in such other respect as may be authorized in writing by the Holders of a majority in principal amount (using Accreted Value in the case of Capital Appreciation Bonds) of the Bonds Outstanding and affected. The written authorization of Bondholders of any supplement to or modification or amendment of this Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof.

ARTICLE X

CLOSURE OF 1975 ORDINANCE

SECTION 10.01. **Limits on Issuances Under 1975 Ordinance.** After the adoption of this Ordinance, the City shall not issue any bonds under the 1975 Ordinance except to refund bonds issued under the 1975 Ordinance or to replace bonds issued thereunder which have been mutilated, destroyed, lost or stolen as provided therein or in substitution for bonds issued thereunder upon transfer or exchange as provided therein.

SECTION 10.02. **Designation of Refunding Bonds Under 1975 Ordinance.** Any refunding bonds issued under the 1975 Ordinance shall include in the title of such bonds a designation indicating that such bonds relate to the 1975 Ordinance in order to distinguish such bonds from Bonds issued under this Ordinance.

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ARTICLE XI

MISCELLANEOUS

SECTION 11.01. **Deposit of Funds for Payment of Bonds.** When interest on, and principal or redemption price (as the case may be) of, all Bonds issued hereunder, and all amounts owed under any Credit Facility, Qualified Swap and Exchange Agreement entered into hereunder (other than termination payments), have been paid, or there shall have been deposited with the Fiscal Agent an amount, evidenced by moneys or Qualified Escrow Securities the principal of and interest on which, when due, will provide sufficient moneys to fully pay the Bonds at the maturity date or date fixed for redemption thereof, and all amounts owed under any Credit Facility, Qualified Swap and Exchange Agreement entered into hereunder (other than termination payments), the pledge and grant of security interest in the Gas Works Revenues made hereunder shall cease and terminate, and the Fiscal Agent and any other depository of funds and accounts established hereunder shall turn over to the City or to such person, body or authority as may be entitled to receive the same all balances remaining in any funds and accounts established hereunder.

If the City deposits with the Fiscal Agent moneys or Qualified Escrow Securities sufficient to pay the principal or redemption price of any particular Bond or Bonds becoming due, either at maturity or by call for redemption or otherwise, together with all interest accruing thereon to the due date, interest on such Bond or Bonds shall cease to accrue on the due date and all liability of the City with respect to such Bond or Bonds shall likewise cease, except as provided in the following paragraph. From and after such deposit, such Bond or Bonds shall be deemed not to be Outstanding hereunder and the Holder or Holders thereof shall have recourse solely and

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exclusively to the funds so deposited for any claims of whatsoever nature with respect to such Bond or Bonds, and the Fiscal Agent shall hold such funds in trust for the Holder or Holders of such Bond or Bonds.

Moneys deposited with the Fiscal Agent pursuant to the preceding paragraphs which remain unclaimed two (2) years after the date payment thereof becomes due shall, upon written request of the City, if the City is not at the time to the knowledge of the Fiscal Agent (the Fiscal Agent having no responsibility to independently investigate) in default with respect to any covenant in this Ordinance or the Bonds, be paid to the City, and the Holders of the Bond for which the deposit was made shall thereafter be limited to a claim against the City; provided, however, that before making any such payment to the City, the Fiscal Agent shall, at the expense of the City, publish in a newspaper of general circulation published in the City, a notice that said moneys remain unclaimed and that, after a date named in said notice, which date shall not be less than thirty (30) days after the date of publication of such notice, the balance of such moneys then unclaimed will be paid to the City.

SECTION 11.02. **Ordinances are Contracts With Bondholders.** This Ordinance and Supplemental Ordinances adopted pursuant hereto are contracts with the Holders of all Bonds from time to time Outstanding hereunder and thereunder and shall be enforceable in accordance with the provisions of Article VIII and the laws of the Commonwealth of Pennsylvania.

SECTION 11.03. **Parties Interested Herein.** Nothing in this Ordinance expressed or implied is intended or shall be construed to confer upon, or to give to, any person or entity, other than the City, the Holders of Bonds, the Fiscal Agent, and each provider of a Credit Facility, Qualified Swap or

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Exchange Agreement, any right, remedy or claim under or by reason of this Ordinance or any covenants, condition or stipulation therefor; and all the covenants, stipulations, promises and agreements in this Ordinance by and on behalf of the City shall be for the sole and exclusive benefit of the City, the Fiscal Agent, the Holders of Bonds and each provider of a Credit Facility, Qualified Swap or Exchange Agreement.

SECTION 11.04. Repeals. All ordinances and parts of ordinances heretofore adopted to the extent that the same are inconsistent herewith are hereby repealed.

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Bill No. 980232 Certified Copy

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Bill No. 980232 Certified Copy

CERTIFICATION: This Is a true and correct copy of the original Bill, Passed by the City Council on April 30, 1998 The Bill was Signed by the Mayor on May 8, 1998

Marie B. Hauser
Chief Clerk of the City Council

City of Philadelphia

(Bill No. 150159)

AN ORDINANCE

Constituting the Thirteenth Supplemental Ordinance to the General Gas Works Revenue Bond Ordinance of 1998 (the "1998 General Ordinance"); authorizing the City of Philadelphia, Pennsylvania (the "City") to sell, either at public or private sale, one or more series of Gas Works Revenue Bonds (the "Bonds") and Gas Works Revenue Bonds to refund such Bonds, to pay the costs of certain capital projects, the costs of redeeming the City's Gas Works Revenue Capital Project Commercial Paper Notes, and the costs of refunding or redeeming certain outstanding Gas Works Revenue Bonds issued and outstanding pursuant to the 1998 General Ordinance and the General Gas Works Revenue Bond Ordinance of 1975 (the "1975 General Ordinance") and any termination payment which may become due under a Qualified Swap Agreement in connection with the redemption of all or any portion of certain Gas Works Revenue Bonds and other Project Costs; authorizing the City to obtain credit enhancement for any Series of the Bonds; making certain determinations and covenants relating to Gas Works Revenues and the payment of interest and principal; and authorizing covenants and actions in order that the Bonds shall not be arbitrage bonds; all under certain terms and conditions.

THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:

SECTION 1. The Mayor, the City Controller and the City Solicitor (the "Bond Committee"), or a majority of them, are hereby authorized, on behalf of the City, to borrow, by (i) the issuance and sale of Gas Works Revenue Bonds (1998 General Ordinance), of the City (the "Bonds"), which may be issued in one or more series or subseries, at such times as set forth in a resolution or resolutions of the Bond Committee designated and with such relative priorities as the Bond Committee may deem desirable, pursuant to The First Class City Revenue Bond Act of October 18, 1972, Act No. 234 (the "Act"), and the General Gas Works Revenue Bond Ordinance of 1998, Bill No. 980232, adopted by the City on April 30, 1998 (the "1998 General Ordinance"), a sum or sums which in the aggregate shall not exceed the principal amount of the Bonds authorized to be issued hereunder, to be expended as provided in Section 2 of this Ordinance; and (ii) by the issuance of Gas Works Revenue Bonds to refund all or a portion of the Bonds, as provided in this Ordinance. Each Series of Bonds shall be sold at public or private sale and shall contain such terms and provisions as are determined by a majority of the Bond Committee to be in the best interests of the City and are not inconsistent with the provisions hereof, of the Act, of the 1998 General Ordinance, or of any applicable law, in connection with the issuance of the each Series of Bonds. If a majority of the Bond Committee determines it to be in the best interests of the City, each Series of Bonds may be issued in book-entry form; and in such event a majority of the

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Bond Committee shall also select a securities depository (the "Depository") for the each Series of Bonds. Each Series of the Bonds shall mature or be subject to mandatory tender in such principal amounts and on such date or dates and bear interest at such rate or rates (including, without limitation, variable, adjustable or convertible rates), as shall be determined by a majority of the Bond Committee. A majority of the Bond Committee is authorized to take any and all other actions as may be necessary or appropriate in connection with the consummation of the transactions contemplated herein.

The Bonds are authorized to be issued hereunder in an aggregate principal amount of up to One Billion Twenty-Six Million Dollars ($1,026,000,000), to pay the costs related to any or all of the purposes set forth in Section 2 hereof; provided, however, that the aggregate principal amount of Bonds authorized to be issued to pay the costs of redeeming the City's Gas Works Revenue Capital Project Commercial Paper Notes shall not exceed One Hundred Thirty-Five Million Dollars ($135,000,000), and the aggregate principal amount of Bonds authorized to be issued to refund certain outstanding series of Gas Works Revenue Bonds issued and outstanding under the 1998 General Ordinance and the General Gas Works Revenue Bond Ordinance of 1975 (the "1975 General Ordinance") shall not exceed Eight Hundred Ninety-One Million ($891,000,000), and provided further that if any of the Bonds are to be sold at discounts which are in lieu of periodic interest, the aggregate principal amount of the Bonds which may be issued hereunder shall be increased to reflect such discounts, as long as the aggregate gross proceeds to the City from the sale of the Bonds shall not exceed One Billion Twenty-Six Million Dollars ($1,026,000,000) plus accrued interest if any; and provided further, that the Bonds, or any portion thereof, may be sold at a premium so long as the aggregate principal amount of the Bonds does not exceed One Billion Twenty-Six Million Dollars ($1,026,000,000).

The Bond Committee is further authorized to authorize the issuance and sale of one or more additional Series of Bonds which refund, in whole or in part, all or any portion of any Series of the Bonds; and to determine the terms thereof, provided however, that each series of refunding bonds (i) shall not extend the final maturity of the Bonds so refunded and shall have debt service in each year of the refunding bonds lower than the debt service on the Bonds refunded in each such year; and (ii) shall be in a principal amount not to exceed the principal amount which accomplishes the foregoing, together with the amount necessary to pay the costs of issuance of such refunding bonds.

The issuance of such refunding bonds shall in all other respects by governed by the General Ordinance and this Thirteenth Supplemental Ordinance and where reference is made herein to the Bonds, it shall also mean and relate to such refunding bonds.

The Bonds shall not pledge the City's credit or taxing power, create any debt or charge against the tax or general revenues of the City or create any lien against any property of the City other than the revenues pledged by the 1998 General Ordinance. The opinion of the City Solicitor required by Section 8 of the Act with respect to the matters

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stated in the preceding sentence has been filed with City Council and shall be kept on file at the office of the Clerk of City Council.

SECTION 2. The Bonds shall be issued for the purpose of providing funds for any or all of the following purposes: (i) the redeeming of all or any portion of the outstanding City of Philadelphia, Pennsylvania, Gas Works Revenue Capital Project Commercial Paper Notes which have been or are hereafter issued for certain capital projects, upon such terms and in the amounts as shall be determined by the Director of Finance (the "Redeemed Notes"); (ii) the refunding or redeeming of all or any portion of the outstanding City of Philadelphia, Pennsylvania, Gas Works Revenue Bonds issued under the 1998 General Ordinance or issued under the 1975 General Ordinance, upon such terms, as to such bonds, and in the amounts as shall be determined by the Director of Finance (the "Refunded Bonds"); (iii) paying any termination payment that may become due and payable under a Qualified Swap Agreement in connection with the redemption or conversion of all or any portion of any of the Refunded Bonds; (iv) paying the costs of issuing the Bonds and any required payments to the Sinking Fund Reserve; and (v) paying any other Project Costs (as defined in the Act).

The City covenants that the proceeds of any series of the Bonds which are available for the payment of the Project Costs after payment of costs of refunding the Refunded Bonds and the Redeemed Notes and after payment of financing costs, and the required payment into the Sinking Fund Reserve, shall be deposited, held in and disbursed from a special account of the Sinking Fund or from the escrow fund to be established pursuant to the Escrow Agreement (defined below).

The City hereby authorizes the redemption of the Refunded Bonds and the Redeemed Notes, in whole or in part, in accordance with the terms of the 1998 General Ordinance, the 1975 General Ordinance, and the Refunded Bonds and the Redeemed Notes, and further authorizes the Bond Committee or the Director of Finance, if it is determined to be necessary, to enter into one or more Escrow Deposit Agreements (the "Escrow Agreements") providing, among other things, for the deposit and investment of a portion of the proceeds of any Series of the Bonds issued to refund the Refunded Bonds or to redeem the Redeemed Notes and any other available funds of the City in amounts sufficient, together with interest thereon, if any, to defease such Refunded Bonds and Redeemed Notes, so that such Refunded Bonds and Redeemed Notes shall be deemed not to be outstanding under the 1998 General Ordinance or the 1975 General Ordinance, as applicable, and providing for payment of the Refunded Bonds and Redeemed Notes at maturity or redemption, as applicable, including all interest payable on such Refunded Bonds and Redeemed Notes to such redemption dates, as applicable. All interest and income earned on the investment of such proceeds (except for amounts to be rebated to the United States), which is not required for the refunding or redemption of the Refunded Bonds and Redeemed Notes, pending expenditure for the aforesaid purposes, may be transferred to and deposited in the operating funds of the Gas Works and applied as Gas Works Revenues in accordance with Section 4.02 of the 1998 General Ordinance.

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SECTION 3. Based on the report of the Director of Finance of the City required by Section 8 of the Act (the "Financial Report"), it is hereby determined that the pledged Gas Works Revenues (as defined in the 1998 General Ordinance) will be sufficient to comply with the rate covenant contained in Section 4.03(b) of the 1998 General Ordinance and also to pay all costs, expenses and payments required to be paid therefrom in the order and priority stated in Section 4.02 of the 1998 General Ordinance. An executed copy of the Financial Report has been filed with City Council and shall be kept on file at the office of the Clerk of City Council.

SECTION 4. The City covenants that, as long as any of the Bonds shall remain outstanding, all pledged Gas Works Revenues shall be deposited and held in and disbursed from one or more unsegregated accounts of the Gas Works which shall be separate from and not commingled with the consolidated cash account of the City or any other account of the City not held exclusively for Gas Works purposes. Such pledged Gas Works Revenues shall be held for the security and payment of all Bonds issued under the 1998 General Ordinance and to be applied in the order of priority both as to security and payment, set forth in Section 4.02 of the 1998 General Ordinance. This covenant shall not be construed to require the establishment of any Gas Works account segregated from any other Gas Works accounts except as provided in Section 2 hereof or as otherwise required by the 1998 General Ordinance.

SECTION 5. The City covenants that as long as any Bonds shall remain unpaid, it shall make payments or cause payments to be made out of its 1998 Gas Works Revenue Bond Sinking Fund created under the 1998 General Ordinance at such times and in such amounts as shall be sufficient for the payment of the interest thereon and the principal thereof when due; provided, however, that whenever the City shall be required to deposit moneys with the Fiscal Agent for the mandatory redemption of any of the Bonds, such obligation may be satisfied, in whole or in part, by the delivery by the City to the Fiscal Agent of a principal amount of the Bonds of the maturity required to be redeemed for cancellation prior to the date specified for such redemption.

SECTION 6. The Director of Finance is authorized to make such elections under the Internal Revenue Code of 1986, as amended (the "Code"), and the Treasury Regulations promulgated thereunder with respect to each Series of the Bonds and to take such actions on behalf of the City with respect to the investment of the proceeds of Bonds as is deemed advisable, and the Director of Finance or any member of the Bond Committee is authorized to make such covenants as may be necessary or advisable in order that each Series of the Bonds shall not be "arbitrage bonds" as defined in the Code.

SECTION 7. In the event any Series of the Bonds are issued in book-entry form, the ownership of one fully registered Series Bonds for each maturity or stated maturity of each series, each in the aggregate principal amount of such maturity or stated maturity, will be registered in the name(s) designated by the Depository. So long as, but only so

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long as, the book-entry only system is applicable to such Series of Bonds, the following provisions of this Section 7 shall govern as to matters set forth in Article III of the 1998 General Ordinance.

Pursuant to the book-entry-only system, ownership interests in the Bonds may be purchased in the manner directed by the Depository, which may be through financial institutions for whom the Depository effects book-entry transfer (the "Participants"). A person who owns such an interest in a Bond (a "Beneficial Owner") will not receive certificated Bonds and will not be the registered owner thereof. Receipt by the Beneficial Owners of timely payment of principal, purchase price, redemption price and interest on the Bonds, is subject to the Depository's making such timely payment, either to the Beneficial Owner or to the Participants to be forwarded to the Beneficial Owners. Neither the City nor the Fiscal Agent will have any responsibility or obligation to such Participants or to the Beneficial Owners for any failure of the Depository to act or make any payment with respect to the Bonds or the providing of notices relating to redemption to Participants or the Beneficial Owners of the Bonds.

The Depository will receive payments from the Fiscal Agent to be remitted by the Depository to the Beneficial Owners or to the Participants for whom the Depository holds the Bonds for subsequent disbursement to the Beneficial Owners. The ownership interest of each Beneficial Owner in the Bonds shall be recorded on the records of the Depository or the records of the Participants, whose ownership interests will be recorded on the records of the Depository.

When notices are given, they shall be sent by the Fiscal Agent to the Depository with a request that the Depository forward (or cause to be forwarded) the notice to the Participants so that such Participants may forward (or cause to be forwarded) the notices to the Beneficial Owners.

Transfers of ownership interests in the Bonds will be accomplished by book-entries made by the Depository and/or the Participants who act on behalf of the Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except as specifically provided herein. So long as the Depository is the Bondholder, interest, principal and redemption price of the Bonds will be paid when due by the Fiscal Agent to the Depository, then paid by the Depository to the Beneficial Owners, or by the Depository to the Participants and thereafter paid by the Participants to the Beneficial Owners. The payments to the Depository shall satisfy the City's obligations under the Bonds.

For every transfer and exchange of the Bonds, the Fiscal Agent, the Depository and the Participants may charge the Beneficial Owner of the Bonds a sum sufficient to cover any tax, fee or other governmental charge that may be imposed in relation thereto. No transfer or exchange of any Bonds shall be required to be made fewer than five (5) days prior to any interest payment date or five (5) days prior to any mailing of a notice of

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redemption of the Bonds. No transfers shall be made of Bonds previously called for redemption, except pursuant to the optional or mandatory tender provisions thereof.

The Depository may determine to discontinue providing its services with respect to the Bonds at any time by giving notice to the City and the Fiscal Agent and discharging its responsibilities with respect thereto under applicable law. Under such circumstances (if there is no successor securities depository), the City is obligated to deliver bond certificates in such names as the City and the Fiscal Agent are directed by the Depository.

The Bondholders have no right to a depository for the Bonds. If the book-entry only system is no longer utilized, bond certificates will be issued in such names as the City and the Fiscal Agent are directed by the Depository.

Notwithstanding any other provision of the 1998 General Ordinance, so long as the Depository is the registered holder of all Bonds of a Series, the Depository may present notices, approvals, waivers or other communications required or permitted to be made by Bondholders under the 1998 General Ordinance on a fractionalized basis on behalf of some or all of the Beneficial Owners of such Series.

The appropriate officials of the City are authorized to execute any documentation required by the Depository in connection with book-entry registration of the Bonds.

SECTION 8. (a) Subject to the determination by a majority of the Bond Committee referred to in Section 1 hereof, in accordance with and as permitted by Section 4.02 of the 1998 General Ordinance, the pledge and grant of a lien on and security interest in, all Gas Works Revenues, all accounts, contract rights and general intangibles representing the Gas Works Revenues and all funds and accounts established under the 1998 General Ordinance (except for the Sinking Fund and the Sinking Fund Reserve), and in each case, the proceeds of the foregoing, shall be for the benefit of the providers of any Credit Facilities with respect to the Bonds, all to the extent and in the manner as provided therein; provided, however, that any payments to a Credit Facility Provider on account of principal of and interest on the Bonds owned or deemed to be owned by a Credit Facility Provider shall be payable from and secured by Gas Works Revenues and the Sinking Fund equally and ratably with all other Bonds.

(b) All of the provisions of Section 4.02 of the 1998 General Ordinance relating to Credit Facilities, except to the extent limited by Section 8(a) hereof, shall apply to Credit Facilities with respect to the Bonds and to payments due from the City to the providers of such Credit Facilities. The providers of Credit Facilities shall have no right or claim at any time to amounts on deposit in the Sinking Fund, except as provided in Section 8(a) hereof.

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(c) All of the provisions in Section 4.03(b) of the 1998 General Ordinance relating to Credit Facilities shall apply to the Credit Facilities with respect to the Bonds.

SECTION 9. This Ordinance is supplementary to the 1998 General Ordinance and all sections of the 1998 General Ordinance not inconsistent with this Ordinance are applicable to the Bonds. All definitions of terms contained in the Act or the 1998 General Ordinance not inconsistent herewith shall apply to such terms in this Ordinance.

SECTION 10. The City reasonably expects to reimburse all or certain of the expenditures toward the cost of the matters authorized by Section 2 of this Ordinance paid prior to the issuance of each Series of Bonds. No funds from sources other than the Bonds authorized by this Ordinance have been or are reasonably expected to be reserved, allocated on a long-term basis, or otherwise set aside by the City, or any member of the same "control group" as the City within the meaning of Treasury Regulation 1.150-1(e) of the Code, pursuant to their budget or financial policies with respect to any expenditures to be reimbursed. This section constitutes a declaration of the City's official intent to reimburse expenditures paid in accordance with Treasury Regulation 1.150-2(d) of the Code.

SECTION 11. This Ordinance shall take effect immediately.

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BILL NO. 150159 continued

Certified Copy

CERTIFICATION: This is a true and correct copy of the original Bill, Passed by the City Council on March 26, 2015. The Bill was Signed by the Mayor on March 26, 2015.

Michael A. Decker
Chief Clerk of the City Council

CERTIFICATE OF CHIEF CLERK OF THE COUNCIL OF THE CITY OF PHILADELPHIA

I, Michael Decker, Chief Clerk of the Council ("Council") of the City of Philadelphia ("City"), and on behalf of the City, do hereby certify that:

1. A public hearing was held on the following Bill ("Bill") as required by Section 2-201 (2) of the Philadelphia Home Rule Charter:

   (a) Bill No. 130766 of 2013, approved December 4, 2013, authorizing the issuance and sale by the City of its Gas Works Revenue Notes, CP Series G.

2. Notices of the public hearing on said Bill and of its report from committee were duly given by advertisement, such Bill was duly enacted by the affirmative vote of a majority of all the members of the Council after the elapse of not less than five (5) days from the printing and distribution of such Bill as reported from the committee and the votes thereon have been recorded in the Journal of Council, all as required by Section 2-201 of the Philadelphia Home Rule Charter;

3. The copy of the Bill attached hereto is a true and correct copy of the original thereof on file in the Office of the Chief Clerk of the Council; and

4. Such Bill has not been amended or repealed and is in full force and effect on the date of this certificate.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 14th day of August, 2014.

Michael Decker, Chief Clerk of the
Council of the City of Philadelphia

[SEAL]

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(Bill No. 130766)

AN ORDINANCE

Authorizing, generally, the continued issuance and sale by the City of Philadelphia of Gas Works Revenue Notes of the City, prescribing the forms of notes and providing for their execution and payment, pledging certain revenues of the Gas Works as security, adopting a rate covenant and directing the imposition and collection of rates and charges sufficient to comply therewith, prescribing the conditions precedent to the issuance of specific series of notes, including a resolution passed by the Bond Committee providing for establishment of credit support for notes, providing for designation of a fiscal agent and sinking fund depositary, providing for establishment of a sinking fund and its management, providing remedies upon default, and providing for amendments and modifications.

THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:

ARTICLE I

AUTHORIZATION, SCOPE AND PURPOSE –

SHORT TITLE

This Ordinance is enacted pursuant to the provisions of The City of Philadelphia Municipal Utility Inventory and Receivables Financing Act (Act No. 231, approved December 7, 1982) (the "Act") for the purpose of authorizing the issuance from time to time of Gas Works Revenue Notes of the City to be secured by a pledge of certain revenues of the Gas Works as security, in an aggregate principal amount not exceeding one hundred fifty million dollars ($150,000,000) at any one time outstanding, as shall from time to time be authorized by resolution of the Bond Committee, acting by at least a majority thereof, as more particularly hereinafter set forth. This Ordinance is intended to continue the authority for issuance of Gas Works Revenue Notes contained in the General Inventory and Receivables Gas Works Revenue Note Ordinance of 2010, Bill No. 100006 approved by the Mayor on March 17, 2010 (the "2010 Ordinance"), subject to the terms and conditions hereof. At such time as Gas Works Revenue Notes are issued pursuant to the authority contained in this Ordinance, no additional Gas Works Revenue Notes shall be issued under the 2010 Ordinance. For so long as any Gas Works Revenue Notes are outstanding under the 2010 Ordinance, the principal amount thereof shall be included for purposes of calculating the maximum principal amount of Gas Works Revenue Notes that may be issued and outstanding under this Ordinance. This Ordinance

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shall be known as the General Inventory and Receivables Gas Works Revenue Note Ordinance of 2013.

ARTICLE II

DEFINITIONS AND OTHER PROVISIONS OF

GENERAL APPLICATION

Section 2.01. Definitions.

For all purposes of this Ordinance and any ordinance supplemental hereto, except as otherwise expressly provided or unless the context otherwise requires:

Act means the act of December 7, 1982 (P.L. 827, No. 231) known as The City of Philadelphia Municipal Utility Inventory and Receivables Financing Act (53 P.S. 1699.1 to 1699.21), as amended from time to time.

Bond Committee means the Mayor, the City Controller and the City Solicitor, acting by at least a majority thereof, being the bond committee referred to in the Act.

Chief Fiscal Officer means the person appointed by the Manager as chief fiscal officer of PGW or, in the absence of such an appointed person, the person acting as chief fiscal officer of PGW.

City means The City of Philadelphia.

City Charges means the proportionate charges, if any, for services performed for PGW by all officers, departments, boards or commissions of the City which are contained in the computation of operating expenses of PGW, including, without limitation, the expenses of the Gas Commission, and also means the base payments to the City contained in the Management Agreement and all other payments made to the City from Gas Works Revenues.

City Controller means the controller of the City, including a person acting as controller under applicable law.

City Solicitor means the solicitor of the City, including a person acting as solicitor under applicable law.

Code means the Internal Revenue Code of 1986, as amended, and the rules and regulations promulgated thereunder and applicable thereto.

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CP Notes means the City of Philadelphia Gas Works Revenue Notes, CP Series, authorized to be issued hereunder, as more particularly described in Sections 3.01(b) and 3.02(b) hereof.

Credit Support Entity means any bank, insurance company or other appropriate entity providing a Credit Support Instrument with respect to any Notes.

Credit Support Instrument means a letter of credit, line of credit, standby purchase agreement, policy of insurance or other mechanism for providing funds to be drawn upon by the City or by the Fiscal Agent on behalf of or as trustee for the Noteholders to pay the principal of or interest on any Notes or to make a deposit in the Sinking Fund.

Dealer means one or more securities dealers, brokers or other entities acting as purchaser of, or broker for, the Notes pursuant to one or more agreements with the City.

Director of Finance means the chief financial, accounting and budget officer of the City as established by The Philadelphia Home Rule Charter, including a person acting as director of finance under applicable law.

Final Maturity means, as to a series of CP Notes, the date stated in the Resolution authorizing such series as the final maturity date of such series, which shall be not later than five years from the date of enactment of this Ordinance.

Fiscal Agent means any bank, bank and trust company or trust company named as such pursuant to Section 5.02 hereof or its successor.

Fiscal Year means each fiscal year of PGW.

Gas Commission means the Gas Commission provided for by The Philadelphia Home Rule Charter as presently constituted or hereafter reconstituted in accordance with law.

Gas Works or PGW means all property, real and personal, owned by the City and used in the acquisition or manufacture, storage and distribution of natural, liquefied, synthetic or manufactured gas or in the maintenance, management or administration thereof and all activities ancillary and related thereto, and also, as the context may require, means the business entity managed by the Manager.

Gas Works Revenue Bonds means Gas Works revenue bonds of the City presently or hereafter issued pursuant to the Act of October 18, 1972 (P.L. 955, No. 234) known as The First Class City Revenue Bond Act (53 P.S. 15901 to 15924), or other applicable statute, the 1975 General Ordinance, the 1998 General Ordinance and any other ordinance enacted pursuant to The First Class City Revenue Bond Act.

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Gas Works Revenues means all operating and nonoperating revenues of the Gas Works derived from its activities and assets involved in the supply, manufacture, storage and distribution of gas, including all rents, rates and charges imposed or charged by the City upon the owners or occupants of properties connected to, and upon all users of, gas distributed by the Gas Works and all other revenues derived therefrom and all other income derived by the City from the Gas Works. Revenues derived from activities unrelated to the supply, manufacture, storage and distribution of gas or assets related thereto shall not be included in Gas Works Revenues, provided that the Gas Works receives fair payment for the use of gas related assets and personnel of the Gas Works used in such activities, which payments shall be included in Gas Works Revenues. In particular, Gas Works Revenues shall not include revenues from enterprises or functions not related to gas activities (e.g. activities involving the supply, generation or distribution of electricity). Gas Works Revenues shall not include those portions of the Gas Works' rents, rates and charges which are securitized and sold pursuant to Section 4.03(b) of the General Gas Works Revenue Bond Ordinance of 1998 (Bill No. 980232) or any similar provision in any successor to such ordinance. Gas Works Revenues shall not include any revenues which do not constitute Project Revenues under the First Class City Revenue Bond Act or the Act.

Installment means any issuance of CP Notes intended to be treated as part of a single issue under Section 1.150-1 (c)(4)(ii) of the Treasury Regulations promulgated under the Code.

Inventory means any fuel, materials or supplies acquired by PGW, used directly or indirectly to provide service to the public, and which would be shown as a current asset on a balance sheet of PGW prepared in accordance with generally accepted accounting principles.

Management Agreement means the Agreement dated December 29, 1972 between the City and the Manager for the management and operation of PGW, as presently or hereafter amended, or any subsequent agreement which may be entered into by the City pertaining to the management of PGW.

Manager means Philadelphia Facilities Management Corporation currently managing PGW pursuant to the Management Agreement, or its successor or such other person, corporation, commission or department of the City that may be designated by the City to manage PGW.

Mayor means the Mayor of the City, including a person acting as mayor under applicable law.

Natural Gas Choice and Competition Act means the Act of June 22, 1999, P.L. 122, No. 21, as amended from time to time.

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Net Operating Expenses means Operating Expenses exclusive of City Charges.

1975 General Ordinance means the General Gas Works Revenue Bond Ordinance of 1975 (Bill No. 1871, approved May 30, 1975, as amended and supplemented).

1998 General Ordinance means the General Gas Works Revenue Bond Ordinance of 1998 (Bill No. 980232, approved April 30, 1998, as amended and supplemented, and as the same may be further amended).

Note or Notes means any Gas Works revenue note or notes of the City, issued and outstanding pursuant to the Act and this Ordinance, including Refunding Notes, CP Notes and Revenue Notes.

Noteholder or Holder means the holder of any Note.

Operating Expenses means all costs and expenses of PGW necessary and appropriate to operate and maintain the Gas Works in good operable condition during each Fiscal Year, and shall include, without limitation, the Manager's fee, salaries and wages, purchases of service by contract, costs of materials, supplies and expendable equipment, maintenance costs, costs of any property or the replacement therefor for any work or project related to the Gas Works which does not have a probable useful life of at least five (5) years, pension and welfare plan and workmen's compensation requirements, provision for claims, refunds and uncollectible receivables and for City Charges, all in accordance with generally accepted accounting principles consistently applied, but shall exclude depreciation, interest and sinking fund charges. Operating Expenses shall not include Unrelated Expenses.

Outstanding means, when used with reference to the Notes, as of any particular date, the aggregate of all Notes authenticated and delivered under this Ordinance, except:

(a) Notes cancelled by the Fiscal Agent or delivered to the Fiscal Agent for cancellation;

(b) Notes for the payment of which payments in the necessary amount have been theretofore deposited in an account in the Sinking Fund for the holders such Notes; and

(c) Notes in lieu of or in substitution for which other Notes shall have been authenticated and delivered pursuant to Section 3.08 hereof.

Project means the Inventory or Receivables, or both, or any part thereof.

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Project Costs means all costs of acquisition or funding of a Project including, but not limited to, costs, fees and expenses of financial advisors, attorneys and other experts engaged in connection with the Project, fees and expenses of the Fiscal Agent and rating agencies, financing costs including bond discount, additional security costs including fees and expenses related to a Credit Support Instrument, interest on money borrowed to finance the Project if capitalized, the repayment of temporary loans made in connection with the Project and reimbursement for any of the foregoing costs incurred or paid prior to or after the issuance of Notes.

Public Utility Commission means the Pennsylvania Public Utility Commission as presently constituted or hereafter reconstituted in accordance with law.

Rate Covenant means the rate covenant contained in Section 4.03(b) hereof.

Receivables means accounts receivable billed to customers of PGW, but not yet paid, as would be shown as a current asset on a balance sheet of PGW prepared in accordance with generally accepted accounting principles.

Refunding Notes means Notes issued to provide funds to pay the principal of and interest on Notes or 2010 Notes previously issued, including prior issues of Refunding Notes; Refunding Notes may be issued as Notes or Revenue Notes.

Reimbursement Agreement means any agreement between the City and a Credit Support Entity governing the terms and conditions upon which a Credit Support Instrument will be provided and the terms and conditions of the Reimbursement Obligation.

Reimbursement Obligation means the obligation of the City to repay to a Credit Support Entity amounts provided under a Credit Support Instrument, together with premium, if any, and interest thereon; the Reimbursement Obligation may be evidenced by a promissory note or notes of the City.

Resolution means a resolution duly passed by the Bond Committee authorizing the issuance of the Notes hereunder or taking any other action required or permitted hereunder.

Revenue Notes means the City of Philadelphia Gas Works Revenue Notes, authorized to be issued hereunder, as more particularly described in Section 3.01(c) and 3.02(c) hereof.

Sinking Fund means a sinking fund established pursuant to Section 5.01 hereof.

Sinking Fund Depositary means the Fiscal Agent named pursuant to Section 5.02 hereof or its successor.

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Stated Maturity means, as to a particular CP Note, the maturity date of such CP Note, which shall be not less than one (1) day after the issue date of such CP Note and not later than two hundred seventy (270) days from the date of issuance of the particular CP Note; provided, however, that the Stated Maturity shall not be later than the earlier of: 13 months following the date of initial issuance of any Installment of CP Notes or Final Maturity.

2010 Notes means any gas works revenue note or notes of the City issued and outstanding pursuant to the Act and the 2010 Ordinance.

Unrelated Expenses means expenses unrelated to the supply, manufacture, storage and distribution of gas or assets related thereto.

Section 2.02. Interpretation. All references in this Ordinance to articles, sections and other subdivisions of this Ordinance are to the designated articles, sections or other subdivisions of this Ordinance as originally enacted. The words "herein," "hereof," "hereby" and "hereunder" and other words of similar import refer to this Ordinance as a whole and not to any particular article, section or other subdivision, except as otherwise specifically provided.

Section 2.03. Descriptive Headings. The descriptive headings of the several articles and sections of this Ordinance are inserted for convenience only and shall not control or affect the meaning or construction of any of its provisions.

Section 2.04. Severability. In case any one or more of the provisions contained in this Ordinance or in any Note issued pursuant hereto or the application thereof to any person or circumstance shall for any reason be held to be invalid, the remainder of this Ordinance or such Note and the application of such provision to other persons or circumstances, shall not be affected thereby, unless the court finds that the valid provisions are so essentially and inseparably connected with, and so dependent upon, the void provision or application, that it cannot be presumed that City Council would have enacted or provided for the remaining valid provisions without the void provision; or unless the court finds that the remaining valid provisions, standing alone, are incomplete and are incapable of being executed in accordance with the intent of City Council.

Section 2.05. Powers Preserved. Nothing in this Ordinance is intended to or shall be construed to affect the authority of the Gas Commission under Section 5-902 of The Philadelphia Home Rule Charter or the Management Agreement, to the extent consistent with the Natural Gas Choice and Competition Act.

ARTICLE III

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CONCERNING THE NOTES

Section 3.01. Forms of Notes. All Notes shall be in substantially such forms as approved by the Bond Committee in a Resolution, with such appropriate insertions, omissions, substitutions and other variations, as may, consistent with this Ordinance and the Act, be determined by or in the manner specified by the Bond Committee in a Resolution. The Notes may be printed, lithographed or typewritten. The Notes may also have printed thereon or on the reverse thereof or attached thereto, the text of an approving legal opinion with respect thereto and an appropriate certificate as to its correspondence with an executed counterpart may be included on the face or on the reverse of the Notes or attached thereto. The Notes may also have printed thereon or on the reverse thereof or attached thereto a Credit Support Instrument or the text thereof. Any portion of the text of any Note may be set forth on the reverse thereof with an appropriate reference on the face of the Note.

Section 3.02. General Form and Content of Notes.

(a) Notes shall be generally designated as Gas Works Revenue Notes of the City and shall be issued in such series and within such series in such sub-series as may from time to time be determined by or in the manner prescribed by a Resolution. The aggregate principal amount of Notes which may be issued, authenticated and delivered under this Ordinance may not exceed one hundred fifty million dollars ($150,000,000) at any one time Outstanding, and prior to issuance of each series of Notes, the Bond Committee shall adopt a Resolution authorizing such series. For the purpose of calculating the maximum principal amount of Notes which may be issued and Outstanding hereunder, the aggregate principal amount of any outstanding 2010 Notes shall be deemed to be Outstanding hereunder.

Subject to the provisions of this Ordinance, Notes may be issued in such denominations in bearer or in fully registered form; may be issued in Installments; shall bear such identifying designation or title; shall be dated; shall be payable at such rate or rates of interest, including supplemental, contingent or variable interest, payable on such dates; may be subject to such provisions for redemption in whole or in part or both, at such prices, at such times and places; shall be stated to mature on such date or dates, not later than five years from the date of enactment of this Ordinance; shall be payable as to principal or interest, or both, at such places by the City or by such paying agent or Fiscal Agent of the City as the City appoints; may provide for the payment by the City of such tax or taxes on the Notes; and may contain such other terms, provisions, statements or covenants, not inconsistent with the Act or this Ordinance as may be determined in or in the manner specified in a Resolution.

(b) Each series of CP Notes shall be issued from time to time, subject to the limitations set forth in this Ordinance, in such principal amounts as from time to

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time shall be determined by the Bond Committee. The CP Notes of a series shall be (i) dated as of their respective dates of issuance, (ii) numbered serially in consecutive numerical order from 1 upwards, (iii) issued in minimum denominations of one hundred thousand dollars ($100,000) or any integral multiples of one thousand dollars ($1,000) in excess thereof, (iv) issued without coupons and payable to bearer or such other person or entity designated by the City, including a depository or person designated by a depository if the CP Notes are issued in book-entry form, (v) issued as interest-bearing CP Notes (provided that interest shall accrue thereon from and including the date of issuance thereof to, but not including or after, the stated maturity thereof), (vi) have interest payable and principal amounts maturing at such times as are stated therein, but in no event later than the Final Maturity of such series of CP Notes, (vii) payable as to principal and interest at Stated Maturity in immediately available funds in lawful money of the United States of America upon presentation and surrender at the principal corporate trust office of the Fiscal Agent, and (viii) authenticated by the Fiscal Agent and delivered by the Fiscal Agent to, or as directed by, the Dealer, from time to time in the manner provided for and subject to the conditions specified herein and in any agreement hereafter entered into by the City and the Dealer or Fiscal Agent, promptly upon receipt by the Fiscal Agent of a request specifying, as to each of the CP Notes then being issued, (A) the date of issue, Stated Maturity, serial number and principal amount, (B) the rate of interest to be carried thereby, (C) the total of principal and interest to be due thereon at the Stated Maturity thereof, (D) the name of the payee, if other than bearer, and (E) the aggregate purchase price to be paid therefor by the Dealer or such other person or entity as such request shall specify. Delivery of the CP Notes by the Fiscal Agent to, or as directed by, the Dealer shall be against payment made in the manner specified herein.

(c) Each series of Revenue Notes shall be issued from time to time, subject to the limitations set forth in this Ordinance, in such principal amounts as from time to time shall be determined by the Bond Committee. The Revenue Notes of a series shall be (i) dated as of their respective dates of issuance, (ii) numbered serially in consecutive numerical order from 1 upwards, (iii) issued in minimum denominations of five thousand dollars ($5,000), or any integral multiples thereof, (iv) issued without coupons and payable to bearer or such other person or entity designated by the City, (v) issued as interest-bearing Revenue Notes (provided that interest shall accrue thereon from and including the date of issuance thereof to, but not including or after, the stated maturity thereof), (vi) have interest payable and principal amounts maturing at such times as are stated therein, but in no event later than five years from the date of enactment of this Ordinance, (vii) payable as to principal and interest at maturity in immediately available funds in lawful money of the United States of America upon presentation and surrender at the principal corporate trust office of the Fiscal Agent, and (viii) authenticated by the Fiscal Agent and delivered by the Fiscal Agent to the Dealer from time to time in the manner provided for and subject to the conditions specified herein and in any agreement hereafter entered into by the City and the Dealer or Fiscal Agent, promptly upon receipt by the Fiscal Agent of a request specifying, (A) as to the series of Revenue Notes then being issued, (i) the date of issue, (ii) maturity date, (iii) rate of

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interest to be carried thereby, and (B) as to each Revenue Note within such series, (i) the serial number and principal amount, (ii) the name of the payee, if other than the bearer, and (iii) the aggregate purchase price to be paid therefor by the Dealer or such other person or entity as such request shall specify. Delivery of the Revenue Notes by the Fiscal Agent to the Dealer shall be against payment made in the manner specified herein.

The foregoing provisions of this Section 3.02, any other provisions in this Ordinance to the contrary notwithstanding, are subject to the express understanding that the City shall have no obligation to pay the Notes except from the Gas Works Revenues and from the proceeds of Refunding Notes. The Notes shall be limited obligations of the City payable solely from Gas Works Revenues and from proceeds of Refunding Notes and shall not pledge the City's general credit or taxing power or create any debt or charge against the general revenues of the City.

Section 3.03. Payment of Notes at Maturity. The Notes and any interest thereon shall be payable in lawful money of the United States of America at the office of the Fiscal Agent, or at the principal office of a paying agent designated in such Notes, but only upon presentation and surrender of such Notes, except as otherwise herein provided with respect to mutilated, destroyed, lost or stolen Notes.

Section 3.04. Notes are Negotiable Instruments. The Notes shall have the qualities of negotiable instruments under the laws pertaining to negotiable instruments of the Commonwealth of Pennsylvania.

Section 3.05. Transfer of Notes. All Notes shall be negotiable and title thereto shall pass by delivery.

Section 3.06. Ownership of Notes. The City, the Fiscal Agent and any paying agent designated in any Note may treat the bearer of any Note as the absolute owner of such Note for all purposes whether or not such Note shall be overdue, and neither the City, the Fiscal Agent nor any paying agent shall be affected by any notice to the contrary. Any consent, waiver or other action taken by the bearer of any Note pursuant to the provisions of this Ordinance shall be conclusive and binding upon such holder, his heirs, successor or assigns, and upon all transferees of such Note whether or not notation of such consent, waiver or other action shall have been made on such Note or on any Note issued in exchange therefor.

Section 3.07. Execution of Notes. The Notes shall be executed on behalf of the City by the manual or facsimile signatures of the Mayor, City Solicitor, and City Controller under the seal of the City, which shall be either affixed or reproduced thereon in facsimile and shall be countersigned and attested by the manual signatures of two duly authorized officers of the Fiscal Agent, or in such other manner as shall be authorized by law and prescribed by a Resolution. Any such Notes may be executed, issued and delivered notwithstanding that one or more of the officers signing such Notes or whose facsimile signature shall be upon such Notes or any thereof, shall have ceased to be such

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officer or officers at the time when such Notes shall actually be delivered, and although at the nominal date of the Note, any such person shall not have been such officer.

Section 3.08. Mutilated, Destroyed, Lost or Stolen Notes. Upon receipt by the Fiscal Agent and the City of evidence satisfactory to both of them that any Outstanding Note has been destroyed, lost, or stolen, and of indemnity satisfactory to both of them, then, in the absence of notice to the City or to the Fiscal Agent that such Note, if alleged to have been lost or stolen, has been acquired by a bona fide purchaser, or if a Note has been mutilated, the City in its discretion may execute and deliver a new Note of the same series and same maturity and of like tenor in exchange and substitution for, and upon surrender and cancellation of, the mutilated Note or in lieu of and in substitution for the Note so destroyed, lost or stolen.

The City may, for each new Note authenticated and delivered under the provisions of this Section 3.08, require the payment of the expenses, including counsel fees, which may be incurred by the City and the Fiscal Agent in the premises. In case any such mutilated, lost or stolen Note has become, or is about to become, due and payable, the City, in its discretion, may, instead of issuing a new Note, direct the payment thereof at maturity and the Fiscal Agent shall thereupon pay the same.

Any Note issued under the provisions of this Section 3.08 in lieu of any Note alleged to be destroyed, lost or stolen shall constitute an original additional contractual obligation on the part of the City whether or not the Note so alleged to be destroyed, lost or stolen be at any time enforceable by anyone, and shall be equally and proportionately entitled to the benefits of this Ordinance with all other Notes under this Ordinance.

ARTICLE IV

ISSUANCE OF NOTES

Section 4.01. Purpose of Notes. The Notes issued under this Ordinance shall be issued for the purpose of financing or refunding the Project Costs of a Project or any part thereof, to refund Notes previously issued hereunder or to refund 2010 Notes issued under the 2010 Ordinance.

Section 4.02. Pledge of Gas Works Revenues; Grant of Security Interest; Application of Gas Works Revenues. The City hereby pledges for the security and payment of all Notes issued under this Ordinance, and hereby grants a security interest in the Gas Works Revenues, including all accounts, general intangibles, cash proceeds, non-cash proceeds, chattel paper, whether tangible or electronic, and supporting obligations, as each term is defined in the Pennsylvania Uniform Commercial Code and all Proceeds, as such term is defined in the Pennsylvania Uniform Commercial Code.

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For the purpose of the financing statements to be filed under the Uniform Commercial Code, the Fiscal Agent shall be deemed to be, and the City hereby recognizes the Fiscal Agent as, the representative of the Noteholders.

All Gas Works Revenues as and when collected in each Fiscal Year shall be applied in order of priority, to the extent then payable, to (1) Net Operating Expenses then payable, (2) debt service on bonds issued under the 1975 General Ordinance and amounts required to be paid into the sinking fund reserve under the 1975 Ordinance, (3) debt service on Senior Bonds issued under and as defined in the 1998 General Ordinance, payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements (as each such term is defined in the 1998 General Ordinance) related to Senior Bonds and payments due in respect of obligations of the Gas Works to The Philadelphia Municipal Authority existing on the date of adoption of the 1998 General Ordinance, (4) payments due to issuers of Credit Facilities (as defined in the 1998 General Ordinance) related to Senior Bonds, (5) debt service on Subordinate Bonds (as defined in the 1998 General Ordinance) and payments due in respect of obligations of the Gas Works on a parity with Subordinate Bonds (including the Notes issued under this Ordinance and notes issued under any similar ordinance, and amounts payable to the provider of a Credit Facility in respect of such Notes) and payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to Subordinate Bonds, (6) payments due to issuers of Credit Facilities related to Subordinate Bonds and payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements with respect to bonds issued under the 1975 General Ordinance to the extent that the 1998 General Ordinance is hereafter amended to provide for the Qualified Swaps and Exchange Agreements with respect to such bonds, (7) required payments of the Rebate Amount (as defined in the 1998 General Ordinance) to the United States, (8) replenishment of any deficiency in the Sinking Fund Reserve (as defined in the 1998 General Ordinance), (9) payment of general obligation bonds of the City adjudged to be self-liquidating from Gas Works Revenues, (10) debt service on other general obligation bonds issued for the Gas Works, and (11) City Charges and any other proper purpose of the Gas Works (including any termination payments to issuers of Qualified Swaps and Exchange Agreements), except Unrelated Expenses. The foregoing provisions shall not be construed to require the segregation of revenues upon collection.

The security interest granted in this Section 4.02 shall be subject and subordinate in all respects to the security interests granted in the 1975 General Ordinance and the 1998 General Ordinance and any financing statement filed to evidence the security interest granted in this Section 4.02 shall contain a statement to that effect.

Section 4.03. Particular Covenants. The City covenants with the holders of all Notes from time to time outstanding under this Ordinance that, so long as any such Notes shall remain Outstanding:

City of Philadelphia

(a) No Notes will be initially issued by the City hereunder unless there is first filed with the Bond Committee:

(i) the financial report of the Chief Fiscal Officer required by Section 8(1) of the Act containing the statements and opinion required thereby; and

(ii) the legal opinion of the City Solicitor required by Section 8(2) of the Act.

(b) It will, at a minimum, impose, charge and collect in each Fiscal Year such rates and charges as shall, together with all other Gas Works Revenues to be received in such Fiscal Year, produce funds sufficient to pay the Notes and any interest thereon after all other applications of Gas Works Revenues which are prior to the Notes in right of payment; provided that for so long as the Notes are secured by a Credit Support Instrument and the Credit Support Entity is obligated thereon to provide funds sufficient to pay the Notes and is not in default under such Credit Support Instrument, the City may treat the Notes as payable over the period of time during which the City is required to pay the Credit Support Entity pursuant to its Reimbursement Obligation.

The Manager is hereby authorized and directed, without further authorization, to impose and charge and to collect, or cause to be collected, rents, rates and charges which shall be sufficient in each Fiscal Year to comply with the foregoing Rate Covenant and, as provided in the Natural Gas Choice and Competition Act, the Public Utility Commission shall approve rates and charges sufficient to comply with the foregoing Rate Covenant, all in accordance with the Natural Gas Choice and Competition Act.

(c) In addition to the limitations contained in Section 3.01 hereof, the aggregate principal amount of Notes and 2010 Notes Outstanding shall not exceed Project Costs on the date of issuance of the Notes.

(d) It will pay or cause the Fiscal Agent or paying agent to pay the Notes when due from the Gas Works Revenues deposited in the Sinking Fund (except to the extent paid from the proceeds of Refunding Notes or funds provided by a Credit Support Instrument).

(e) It will continuously maintain in good condition and continuously operate the Gas Works.

(f) It will not pay from the Gas Works Revenues any City Charges unless there is then existing no default in payment of the Notes.

(g) It has, in Section 4.03(b) hereof, authorized the imposition, charging and collection of rates and charges sufficient from time to time to comply with

City of Philadelphia

the Rate Covenant set forth in Section 4.03(b) hereof and it will not repeal or materially adversely dilute such authorization.

Section 4.04. Tax Covenants of the City. The City hereby covenants that it will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the holders of the Notes of the interest on the Notes under Section 103 of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder ("Code"). The City hereby further covenants that it will not directly or indirectly use or permit the use of any proceeds of the Notes or any other funds of the City, or take or omit to take any action that would cause the Notes to be "arbitrage bonds" within the meaning of Section 148(a) of the Code and that it will comply with all requirements of Section 148 of the Code to the extent applicable to the Notes. In the event that at any time the City is of the opinion that for purposes of this covenant it is necessary to restrict or limit the yield on the investment of any money held by the Fiscal Agent, the City shall so instruct the Fiscal Agent in writing, and the Fiscal Agent shall take such action as may be necessary to comply with such instructions.

Without limiting the generality of the foregoing, the City shall pay or cause to be paid from time to time all amounts required to be rebated to the United States of America pursuant to Section 148(f) of the Code and any temporary, proposed or final Treasury Regulations as may be applicable to the Notes from time to time. This rebate obligation shall survive payment in full of the Notes.

The Chief Fiscal Officer is hereby authorized and directed to make any elections on behalf of the City permitted by the Code or any Treasury Regulations he deems necessary or appropriate to enable the City to comply with the requirements of this covenant.

The foregoing covenant shall not apply to any series of Notes, the interest on which is not intended to be excludable from gross income of the holders thereof for federal income tax purposes.

Section 4.05. Notes to be Parity Instruments. All Notes issued hereunder shall be equally and ratably secured by the pledge of and grant of a security interest in the Gas Works Revenues created in Section 4.02 hereof without preference, priority or distinction as to lien or otherwise, except as otherwise hereinafter provided, of any one Note over any other Note.

Section 4.06. Sale of Notes; Terms and Provisions. All Notes shall be sold at public or private sale on such terms and at such prices as may be determined by or in the manner prescribed in the Resolution.

City of Philadelphia

Section 4.07. Conditions of Issuing Notes; Filing of Transcript; Further Action. Prior to the issuance of the first Notes of any series of Notes, the Bond Committee shall adopt a Resolution specifying the aggregate principal amount, and authorizing the issuance of such series of Notes; stating that such Notes are issued for the purposes specified in Section 4.01 hereof; and making a finding based on the report of the Chief Fiscal Officer required by Section 8 of the Act that the Gas Works Revenues pledged hereunder will be sufficient to comply with the Rate Covenant and also to pay all costs, expenses and payments required to be paid therefrom and in the order and priority stated in Section 4.02 hereof; and containing the covenant as to the payment of debt service required by Article IX, Section 10 of the Pennsylvania Constitution.

Except to the extent specified herein, the Resolution shall specify the terms and provisions of the Notes to be issued thereunder, a particular method of sale, the terms upon which, or the prices for which, the Notes are to be sold or exchanged, including, if applicable, competitive bidding specifications and an agreement with any Dealer appointed for the Notes; may contain or authorize such further covenants and agreements, including such additional covenants as may be appropriate under existing regulations so that the Notes may not be deemed to be "arbitrage bonds" as such term is defined in the Code; may specify the agreement with the Fiscal Agent and provisions governing the execution and delivery of Notes and the deposit and payment of moneys and other appropriate matters; may specify the Reimbursement Agreement with any Credit Support Entity providing a Credit Support Instrument, including the maturity, interest rate, terms and conditions of the City's Reimbursement Obligation and provisions for a security interest in the Gas Works Revenues and the proceeds from the sale of the Notes to the same extent as granted in this Ordinance with respect to the Notes; shall specify provisions for a Sinking Fund pursuant to Article V hereof; and may contain such other provisions as the Bond Committee may deem appropriate and proper and as shall be authorized and permitted by the Act.

Prior to the issuance of the first Notes of any series, the Director of Finance shall comply with the transcript filing provisions of the Act, and such Notes will not be issued until the approval of the Court of Common Pleas of Philadelphia County has been obtained in the manner prescribed by the Act.

The Director of Finance, the City Controller, the City Solicitor and such other officers of the City as may be appropriate are authorized in connection with the issuance of any series of Notes hereunder, to prepare, execute and file on behalf of the City such statements, documents or other material as may accurately and properly reflect the financial condition of the City or other matters relevant to the issuance or payment of such Notes and as may be required or appropriate to comply with applicable state or federal laws or regulations.

In addition, the Director of Finance is authorized to make such elections under the Code with respect to the Notes as he or she deems advisable, and to take such action on

City of Philadelphia

behalf of the City with respect to the investment of the proceeds of the Notes, and the Director of Finance and any member of the Bond Committee are authorized to make such covenants and certifications as may be necessary or advisable in order to further implement the tax covenant set forth in Section 4.04 hereof.

Section 4.08. Credit Support. In the event that any Notes are to be further secured by a Credit Support Instrument, the Bond Committee may enter into a Reimbursement Agreement with the Credit Support Entity. The Reimbursement Agreement may contain such terms and provisions as may be approved in a Resolution, as described in Section 4.07 hereof, and conditions and representations, covenants, indemnification provisions and other terms not inconsistent with this Ordinance and the Act; provided, however, that the Reimbursement Obligation with respect to any funds advanced by the Credit Support Entity shall not be later than five years from the date of enactment of this Ordinance and the City shall not have any obligation to pay any liability arising out of the Reimbursement Agreement except from the Gas Works Revenues or the proceeds of Refunding Notes. Any Reimbursement Obligation shall not be a general obligation of the City and shall not pledge its general credit or taxing power or create any debt or charge against the general revenues of the City.

ARTICLE V

SINKING FUND

Section 5.01. Establishment of Sinking Fund. Each Resolution shall establish a Sinking Fund for the benefit and security of the holders of the Notes of a particular series.

The City covenants to deposit in the Sinking Fund from the Gas Works Revenues, such amounts as will, together with interest and profits earned and to be earned on investments held therein, be sufficient to pay, on or before each payment date of the Notes, the amounts required, after taking into account any amounts paid from the proceeds of Refunding Notes or pursuant to a Credit Support Instrument, to pay the Notes then becoming due and payable.

Section 5.02. Fiscal Agent. Such state or federally chartered bank, bank and trust company or trust company as may from time to time be appointed by the Bond Committee in a Resolution, shall act as Fiscal Agent in respect of one or more series of Notes issued under this Ordinance. The Fiscal Agent shall also act as Sinking Fund Depositary of the Sinking Fund, and as authenticating agent and paying agent of the Notes in respect of which it is the Fiscal Agent. A Credit Support Entity may also act as Fiscal Agent. Nothing in this Ordinance shall be construed to prevent the City from engaging other or additional Fiscal Agents from time to time or from engaging other or additional Sinking Fund Depositaries, authenticating agents or paying agents of the Notes

City of Philadelphia

or any series thereof, but there shall be only one Fiscal Agent at a particular time for a series of Notes.

Subject to the foregoing, the proper officers of the City are authorized to enter into contracts or to confirm existing agreements governing the maintenance of accounts and records, the authentication of Notes, the disposal of canceled Notes, the rights, duties, privileges and immunities of the Fiscal Agent, and such other matters as are authorized by the Act and as are customary and appropriate and to confirm the agreement of the Fiscal Agent, in its several capacities, to comply with the provisions of the Act and of this Ordinance.

Section 5.03. Payments from the Sinking Fund. The Fiscal Agent shall liquidate investments on direction of the Director of Finance, or, if for any reason he or she should fail to give such direction, as necessary so as to have available in cash not later than the due date thereof, an amount required to pay the Notes.

Except as otherwise provided in a Resolution, any excess moneys in the Sinking Fund and moneys for the payment of the Notes unclaimed after the due date for two (2) years, shall be repaid to the City accounts maintained for Gas Works Revenues, but such repayment shall not discharge the obligation, if any, for which such moneys were previously held in the Sinking Fund.

Section 5.04. Management of the Sinking Fund. Except as otherwise provided in a Resolution, all moneys deposited by the City held in the Sinking Fund, to the extent not currently required, shall be invested as authorized by the Act, or deposited in interest-bearing accounts authorized by the Act, all at the direction of the Director of Finance. All deposits, including interest-bearing deposits, of moneys deposited by the City in the Sinking Fund, to the extent not insured as provided in the Act, shall be secured as required by the Act. Interest and profits from such investments shall be added to the Sinking Fund and credited in reduction of or to complete required deposits by the City into the Sinking Fund.

ARTICLE VI

DEFAULTS AND REMEDIES

Section 6.01. Defaults and Statutory Remedies. If the City shall fail or neglect to pay or to cause to be paid any Note when due, or if the City shall fail to comply with any provision of the Notes or with any covenant of the City contained in this Ordinance or a Resolution then, under and subject to the terms and conditions stated in the Act, the holder or holders of any Note or Notes shall be entitled to all of the rights and remedies, including the appointment of a trustee, provided in the Act.

City of Philadelphia

Section 6.02. Remedies Not Exclusive; Effect of Delay in Exercise of Remedies. No remedy herein or in the Act conferred upon or reserved to the trustee, if any, or to the holder of any Note is intended to be exclusive (except as specifically provided in the Act) of any other remedy or remedies, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

No delay or omission of the trustee, if one be appointed, or of any Noteholder to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default, or an acquiescence therein; and every power and remedy given by this Article VI, by the Act or otherwise may be exercised from time to time, and as often as may be deemed expedient.

Section 6.03. Remedies to be Enforced Only Against Gas Works Revenues. Any decree or judgment for the payment of money against the City by reason of default hereunder shall be enforceable only against the Gas Works Revenues and no decree or judgment against the City upon an action brought hereunder shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

ARTICLE VII

AMENDMENTS AND MODIFICATIONS

Section 7.01. Amendments and Modifications. This Ordinance may be supplemented, modified or amended:

(a) to cure any ambiguity or defective or inconsistent provision, omission or mistake, or manifest error herein or therein;

(b) to grant to or confer upon Noteholders, or a trustee, if any, for the benefit of Noteholders, any additional rights, remedies, powers, authority, or security that may be lawfully granted or conferred;

(c) to add to, modify or delete any of the provisions hereof in a manner which will affect only Notes issued after the amendment or modification becomes effective;

(d) to comply with any mandatory provision of state or federal law or with any permissive provision of such law or regulation which does not substantially impair the security or right to payment of the Notes, but no amendment or modification shall be made with respect to any outstanding Notes to alter the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon without the written consent of the holders of all affected Outstanding Notes; and

City of Philadelphia

(e) except as aforesaid, in such other respect as may be authorized in writing by the holders of a majority in principal amount of the Notes Outstanding and affected.

ARTICLE VIII

MISCELLANEOUS

Section 8.01. Ordinance and Resolutions are Contracts with Noteholders. This Ordinance and Resolutions adopted pursuant hereto are contracts with the holders of all Notes from time to time Outstanding hereunder and thereunder and shall be enforceable in accordance with the provisions of Article VI hereof and the laws of the Commonwealth of Pennsylvania.

Section 8.02. Repeals. All ordinances and parts of ordinances heretofore adopted to the extent that the same are inconsistent herewith are hereby repealed.

City of Philadelphia

BILL NO. 130766 continued

Certified Copy

CERTIFICATION: This is a true and correct copy of the original Bill, Passed by the City Council on November 21, 2013. The Bill was Signed by the Mayor on December 4, 2013.

Michael A. Decker
Chief Clerk of the City Council

II. RATE OF RETURN

II.A.13. Attach copies of the summaries of the projected 2 year's Company's budgets (revenue, expense and capital).

RESPONSE:

The following budget summaries are attached:

Philadelphia Gas Works' Fiscal Year 2016-2017 Compliance Capital Budget and Five Year Forecast for Fiscal Years 2018-2022 with 2017 Financing Plan

Philadelphia Gas Works' Fiscal Year 2016-2017 Proposed Operating Budget and Five Year Forecast for Fiscal Years 2018-2022

Philadelphia Gas Works' Fiscal Year 2016-2017 Compliance Operating Budget

PHILADELPHIA GAS WORKS

COMPLIANCE
FISCAL 2017 CAPITAL BUDGET
AND
FORECAST FISCAL 2018 - 2022

WITH
FISCAL 2017 FINANCING PLAN

April 26, 2016

PHILADELPHIA GAS WORKS

PROPOSED
CAPITAL BUDGET

FISCAL YEAR 2017 AND FORECAST 2018 THROUGH 2022

	2017 CAPITAL BUDGET	2018 - 2022 FORECAST	TOTAL 6 YEARS
GAS PROCESSING			
ADDITIONS	178,000	10,350,000	10,528,000
REPLACEMENTS	5,678,000	16,900,000	22,578,000
TOTAL	5,856,000	27,250,000	33,106,000
DISTRIBUTION			
ADDITIONS	10,394,000	55,672,000	66,066,000
REPLACEMENTS	82,296,000	440,765,000	523,061,000
GROSS TOTAL	92,690,000	496,437,000	589,127,000
LESS: SALVAGE			
LESS: CONTRIBUTIONS*			
LESS: REIMBURSEMENTS**	(2,249,000)	(11,959,000)	(14,208,000)
NET TOTAL	90,441,000	484,478,000	574,919,000
FIELD SERVICES			
ADDITIONS	1,786,000	10,504,000	12,290,000
REPLACEMENTS	5,251,000	30,124,000	35,375,000
GROSS TOTAL	7,037,000	40,628,000	47,665,000
LESS: SALVAGE			
LESS: CONTRIBUTIONS*			
NET TOTAL	7,037,000	40,628,000	47,665,000
FLEET OPERATIONS			
ADDITIONS	80,000		80,000
REPLACEMENTS	5,803,000	14,078,000	19,881,000
GROSS TOTAL	5,883,000	14,078,000	19,961,000
LESS: SALVAGE			
NET TOTAL	5,883,000	14,078,000	19,961,000

PHILADELPHIA GAS WORKS

PROPOSED

CAPITAL BUDGET

FISCAL YEAR 2017 AND FORECAST 2018 THROUGH 2022

	2017 CAPITAL BUDGET	2018 - 2022 FORECAST	TOTAL 6 YEARS
OTHER DEPARTMENTS			
ADDITIONS	1,959,000	2,190,000	4,149,000
REPLACEMENTS	4,825,000	8,851,000	13,676,000
TOTAL	6,784,000	11,041,000	17,825,000
TOTAL			
ADDITIONS	14,397,000	78,716,000	93,113,000
REPLACEMENTS	103,853,000	510,718,000	614,571,000
GROSS TOTAL	118,250,000	589,434,000	707,684,000
LESS: SALVAGE			
LESS: REIMBURSEMENTS**	(2,249,000)	(11,959,000)	(14,208,000)
LESS: CONTRIBUTIONS*			
NET TOTAL	116,001,000	577,475,000	693,476,000

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS
** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

PHILADELPHIA GAS WORKS

PROPOSED CAPITAL BUDGET

BUDGET/FORECAST COMPARISON

DEPARTMENT	2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET AMOUNT DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET PERCENT DIFFERENCE	2017 BUDGET vs 2017 FORECAST AMOUNT DIFFERENCE	2017 BUDGET vs 2017 FORECAST PERCENT DIFFERENCE
GAS PROCESSING							
ADDITIONS	324,000	489,000	178,000	(146,000)	-45.1%	(311,000)	-63.6%
REPLACEMENTS	5,582,000	7,453,000	5,678,000	96,000	1.7%	(1,775,000)	-23.8%
TOTAL GAS PROCESSING	5,906,000	7,942,000	5,856,000	(50,000)	-0.8%	(2,086,000)	-26.3%
DISTRIBUTION							
ADDITIONS	10,300,000	10,429,000	10,394,000	94,000	0.9%	(35,000)	-0.3%
REPLACEMENTS	80,420,000	79,819,000	82,296,000	1,876,000	2.3%	2,477,000	3.1%
GROSS TOTAL DISTRIBUTION	90,720,000	90,248,000	92,690,000	1,970,000	2.2%	2,442,000	2.7%
LESS: SALVAGE					N/A		N/A
LESS: CONTRIBUTIONS*					N/A		N/A
LESS: REIMBURSEMENT**	(8,299,000)		(2,249,000)	6,050,000	-72.9%	(2,249,000)	N/A
NET TOTAL DISTRIBUTION	82,421,000	90,248,000	90,441,000	8,020,000	9.7%	193,000	0.2%
FIELD SERVICES							
ADDITIONS	1,745,000	1,783,000	1,786,000	41,000	2.3%	3,000	0.2%
REPLACEMENTS	4,960,000	4,999,000	5,251,000	291,000	5.9%	252,000	5.0%
GROSS TOTAL FIELD SERVICES	6,705,000	6,782,000	7,037,000	332,000	5.0%	255,000	3.8%
LESS: SALVAGE					N/A		N/A
LESS: CONTRIBUTIONS*					N/A		N/A
NET TOTAL FIELD SERVICES	6,705,000	6,782,000	7,037,000	332,000	5.0%	255,000	3.8%

PHILADELPHIA GAS WORKS

PROPOSED CAPITAL BUDGET

BUDGET/FORECAST COMPARISON

DEPARTMENT	2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET AMOUNT DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET PERCENT DIFFERENCE	2017 BUDGET vs 2017 FORECAST AMOUNT DIFFERENCE	2017 BUDGET vs 2017 FORECAST PERCENT DIFFERENCE
FLEET OPERATIONS							
ADDITIONS	750,000		80,000	(670,000)	-89.3%	80,000	N/A
REPLACEMENTS	7,412,000	4,795,000	5,803,000	(1,609,000)	-21.7%	1,008,000	21.0%
GROSS TOTAL FLEET OPERATIONS	8,162,000	4,795,000	5,883,000	(2,279,000)	-27.9%	1,088,000	22.7%
LESS: SALVAGE					N/A		N/A
NET TOTAL TRANSPORTATION	8,162,000	4,795,000	5,883,000	(2,279,000)	-27.9%	1,088,000	22.7%
OTHER							
ADDITIONS	4,733,000	368,000	1,959,000	(2,774,000)	-58.6%	1,591,000	432.3%
REPLACEMENTS	6,885,000	3,529,000	4,825,000	(2,060,000)	-29.9%	1,296,000	36.7%
TOTAL OTHER	11,618,000	3,897,000	6,784,000	(4,834,000)	-41.6%	2,887,000	74.1%
TOTAL							
ADDITIONS	17,852,000	13,069,000	14,397,000	(3,455,000)	-19.4%	1,328,000	10.2%
REPLACEMENTS	105,259,000	100,595,000	103,853,000	(1,406,000)	-1.3%	3,258,000	3.2%
GROSS TOTAL	123,111,000	113,664,000	118,250,000	(4,861,000)	-3.9%	4,586,000	4.0%
LESS: SALVAGE					N/A		N/A
LESS: REIMBURSEMENT**	(8,299,000)		(2,249,000)	6,050,000	-72.9%	(2,249,000)	N/A
LESS: CONTRIBUTIONS*					N/A		N/A
NET TOTAL	114,812,000	113,664,000	116,001,000	1,189,000	1.0%	2,337,000	2.1%

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

SUMMARY ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	14,397,000	14,228,000	103,853,000	90,881,000	118,250,000	105,109,000
YEAR 1		169,000		12,222,000		12,391,000
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	14,397,000	14,397,000	103,853,000	103,103,000	118,250,000	117,500,000

GAS PROCESSING DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

SUMMARY

CATEGORY	ADDITIONS	REPLACEMENTS	COST OF REMOVAL	TOTAL
53-01 NATURAL GAS MEASUREMENT AND CONTROL FACILITIES				
53-02 SUPPLEMENTAL GAS FACILITIES	54,000	5,313,000		5,367,000
53-03 BUILDING AND GROUNDS				
53-04 MISC CAPITAL REQUIREMENTS	124,000	365,000		489,000
TOTAL GAS PROCESSING	178,000	5,678,000		5,856,000

GAS PROCESSING DEPARTMENT

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

	CATEGORY		2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
53-01	NATURAL GAS MEASUREMENT AND CONTROL FACILITIES	ADDITIONS	0	0	0	0	N/A	0	N/A
		REPLACEMENTS	0	0	0	0	N/A	0	N/A
		TOTAL	0	0	0	0	N/A	0	N/A
53-02	SUPPLEMENTAL GAS FACILITIES	ADDITIONS	220,000	383,000	54,000	(166,000)	-75.5%	(329,000)	-85.9%
		REPLACEMENTS	3,731,000	7,126,000	5,313,000	1,582,000	42.4%	(1,813,000)	-25.4%
		TOTAL	3,951,000	7,509,000	5,367,000	1,416,000	35.8%	(2,142,000)	-28.5%
53-03	BUILDING AND GROUNDS	ADDITIONS	0	0	0	0	N/A	0	N/A
		REPLACEMENTS	1,482,000	0	0	(1,482,000)	-100.0%	0	N/A
		TOTAL	1,482,000	0	0	(1,482,000)	-100.0%	0	N/A
53-04	MISC CAPITAL REQUIREMENTS	ADDITIONS	104,000	106,000	124,000	20,000	19.2%	18,000	17.0%
		REPLACEMENTS	369,000	327,000	365,000	(4,000)	-1.1%	38,000	11.6%
		TOTAL	473,000	433,000	489,000	16,000	3.4%	56,000	12.9%
		TOTAL GAS PROCESSING	5,906,000	7,942,000	5,856,000	(50,000)	-0.8%	(2,086,000)	-26.3%

GAS PROCESSING DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT
	GP-2	SUPPLEMENTAL GAS FACILITIES	
1	53-02-1-01	INSTALL BLOCK VALVE UPSTREAM OF V-101-RICHMOND	54,000
1	53-02-2-01	REPLACE H-2 HEATER-RICHMOND	1,215,000
1	53-02-2-02	DCS UPGRADES-RICHMOND	876,000
1	53-02-2-03	RELOCATE LNG CONTROL ROOM TRANSFORMERS-PASSYUNK	635,000
1	53-02-2-04	REPLACE FOAM WATER PIPING-PASSYUNK	975,000
1	53-02-2-05	REPAIR LNG TANK DIKE-PASSYUNK	83,000
1	53-02-2-06	UPGRADE OIL RECOVERY AST SYSTEM-PASSYUNK	179,000
1	53-02-2-07	REMOVE & REPLACE ELECTRICAL PANEL 203813-PASSYUNK	105,000
1	53-02-2-08	REPLACE P-106 PUMP-RICHMOND	1,245,000
		TOTAL GP-2	5,367,000
	GP-4	MISCELLANEOUS CAPITAL REQUIREMENTS	
1	53-04-1-01	MISCELLANEOUS CAPITAL ADDITIONS	124,000
1	53-04-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS	365,000
		TOTAL GP-4	489,000
		TOTAL GAS PROCESSING DEPARTMENT	5,856,000

GAS PROCESSING DEPARTMENT

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY			AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
			PRIORITY 1						
1	GP-2	53-02-1-01	INSTALL BLOCK VALVE UPSTREAM OF V-101-RICHMOND	54,000	50,000	4,000			
1	GP-2	53-02-2-01	REPLACE H-2 HEATER-RICHMOND	1,215,000	992,000	223,000			
1	GP-2	53-02-2-02	DCS UPGRADES-RICHMOND	876,000	876,000				
1	GP-2	53-02-2-03	RELOCATE LNG CONTROL ROOM TRANSFORMERS-PASSYUNK	635,000	96,000	539,000			
1	GP-2	53-02-2-04	REPLACE FOAM WATER PIPING-PASSYUNK	975,000	794,000	181,000			
1	GP-2	53-02-2-05	REPAIR LNG TANK DIKE-PASSYUNK	83,000	68,000	15,000			
1	GP-2	53-02-2-06	UPGRADE OIL RECOVERY AST SYSTEM-PASSYUNK	179,000	166,000	13,000			
1	GP-2	53-02-2-07	REMOVE & REPLACE ELECTRICAL PANEL 203813-PASSYUNK	105,000	105,000				
1	GP-2	53-02-2-08	REPLACE P-106 PUMP-RICHMOND	1,245,000	398,000	847,000			
			PRIORITY 4						
1	GP-4	53-04-1-01	MISCELLANEOUS CAPITAL ADDITIONS	124,000	124,000				
1	GP-4	53-04-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS	365,000	365,000				
			TOTAL GAS PROCESSING DEPARTMENT:	5,856,000	4,034,000	1,822,000			

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

GAS PROCESSING DEPARTMENT ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	178,000	174,000	5,678,000	3,860,000	5,856,000	4,034,000
YEAR 1		4,000		1,818,000		1,822,000
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	178,000	178,000	5,678,000	5,678,000	5,856,000	5,856,000

DISTRIBUTION DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

SUMMARY

	CATEGORY	ADDITIONS	REPLACEMENTS	GROSS TOTAL	REIMBURSEMENT**	CONTRIBUTIONS*	SALV.	NET TOTAL
52-20	GAS MAINS - HIGH PRESSURE (WITH ASSOCIATED VALVES AND REGULATORS)	1,253,000	20,445,000	21,698,000				21,698,000
52-21	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 8 INCH AND SMALLER	2,124,000	36,063,000	38,187,000	(1,841,000)			36,346,000
52-22	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 12 INCH AND LARGER	23,000	1,813,000	1,836,000	(408,000)			1,428,000
52-23	CUST MTR & REG INSTALL, PRESSURE REGULATION & CORROSION CONTROL FACILITIES	585,000	920,000	1,505,000				1,505,000
52-24	SERVICES	6,157,000	21,714,000	27,871,000				27,871,000
52-29	OTHER DISTRIBUTION FACILITIES	252,000	1,341,000	1,593,000				1,593,000
52-99	COST OF REMOVAL AND ABANDONMENT							
	SALVAGE							
TOTAL DISTRIBUTION		10,394,000	82,296,000	92,690,000	(2,249,000)			90,441,000

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS
** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

DISTRIBUTION DEPARTMENT

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

	CATEGORY		2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
52-20	GAS MAINS - HIGH PRESSURE (WITH ASSOCIATED VALVES AND REGULATORS)	ADDITIONS	1,132,000	1,371,000	1,253,000	121,000	10.7%	(118,000)	-8.6%
		REPLACEMENTS	16,972,000	18,852,000	20,445,000	3,473,000	20.5%	1,593,000	8.5%
		TOTAL	18,104,000	20,223,000	21,698,000	3,594,000	19.9%	1,475,000	7.3%
52-21	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 8 INCH AND SMALLER	ADDITIONS	2,068,000	2,099,000	2,124,000	56,000	2.7%	25,000	1.2%
		REPLACEMENTS	29,644,000	33,783,000	36,063,000	6,419,000	21.7%	2,280,000	6.7%
		TOTAL	31,712,000	35,882,000	38,187,000	6,475,000	20.4%	2,305,000	6.4%
52-22	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 12 INCH AND LARGER	ADDITIONS	7,000	6,000	23,000	16,000	228.6%	17,000	283.3%
		REPLACEMENTS	8,544,000	1,111,000	1,813,000	(6,731,000)	-78.8%	702,000	63.2%
		TOTAL	8,551,000	1,117,000	1,836,000	(6,715,000)	-78.5%	719,000	64.4%
52-23	CUST MTR & REG INST PRESSURE REGULATION AND CORROSION CONTROL FACILITIES	ADDITIONS	602,000	615,000	585,000	(17,000)	-2.8%	(30,000)	-4.9%
		REPLACEMENTS	1,006,000	1,019,000	920,000	(86,000)	-8.5%	(99,000)	-9.7%
		TOTAL	1,608,000	1,634,000	1,505,000	(103,000)	-6.4%	(129,000)	-7.9%
52-24	SERVICES	ADDITIONS	6,280,000	6,327,000	6,157,000	(123,000)	-2.0%	(170,000)	-2.7%
		REPLACEMENTS	21,978,000	24,046,000	21,714,000	(264,000)	-1.2%	(2,332,000)	-9.7%
		TOTAL	28,258,000	30,373,000	27,871,000	(387,000)	-1.4%	(2,502,000)	-8.2%
52-29	OTHER DISTRIBUTION FACILITIES	ADDITIONS	211,000	11,000	252,000	41,000	19.4%	241,000	2190.9%
		REPLACEMENTS	2,276,000	1,008,000	1,341,000	(935,000)	-41.1%	333,000	33.0%
		TOTAL	2,487,000	1,019,000	1,593,000	(894,000)	-35.9%	574,000	56.3%
	GROSS TOTAL DISTRIBUTION		90,720,000	90,248,000	92,690,000	1,970,000	2.2%	2,442,000	2.7%
52-99	COST OF REMOVAL AND ABANDONMENT		0	0	0	0	N/A	0	N/A
	LESS: SALVAGE		0	0	0	0	N/A	0	N/A
	LESS: CONTRIBUTIONS*		0	0	0	0	N/A	0	N/A
	LESS: REIMBURSEMENT**		(8,299,000)	0	(2,249,000)	6,050,000	-72.9%	(2,249,000)	N/A
	NET TOTAL DISTRIBUTION		82,421,000	90,248,000	90,441,000	8,020,000	9.7%	193,000	0.2%

* DISTRIBUTION DEPARTMENT CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS
** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

DISTRIBUTION DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT	FEET UNITS
	D-20	GAS MAINS - HIGH PRESSURE (WITH ASSOCIATED VALVES AND REGULATORS		
4	52-20-1-01	INSTALLATIONS TO PROVIDE FOR AHEAD-OF-PAVING AND EXTENSIONS TO SUPPLY ADDITIONAL LOADS	1,253,000	10,620
3	52-20-2-01	ENFORCED RELOCATIONS CAUSED BY CITY AND STATE WORK	2,551,000	4,468
1	52-20-2-02	INCREMENTAL REPLACEMENT OF 12" HP CAST IRON MAIN	8,719,000	19,000
1	52-20-2-03	INCREMENTAL REPLACEMENT OF 30" HP CAST IRON	9,175,000	7,340
		GROSS TOTAL D-20	21,698,000	
	52-20-2-97	LESS: REIMBURSEMENT**		
		LESS: POTENTIAL CUSTOMER CONTRIBUTIONS		
		NET TOTAL D-20	21,698,000	
	D-21	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 8 INCH AND SMALLER		
4	52-21-1-01	MAINS TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INCREASED CAPACITY	2,124,000	8,592
3	52-21-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	6,156,000	29,231
1	52-21-2-02	PRUDENT MAIN REPLACEMENTS	14,338,000	70,979
1	52-21-2-03	LONG TERM INFRASTRUCTURE PLAN - ACCELERATED CAST IRON	4,628,000	23,408
1	52-21-2-04	LTIIP-INCREMENTAL CAST IRON MAIN REMOVAL	10,941,000	19,312-Small 10,032-Large
		GROSS TOTAL D-21	38,187,000	
	52-21-2-97	LESS: REIMBURSEMENT**	(1,841,000)	
		NET TOTAL D-21	36,346,000	

DISTRIBUTION DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT	FEET UNITS
	D-22	GAS MAINS - LOW AND INTERMEDIATE PRESSURE - 12 INCH AND LARGER		
4	52-22-1-01	TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INSTALLATION OF MAINS AHEAD-OF-PAVING	23,000	92
3	52-22-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	1,333,000	658
3	52-22-2-02	MAIN FOR MAJOR ENFORCED RELOCATION	480,000	300
		GROSS TOTAL D-22	1,836,000	
		LESS: REIMBURSEMENT**	(408,000)	
		NET TOTAL D-22	1,428,000	
	D-23	CUSTOMER METERING & REGULATOR INSTALLATION, AND PRESSURE REGULATION & CORROSION CONTROL FACILITIES (NOT INCLUDED IN D-20 OR D-22)		
4	52-23-1-01	CUSTOMER METERING AND REGULATOR INSTALLATION	585,000	
1	52-23-2-01	REPLACEMENT/REHABILITATION OF HIGH PRESSURE MAIN VALVES	506,000	
2	52-23-2-02	REPLACEMENT OF VARIOUS PRESSURE REGULATING AND CORROSION CONTROL FACILITIES	414,000	
		GROSS TOTAL D-23	1,505,000	
		LESS: REIMBURSEMENT**		
		LESS: POTENTIAL CUSTOMER CONTRIBUTIONS*		
		NET TOTAL D-23	1,505,000	

DISTRIBUTION DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT	FEET UNITS
	D-24	SERVICES		
4	52-24-1-01	INSTALLATION OF NEW 1-1/4" AND SMALLER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE	4,074,000	1,129
4	52-24-1-02	INSTALLATION OF NEW 2 INCH AND LARGER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE	2,083,000	142
1	52-24-2-01	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT REASONS, AS A RESULT OF LEAK SURVEYS, CUSTOMER COMPLAINTS OR CITY AND STATE WORK	19,274,000	7,832
1	52-24-2-02	RENEWAL OF 2" AND LARGER SERVICES	1,098,000	121-Plastic 16-Steel
1	52-24-2-03	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT INCREMENTAL SERVICE WORK	1,342,000	799
		GROSS TOTAL D-24	27,871,000	
		LESS: REIMBURSEMENT**		
		NET TOTAL D-24	27,871,000	
	D-29	OTHER DISTRIBUTION FACILITIES		
2	52-29-1-01	ADDITIONAL TOOLS AND WORK EQUIPMENT	252,000	2
2	52-29-2-01	REPLACEMENT OF OBSOLETE TOOLS, RADIOS, AND WORK EQUIPMENT	1,341,000	47
		NET TOTAL D-29	1,593,000	
1	52-99-2-99	REMOVAL AND ABANDONMENTS		
		GROSS TOTAL DISTRIBUTION DEPARTMENT	92,690,000	
		LESS: REIMBURSEMENT**	(2,249,000)	
		LESS: POTENTIAL CUSTOMER CONTRIBUTIONS*		
	52-98-2-98	LESS: SALVAGE		
		NET TOTAL DISTRIBUTION DEPARTMENT	90,441,000	

* DISTRIBUTION DEPARTMENT CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

DISTRIBUTION DEPARTMENT

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY			AMOUNT	FEET UNITS	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
			PRIORITY 1							
1	D-20	52-20-2-02	INCREMENTAL REPLACEMENT OF 12" HP CAST IRON MAIN	8,719,000	19,000	8,719,000				
1	D-20	52-20-2-03	INCREMENTAL REPLACEMENT OF 30" HP CAST IRON	9,175,000	7,340	4,000,000	5,175,000			
1	D-21	52-21-2-02	PRUDENT MAIN REPLACEMENTS	14,338,000	70,979	10,300,000	4,038,000			
	D-21	52-21-2-03	LONG TERM INFRASTRUCTURE PLAN - ACCELERATED CAST IRON	4,628,000	23,408	3,745,000	883,000			
	D-21	52-21-2-04	LTIIP-INCREMENTAL CAST IRON MAIN REMOVAL	10,941,000	19,312-Small Diameter 10,032-Large Diameter	10,941,000				
1	D-23	52-23-2-01	REPLACEMENT/REHABILITATION OF HIGH PRESSURE MAIN VALVES	506,000		506,000				
1	D-24	52-24-2-01	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT REASONS, AS A RESULT OF LEAK SURVEYS, CUSTOMER COMPLAINTS OR CITY AND STATE WORK	19,274,000	7,832	19,274,000				
1	D-24	52-24-2-02	RENEWAL OF 2" AND LARGER SERVICES	1,098,000	121-Plastic 16-Steel	1,098,000				
1	D-24	52-24-2-03	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT INCREMENTAL SERVICE WORK	1,342,000	799	1,342,000				
			PRIORITY 2							
2	D-23	52-23-2-02	REPLACEMENT OF VARIOUS PRESSURE REGULATING AND CORROSION CONTROL FACILITIES	414,000		414,000				
	D-29	52-29-1-01	ADDITIONAL TOOLS AND WORK EQUIPMENT	252,000	2	252,000				
2	D-29	52-29-2-01	REPLACEMENT OF OBSOLETE TOOLS, RADIOS, AND WORK EQUIPMENT	1,341,000	47	1,341,000				

DISTRIBUTION DEPARTMENT

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY			AMOUNT	FEET UNITS	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
			PRIORITY 3							
3	D-20	52-20-2-01	ENFORCED RELOCATIONS CAUSED BY CITY AND STATE WORK	2,551,000	4,468	2,551,000				
3	D-21	52-21-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	6,156,000	29,231	6,156,000				
3	D-22	52-22-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	1,333,000	658	1,333,000				
3	D-22	52-22-2-02	MAIN FOR MAJOR ENFORCED RELOCATION	480,000	300	480,000				
			PRIORITY 4							
4	D-20	52-20-1-01	INSTALLATIONS TO PROVIDE FOR AHEAD-OF-PAVING AND EXTENSIONS TO SUPPLY ADDITIONAL LOADS	1,253,000	10,620	1,253,000				
4	D-21	52-21-1-01	MAINS TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INCREASED CAPACITY	2,124,000	8,592	2,124,000				
4	D-22	52-22-1-01	TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INSTALLATION OF MAINS AHEAD-OF-PAVING	23,000	92	23,000				
4	D-23	52-23-1-01	CUSTOMER METERING AND REGULATOR INSTALLATION	585,000		585,000				
4	D-24	52-24-1-01	INSTALLATION OF NEW 1-1/4" AND SMALLER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE	4,074,000	1,129	4,074,000				
4	D-24	52-24-1-02	INSTALLATION OF NEW 2 INCH AND LARGER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE	2,083,000	142	2,083,000				
			TOTAL DISTRIBUTION DEPARTMENT:	92,690,000		82,594,000	10,096,000			

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

DISTRIBUTION DEPARTMENT ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	10,394,000	10,394,000	82,296,000	72,200,000	92,690,000	82,594,000
YEAR 1				10,096,000		10,096,000
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	10,394,000	10,394,000	82,296,000	82,296,000	92,690,000	92,690,000

FIELD SERVICES DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

SUMMARY

	CATEGORY	ADDITIONS	REPLACEMENTS	TOTAL
50-30	METERS & INSTALLATION	1,490,000	2,527,000	4,017,000
50-32	SERVICE REGULATORS AND INSTALLATION	41,000	32,000	73,000
50-33	COMMERCIAL & INDUSTRIAL TELEMETERING SYSTEMS	115,000	157,000	272,000
50-34	METER SHOP EQUIPMENT		162,000	162,000
50-36	AUTOMATIC METER READING	140,000	2,373,000	2,513,000
50-99	COST OF REMOVAL			
	GROSS TOTAL FIELD SERVICES	1,786,000	5,251,000	7,037,000
	LESS: SALVAGE			
	LESS: CONTRIBUTIONS*			
NET TOTAL FIELD SERVICES		1,786,000	5,251,000	7,037,000

* FIELD SERVICES DEPARTMENT CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

FIELD SERVICES DEPARTMENT

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

	CATEGORY		2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
50-30	METERS	ADDITIONS	1,431,000	1,456,000	1,490,000	59,000	4.1%	34,000	2.3%
		REPLACEMENTS	2,374,000	2,359,000	2,527,000	153,000	6.4%	168,000	7.1%
		TOTAL	3,805,000	3,815,000	4,017,000	212,000	5.6%	202,000	5.3%
50-32	SERVICE REGULATORS AND INSTALLATIONS	ADDITIONS	56,000	64,000	41,000	(15,000)	-26.8%	(23,000)	-35.9%
		REPLACEMENTS	23,000	26,000	32,000	9,000	39.1%	6,000	23.1%
		TOTAL	79,000	90,000	73,000	(6,000)	-7.6%	(17,000)	-18.9%
50-33	TELEMETERING AND INSTALLATIONS	ADDITIONS	118,000	121,000	115,000	(3,000)	-2.5%	(6,000)	-5.0%
		REPLACEMENTS	166,000	169,000	157,000	(9,000)	-5.4%	(12,000)	-7.1%
		TOTAL	284,000	290,000	272,000	(12,000)	-4.2%	(18,000)	-6.2%
50-34	METER SHOP EQUIPMENT	ADDITIONS	0	0	0	0	N/A	0	N/A
		REPLACEMENTS	65,000	66,000	162,000	97,000	149.2%	96,000	145.5%
		TOTAL	65,000	66,000	162,000	97,000	149.2%	96,000	145.5%
50-36	AUTOMATIC METER READING	ADDITIONS	140,000	142,000	140,000	0	0.0%	(2,000)	-1.4%
		REPLACEMENTS	2,332,000	2,379,000	2,373,000	41,000	1.8%	(6,000)	-0.3%
		TOTAL	2,472,000	2,521,000	2,513,000	41,000	1.7%	(8,000)	-0.3%
50-99	COST OF REMOVAL		0	0	0	0	N/A	0	N/A
	GROSS TOTAL FIELD SERVICES		6,705,000	6,782,000	7,037,000	332,000	5.0%	255,000	3.8%
	LESS: SALVAGE		0	0	0	0	N/A	0	N/A
	LESS: CONTRIBUTIONS*		0	0	0	0	N/A	0	N/A
	NET TOTAL FIELD SERVICES		6,705,000	6,782,000	7,037,000	332,000	5.0%	255,000	3.8%

* FIELD SERVICES DEPARTMENT CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

FIELD SERVICES DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P				AMOUNT
	C-30	METERS		
4	50-30-1-01	PURCHASE AND INSTALLATION OF METERS TO PROVIDE FOR NEW CUSTOMERS		1,490,000
2	50-30-2-01	PURCHASE METERS TO SUPPORT AUTOMATIC METER READING		2,527,000
			TOTAL C-30	4,017,000
	C-32	SERVICE REGULATORS		
4	50-32-1-01	PURCHASE AND INSTALLATION OF SERVICE REGULATORS		41,000
1	50-32-2-01	PURCHASE VARIOUS SIZE SERVICE REGULATORS AS REPLACEMENTS		32,000
			TOTAL C-32	73,000
	C-33	COMMERCIAL & INDUSTRIAL TELEMETERING SYSTEMS		
5	50-33-1-01	PURCHASE AND INSTALLATION OF EQUIPMENT AND INSTRUMENTATION		115,000
1	50-33-2-01	REPLACE METRETEK UNITS, EQUIPMENT, AND INSTRUMENTATION		157,000
			TOTAL C-33	272,000
	C-34	METER SHOP EQUIPMENT		
5	50-34-2-01	REPLACEMENT OF OBSOLETE SHOP EQUIPMENT & ACCESSORIES USED FOR AMR		162,000
			TOTAL C-34	162,000
	C-36	AUTOMATIC METER READING		
5	50-36-1-01	PURCHASE AND INSTALLATION OF ERT DEVICES FOR AMR		140,000
5	50-36-2-01	REPLACE AMR DEVICES		2,373,000
			TOTAL C-36	2,513,000
1	50-99-2-99	COST OF REMOVAL		
			GROSS TOTAL FIELD SERVICES DEPARTMENT	7,037,000
	50-98-2-98	LESS: ESTIMATED SALVAGE		
		LESS: CONTRIBUTIONS*		
			NET TOTAL FIELD SERVICES DEPARTMENT	7,037,000

FIELD SERVICES DEPARTMENT

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY			AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
			PRIORITY 1						
1	C-32	50-32-2-01	PURCHASE VARIOUS SIZE SERVICE REGULATORS AS REPLACEMENTS	32,000	32,000				
1	C-33	50-33-2-01	REPLACE METRETEK UNITS, EQUIPMENT, AND INSTRUMENTATION	157,000	157,000				
			PRIORITY 2						
2	C-30	50-30-2-01	PURCHASE METERS TO SUPPORT AUTOMATIC METER READING	2,527,000	2,527,000				
			PRIORITY 4						
4	C-30	50-30-1-01	PURCHASE AND INSTALLATION OF METERS TO PROVIDE FOR NEW CUSTOMERS	1,490,000	1,490,000				
4	C-32	50-32-1-01	PURCHASE AND INSTALLATION OF SERVICE REGULATORS	41,000	41,000				
			PRIORITY 5						
5	C-33	50-33-1-01	PURCHASE AND INSTALLATION OF EQUIPMENT AND INSTRUMENTATION	115,000	115,000				
5	C-34	50-34-2-01	REPLACEMENT OF OBSOLETE SHOP EQUIPMENT & ACCESSORIES USED FOR AMR	162,000	162,000				
5	C-36	50-36-1-01	PURCHASE AND INSTALLATION OF ERT DEVICES FOR AMR	140,000	140,000				
5	C-36	50-36-2-01	REPLACE AMR DEVICES	2,373,000	2,373,000				
			TOTAL FIELD SERVICES DEPARTMENT:	7,037,000	7,037,000				

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

FIELD SERVICES DEPARTMENT ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	1,786,000	1,786,000	5,251,000	5,251,000	7,037,000	7,037,000
YEAR 1						
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	1,786,000	1,786,000	5,251,000	5,251,000	7,037,000	7,037,000

FLEET OPERATIONS DEPARTMENT

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

	CATEGORY	2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
73-01-1-01	VEHICLE ADDITIONS TO SUPPORT CAST IRON MAIN REPLACEMENT	632,000	0	0	(632,000)	-100.0%	0	N/A
73-01-1-02	MOBILE EQUIPMENT ADDITIONS	118,000	0	80,000	(38,000)	-32.2%	80,000	N/A
73-01-2-01	SHOP EQUIPMENT REPLACEMENTS	0	0	45,000	45,000	N/A	45,000	N/A
73-01-2-02	MOBILE EQUIPMENT REPLACEMENTS	1,533,000	646,000	677,000	(856,000)	-55.8%	31,000	4.8%
73-01-2-03	VEHICLE REPLACEMENTS	5,879,000	4,149,000	5,081,000	(798,000)	-13.6%	932,000	22.5%
	GROSS TOTAL FLEET OPERATIONS	8,162,000	4,795,000	5,883,000	(2,279,000)	-27.9%	1,088,000	22.7%
	LESS: SALVAGE	0	0	0	0	N/A	0	N/A
	NET TOTAL FLEET OPERATIONS	8,162,000	4,795,000	5,883,000	(2,279,000)	-27.9%	1,088,000	22.7%

FLEET OPERATIONS DEPARTMENT

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT
1	73-01-1-02	MOBILE EQUIPMENT ADDITIONS	80,000
1	73-01-2-01	SHOP EQUIPMENT REPLACEMENTS	45,000
2	73-01-2-02	MOBILE EQUIPMENT REPLACEMENTS	677,000
2	73-01-2-03	VEHICLE REPLACEMENTS	5,081,000
		GROSS TOTAL FLEET OPERATIONS	5,883,000
	73-98-2-98	LESS: SALVAGE	
		NET TOTAL FLEET OPERATIONS	5,883,000

FLEET OPERATIONS DEPARTMENT

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY		AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
		PRIORITY 1						
1	73-01-1-02	MOBILE EQUIPMENT ADDITIONS	80,000	80,000				
1	73-01-2-01	SHOP EQUIPMENT REPLACEMENTS	45,000	45,000				
		PRIORITY 2						
2	73-01-2-02	MOBILE EQUIPMENT REPLACMENTS	677,000	677,000				
2	73-01-2-03	VEHICLE REPLACEMENTS	5,081,000	5,081,000				
		TOTAL FLEET OPERATIONS DEPARTMENT:	5,883,000	5,883,000				

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

FLEET OPERATIONS DEPARTMENT ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	80,000	80,000	5,803,000	5,803,000	5,883,000	5,883,000
YEAR 1						
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	80,000	80,000	5,803,000	5,803,000	5,883,000	5,883,000

OTHER DEPARTMENTS
FISCAL YEAR 2017 CAPITAL BUDGET
SUMMARY

CATEGORY	ADDITIONS	REPLACEMENTS	TOTAL
FACILITIES	160,000	2,646,000	2,806,000
INFORMATION SERVICES	725,000	1,422,000	2,147,000
CHIEF OPERATING OFFICER		750,000	750,000
VP TECHNICAL COMPLIANCE	88,000		88,000
VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS	871,000		871,000
CHEM SERVICES	115,000	7,000	122,000
TOTAL OTHER DEPARTMENTS	1,959,000	4,825,000	6,784,000

OTHER DEPARTMENTS

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

CATEGORY		2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
FACILITIES	ADDITIONS	134,000	137,000	160,000	26,000	19.4%	23,000	16.8%
	REPLACEMENTS	2,605,000	2,029,000	2,646,000	41,000	1.6%	617,000	30.4%
	TOTAL	2,739,000	2,166,000	2,806,000	67,000	2.4%	640,000	29.5%
INFORMATION SERVICES	ADDITIONS	227,000	231,000	725,000	498,000	219.4%	494,000	213.9%
	REPLACEMENTS	2,737,000	750,000	1,422,000	(1,315,000)	-48.0%	672,000	89.6%
	TOTAL	2,964,000	981,000	2,147,000	(817,000)	-27.6%	1,166,000	118.9%
CHIEF OPERATING OFFICER	ADDITIONS	0	0	0	0	N/A	0	N/A
	REPLACEMENTS	750,000	750,000	750,000	0	0.0%	0	0.0%
	TOTAL	750,000	750,000	750,000	0	0.0%	0	0.0%
VP TECHNICAL COMPLIANCE	ADDITIONS	3,386,000	0	88,000	(3,298,000)	-97.4%	88,000	N/A
	REPLACEMENTS	0	0	0	0	N/A	0	N/A
	TOTAL	3,386,000	0	88,000	(3,298,000)	-97.4%	88,000	N/A
VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS	ADDITIONS	986,000	0	871,000	(115,000)	-11.7%	871,000	N/A
	REPLACEMENTS	0	0	0	0	N/A	0	N/A
	TOTAL	986,000	0	871,000	(115,000)	-11.7%	871,000	N/A
CHEM SERVICES	ADDITIONS	0	0	115,000	115,000	N/A	115,000	N/A
	REPLACEMENTS	8,000	0	7,000	(1,000)	-12.5%	7,000	N/A
	TOTAL	8,000	0	122,000	114,000	1425.0%	122,000	N/A
GAS MANAGEMENT FY 2014 REAUTHORIZATIONS	ADDITIONS	0	0	0	0	N/A	0	N/A
	REPLACEMENTS	785,000	0	0	(785,000)	-100.0%	0	N/A
	TOTAL	785,000	0	0	(785,000)	-100.0%	0	N/A
TOTAL OTHER DEPARTMENTS		11,618,000	3,897,000	6,784,000	(4,834,000)	-41.6%	2,887,000	74.1%

OTHER DEPARTMENTS

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT
		FACILITIES	
1	72-01-1-01	MISCELLANEOUS CAPITAL ADDITIONS	150,000
1	72-01-1-02	MISCELLANEOUS CAPITAL ADDITIONS - GAS PROCESSING	10,000
1	72-01-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS/STRUCTURAL REPAIRS	366,000
1	72-01-2-02	MISCELLANEOUS CAPITAL REPLACEMENTS - GAS PROCESSING	46,000
1	72-01-2-03	MISC CAPITAL REPL - STRUCTURAL REPAIRS - GAS PROCESSING	57,000
1	72-01-2-04	REPLACE CARPETS- ALL LOCATIONS	70,000
1	72-01-2-05	REPLACE MODULAR FURNITURE	80,000
2	72-01-2-06	REPLACE 800 BUILDING MECHANICAL ROOM CIRCULATION PUMPS	354,000
2	72-01-2-07	REPLACE 800 CHW PIPING	108,000
1	72-01-2-08	REPLACE 1849 BUILDING STAIR TOWER STAIR	289,000
2	72-01-2-10	REPLACE 1800 3RD FLOOR DOMESTIC WATER PUMPS & PIPING	268,000
1	72-01-2-11	REPLACE 800 BUILDING ELEVATOR INTERIORS	91,000
1	72-01-2-12	800 BUILDING RESTROOM RENOVATIONS	455,000
2	72-01-2-14	SOUTH PHILADELPHIA DISTRICT OFFICE BUILDING ENVELOPE REPAIR	400,000
1	72-01-2-15	800 BUILDING UPS ROOM CLEAN AGENT FIRE SUPPRESSION SYSTEM	62,000
		TOTAL FACILITIES	2,806,000

OTHER DEPARTMENTS

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT
		INFORMATION SERVICES	
2	47-01-1-01	MISCELLANEOUS SERVER, NETWORK, & HARDWARE ADDITIONS	58,000
2	47-01-1-02	MISCELLANEOUS SOFTWARE ADDITIONS	190,000
2	47-01-1-03	SUNGARD DISASTER RECOVERY HOTSITE	477,000
2	47-01-2-01	SYSQL REPLACEMENT	941,000
2	47-01-2-03	REPLACEMENT SAN STORAGE	230,000
2	47-01-2-05	MISCELLANEOUS SERVER & NETWORK HARDWARE REPLACEMENTS	201,000
2	47-01-2-07	MISCELLANEOUS SOFTWARE REPLACEMENTS	50,000
		TOTAL INFORMATION SERVICES	2,147,000
		CHEMICAL SERVICES	
1	31-01-1-01	LAB EQUIPMENT-XRF ANALYZER	29,000
2	31-01-1-01	LAB EQUIPMENT-NATURAL GAS CHROMATOGRAPH	79,000
5	31-01-1-01	LAB EQUIPMENT-ZERO AIR GENERATOR	7,000
1	31-01-2-01	ULTRARAE 3000 PHOTOIONIZATION DETECTOR	7,000
		TOTAL CHEMICAL SERVICES	122,000
		CHIEF OPERATING OFFICER	
1	13-01-2-01	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO SAFETY	250,000
2	13-01-2-02	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO RELIABILITY OF SERVICE	250,000
4	13-01-2-03	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO COST-JUSTIFIED LOAD GROWTH	250,000
		TOTAL CHIEF OPERATING OFFICER	750,000
		VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS	
5	10-01-1-01	DSM DATABASE ENHANCEMENTS	148,000
5	10-01-1-02	PUC LIURP REPORTING UPDATES	41,000
5	10-01-1-03	PUC RMI PROJECTS	629,000
5	10-01-1-04	SELF-SERVICE ENHANCEMENTS TO PGW'S WEBSITE	53,000
		TOTAL VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS	871,000

OTHER DEPARTMENTS

FISCAL YEAR 2017 CAPITAL BUDGET

P			AMOUNT
		VP TECHNICAL COMPLIANCE	
1	38-01-1-01	WASTE STORAGE TRAILER	88,000
		TOTAL VP TECHNICAL COMPLIANCE	88,000
		TOTAL OTHER DEPARTMENTS	6,784,000

FACILITIES

FISCAL YEAR 2017

BUDGET/FORECAST COMPARISON

CATEGORY		2016 AMENDED BUDGET	2017 FORECAST	2017 BUDGET	2017 BUDGET vs 2016 AMENDED BUDGET $ DIFFERENCE	2017 BUDGET vs 2016 AMENDED BUDGET % DIFF.	2017 BUDGET vs 2017 FORECAST $ DIFFERENCE	2017 BUDGET vs 2017 FORECAST % DIFF.
72-01-1-01	MISCELLANEOUS CAPITAL ADDITIONS	125,000	127,000	150,000	25,000	20.0%	23,000	18.1%
72-01-1-02	MISCELLANEOUS CAPITAL ADDITIONS - GAS PROCESSING	9,000	10,000	10,000	1,000	11.1%	0	0.0%
72-01-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS/STRUCTURAL REPAIRS	376,000	383,000	366,000	(10,000)	-2.7%	(17,000)	-4.4%
72-01-2-02	MISCELLANEOUS CAPITAL REPLACEMENTS - GAS PROCESSING	45,000	46,000	46,000	1,000	2.2%	0	0.0%
72-01-2-03	MISC CAPITAL REPL - STRUCTURAL REPAIRS - GAS PROCESSING	57,000	58,000	57,000	0	0.0%	(1,000)	-1.7%
72-01-2-04	REPLACE CARPETS- ALL LOCATIONS	165,000	159,000	70,000	(95,000)	-57.6%	(89,000)	-56.0%
72-01-2-05	REPLACE MODULAR FURNITURE	195,000	217,000	80,000	(115,000)	-59.0%	(137,000)	-63.1%
72-01-2-06	REPLACE 800 BUILDING MECHANICAL ROOM CIRCULATION PUMPS	0	0	354,000	354,000	N/A	354,000	N/A
72-01-2-07	REPLACE 800 CHW PIPING	0	0	108,000	108,000	N/A	108,000	N/A
72-01-2-08	REPLACE 1849 BUILDING STAIR TOWER STAIR	0	0	289,000	289,000	N/A	289,000	N/A
72-01-2-10	REPLACE 1800 3RD FLOOR DOMESTIC WATER PUMPS & PIPING	0	0	268,000	268,000	N/A	268,000	N/A
72-01-2-11	REPLACE 800 BUILDING ELEVATOR INTERIORS	0	0	91,000	91,000	N/A	91,000	N/A
72-01-2-12	800 BUILDING RESTROOM RENOVATIONS	0	0	455,000	455,000	N/A	455,000	N/A
72-01-2-14	SOUTH PHILADELPHIA DISTRICT OFFICE BUILDING ENVELOPE REPAIR	0	0	400,000	400,000	N/A	400,000	N/A
72-01-2-15	800 BUILDING UPS ROOM CLEAN AGENT FIRE SUPPRESSION SYSTEM	0	0	62,000	62,000	N/A	62,000	N/A
72-01-2-16	**BULDING CONSOLIDATION	0	0	0	0	N/A	0	N/A
	REPLACE HVAC SYSTEM-800	786,000	262,000	0	(786,000)	-100.0%	(262,000)	-100.0%
	REPLACE HVAC COMPONENTS-1800	173,000	170,000	0	(173,000)	-100.0%	(170,000)	-100.0%
	REPLACE SWITCHGEAR-1800	113,000	100,000	0	(113,000)	-100.0%	(100,000)	-100.0%
	REPLACE OBSOLETE LIGHTING-800	352,000	134,000	0	(352,000)	-100.0%	(134,000)	-100.0%
	REPLACE 800 CM3 BAS	214,000	500,000	0	(214,000)	-100.0%	(500,000)	-100.0%
	REPLACE SPLINE CEILING 800-1	129,000	0	0	(129,000)	-100.0%	0	N/A
	TOTAL FACILITIES	2,739,000	2,166,000	2,806,000	1,834,000	67.0%	1,806,000	83.4%

**800 Building, Porter Station Expansion, Call Center Relocation

OTHER DEPARTMENTS

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY		AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
		PRIORITY 1						
1	13-01-2-01	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO SAFETY	250,000					
1	31-01-1-01	LAB EQUIPMENT-XRF ANALYZER	29,000	29,000				
1	31-01-2-01	ULTRARAE 3000 PHOTOIONIZATION DETECTOR	7,000	7,000				
1	38-01-1-01	WASTE STORAGE TRAILER	88,000	88,000				
1	72-01-1-01	MISCELLANEOUS CAPITAL ADDITIONS	150,000	75,000	75,000			
1	72-01-1-02	MISCELLANEOUS CAPITAL ADDITIONS - GAS PROCESSING	10,000	10,000				
1	72-01-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS/STRUCTURAL REPAIRS	366,000	183,000	183,000			
1	72-01-2-02	MISCELLANEOUS CAPITAL REPLACEMENTS - GAS PROCESSING	46,000	46,000				
1	72-01-2-03	MISC CAPITAL REPL - STRUCTURAL REPAIRS - GAS PROCESSING	57,000	57,000				
1	72-01-2-04	REPLACE CARPETS-ALL LOCATIONS	70,000	70,000				
1	72-01-2-05	REPLACE MODULAR FURNITURE	80,000	80,000				
1	72-01-2-08	REPLACE 1849 BUILDING STAIR TOWER STAIR	289,000	289,000				
1	72-01-2-11	REPLACE 800 BUILDING ELEVATOR INTERIORS	91,000	91,000				
1	72-01-2-12	800 BUILDING RESTROOM RENOVATIONS	455,000	455,000				
1	72-01-2-15	800 BUILDING UPS ROOM CLEAN AGENT FIRE SUPPRESSION SYSTEM	62,000	62,000				

OTHER DEPARTMENTS

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY		AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
		PRIORITY 2						
2	13-01-2-02	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO RELIABILITY OF SERVICE	250,000					
2	31-01-1-01	LAB EQUIPMENT-NATURAL GAS CHROMATOGRAPH	79,000	79,000				
2	47-01-1-01	MISCELLANEOUS SERVER, NETWORK, & HARDWARE ADDITIONS	58,000	58,000				
2	47-01-1-02	MISCELLANEOUS SOFTWARE ADDITIONS	190,000	100,000	90,000			
2	47-01-1-03	SUNGARD DISASTER RECOVERY HOTSITE	477,000	477,000				
2	47-01-2-01	SYSQL REPLACEMENT	941,000	816,000	125,000			
2	47-01-2-03	REPLACEMENT SAN STORAGE	230,000	230,000				
2	47-01-2-05	MISCELLANEOUS SERVER & NETWORK HARDWARE REPLACEMENTS	201,000	201,000				
2	47-01-2-07	MISCELLANEOUS SOFTWARE REPLACEMENTS	50,000	50,000				
2	72-01-2-06	REPLACE 800 BUILDING MECHANICAL ROOM CIRCULATION PUMPS	354,000	354,000				
2	72-01-2-07	REPLACE 800 CHW PIPING	108,000	108,000				
2	72-01-2-10	REPLACE 1800 3RD FLOOR DOMESTIC WATER PUMPS & PIPING	268,000	268,000				
2	72-01-2-14	SOUTH PHILADELPHIA DISTRICT OFFICE BUILDING ENVELOPE REPAIR	400,000	400,000				
2	72-01-2-16	**BULDING CONSOLIDATION						
		PRIORITY 4						
4	13-01-2-03	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO COST-JUSTIFIED LOAD GROWTH	250,000					

OTHER DEPARTMENTS

LISTING BY PRIORITY

FISCAL YEAR 2017 CAPITAL BUDGET

P	CATEGORY		AMOUNT	BUDGET YR	YEAR 1	YEAR 2	YEAR 3	YEAR 4 +
		PRIORITY 5						
5	31-01-1-01	LAB EQUIPMENT-ZERO AIR GENERATOR	7,000	7,000				
5	10-01-1-01	DSM DATABASE ENHANCEMENTS	148,000	148,000				
5	10-01-1-02	PUC LIURP REPORTING UPDATES	41,000	41,000				
5	10-01-1-03	PUC RMI PROJECTS	629,000	629,000				
5	10-01-1-04	SELF-SERVICE ENHANCEMENTS TO PGW'S WEBSITE	53,000	53,000				
		TOTAL OTHER DEPARTMENTS:	6,784,000	5,561,000	473,000			

**800 Building, Porter Station Expansion, Call Center Relocation

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 CAPITAL BUDGET

OTHER DEPARTMENTS ESTIMATE OF ENCUMBERANCE AND EXPENDITURE

	ADDITIONS		REPLACEMENTS		TOTAL	
FISCAL YEAR	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED	ENCUMBERED	EXPENDED
CURRENT BUDGET	1,959,000	1,794,000	4,825,000	3,767,000	6,784,000	5,561,000
YEAR 1		165,000		308,000		473,000
YEAR 2						
YEAR 3						
YEAR 4 AND BEYOND						
TOTAL	1,959,000	1,959,000	4,825,000	4,075,000	6,784,000	6,034,000

FIVE YEAR FORECAST

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 AND FORECAST 2018 THROUGH 2022

DEPARTMENT	2017 CAPITAL BUDGET	FORECAST 2018	2019	2020	2021	2022	TOTAL 6 YEARS
GAS PROCESSING							
ADDITIONS	597,000	1,300,000	7,050,000			2,000,000	10,947,000
REPLACEMENTS	5,834,000	7,294,000	1,977,000	2,954,000	2,000,000	2,675,000	22,734,000
TOTAL GAS PROCESSING	6,431,000	8,594,000	9,027,000	2,954,000	2,000,000	4,675,000	33,681,000
ACQUIRE ASSETS	6,431,000	8,594,000	9,027,000	2,954,000	2,000,000	4,675,000	33,681,000
LEASE							
DISTRIBUTION							
ADDITIONS	10,394,000	10,634,000	10,879,000	11,129,000	11,384,000	11,646,000	66,066,000
REPLACEMENTS	82,296,000	84,191,000	86,127,000	88,106,000	90,133,000	92,208,000	523,061,000
GROSS TOTAL DISTRIBUTION	92,690,000	94,825,000	97,006,000	99,235,000	101,517,000	103,854,000	589,127,000
LESS: SALVAGE							
LESS: CONTRIBUTIONS*							
LESS: REIMBURSEMENT**	(2,249,000)	(2,295,000)	(2,343,000)	(2,391,000)	(2,440,000)	(2,490,000)	(14,208,000)
NET TOTAL DISTRIBUTION	90,441,000	92,530,000	94,663,000	96,844,000	99,077,000	101,364,000	574,919,000
ACQUIRE ASSETS	90,441,000	92,530,000	94,663,000	96,844,000	99,077,000	101,364,000	574,919,000
LEASE							

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 AND FORECAST 2018 THROUGH 2022

DEPARTMENT	2017 CAPITAL BUDGET	FORECAST 2018	2019	2020	2021	2022	TOTAL 6 YEARS
FIELD SERVICES							
ADDITIONS	1,786,000	2,006,000	2,049,000	2,098,000	2,151,000	2,200,000	12,290,000
REPLACEMENTS	5,251,000	5,727,000	5,921,000	5,984,000	6,205,000	6,287,000	35,375,000
GROSS TOTAL FIELD SERVICES	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	47,665,000
LESS: SALVAGE							
LESS: CONTRIBUTIONS*							
NET TOTAL FIELD SERVICES	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	47,665,000
ACQUIRE ASSETS	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	47,665,000
LEASE							
FLEET OPERATIONS							
ADDITIONS	80,000						80,000
REPLACEMENTS	5,803,000	3,575,000	712,000	443,000	6,899,000	2,449,000	19,881,000
GROSS TOTAL FLEET OPERATIONS	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	19,961,000
LESS: SALVAGE							
NET TOTAL FLEET OPERATIONS	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	19,961,000
ACQUIRE ASSETS	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	19,961,000
LEASE							

PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 AND FORECAST 2018 THROUGH 2022

DEPARTMENT	2017 CAPITAL BUDGET	FORECAST 2018	2019	2020	2021	2022	TOTAL 6 YEARS
OTHER							
ADDITIONS	1,959,000	416,000	428,000	438,000	449,000	459,000	4,149,000
REPLACEMENTS	4,825,000	1,722,000	1,745,000	1,770,000	1,795,000	1,819,000	13,676,000
TOTAL OTHER	6,784,000	2,138,000	2,173,000	2,208,000	2,244,000	2,278,000	17,825,000
ACQUIRE ASSETS	6,784,000	2,138,000	2,173,000	2,208,000	2,244,000	2,278,000	17,825,000
LEASE							
TOTAL							
ADDITIONS	14,816,000	14,356,000	20,406,000	13,665,000	13,984,000	16,305,000	93,532,000
REPLACEMENTS	104,009,000	102,509,000	96,482,000	99,257,000	107,032,000	105,438,000	614,727,000
GROSS TOTAL	118,825,000	116,865,000	116,888,000	112,922,000	121,016,000	121,743,000	708,259,000
LESS: SALVAGE							
LESS: REIMBURSEMENT**	(2,249,000)	(2,295,000)	(2,343,000)	(2,391,000)	(2,440,000)	(2,490,000)	(14,208,000)
LESS: CONTRIBUTIONS*							
NET TOTAL	116,576,000	114,570,000	114,545,000	110,531,000	118,576,000	119,253,000	694,051,000
ACQUIRE ASSETS	116,576,000	114,570,000	114,545,000	110,531,000	118,576,000	119,253,000	694,051,000
LEASE							

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

PHILADELPHIA GAS WORKS

PROPOSED 2018 - 2022 FORECAST

(COMPARISON)

DEPARTMENT	2017- 2021 FORECAST	2018 - 2022 FORECAST	AMOUNT DIFFERENCE	PERCENT DIFFERENCE
GAS PROCESSING				
ADDITIONS	3,233,000	10,350,000	7,117,000	220.1%
REPLACEMENTS	20,571,000	16,900,000	(3,671,000)	-17.8%
TOTAL GAS PROCESSING	23,804,000	27,250,000	3,446,000	14.5%
DISTRIBUTION				
ADDITIONS	54,378,000	55,672,000	1,294,000	2.4%
REPLACEMENTS	411,436,000	440,765,000	29,329,000	7.1%
GROSS TOTAL DISTRIBUTION	465,814,000	496,437,000	30,623,000	6.6%
LESS: SALVAGE				
LESS: CONTRIBUTIONS*				
LESS: REIMBURSEMENT**				
NET TOTAL DISTRIBUTION	465,814,000	496,437,000	30,623,000	6.6%
FIELD SERVICES				
ADDITIONS	9,378,000	10,504,000	1,126,000	12.0%
REPLACEMENTS	26,305,000	30,124,000	3,819,000	14.5%
GROSS TOTAL FIELD SERVICES	35,683,000	40,628,000	4,945,000	13.9%
LESS: SALVAGE				
LESS: CONTRIBUTIONS*				
NET TOTAL FIELD SERVICES	35,683,000	40,628,000	4,945,000	13.9%

PHILADELPHIA GAS WORKS

PROPOSED 2018 - 2022 FORECAST

(COMPARISON)

DEPARTMENT	2017- 2021 FORECAST	2018 - 2022 FORECAST	AMOUNT DIFFERENCE	PERCENT DIFFERENCE
FLEET OPERATIONS				
ADDITIONS				
REPLACEMENTS	16,268,000	14,078,000	(2,190,000)	-13.5%
GROSS TOTAL FLEET OPERATIONS	16,268,000	14,078,000	(2,190,000)	-13.5%
LESS: SALVAGE				
NET TOTAL FLEET OPERATIONS	16,268,000	14,078,000	(2,190,000)	-13.5%
OTHER				
ADDITIONS	1,910,000	2,190,000	280,000	14.7%
REPLACEMENTS	14,221,000	8,851,000	(5,370,000)	-37.8%
TOTAL OTHER	16,131,000	11,041,000	(5,090,000)	-31.6%
TOTAL				
ADDITIONS	68,899,000	78,716,000	9,817,000	14.2%
REPLACEMENTS	488,801,000	510,718,000	21,917,000	4.5%
GROSS TOTAL	557,700,000	589,434,000	31,734,000	5.7%
LESS: SALVAGE				
LESS: REIMBURSEMENT**				
LESS: CONTRIBUTIONS*				
NET TOTAL	557,700,000	589,434,000	31,734,000	5.7%

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

GAS PROCESSING DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

		2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
	GP-1 NATURAL GAS MEASUREMENT AND CONTROL FACILITIES								
2 53-01-2-01	REPLACE (1) M&R STATION HEATER	2,474,000		1,800,000		1,800,000		1,800,000	5,400,000
2 53-01-2-02	MODIFY LNG TANK RE-PRESSURIZATION SYSTEMS-RICHMOND & PASSYUNK			150,000					150,000
53-01-XX-XX	NON-RECURRING ITEMS								
	TOTAL GP-1	2,474,000		1,950,000		1,800,000		1,800,000	5,550,000
	GP-2 SUPPLEMENTAL GAS FACILITIES								
2 53-02-1-01	ADD BOILOFF JET COMPRESSORS-RICHMOND & PASSYUNK			300,000					300,000
1 53-02-1-02	EXTEND SECOND LNG FILL LINE TO NORTH TANK-RICHMOND		419,000						
2 53-02-1-03	LIQUEFACTION FEEDGAS CO2 AND ETHANE REMOVAL-RICHMOND							2,000,000	2,000,000
2 53-02-1-04	INSTALL REPORTING HARDWARE/SOFTWARE-RICHMOND & PASSYUNK			1,000,000					1,000,000
1 53-02-1-05	INSTALL BLOCK VALVE UPSTREAM OF V-101-RICHMOND		54,000						
1 53-02-1-06	REPLACE/ADD SHUTOFF VALVE AT LNG TANK-PASSYUNK				5,000,000				5,000,000
1 53-02-2-02	REPLACE H-2 HEATER-RICHMOND		1,216,000						
2 53-02-2-03	REPLACE PUBLIC ADDRESS SYSTEM-PASSYUNK				750,000				750,000
1 53-02-2-05	REPLACE LNG SWITCHGEAR-RICHMOND					1,000,000			1,000,000
1 53-02-2-06	REPLACE RIVER WATER PUMP SWITCHGEAR & RIVER WATER PUMPS-RICHMOND			1,500,000					1,500,000
2 53-02-2-07	REPLACE PNEUMATIC COMPANDER ACTUATORS WITH ELECTRONIC ACTUATORS			380,000					380,000
2 53-02-2-08	REPLACE FOAM WATER PIPING ON LNG TANKS-RICHMOND	451,000		500,000					500,000
1 53-02-2-09	REPLACE FIRE & GAS DETECTION SYSTEM-PASSYUNK			1,832,000					1,832,000
1 53-02-2-12	DCS UPGRADE-PASSYUNK				806,000				806,000
1 53-02-2-13	DCS UPGRADE-RICHMOND		876,000					875,000	875,000
1 53-02-2-14	EXPANDER LIQUEFIER TSA SYSTEM UPGRADES-RICHMOND						2,000,000		2,000,000
1 53-02-2-15	REPLACE LNG CONTROL ROOM TRANSFORMERS-PASSYUNK		635,000						

GAS PROCESSING DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

		2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
2 53-02-2-16	RELOCATE LNG SWITCHGEAR-PASSYUNK			1,132,000					1,132,000
2 53-02-2-17	REMODEL LNG CONTROL ROOM-PASSYUNK				121,000				121,000
1 53-02-2-18	REPLACE FOAM WATER PIPING-PASSYUNK		975,000						
1 53-02-2-19	REPAIR LNG TANK DIKE-PASSYUNK		83,000						
2 53-02-2-20	INSTALL NEW CARD READERS & TURNSTILES AT MAIN GATE AND BOILER AREA-PASSYUNK					154,000			154,000
1 53-02-2-21	UPGRADE OIL RECOVERY AST SYSTEM-PASSYUNK		179,000						
1 53-02-2-22	REMOVE AND REPLACE ELECTRICAL PANEL 203813-PASSYUNK		105,000						
1 53-02-2-23	REPAIR RTD'S IN EXPANDER PLANT COLD BOX-RICHMOND				300,000				300,000
1 53-02-2-24	REPLACE P-106 PUMP-RICHMOND		1,400,000						
53-02-X-XX	NON-RECURRING ITEMS	1,026,000							
	TOTAL GP-2	1,477,000	5,942,000	6,644,000	6,977,000	1,154,000	2,000,000	2,875,000	19,650,000
	GP-3 BUILDING AND GROUNDS								
2 53-03-1-01	INSTALL CANOPY OVER BUS BARS AT MAIN SWITCHGEAR-RICHMOND				50,000				50,000
2 53-03-1-02	RELOCATE TRAINING FACILITY & ADD TRUCK LOADING ACCESS-RICHMOND				2,000,000				2,000,000
53-03-X-XX	NON-RECURRING ITEMS	1,482,000							
	TOTAL GP-3	1,482,000			2,050,000				2,050,000
	GP-4 MISCELLANEOUS CAPITAL REQUIREMENTS								
1 53-04-1-01	MISCELLANEOUS CAPITAL ADDITIONS	104,000	124,000						
1 53-04-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS	369,000	365,000						
	TOTAL GP-4	473,000	489,000						
	TOTAL GAS PROCESSING DEPARTMENT	5,906,000	6,431,000	8,594,000	9,027,000	2,954,000	2,000,000	4,675,000	27,250,000
	ACQUIRE ASSETS LEASE	5,906,000	6,431,000	8,594,000	9,027,000	2,954,000	2,000,000	4,675,000	27,250,000

DISTRIBUTION DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

				2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		D-20 HIGH PRESSURE MAINS									
4	52-20-1-01	INSTALLATIONS TO PROVIDE FOR AHEAD-OF-PAVING AND EXTENSIONS TO SUPPLY ADDITIONAL LOADS		1,132,000	1,253,000	1,282,000	1,311,000	1,341,000	1,372,000	1,404,000	6,710,000
3	52-20-2-01	ENFORCED RELOCATIONS CAUSED BY CITY AND STATE WORK		1,542,000	2,551,000	2,610,000	2,670,000	2,731,000	2,794,000	2,858,000	13,663,000
1	52-20-2-02	INCREMENTAL REPLACEMENT OF 12" HP CAST IRON MAIN		7,981,000	8,719,000	8,920,000	9,125,000	9,335,000	9,550,000	9,770,000	46,700,000
1	52-20-2-03	INCREMENTAL REPLACEMENT OF 30" HP CAST IRON		7,449,000	9,175,000	9,386,000	9,602,000	9,823,000	10,049,000	10,280,000	49,140,000
	52-XX-X-XX	NON-RECURRING ITEMS									
			GROSS TOTAL D-20	18,104,000	21,698,000	22,198,000	22,708,000	23,230,000	23,765,000	24,312,000	116,213,000
	52-20-2-97	LESS: REIMBURSEMENT**									
		LESS: CONTRIBUTIONS*									
			NET TOTAL D-20	18,104,000	21,698,000	22,198,000	22,708,000	23,230,000	23,765,000	24,312,000	116,213,000

DISTRIBUTION DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		D-21 8 INCH AND SMALLER I. P. AND L. P. MAIN								
4	52-21-1-01	MAINS TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INCREASED CAPACITY	2,068,000	2,124,000	2,173,000	2,223,000	2,274,000	2,326,000	2,379,000	11,375,000
3	52-21-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	5,294,000	6,156,000	6,298,000	6,443,000	6,591,000	6,743,000	6,898,000	32,973,000
1	52-21-2-02	PRUDENT MAIN REPLACEMENTS	14,454,000	14,338,000	14,668,000	15,005,000	15,350,000	15,703,000	16,064,000	76,790,000
1	52-21-2-03	LONG TERM INFRASTRUCTURE PLAN - ACCELERATED CAST IRON	4,396,000	4,628,000	4,734,000	4,843,000	4,954,000	5,068,000	5,185,000	24,784,000
1	52-21-2-04	LTIIP-INCREMENTAL CAST IRON MAIN REMOVAL	5,500,000	10,941,000	11,193,000	11,450,000	11,713,000	11,982,000	12,258,000	58,596,000
	52-XX-X-XX	NON-RECURRING ITEMS								
		GROSS TOTAL D-21	31,712,000	38,187,000	39,066,000	39,964,000	40,882,000	41,822,000	42,784,000	204,518,000
	52-21-2-97	LESS: REIMBURSEMENT**	(1,967,000)	(1,841,000)	(1,878,000)	(1,916,000)	(1,954,000)	(1,993,000)	(2,033,000)	(9,774,000)
		LESS: CONTRIBUTIONS*								
		NET TOTAL D-21	29,745,000	36,346,000	37,188,000	38,048,000	38,928,000	39,829,000	40,751,000	194,744,000
		D-22 12 INCH AND LARGER I. P. AND L. P. MAIN								
4	52-22-1-01	TO SUPPLY NEW CUSTOMERS AND TO PROVIDE FOR INSTALLATION OF MAINS AHEAD-OF-PAVING	7,000	23,000	24,000	25,000	26,000	27,000	28,000	130,000
3	52-22-2-01	ENFORCED RELOCATIONS CAUSED BY CITY, STATE AND OTHER WORK	1,094,000	1,333,000	1,364,000	1,395,000	1,427,000	1,460,000	1,494,000	7,140,000
3	52-22-2-02	MAIN FOR MAJOR ENFORCED RELOCATION	7,450,000	480,000	491,000	502,000	514,000	526,000	538,000	2,571,000
		GROSS TOTAL D-22	8,551,000	1,836,000	1,879,000	1,922,000	1,967,000	2,013,000	2,060,000	9,841,000
	52-22-2-97	LESS: REIMBURSEMENT**	(6,332,000)	(408,000)	(417,000)	(427,000)	(437,000)	(447,000)	(457,000)	(2,185,000)
		LESS: CONTRIBUTIONS*								
		NET TOTAL D-22	2,219,000	1,428,000	1,462,000	1,495,000	1,530,000	1,566,000	1,603,000	7,656,000

DISTRIBUTION DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

				2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		D-23 CUSTOMER METERING & REGULATOR INSTALLATION, AND PRESSURE REGULATION & CORROSION CONTROL FACILITIES									
4	52-23-1-01	CUSTOMER METERING AND REGULATOR INSTALLATION		602,000	585,000	598,000	612,000	626,000	640,000	655,000	3,131,000
1	52-23-2-01	REPLACEMENT/REHABILITATION OF HIGH PRESSURE MAIN VALVES		620,000	506,000	518,000	530,000	542,000	554,000	567,000	2,711,000
2	52-23-2-02	REPLACEMENT OF VARIOUS PRESSURE REGULATING AND CORROSION CONTROL FACILITIES		386,000	414,000	424,000	434,000	444,000	454,000	464,000	2,220,000
			GROSS TOTAL D-23	1,608,000	1,505,000	1,540,000	1,576,000	1,612,000	1,648,000	1,686,000	8,062,000
		LESS: REIMBURSEMENT**									
		LESS: CONTRIBUTIONS*									
			TOTAL D-23	1,608,000	1,505,000	1,540,000	1,576,000	1,612,000	1,648,000	1,686,000	8,062,000
		D-24 SERVICES									
4	52-24-1-01	INSTALLATION OF NEW 1-1/4" AND SMALLER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE		4,019,000	4,074,000	4,168,000	4,264,000	4,362,000	4,462,000	4,565,000	21,821,000
4	52-24-1-02	INSTALLATION OF NEW 2 INCH AND LARGER SERVICES, HIGH, INTERMEDIATE AND LOW PRESSURE		2,261,000	2,083,000	2,131,000	2,180,000	2,230,000	2,281,000	2,333,000	11,155,000
1	52-24-2-01	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT REASONS, AS A RESULT OF LEAK SURVEYS, CUSTOMER COMPLAINTS OR CITY AND STATE WORK		19,110,000	19,274,000	19,717,000	20,170,000	20,634,000	21,109,000	21,595,000	103,225,000
1	52-24-2-02	RENEWAL OF 2" AND LARGER SERVICES		1,033,000	1,098,000	1,123,000	1,149,000	1,175,000	1,202,000	1,230,000	5,879,000
1	52-24-2-03	RENEWAL OF 1-1/4" AND SMALLER SERVICES FOR PRUDENT INCREMENTAL SERVICE WORK		1,635,000	1,342,000	1,373,000	1,405,000	1,437,000	1,470,000	1,504,000	7,189,000
			GROSS TOTAL D-24	28,258,000	27,871,000	28,512,000	29,168,000	29,838,000	30,524,000	31,227,000	149,269,000
	52-24-2-97	LESS: REIMBURSEMENT**									
		LESS: CONTRIBUTIONS*									
			TOTAL D-24	28,258,000	27,871,000	28,512,000	29,168,000	29,838,000	30,524,000	31,227,000	149,269,000
		D-29 OTHER DISTRIBUTION FACILITIES									
2	52-29-1-01	ADDITIONAL TOOLS AND WORK EQUIPMENT		11,000	252,000	258,000	264,000	270,000	276,000	282,000	1,350,000

DISTRIBUTION DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

				2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
2	52-29-2-01	REPLACEMENT OF OBSOLETE TOOLS, RADIOS, AND WORK EQUIPMENT		1,479,000	1,341,000	1,372,000	1,404,000	1,436,000	1,469,000	1,503,000	7,184,000
	52-XX-X-XX	NON-RECURRING ITEMS		997,000							
			TOTAL D-29	2,487,000	1,593,000	1,630,000	1,668,000	1,706,000	1,745,000	1,785,000	8,534,000
1	52-99-2-99	D-99 REMOVAL AND ABANDONMENTS									
	52-98-2-98		GROSS TOTAL DISTRIBUTION DEPARTMENT	90,720,000	92,690,000	94,825,000	97,006,000	99,235,000	101,517,000	103,854,000	496,437,000
			LESS: SALVAGE								
			LESS: CONTRIBUTIONS*								
			LESS: REIMBURSEMENT**	(8,299,000)	(2,249,000)	(2,295,000)	(2,343,000)	(2,391,000)	(2,440,000)	(2,490,000)	(11,959,000)
			NET TOTAL DISTRIBUTION DEPARTMENT	82,421,000	90,441,000	92,530,000	94,663,000	96,844,000	99,077,000	101,364,000	484,478,000
		ACQUIRE ASSETS		82,421,000	90,441,000	92,530,000	94,663,000	96,844,000	99,077,000	101,364,000	484,478,000
		LEASE									

* CONTRIBUTIONS ARE POTENTIAL CUSTOMER CONTRIBUTIONS

** REIMBURSEMENT TO PGW FOR RELOCATING STRUCTURES & EQUIPMENT AND/OR LOAD GROWTH

FIELD SERVICES DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		C-30 METERS								
4	50-30-1-01	ADDITIONS AND INSTALLATIONS	1,431,000	1,490,000	1,660,000	1,696,000	1,736,000	1,780,000	1,821,000	8,693,000
2	50-30-2-01	REPLACEMENTS	2,374,000	2,527,000	3,062,000	3,129,000	3,204,000	3,285,000	3,359,000	16,039,000
		TOTAL C-30	3,805,000	4,017,000	4,722,000	4,825,000	4,940,000	5,065,000	5,180,000	24,732,000
		C-32 SERVICES REGULATORS								
4	50-32-1-01	ADDITIONS AND INSTALLATIONS	56,000	41,000	57,000	58,000	60,000	61,000	62,000	298,000
1	50-32-2-01	REPLACEMENTS	23,000	32,000	33,000	34,000	34,000	35,000	36,000	172,000
		TOTAL C-32	79,000	73,000	90,000	92,000	94,000	96,000	98,000	470,000
		C-33 TELEMETERING								
5	50-33-1-01	ADDITIONS AND INSTALLATIONS	118,000	115,000	122,000	125,000	128,000	131,000	134,000	640,000
1	50-33-2-01	REPLACEMENTS	166,000	157,000	161,000	164,000	168,000	173,000	177,000	843,000
		TOTAL C-33	284,000	272,000	283,000	289,000	296,000	304,000	311,000	1,483,000

FIELD SERVICES DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

	2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
C-34 METER SHOP EQUIPMENT								
5 50-34-2-01 REPLACEMENTS	65,000	162,000	22,000	90,000	24,000	93,000	26,000	255,000
TOTAL C-34	65,000	162,000	22,000	90,000	24,000	93,000	26,000	255,000
C-35 SERVICE SECTION EQUIPMENT								
5 50-35-2-01 REPLACEMENTS	0	0	0	9,000	0	0	11,000	20,000
TOTAL C-35	0	0	0	9,000	0	0	11,000	20,000
C-36 AUTOMATIC METER READING								
5 50-36-1-01 ADDITIONS	140,000	140,000	167,000	170,000	174,000	179,000	183,000	873,000
5 50-36-2-01 REPLACEMENTS	2,332,000	2,373,000	2,449,000	2,495,000	2,554,000	2,619,000	2,678,000	12,795,000
TOTAL C-36	2,472,000	2,513,000	2,616,000	2,665,000	2,728,000	2,798,000	2,861,000	13,668,000

FIELD SERVICES DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
1	50-99-2-99	C-99 COST OF REMOVAL								
		GROSS TOTAL FIELD SERVICES DEPARTMENT	6,705,000	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	40,628,000
	50-98-2-98	LESS: SALVAGE								0
	50-94-1-94	LESS: CONTRIBUTIONS								0
		NET TOTAL FIELD SERVICES DEPARTMENT	6,705,000	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	40,628,000
		ACQUIRE ASSETS	6,705,000	7,037,000	7,733,000	7,970,000	8,082,000	8,356,000	8,487,000	40,628,000
		LEASE								

FLEET OPERATIONS DEPARTMENT

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
2	73-01-1-01	ACQUIRE ADD'TL VEHICLES TO SUPPORT INCREMENTAL CAST IRON MAIN REPLACEMENT	118,000							0
1	73-01-1-02	MOBILE EQUIPMENT ADDITIONS	632,000	80,000						0
1	73-01-2-01	SHOP EQUIPMENT REPLACEMENTS		45,000						0
2	73-01-2-02	MOBILE EQUIPMENT REPLACEMENTS	1,533,000	677,000	880,000	133,000	364,000	515,000	290,000	2,182,000
2	73-01-2-03	VEHICLE REPLACEMENTS	5,879,000	5,081,000	2,695,000	579,000	79,000	6,384,000	2,159,000	11,896,000
		GROSS TOTAL FLEET OPERATIONS DEPARTMENT	8,162,000	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	14,078,000
	73-98-2-98	LESS: SALVAGE								
		NET TOTAL FLEET OPERATIONS DEPARTMENT	8,162,000	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	14,078,000
		ACQUIRE ASSETS	8,162,000	5,883,000	3,575,000	712,000	443,000	6,899,000	2,449,000	14,078,000
		LEASE								

OTHER DEPARTMENTS

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		FACILITIES								
1	72-01-1-01	MISCELLANEOUS CAPITAL ADDITIONS	125,000	150,000	153,000	157,000	161,000	165,000	169,000	805,000
1	72-01-1-02	MISCELLANEOUS CAPITAL ADDITIONS - GAS PROCESSING	9,000	10,000	10,000	11,000	11,000	11,000	11,000	54,000
1	72-01-2-01	MISCELLANEOUS CAPITAL REPLACEMENTS/STRUCTURAL REPAIRS	378,000	366,000	374,000	383,000	393,000	402,000	412,000	1,964,000
1	72-01-2-02	MISCELLANEOUS CAPITAL REPLACEMENTS - GAS PROCESSING	45,000	46,000	47,000	48,000	49,000	51,000	52,000	247,000
1	72-01-2-03	MISC CAPITAL REPL - STRUCTURAL REPAIRS - GAS PROCESSING	57,000	57,000	59,000	60,000	61,000	63,000	64,000	307,000
1	72-01-2-04	REPLACE CARPETS- ALL LOCATIONS	165,000	70,000						
1	72-01-2-05	REPLACE MODULAR FURNITURE	195,000	80,000						
2	72-01-2-06	REPLACE 800 BUILDING MECHANICAL ROOM CIRCULATION PUMPS		354,000						
2	72-01-2-07	REPLACE 800 CHW PIPING		108,000						
1	72-01-2-08	REPLACE 1849 BUILDING STAIR TOWER STAIR		289,000						
2	72-01-2-10	REPLACE 1800 3RD FLOOR DOMESTIC WATER PUMPS & PIPING		268,000						
1	72-01-2-11	REPLACE 800 BUILDING ELEVATOR INTERIORS		91,000						
1	72-01-2-12	800 BUILDING RESTROOM RENOVATIONS		455,000						
2	72-01-2-14	SOUTH PHILADELPHIA DISTRICT OFFICE BUILDING ENVELOPE REPAIR		400,000						
1	72-01-2-15	800 BUILDING UPS ROOM CLEAN AGENT FIRE SUPPRESSION SYSTEM		62,000						
2	72-01-2-16	**BULDING CONSOLIDATION								
	72-01-XX-XX	NON-RECURRING ITEMS	1,767,000							
		TOTAL FACILITIES	2,739,000	2,806,000	643,000	859,000	875,000	692,000	708,000	3,377,000

OTHER DEPARTMENTS

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		INFORMATION SERVICES								
2	47-01-1-01	MISCELLANEOUS SERVER, NETWORK, & HARDWARE ADDITIONS	57,000	58,000	59,000	61,000	62,000	64,000	65,000	311,000
2	47-01-1-02	MISCELLANEOUS SOFTWARE ADDITIONS	170,000	190,000	194,000	199,000	204,000	209,000	214,000	1,020,000
2	47-01-1-03	SUNGARD DISASTER RECOVERY HOTSITE		477,000						
2	47-01-2-01	SYSQL REPLACEMENT		941,000						
2	47-01-2-03	REPLACEMENT SAN STORAGE	227,000	230,000	235,000	241,000	247,000	253,000	259,000	1,235,000
2	47-01-2-05	MISCELLANEOUS SERVER & NETWORK HARDWARE REPLACEMENTS	177,000	201,000	206,000	211,000	216,000	221,000	226,000	1,080,000
2	47-01-2-07	MISCELLANEOUS SOFTWARE REPLACEMENTS	50,000	50,000	51,000	52,000	54,000	55,000	56,000	268,000
	47-01-XX-XX	NON-RECURRING ITEMS	2,283,000							
		TOTAL INFORMATION SERVICES	2,964,000	2,147,000	745,000	764,000	783,000	802,000	820,000	3,914,000
		CHIEF OPERATING OFFICER								
1	13-01-2-01	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO SAFETY	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
2	13-01-2-02	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO RELIABILITY OF SERVICE	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
4	13-01-2-03	CONDITIONAL FUNDING FOR CAPITAL NEEDS RELATED TO COST-JUSTIFIED LOAD GROWTH	250,000	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
		TOTAL CHIEF OPERATING OFFICER	750,000	750,000	750,000	750,000	750,000	750,000	750,000	3,750,000

OTHER DEPARTMENTS

FORECAST - FISCAL YEARS 2018 THROUGH 2022

			2016 AMENDED BUDGET	2017 BUDGET	2018	2019	2020	2021	2022	TOTAL FORECAST
		VP TECHNICAL COMPLIANCE								
1	38-01-1-01	WASTE STORAGE TRAILER		88,000						
	38-01-XX-XX	NON-RECURRING ITEMS	3,386,000							
		TOTAL VP TECHNICAL COMPLIANCE	3,386,000	88,000						
		CHEMICAL SERVICES								
1	31-01-1-01	LAB EQUIPMENT-XRF ANALYZER		29,000						
2	31-01-1-01	LAB EQUIPMENT-NATURAL GAS CHROMATOGRAPH		79,000						
5	31-01-1-01	LAB EQUIPMENT-ZERO AIR GENERATOR		7,000						
1	31-01-2-01	ULTRARAE 3000 PHOTOIONIZATION DETECTOR		7,000						
	31-01-X-XX	NON-RECURRING ITEMS	8,000							
		TOTAL CHEM SERVICES	8,000	122,000						
		VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS								
5	10-01-1-01	DSM DATABASE ENHANCEMENTS		148,000						
6	10-01-1-02	PUC LIURP REPORTING UPDATES		41,000						
6	10-01-1-03	PUC RMI PROJECTS		629,000						
5	10-01-1-04	SELF-SERVICE ENHANCEMENTS TO PGW'S WEBSITE		53,000						
	10-01-X-XX	NON-RECURRING ITEMS	986,000							
		TOTAL VP REGULATORY COMPLIANCE & CUSTOMER PROGRAMS	986,000	871,000						
		GAS MANAGEMENT								
		NON-RECURRING ITEMS	785,000							
		TOTAL OTHER DEPARTMENTS	11,618,000	6,784,000	2,138,000	2,173,000	2,208,000	2,244,000	2,278,000	11,041,000

ACQUIRE ASSETS
LEASE

FISCAL 2017 FINANCING PLAN

PHILADELPHIA GAS WORKS
CAPITAL FINANCING PLAN

As a result of the FY 2011 Operating Budget proceedings, a motion was approved that directed PGW to begin with its FY 2012 Capital Budget filing to include with each proposed Capital Budget and Capital Budget Amendment a proposed Capital Funding plan pursuant to Section IV.2.b of the Management Agreement.

In this section of the Management Agreement, funds required to be supplied must be identified between:

i. Funds generated within the business through charges to customer or otherwise; and
ii. Funds to be obtained through capital loans.

Capital Spending in FY 2017

• Spending from FY 2017 Program	$ 105,109,000
• Spending Carryover from FY 2016	$ 32,300,000
• Total FY 2017 Spending	$ 137,409,000
• Projected Reimbursement	$ 1,841,000
• Salvage	$ 187,000
• Construction Contributions	$ 1,661,000
• **Net FY 2017 Capital Spending**	**$ 133,720,000**

Capital Funding Sources:

• Capital Bond Proceeds	$ 66,060,000
• DSIC	$ 32,660,000
• Internally Generated Funds	$ 35,000,000
• **FY 2017 Capital Funding**	**$ 133,720,000**

The funding plan is based upon current financial projections and is subject to changes based upon PGW's financial conditions at the time funds are required to support the FY 2017 Capital Program.

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 29, 2016

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

Re: Philadelphia Gas Works' Five-Year Forecast - FY 2018-2022

Dear Chairman Green:

Enclosed is an original along with six (6) copies of PGW's Five-Year Forecast for the fiscal periods 2018 through 2022. PGW's Forecast was reviewed by the PFMC Board at a board meeting held on July 27, 2016. The resolution approving the submission of PGW's Forecast is also included with this filing. The Finance Director's letter will be provided as soon as it is available.

Please feel free to call me if you have any questions regarding the enclosed forecast.

Very truly yours,

Joseph F. Golden Jr.

JFG/mlo'b
Enclosure

cc: Service List

PHILADELPHIA GAS WORKS

PROPOSED

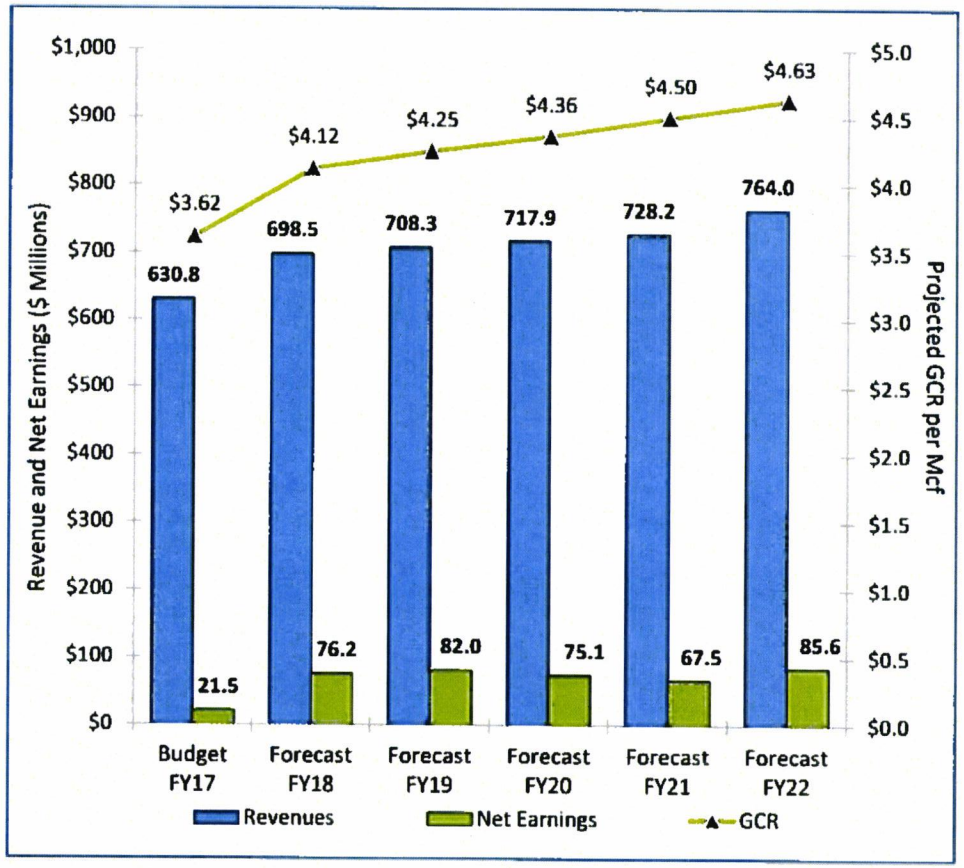
FISCAL YEAR 2017 OPERATING BUDGET

& FIVE-YEAR FORECAST

Fiscal Years 2018 - 2022

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Total Revenue, Net Earnings and GCR @ August 31



Business Assumptions

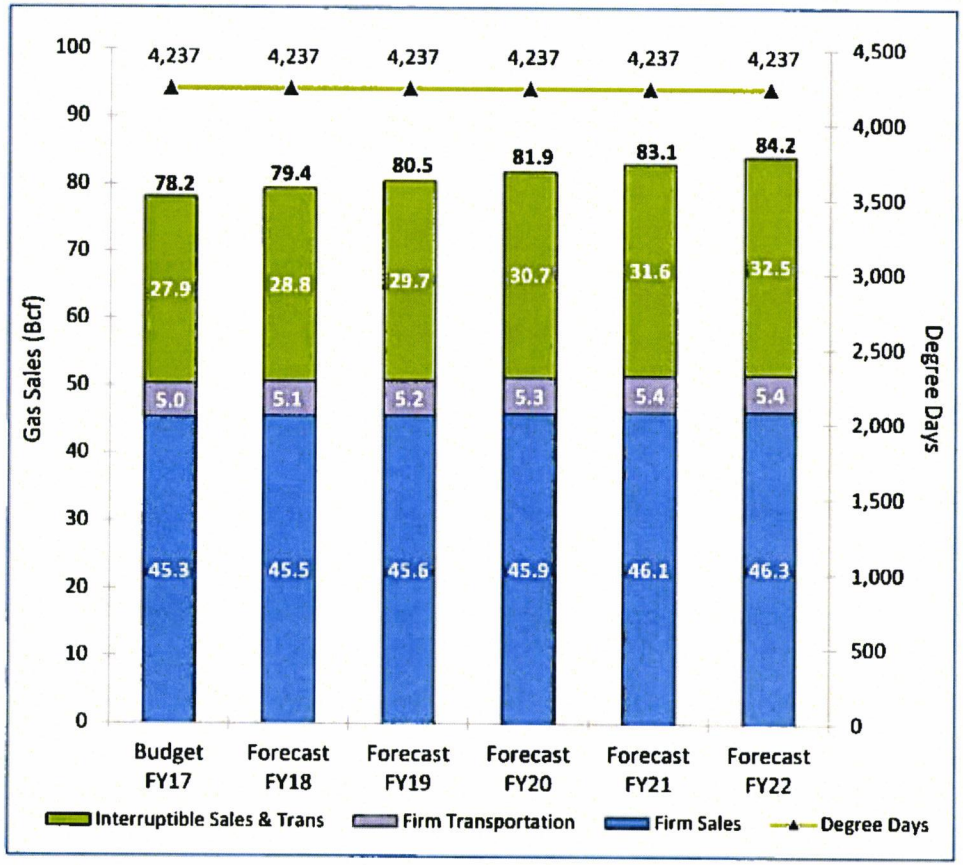
- Current base rates are in effect throughout the FY 2017 forecasted period.
- Proposed $40.0 million rate increase is projected to be in effect in the FY 2018 through FY 2021 forecasted periods.
- Additional proposed $25.0 million rate increase is projected to be in effect in the FY 2022 forecasted period.
- WNA surcharge is projected to be $6.0 million in FY 2017 and will reset in FY 2018 with the proposed rate increase.
- DSIC Revenue based on incremental capital spending:
  - FY 2017 = $32.5 million
  - FY 2018 = $32.4 million
  - FY 2019 = $32.8 million
  - FY 2020 = $33.1 million
  - FY 2021 = $33.4 million
  - FY 2022 = $33.8 million
- DSM or Energy Sense Program surcharge is in place through August 31, 2022.
- LNG sales forecast for the six-year period is as follows:

Interruptible LNG Sales / Revenue / Margin ($000)

	Mcf	Revenue	Margin	Total
FY 2017	1,000	$4,130	$3,680	$7,810
FY 2018	1,000	$4,224	$3,680	$7,904
FY 2019	1,000	$4,292	$3,680	$7,972
FY 2020	1,000	$4,353	$3,680	$8,033
FY 2021	1,000	$4,430	$3,680	$8,110
FY 2022	1,000	$4,542	$3,680	$8,222

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Gas Sales By Category and Degree Days



Business Assumptions

- Sales forecast (net) utilized for the six-year period is as follows:

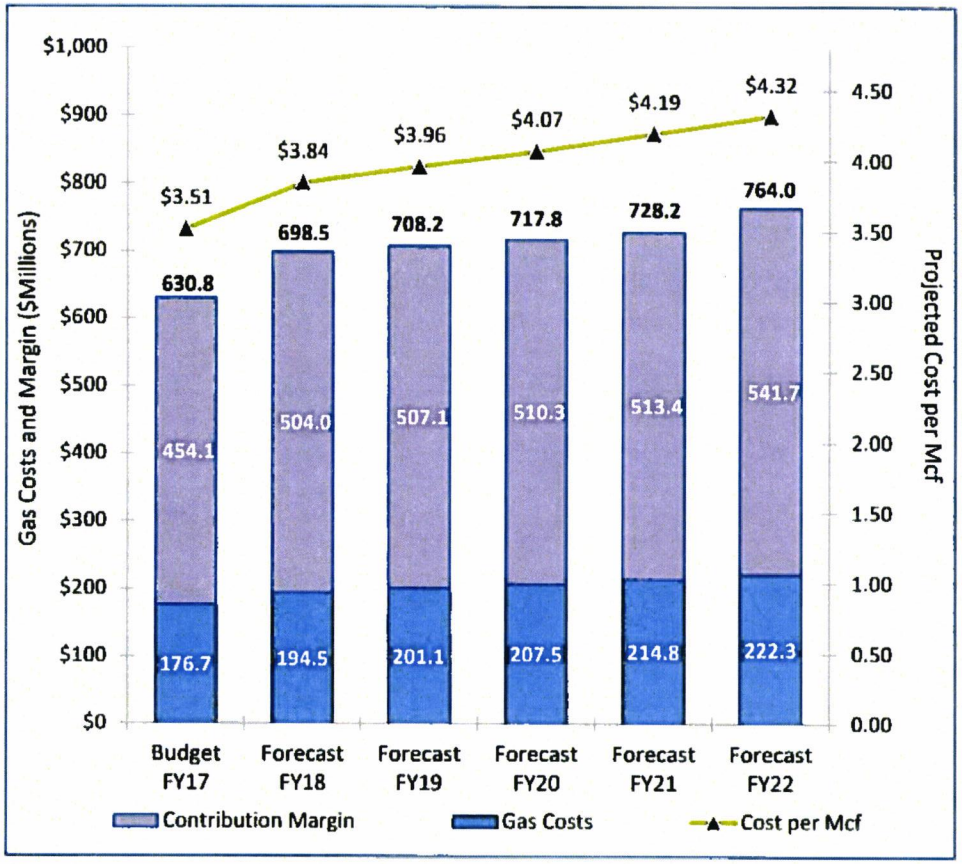
Billed Gas Revenues ($000's)

	Firm	Interrupt	Transport	Total
FY 2017	$572,663	$4,202	$46,023	$622,888
FY 2018	$624,510	$4,302	$46,771	$675,583
FY 2019	$632,813	$4,372	$48,415	$685,600
FY 2020	$640,800	$4,435	$49,798	$695,033
FY 2021	$649,505	$4,515	$51,099	$705,119
FY 2022	$683,706	$4,629	$52,332	$740,667

- Firm Non-Heating sales are anticipated to decrease by approximately 0.1 Bcf each year of the forecasted period; however, Firm Heating Sales are anticipated to increase by approximately 0.3 Bcf each year of the forecasted period and is based on the following:
  - Commercial customers are projected to increase utilization by 0.2 Bcf annually;
  - CRP customers are projected to increase by 10,000. Their high usage accounts for a 0.2 Bcf annual increase in residential sales;
  - These increases were offset by an approximate 0.1 Bcf decrease in sales resulting from conservation.
- Firm Transportation volumes are anticipated to increase by 0.1 Bcf or 2% each year of the forecasted period.
- Interruptible transportation is expected to increase by 1.0 Bcf or 3% each year of the forecasted period.

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Gas Costs and Contribution Margin



Business Assumptions

- 4,237 Degree Day basis of normal weather utilized for sales and utilization projections.

Gas Costs / Margin ($ Millions)

	Mcf	Gas Cost	Margin
FY 2017	50,278	$176.7	$454.1
FY 2018	50,586	$194.5	$504.0
FY 2019	50,792	$201.1	$507.1
FY 2020	50,998	$207.5	$510.3
FY 2021	51,224	$214.8	$513.4
FY 2022	51,486	$222.3	$541.7

- Average cost per Mcf is anticipated to range from $3.51 in FY 2017 to $4.32 in FY 2022

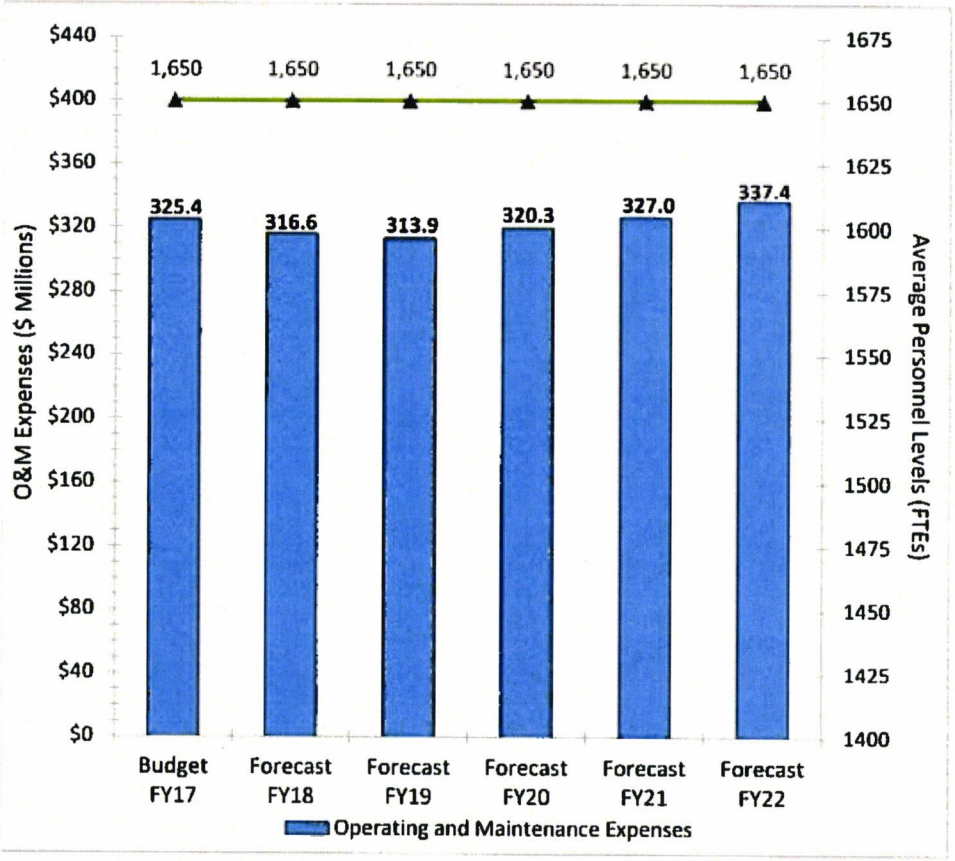
Average Cost of Natural Gas

	$ Per Mcf	Difference	Incr./ (Decr.)
FY 2017	$3.5145	-$0.0141	-0.4%
FY 2018	$3.8449	$0.3305	9.4%
FY 2019	$3.9593	$0.1143	3.0%
FY 2020	$4.0688	$0.1095	2.8%
FY 2021	$4.1933	$0.1246	3.1%
FY 2022	$4.3177	$0.1243	3.0%

- Contribution margin increases in the FY 2018 and FY 2022 forecasted periods reflecting a $40.0 million and $25.0 million rate increase, respectively.

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Operating and Maintenance Expenses (O&M)

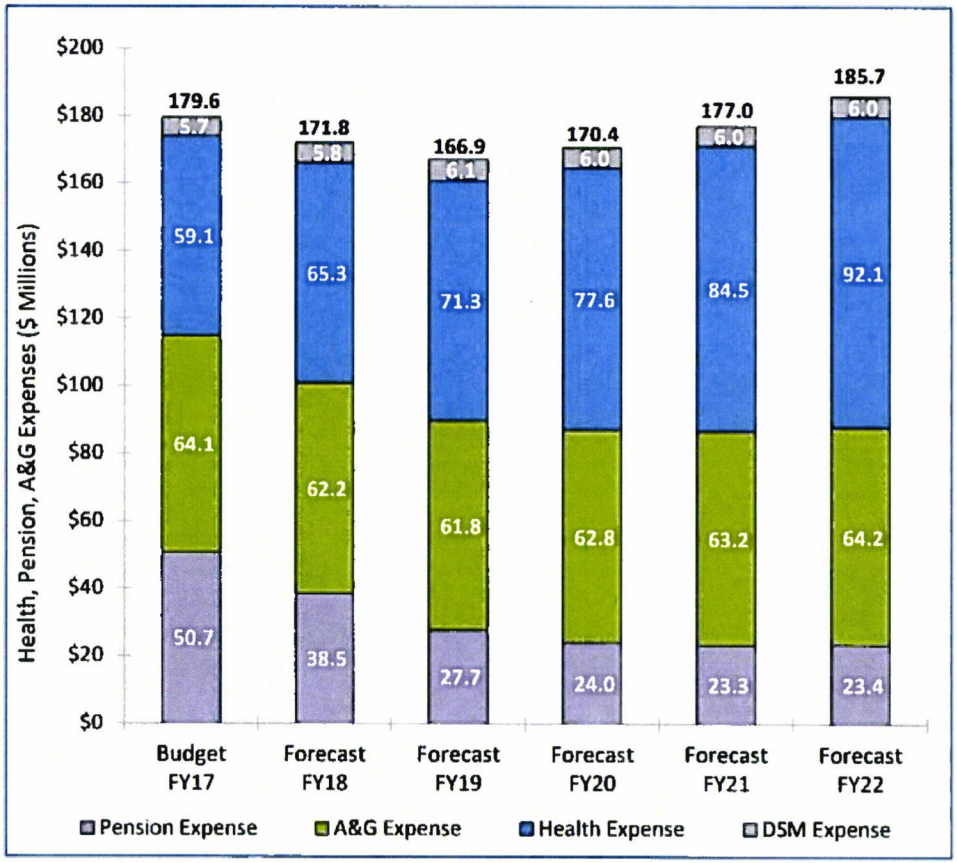


Business Assumptions

- Operating and maintenance expenses are net of depreciation.
- Personnel levels are expected to remain constant at 1,650 throughout the FY 2022 forecasted period.
- DSM or Energy Sense Program surcharge is in place through August 31, 2022.
- General inflation rates of 2.0% were utilized throughout the forecast period absent any specific departmental information regarding expenses, i.e. health insurance.
- Property & Public Liability Insurance premiums forecasted to rise by 2.5% annually.
- Collection factor projected at 96.0% of billed revenues in FY 2017 and throughout the forecasted period.

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Health, Pension and A&G Expenses



Business Assumptions

- Pension expenses were calculated based on the actuarial report prepared by PGW's actuarial consultant dated July 1, 2015. The assumed earnings rate was 7.65%.

	Pension Expense ($000's)			
	Required	Additional	GASB 68	Total
FY 2017	$24,075	$2,056	$24,593	$50,724
FY 2018	$24,095	$2,463	$11,905	$38,463
FY 2019	$23,919	$2,466	$1,345	$27,730
FY 2020	$23,826	$2,452	($2,279)	$23,999
FY 2021	$23,641	$2,455	($2,809)	$23,287
FY 2022	$23,329	$2,454	($2,361)	$23,422

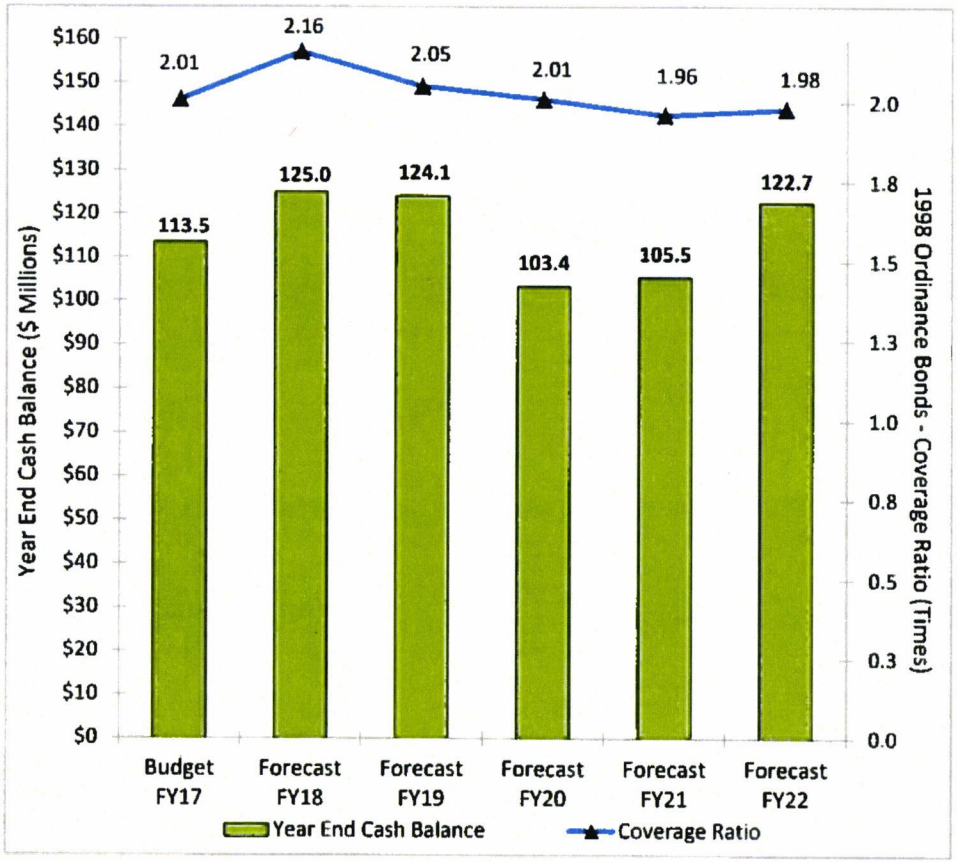
- General inflation rate of 2.0% was utilized throughout the forecast period absent any specific departmental information regarding expenses, i.e. health insurance premiums.

- Health insurance premiums were projected to increase by approximately 9.0% over the forecasted period based on information provided by PGW's healthcare consultant.

	Health Insurance Premiums ($000's)		
	Active	Retiree	Total
FY 2017	$28,139	$30,971	$59,110
FY 2018	$30,810	$34,449	$65,259
FY 2019	$33,641	$37,659	$71,300
FY 2020	$36,627	$41,010	$77,637
FY 2021	$39,880	$44,661	$84,541
FY 2022	$43,424	$48,640	$92,064

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Year End Cash Balance and Coverage Ratio



Business Assumptions

- Interest earning rates on temporary investments and restricted funds assumed at or below 1.0%.
- City of Philadelphia $18.0 million payment made throughout the forecasted period.
- In FY 2020, PGW projects to defease approximately $10.0 million of debt service payments payable in FY 2021.
- Debt Service Coverage Ratios were forecasted at the following levels:

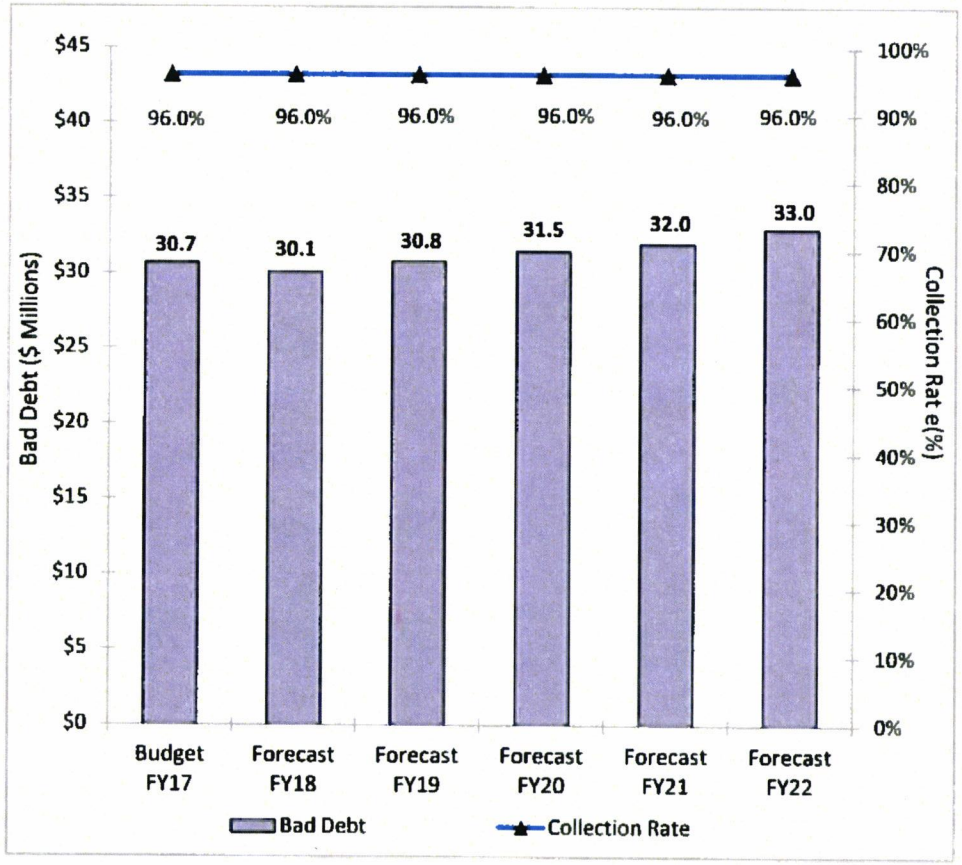
	Coverage Rates (Times)	
	1998	w/City Fee
FY 2017	2.01	1.79
FY 2018	2.16	1.97
FY 2019	2.05	1.87
FY 2020	2.01	1.83
FY 2021	1.96	1.78
FY 2022	1.98	1.81

- Commercial Paper Program outstanding level and cash balance assumptions at 8/31:

	TXCP / Liquidity ($ Millions)			
	Maximum	Available	Cash	Liquidity
FY 2017	$120.0	$120.0	$113.5	$233.5
FY 2018	$120.0	$120.0	$125.0	$245.0
FY 2019	$120.0	$120.0	$124.1	$244.1
FY 2020	$120.0	$120.0	$103.4	$223.4
FY 2021	$120.0	$120.0	$105.5	$225.5
FY 2022	$120.0	$120.0	$122.7	$242.7

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Collection Rate and Bad Debt



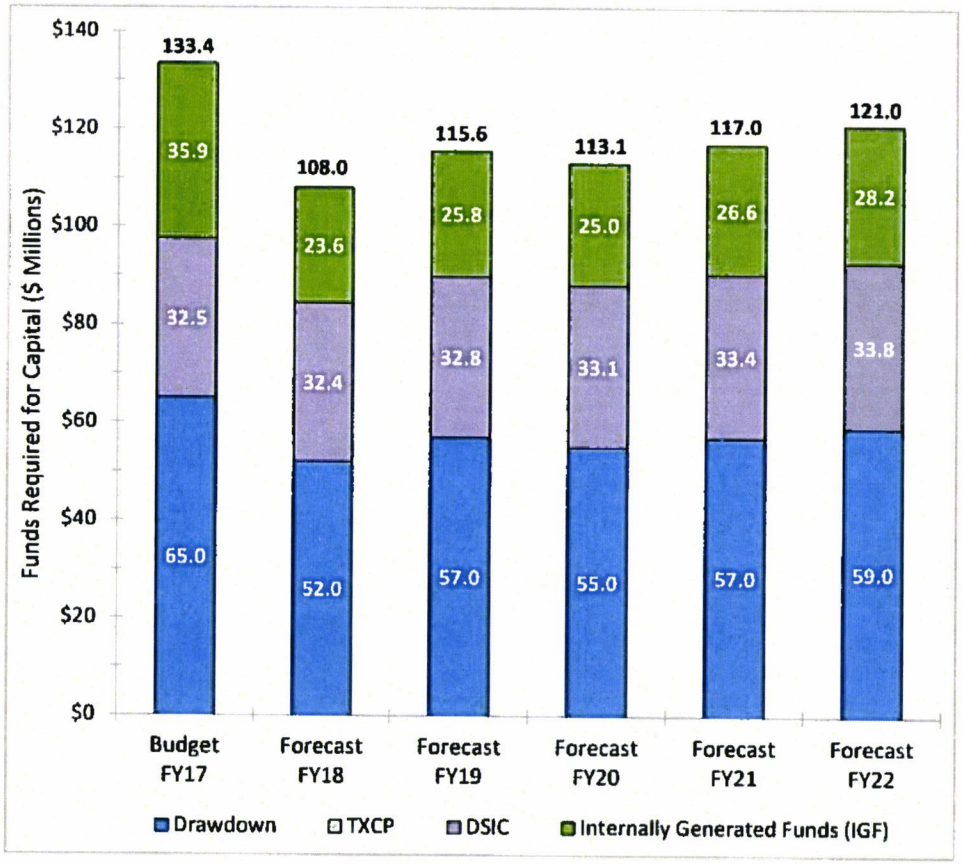
Business Assumptions

- Rolling 24-month collection factor is projected at 96.0% of billed revenues in FY 2017 and throughout the forecasted periods.

	Ending Balances @ 8/31 ($000's) A/R Balance	Bad Debt	Billed Gas Rev. (BGR)	Bad Debt % of BGR
FY 2017	$149,534	$30,654	$622,888	4.92%
FY 2018	$123,970	$30,078	$675,583	4.45%
FY 2019	$120,123	$30,801	$685,600	4.49%
FY 2020	$116,691	$31,544	$695,033	4.54%
FY 2021	$112,655	$32,032	$705,119	4.54%
FY 2022	$108,961	$33,145	$740,667	4.48%

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Funds Required for Capital Expenditures



Business Assumptions

- Capital Spending and the funding sources are forecasted at the following levels:

Capital Funding Sources ($000's)

	Capital Spending	CIF Draw	TXCP Draw	IGF + DSIC Funding
FY 2017	$133,415	$65,000	-	$68,415
FY 2018	$108,020	$52,000	-	$56,020
FY 2019	$115,628	$57,000	-	$58,628
FY 2020	$113,149	$55,000	-	$58,149
FY 2021	$117,009	$57,000	-	$60,009
FY 2022	$120,996	$59,000	-	$61,996

- $270.0 million long-term debt financing issued in March 2017 to support capital expenditures and reduce $71.0 million of outstanding TXCP - Capital.

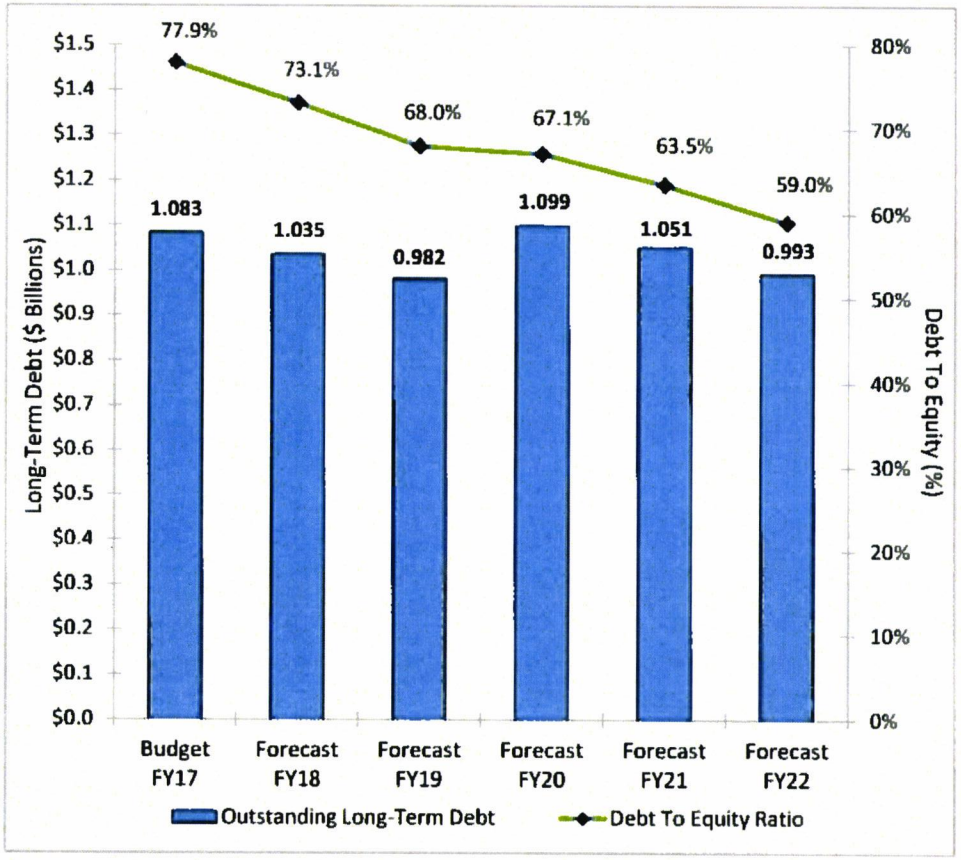
- $180.0 million long-term debt financing issued in March 2020 to support capital expenditures.

Capital Improvement Fund Balance ($000's)

FY 2017	$113,603	includes $270.0 million new bond
FY 2018	$61,864	
FY 2019	$4,742	
FY 2020	$117,435	includes $180.0 million new bond
FY 2021	$60,431	
FY 2022	$1,295	

PHILADELPHIA GAS WORKS
FISCAL YEAR 2017 OPERATING BUDGET & FIVE-YEAR FORECAST

FY17 - FY22 Long-Term Debt and Debt To Equity Ratio



Business Assumptions

- Debt Ratios & City Equity:

Long-Term Debt and City Equity ($ Millions)

	% Debt to Equity	Long-Term Debt	Total Capitalization	City Equity
FY 2017	77.9%	$1,130	$1,451	$321
FY 2018	73.1%	$1,077	$1,474	$397
FY 2019	68.0%	$1,019	$1,498	$479
FY 2020	67.1%	$1,131	$1,685	$554
FY 2021	63.5%	$1,079	$1,701	$622
FY 2022	59.0%	$1,017	$1,724	$707

- Long-Term Debt provided in the aforementioned table includes both unamortized Discount and Premium.
- In FY 2015, the Company retrospectively adopted a new accounting standard, GASB 68. The adoption of this standard resulted in a $147.3 million decrease in City Equity beginning in FY 2013.

Long-Term Debt per Customer

	Avg. # of Customers	($ Millions) LTD	TXCP	$ Debt per Customer
FY 2017	501,804	$1,130	-	$2,252
FY 2018	502,350	$1,077	-	$2,144
FY 2019	502,893	$1,019	-	$2,026
FY 2020	503,428	$1,131	-	$2,247
FY 2021	503,964	$1,079	-	$2,141
FY 2022	504,497	$1,017	-	$2,016

PHILADELPHIA GAS WORKS
STATEMENT OF INCOME
(Dollars in Thousands)

LINE NO.		ACTUAL 2014-15	REVISED COMPLIANCE 2015-16	ESTIMATE 2015-16	BUDGET 2016-17	FORECAST 2017-18	FORECAST 2018-19	FORECAST 2019-20	FORECAST 2020-21	FORECAST 2021-22	INCREASE / (DECREASE) ESTIMATE 2016 VS. ACTUAL 2015 AMOUNT	INCREASE / (DECREASE) ESTIMATE 2016 VS. ACTUAL 2015 %	INCREASE / (DECREASE) BUDGET 2017 VS. ESTIMATE 2016 AMOUNT	INCREASE / (DECREASE) BUDGET 2017 VS. ESTIMATE 2016 %	LINE NO.
	OPERATING REVENUES														
1.	Non-Heating	$ 30,753	$ 26,431	$ 23,693	$ 26,732	$ 26,880	$ 26,071	$ 25,231	$ 24,442	$ 23,706	$ (7,060)	(23.0)	$ 3,039	12.8	1.
2.	Gas Transport Service	39,962	43,872	37,243	45,674	46,771	48,415	49,798	51,099	52,332	(2,719)	(6.8)	8,431	22.6	2.
3.	Heating	618,164	578,682	473,195	530,631	562,215	571,132	579,980	589,543	599,592	(144,969)	(23.5)	57,436	12.1	3.
4.	Revenue Enhancement / Cost Reduction	-	-	-		40,000	40,000	40,000	40,000	65,000	-	-	-	-	4.
5.	Weather Normalization Adjustment	(10,747)	5,952	37,355	5,905	-	-	-	-	-	48,102	(447.6)	(31,450)	(84.2)	5.
6.	Unbilled Adjustment	(2,105)	(196)	(107)	(51)	283	99	77	119	104	1,998	(94.9)	56	(52.3)	6.
7.	Total Gas Revenues	676,027	654,741	571,379	608,891	676,149	685,717	695,086	705,203	740,734	(104,648)	(15.5)	37,512	6.6	7.
8.	Appliance Repair & Other Revenues	8,727	8,431	7,508	8,914	9,003	9,093	9,184	9,276	9,369	(1,219)	(14.0)	1,406	18.7	8.
9.	Other Operating Revenues	12,493	11,616	9,478	13,023	13,303	13,454	13,596	13,747	13,905	(3,015)	(24.1)	3,545	37.4	9.
10.	Total Other Operating Revenues	21,220	20,047	16,986	21,937	22,306	22,547	22,780	23,023	23,274	(4,234)	(20.0)	4,951	29.1	10.
11.	**Total Operating Revenues**	697,247	674,788	588,365	630,828	698,455	708,264	717,866	728,226	764,008	(108,882)	(15.6)	42,463	7.2	11.
	OPERATING EXPENSES														
12.	Natural Gas	252,158	220,857	145,214	176,731	194,457	201,101	207,507	214,781	222,348	(106,944)	(42.4)	31,517	21.7	12.
13.	Other Raw Material	11	10	10	10	10	10	10	10	10	(1)	(9.1)	0	-	13.
14.	Sub-Total Fuel	252,169	220,867	145,224	176,741	194,467	201,111	207,517	214,791	222,358	(106,945)	(42.4)	31,517	21.7	14.
15.	**CONTRIBUTION MARGINS**	**445,078**	**453,921**	**443,141**	**454,087**	**503,988**	**507,153**	**510,349**	**513,435**	**541,650**	**(1,937)**	**(0.4)**	**10,946**	**2.5**	15.
16.	Gas Processing	18,180	15,853	17,229	17,666	17,521	17,837	18,216	18,457	18,857	(951)	(5.2)	437	2.5	16.
17.	Field Services	36,874	38,378	36,570	39,369	40,340	41,299	42,096	42,611	43,456	(304)	(0.8)	2,799	7.7	17.
18.	Distribution	38,629	38,429	38,525	42,154	42,562	43,528	44,358	44,925	45,824	(104)	(0.3)	3,629	9.4	18.
19.	Collection	3,457	3,406	3,224	4,354	4,420	4,519	4,609	4,651	4,695	(233)	(6.7)	1,130	35.0	19.
20.	Customer Service	12,262	13,011	12,583	13,503	13,807	14,126	14,408	14,627	14,919	321	2.6	920	7.3	20.
21.	Account Management	7,735	8,298	7,833	8,399	8,487	8,671	8,844	8,977	9,157	98	1.3	566	7.2	21.
22	Bad Debt Expense	34,833	35,216	29,400	30,654	30,078	30,801	31,544	32,032	33,145	(5,433)	(15.6)	1,254	4.3	22.
23.	Marketing	6,956	4,287	3,973	4,355	4,439	4,538	4,625	4,694	4,785	(2,983)	(42.9)	382	9.6	23.
24	Administrative & General	49,516	58,771	58,023	64,142	62,227	61,782	62,839	63,195	64,272	8,507	17.2	6,119	10.5	24.
25.	Energy Sense Program (DSM)	10,737	10,692	9,759	5,709	5,807	6,078	6,023	6,023	6,023	(978)	(9.1)	(4,050)	(41.5)	25.
26	Health Insurance	51,051	56,409	53,794	59,110	65,259	71,300	77,637	84,541	92,064	2,743	5.4	5,316	9.9	26.
27.	Environmental	-	-	-	-	-	2,045	1,696	927	997	-	-	-	-	27.
28.	Capitalized Fringe Benefits	(8,860)	(10,838)	(10,653)	(11,537)	(11,620)	(12,238)	(12,937)	(13,744)	(14,613)	(1,793)	20.2	(884)	8.3	28.
29	Capitalized Administrative Charges	(9,097)	(12,285)	(11,267)	(15,791)	(12,945)	(13,738)	(13,409)	(14,032)	(15,579)	(2,170)	23.9	(4,524)	40.2	29.
30.	Pensions	43,748	49,092	50,352	50,724	38,463	27,730	23,999	23,287	23,422	6,604	15.1	372	0.7	30.
31.	Taxes	7,823	7,875	7,747	8,232	8,347	8,647	8,821	8,997	9,177	(76)	(1.0)	485	6.3	31.
32.	Other Post Employment Benefits	6,726	5,445	11,341	7,208	2,311	-	-	-	-	4,615	68.6	(4,133)	(36.4)	32.
33.	Cost / Labor Savings	-	(3,142)	-	(2,862)	(2,934)	(3,008)	(3,068)	(3,129)	(3,192)	-	-	(2,862)	-	33.
34.	Sub-Total Other Operating & Maintenance	310,570	318,897	316,433	325,389	316,569	313,917	320,301	327,039	337,409	7,863	2.5	6,956	2.2	34.
35.	Depreciation	46,474	46,654	47,231	48,842	50,596	52,436	54,244	56,019	57,827	757	1.6	1,611	3.4	35.
36.	Cost of Removal	2,897	2,600	3,250	4,100	4,100	4,100	4,100	4,100	4,100	353	12.2	850	26.2	36.
37	To Clearing Accounts	(5,584)	(6,231)	(6,061)	(6,771)	(7,516)	(7,562)	(7,579)	(7,219)	(7,186)	(477)	8.5	(710)	11.7	37.
38.	Net Depreciation	43,787	43,023	44,420	46,171	47,180	48,974	50,765	52,900	54,741	633	1.4	1,751	3.9	38.
39.	Sub-Total Other Operating Expenses	354,357	361,920	362,853	371,560	363,749	362,891	371,066	379,939	392,150	8,496	2.4	8,707	2.4	39.
40.	**TOTAL OPERATING EXPENSES**	606,526	582,787	508,077	548,301	558,216	564,002	578,583	594,730	614,508	(98,449)	(16.2)	40,224	7.9	40.
41	OPERATING INCOME	90,721	92,001	80,288	82,527	140,239	144,262	139,283	133,496	149,500	(10,433)	(11.5)	2,239	2.8	41.
42.	Interest Gain / (Loss) and Other Income	3,784	3,690	1,424	2,893	3,072	2,726	2,922	3,334	2,933	(2,360)	(62.4)	1,469	103.2	42.
43	INCOME BEFORE INTEREST	94,505	95,691	81,712	85,420	143,311	146,988	142,205	136,830	152,433	(12,793)	(13.5)	3,708	4.5	43.
	INTEREST														
44.	Long-Term Debt	45,756	42,249	37,640	42,582	49,577	47,426	49,467	51,614	49,041	(8,116)	(17.7)	4,942	13.1	44.
45.	Other	7,448	1,311	1,430	690	(2,928)	(2,610)	(2,240)	(1,896)	(1,514)	(6,018)	(80.8)	(740)	(51.7)	45.
46.	AFUDC	(781)	(891)	(843)	(1,136)	(920)	(985)	(964)	(997)	(1,030)	(62)	7.9	(293)	34.8	46.
47.	Loss From Extinguishment of Debt	4,100	4,814	4,167	3,776	3,383	3,124	2,841	2,584	2,302	67	1.6	(391)	(9.4)	47.
48.	**Total Interest**	56,523	47,483	42,394	45,912	49,112	46,955	49,104	51,305	48,799	(14,129)	(25.0)	3,518	8.3	48.
49.	**NET INCOME**	**37,982**	**48,208**	**39,318**	**39,508**	**94,199**	**100,033**	**93,101**	**85,525**	**103,634**	**1,336**	**3.5**	**190**	**0.5**	49.
50.	City Payment	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	-	-	-	-	50.
51.	**NET EARNINGS**	$ 19,982	$ 30,208	$ 21,318	$ 21,508	$ 76,199	$ 82,033	$ 75,101	$ 67,525	$ 85,634	$ 1,336	6.7	$ 190	0.9	51.

PHILADELPHIA GAS WORKS
CASH FLOW STATEMENT
(Dollars in Thousands)

LINE NO.		ACTUAL 2014-15	REVISED COMPLIANCE 2015-16	ESTIMATE 2015-16	BUDGET 2016-17	FORECAST 2017-18	FORECAST 2018-19	FORECAST 2019-20	FORECAST 2020-21	FORECAST 2021-22	INCREASE / (DECREASE) ESTIMATE 2016 VS. ACTUAL 2015 AMOUNT	%	INCREASE / (DECREASE) BUDGET 2017 VS. ESTIMATE 2016 AMOUNT	%	LINE NO.
	SOURCES														
1	Net Income	$ 37,982	$ 48,208	$ 39,318	$ 39,508	$ 94,199	$ 100,033	$ 93,101	$ 85,525	$ 103,634	$ 1,336	3.5	$ 190	0.5	1.
2.	Depreciation & Amortization	53,258	46,734	46,892	47,493	48,682	50,579	52,472	54,332	56,239	(6,366)	(12.0)	601	1.3	2.
3.	Earnings on Restricted Funds Withdrawal(No Withdrawal)	7,051	(1,098)	(610)	(1,704)	(1,366)	(1,000)	(1,176)	(1,267)	(1,148)	(7,661)	(108.7)	(1,094)	179.3	3.
4	Proceeds from Bond Refunding to Pay Cost of Issuance	-	-	250	2,700	-	-	500	-	-	250	100.0	2,450	980.0	4.
5.	Increased/(Decreased) Other Assets/Liabilities	23,696	13,068	19,378	13,759	(8,510)	(20,610)	(29,093)	(12,482)	(3,787)	(4,318)	(18.2)	(5,619)	(29.0)	5.
6	Available From Operations	121,987	106,912	105,228	101,756	133,005	129,002	115,804	126,108	154,938	(16,759)	(13.7)	(3,472)	(3.3)	6.
7	Drawdown of Bond Proceeds	-	-	-	65,000	52,000	57,000	55,000	57,000	59,000	-	100.0	65,000	100.0	7.
8.	Grant Income	-	-	-	-	-	-	-	-	-	-	-	-	-	8.
9.	Lease Funds Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-	9.
10	Capitalized Interest	-	-	-	-	-	-	-	-	-	-	-	-	-	10.
11	Release of Restricted Fund Asset	8,562	-	3,223	-	-	-	-	-	-	(5,339)	(62.4)	(3,223)	(100.0)	11.
12.	Release of Bond Proceeds to Pay Temporary Financing	-	-	-	71,000		-	-	-	-	-	-	71,000	100.0	12.
13.	Temporary Financing	30,000	48,600	41,000	-	-	-	-	-	-	11,000	36.7	(41,000)	(100.0)	13.
14.	TOTAL SOURCES	160,549	155,512	149,451	237,756	185,005	186,002	170,804	183,108	213,938	(11,098)	(6.9)	88,305	59.1	14.
	USES														
15.	Net Construction Expenditures	85,499	110,752	98,983	133,415	108,020	115,628	113,149	117,009	120,996	13,484	15.8	34,432	34.8	15.
16.	Funded Debt Reduction:	13,503	-								(13,503)	(100.0)	-	-	16.
17	Revenue Bonds	62,190	48,655	38,215	44,740	47,759	52,812	63,755	47,349	58,464	(23,975)	(38.6)	6,525	17.1	17.
18.	Temporary Financing Repayment	-	-	-	71,000	-	-	-	-	-	-	100.0	71,000	100.0	18.
19.	Distribution of Earnings	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	-	-	-	-	19.
20.	Non-Cash Working Capital	(27,236)	(14,687)	(2,321)	(31,987)	(279)	478	(3,467)	(1,323)	(680)	24,915	(91.5)	(29,666)	1,278.2	20.
21	Cash Needs	151,956	162,720	152,877	235,168	173,500	186,918	191,437	181,035	196,780	921	0.6	82,291	53.8	21.
22.	Cash Surplus (Shortfall)	8,593	(7,208)	(3,426)	2,588	11,505	(916)	(20,633)	2,073	17,158	(12,019)	(139.9)	6,014	(175.5)	22.
23.	TOTAL USES	160,549	155,512	149,451	237,756	185,005	186,002	170,804	183,108	213,938	(11,098)	(6.9)	88,305	59.1	23.
24.	Cash - Beginning of Period	105,734	106,136	114,327	110,901	113,489	124,994	124,078	103,445	105,518	8,593	8.1	(3,426)	(3.0)	24.
25.	Cash - Surplus (Shortfall)	8,593	(7,208)	(3,426)	2,588	11,505	(916)	(20,633)	2,073	17,158	(12,019)	(139.9)	6,014	(175.5)	25.
26.	ENDING CASH	$ 114,327	$ 98,928	$ 110,901	113,489	$ 124,994	$ 124,078	$ 103,445	$ 105,518	$ 122,677	$ (3,426)	(3.0)	$ 2,588	2.3	26.
27.	Outstanding Commercial Paper	-	-	-	-	-	-	-	-	-	-	-	-	-	27.
28.	Outstanding Commercial Paper - Capital	30,000	78,600	71,000	-	-	-	-	-	-	(30,000)	(100.0)	(71,000)	(100.0)	28.
29.	DSIC Revenue	13,764	27,116	22,518	32,541	32,410	32,751	33,089	33,424	33,776	18,777	136.4	10,023	44.5	29.
30.	Internally Generated Funds	31,735	35,036	35,465	35,874	23,610	25,877	25,060	26,585	28,220	4,139	13.0	409	1.2	30.
31.	TOTAL IGF + Incremental DSIC Revenue	45,499	62,152	57,983	68,415	56,020	58,628	58,149	60,009	61,996	22,916	50.4	10,432	18.0	31.

PHILADELPHIA GAS WORKS
DEBT SERVICE COVERAGE
(Dollars in Thousands)

LINE NO.		ACTUAL 2014-15	REVISED COMPLIANCE 2015-16	ESTIMATE 2015-16	BUDGET 2016-17	FORECAST 2017-18	FORECAST 2018-19	FORECAST 2019-20	FORECAST 2020-21	FORECAST 2021-22	INCREASE / (DECREASE) ESTIMATE 2016 VS. ACTUAL 2015 AMOUNT	%	INCREASE / (DECREASE) BUDGET 2017 VS. ESTIMATE 2016 AMOUNT	%	LINE NO.
	FUNDS PROVIDED														
1.	Total Gas Revenues	$ 676,027	$ 654,741	$ 571,379	$ 608,891	$ 676,149	$ 685,717	$ 695,086	$ 705,203	$ 740,734	$ (104,648)	(15.5)	$ 37,512	6.6	1.
2.	Other Operating Revenues	21,220	20,047	16,986	21,937	22,306	22,547	22,780	23,023	23,274	(4,234)	(20.0)	4,951	29.1	2.
3.	Total Operating Revenues	697,247	674,788	588,365	630,828	698,455	708,264	717,866	728,226	764,008	(108,882)	(15.6)	42,463	7.2	3.
4.	Other Income Incr. / (Decr.) Restricted Funds	10,835	2,592	814	1,189	1,706	1,726	1,746	2,067	1,785	(10,021)	(92.5)	375	46.1	4.
5.	City Grant	-	-	-	-	-	-	-	-	-	-	-	-	-	5.
6.	AFUDC (Interest)	781	891	843	1,136	920	985	964	997	1,030	62	7.9	293	34.8	6.
7.	TOTAL FUNDS PROVIDED	708,863	678,271	590,022	633,153	701,081	710,975	720,576	731,290	766,823	(118,841)	(16.8)	43,131	7.3	7.
	FUNDS APPLIED														
8.	Fuel Costs	252,169	220,867	145,224	176,741	194,467	201,111	207,517	214,791	222,358	(106,945)	(42.4)	31,517	21.7	8.
9.	Other Operating Costs	354,357	361,920	362,853	371,560	363,749	362,891	371,066	379,939	392,150	8,496	2.4	8,707	2.4	9.
10.	Total Operating Expenses	606,526	582,787	508,077	548,301	558,216	564,002	578,583	594,730	614,508	(98,449)	(16.2)	40,224	7.9	10.
11.	Less: Non-Cash Expenses	74,535	75,320	78,966	80,727	67,546	58,861	57,080	58,406	60,706	4,431	5.9	1,761	2.2	11.
12.	TOTAL FUNDS APPLIED	531,991	507,467	429,111	467,574	490,670	505,141	521,503	536,324	553,802	(102,880)	(19.3)	38,463	9.0	12.
13.	Funds Available to Cover Debt Service	176,872	170,804	160,911	165,579	210,411	205,834	199,073	194,966	213,021	(15,961)	(9.0)	4,668	2.9	13.
14.	1975 Ordinance Bonds Debt Service	26,904	-	-	-	-	-	-	-	-	(26,904)	(100.0)	-	-	14.
15.	Debt Service Coverage 1975 Bonds	6.57	-	-	-	-	-	-	-	-	(6.57)	(100.0)	-	-	15.
16.	Net Available after Prior Debt Service	149,968	170,804	160,911	165,579	210,411	205,834	199,073	194,966	213,021	10,943	7.3	4,668	2.9	16.
17.	Equipment Leasing Debt Service	-	-	-	-	-	-	-	-	-	-	-	-	-	17.
18.	Net Available after Prior Capital Leases	149,968	170,804	160,911	165,579	210,411	205,834	199,073	194,966	213,021	10,943	7.3	4,668	2.9	18.
19.	1998 Ordinance Bonds Debt Service	70,139	91,175	78,653	82,380	97,619	100,553	99,051	99,274	107,835	8,514	12.1	3,727	4.7	19.
20.	1999 Ordinance Subordinate Bonds Debt Service - (TXCP)	-	1,917	1,917	-	-	-	-	-	-	1,917	100.0	(1,917)	(100.0)	20.
21.	Total 1998 Ordinance Debt Service	70,139	93,092	80,570	82,380	97,619	100,553	99,051	99,274	107,835	10,431	14.9	1,810	2.2	21.
22.	Debt Service Coverage 1998 Bonds	2.14	1.83	2.00	2.01	2.16	2.05	2.01	1.98	1.98	(0.14)	(6.6)	0.01	0.6	22.
23.	Net Available after 1998 Debt Service	79,829	77,712	80,341	83,199	112,792	105,281	100,022	95,692	105,186	512	0.6	2,858	3.6	23.

PHILADELPHIA GAS WORKS
BALANCE SHEET
(Dollars in Thousands)

LINE NO.		ACTUAL 8/31/15	REVISED COMPLIANCE 2015-16	ESTIMATE 8/31/16	BUDGET 8/31/17	FORECAST 8/31/18	FORECAST 8/31/19	FORECAST 8/31/20	FORECAST 8/31/21	FORECAST 8/31/22	INCREASE / (DECREASE) ESTIMATE 2016 VS. ACTUAL 2015 AMOUNT	%	INCREASE / (DECREASE) BUDGET 2017 VS. ESTIMATE 2016 AMOUNT	%	LINE NO.
	ASSETS														
1.	Utility Plant Net	1,232,370	1,302,577	1,284,122	1,368,695	1,426,119	1,489,311	1,548,216	1,609,206	1,672,375	$ 51,752	4.2	$ 84,573	6.6	1.
2.	Sinking Fund Reserve	90,141	107,463	90,748	109,333	110,431	111,540	124,510	125,761	127,024	607	0.7	18,585	20.5	2.
3.	Capital Improvement Fund	-	-	-	113,603	61,864	4,742	117,435	60,431	1,295	-	-	113,603	100.0	3.
4.	Capital Expenditures	-	-	-	-						-	-	-	-	4.
	Workers' Compensation Fund														
5.	& Health Insurance Escrow	5,820	5,850	2,601	2,607	2,614	2,627	2,640	2,660	2,680	(3,219)	(55.3)	6	0.2	5.
6.	Cash	114,327	98,928	110,901	113,489	124,994	124,078	103,445	105,518	122,677	(3,426)	(3.0)	2,588	2.3	6.
	Accounts Receivable:														
7	Gas	182,433	168,523	154,885	148,034	122,445	118,573	115,116	111,055	107,336	(27,548)	(15.1)	(6,851)	(4.4)	7
8.	Other	1,250	4,443	1,500	1,500	1,525	1,550	1,575	1,600	1,625	250	20.0	-	-	8.
9.	Accrued Gas Revenues	5,199	6,676	5,092	5,041	5,324	5,423	5,500	5,619	5,723	(107)	(2.1)	(51)	(1.0)	9.
10.	Reserve for Uncollectible	(102,029)	(111,373)	(92,418)	(90,022)	(66,187)	(64,377)	(63,334)	(61,754)	(60,178)	9,611	(9.4)	2,396	(2.6)	10.
11.	Total Accounts Receivable:	86,853	68,269	69,059	64,553	63,107	61,169	58,857	56,520	54,506	(17,794)	(20.5)	(4,506)	(6.5)	11.
12.	Materials & Supplies	50,908	57,776	46,873	47,005	49,220	50,734	52,002	53,509	54,872	(4,035)	(7.9)	132	0.3	12.
13.	Other Current Assets	460	534	450	455	459	463	467	471	475	(10)	(2.2)	5	1.1	13.
14.	Deferred Debits	13,135	2,833	23,131	4,782	4,987	4,489	4,464	4,348	4,311	9,996	76.1	(18,349)	(79.3)	14.
15.	Unamortized Bond Issuance Expense	3,473	3,181	683	582	510	449	398	352	309	(2,810)	(80.9)	(81)	(12.2)	15.
16.	Unamortized Loss on Reacquired Debt	30,953	33,698	25,347	21,571	18,188	15,065	12,224	9,640	7,339	(5,606)	(18.1)	(3,776)	(14.9)	16.
17	Deferred Environmental	29,609	28,792	28,767	28,767	28,767	26,722	25,026	24,099	23,102	(842)	(2.8)	-	-	17
18.	Deferred Pension Outflows	78,129	47,927	47,928	17,908	-	-	-	-	-	(30,201)	(38.7)	(30,020)	(62.6)	18.
19.	Other Assets	35,503	38,052	41,186	39,720	40,604	42,007	43,378	44,799	46,216	5,683	16.0	(1,466)	(3.6)	19.
20.	TOTAL ASSETS	1,771,681	1,815,880	1,771,776	1,933,070	1,931,864	1,933,396	2,093,062	2,097,314	2,117,181	95	0.0	161,294	9.1	20.
	EQUITY & LIABILITIES														
21.	City Equity	277,984	311,160	299,302	320,810	397,009	479,042	554,143	621,668	707,302	21,318	7.7	21,508	7.2	21.
22.	Revenue Bonds	915,175	890,740	857,615	1,082,875	1,035,116	982,304	1,098,549	1,051,200	992,736	(57,560)	(6.3)	225,260	26.3	22.
	TECA Accrebons	-	-								-		-		
23.	Unamortized Discount	(787)	(2,035)	(877)	(1,613)	(1,502)	(1,395)	(1,292)	(1,192)	(1,094)	(90)	11.4	(736)	83.9	23.
24.	Unamortized Premium	43,360	40,516	54,294	49,013	43,534	38,384	33,617	29,200	25,170	10,934	25.2	(5,281)	(9.7)	24.
25.	Long Term Debt	957,748	929,221	911,032	1,130,275	1,077,148	1,019,293	1,130,874	1,079,208	1,016,812	(46,716)	(4.9)	219,243	24.1	25.
26.	Notes Payable	30,000	78,600	71,000	-	-	-	-	-	-	41,000	136.7	(71,000)	(100.0)	26.
27	City Loan	-	-	-	-						-	-	-	-	27
28.	Accounts Payable	56,027	59,825	53,351	56,084	57,221	57,434	56,011	56,216	56,144	(2,676)	(4.8)	2,733	5.1	28.
29.	Customer Deposits	2,858	2,500	2,900	3,000	2,870	2,747	2,630	2,519	2,413	42	1.5	100	3.4	29.
30.	Other Current Liabilities	6,196	5,173	5,221	4,930	4,932	4,936	4,941	4,946	4,922	(975)	(15.7)	(291)	(5.6)	30.
31.	Pension Liability	239,869	239,476	239,476	237,239	234,362	231,339	228,474	225,432	221,417	(393)	(0.2)	(2,237)	(0.9)	31.
32.	Deferred Credits	7,895	2,405	2,668	2,091	4,497	2,791	2,018	2,084	2,080	(5,227)	(66.2)	(577)	(21.6)	32.
33.	Deferred Pension Inflows	11,653	7,066	7,066	3,876	750	5,118	5,704	5,937	7,591	(4,587)	(39.4)	(3,190)	(45.1)	33.
34	Accrued Interest	6,709	11,591	3,911	10,692	10,409	10,094	14,266	13,956	13,626	(2,798)	(41.7)	6,781	173.4	34
35.	Accrued Taxes & Wages	3,342	5,535	5,451	5,975	4,100	4,631	5,170	5,696	6,228	2,109	63.1	524	9.6	35.
36.	Accrued Distribution to City	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	-	-	-	-	36.
37	Other Liabilities	168,400	160,328	167,398	155,098	135,566	112,971	85,831	76,652	75,646	(1,002)	(0.6)	(12,300)	(7.3)	37
38	TOTAL EQUITY & LIABILITIES	1,771,681	1,815,880	1,771,776	1,933,070	1,931,864	1,933,396	2,093,062	2,097,314	2,117,181	95	0.0	161,294	9.1	38.

		ACTUAL FY 2015	REVISED COMPLIANCE FY 2016	ESTIMATE FY 2016	BUDGET 8/31/17	FORECAST 8/31/18	FORECAST 8/31/19	FORECAST 8/31/20	FORECAST 8/31/21	FORECAST 8/31/22	AMOUNT	%	AMOUNT	%	
	CAPITALIZATION														
39.	Total Capitalization	1,235,732	1,240,381	1,210,334	1,451,085	1,474,157	1,498,335	1,685,017	1,700,876	1,724,114	(25,398)	(2.1)	240,751	19.9	39.
40.	Total Long Term Debt	957,748	929,221	911,032	1,130,275	1,077,148	1,019,293	1,130,874	1,079,208	1,016,812	(46,716)	(4.9)	219,243	24.1	40.
41	Debt to Equity Ratio	77.50%	74.91%	75.27%	77.89%	73.07%	68.03%	67.11%	63.45%	58.98%	(0.02)	(2.9)	0.03	3.5	41.
42	Capitalization Ratio	3.45	2.99	3.04	3.52	2.71	2.13	2.04	1.74	1.44	(0.40)	(11.7)	0.48	15.7	42.
43.	Total Capitalization Excluding Leases	1,235,732	1,240,381	1,210,334	1,451,085	1,474,157	1,498,335	1,685,017	1,700,876	1,724,114	(25,398)	(2.1)	240,751	19.9	43.
44	Total Long Term Debt Excluding Leases	957,748	929,221	911,032	1,130,275	1,077,148	1,019,293	1,130,874	1,079,208	1,016,812	(46,716)	(4.9)	219,243	24.1	44.
45.	Debt to Equity Ratio	0.775	0.749	0.753	0.779	0.731	0.680	0.671	0.635	0.590	(0.02)	(2.9)	0.03	3.5	45.

SECRETARY'S CERTIFICATE

I, MAUREEN WAGNER, Assistant Secretary of **PHILADELPHIA FACILITIES MANAGEMENT CORPORATION**, do hereby certify that the following is a true and correct copy of action taken by the Board of Directors of said corporation by unanimous consent to the adoption of this resolution dated July 27, 2016 pursuant to provisions of Section 5727(b) of the Non-Profit Corporation Law of the Commonwealth of Pennsylvania:

RESOLUTION

APPROVING OPERATING BUDGET FIVE YEAR FORECAST FOR FISCAL YEARS 2018-2022

WHEREAS, pursuant to that certain Management Agreement by and between the City of Philadelphia and the Philadelphia Facilities Management Corporation ("PFMC") dated December 29, 1972, as amended, PFMC is the manager and operator of the Philadelphia Gas Works ("PGW");

WHEREAS, PGW has prepared an Operating Budget Five Year Forecast for Fiscal Years 2018-2022; and

WHEREAS, the Board has reviewed the Operating Budget Five Year Forecast for Fiscal Years 2018-2022 and finds it satisfactory in form and content.

NOW, THEREFORE, BE IT

RESOLVED, that the PFMC Board of Directors approves the Operating Budget Five Year Forecast for Fiscal Years 2018-2022 as proposed by PGW management and authorizes the filing of such forecast with the Philadelphia Gas Commission.

IN WITNESS THEREOF, I have hereunto set my hand and have caused the corporate seal of said Corporation to be hereunto affixed this 27th day of July, 2016.

PHILADELPHIA FACILITIES
MANAGEMENT CORPORATION

By: Maureen Wagner
Maureen Wagner
Assistant Secretary

PHILADELPHIA GAS WORKS
William J. Gallagher • Vice President, Budget & Strategic Development
800 West Montgomery Avenue • Philadelphia, PA 19122
Phone: 215-684-6489 • Fax: 215-684-6575
Email: wgallagher@pgworks.com

October 4, 2016

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

Re: PGW's Fiscal Year 2017 Compliance Operating Budget

Dear Chairman Green:

Enclosed is an original along with seven (7) copies of the schedules that detail the revisions made to PGW's Fiscal Year 2017 Operating Budget. These adjustments reflect the Commission's Motion adopted at the September 20, 2016 meeting.

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

Sincerely,

William J. Gallagher

WJG/mlo'b
Enclosures

cc: All Gas Commissioners
Robert W. Ballenger, Esq.
Philip A. Bertocci, Esq.
Michael A. Bleiweis
Andre C. Dasent, Esq.
Joseph F. Golden, Jr.
Raquel N. Guzmán, Esq.
Daniel E. Leonard, Jr.
Douglas A. Moser
Janet Parrish, Esq.
Craig E. White



PHILADELPHIA GAS WORKS

FISCAL YEAR 2017 COMPLIANCE OPERATING BUDGET

Exhibit A-1-1

PHILADELPHIA GAS WORKS
STATEMENT OF INCOME
(Dollars in Thousands)

Line No.		Actual 2014-15	Budget 2015-16	Estimate 2015-16	Budget 2016-17	Adjustment	Compliance Budget 2016-17	Line No.
	OPERATING REVENUES							
1.	Non-Heating	30,753	26,431	23,693	26,732		26,732	1.
2.	Gas Transportation Service	39,962	43,872	37,243	45,674		45,674	2.
3.	Heating	618,164	578,682	473,195	530,631		530,631	3.
4.	Weather Normalization Adjustment	(10,747)	5,952	37,355	5,905		5,905	4.
5.	Unbilled Gas Adjustment	(2,105)	(196)	(107)	(51)		(51)	5.
6.	Total Gas Revenues	676,027	654,741	571,379	608,891		608,891	6.
7.	Appliance Repair & Other Revenues	8,727	8,431	7,508	8,914		8,914	7.
8.	Other Operating Revenues	12,493	11,616	9,478	13,023		13,023	8.
9.	Total Other Operating Revenues	21,220	20,047	16,986	21,937		21,937	9.
10.	**Total Operating Revenues**	697,247	674,788	588,365	630,828		630,828	10.
	OPERATING EXPENSES							
11.	Natural Gas	252,158	220,857	145,214	176,731		176,731	11.
12.	Other Raw Material	11	10	10	10		10	12.
13.	Sub-Total Fuel	252,169	220,867	145,224	176,741		176,741	13.
14.	**CONTRIBUTION MARGINS**	445,078	453,921	443,141	454,087		454,087	14.
15.	Gas Processing	18,180	15,853	17,229	17,666		17,666	15.
16.	Field Services	36,874	38,378	36,570	39,369		39,369	16.
17.	Distribution	38,629	38,429	38,525	42,154	(464)	41,690	17.
18.	Collection	3,457	3,406	3,224	4,354		4,354	18.
19.	Customer Service	12,262	13,011	12,583	13,503		13,503	19.
20.	Account Management	7,735	8,298	7,833	8,399		8,399	20.
21.	Bad Debt Expense	34,833	35,216	29,400	30,654	(1,340)	29,314	21.
22.	Marketing	6,956	4,287	3,973	4,355		4,355	22.
23.	Administrative & General	60,253	69,463	67,782	69,851	(826)	69,025	23.
24.	Health Insurance	51,051	56,409	53,794	59,110	(805)	58,305	24.
25.	Capitalized Fringe Benefits	(8,860)	(10,838)	(10,653)	(11,537)		(11,537)	25.
26.	Capitalized Administrative Charges	(9,097)	(12,285)	(11,267)	(15,791)		(15,791)	26.
27.	Pensions	43,748	49,092	50,352	50,724		50,724	27.
28.	Taxes	7,823	7,875	7,747	8,232		8,232	28.
29.	Other Post Employement Benefits	6,726	5,445	11,341	7,208		7,208	29.
30.	Labor Savings/ Cost Savings	-	(3,142)	-	-	(2,073)	(2,073)	30.
31.	Sub-Total Other Oper & Maintenance	310,570	318,897	318,433	328,251	(5,508)	322,743	31.
32.	Depreciation	46,474	46,654	47,231	48,842		48,842	32.
33.	Cost of Removal	2,897	2,600	3,250	4,100		4,100	33.
34.	To Clearing Accounts	(5,584)	(6,231)	(6,061)	(6,771)		(6,771)	34.
		43,787	43,023	44,420	46,171		46,171	
35.	Sub-Total Other Oper & Maint. & Depreciation	354,357	361,920	362,853	374,422	(5,508)	368,914	35.
36.	**TOTAL OPERATING EXPENSES**	606,526	582,787	508,077	551,163	(5,508)	545,655	36.
37.	**OPERATING INCOME**	90,721	92,001	80,288	79,665	5,508	85,173	37.
38.	Interest Gain / (Loss) and Other Income	3,784	3,690	1,424	2,893	5	2,898	38.
39.	INCOME BEFORE INTEREST	94,505	95,691	81,712	82,558	5,513	88,071	39.
	INTEREST							
40.	Long-Term Debt	45,756	42,249	37,640	42,582		42,582	40.
41.	Other	7,448	1,311	1,430	690		690	41.
42.	AFUDC	(781)	(891)	(843)	(1,136)		(1,136)	42.
43.	Loss From Extinguishment of Debt	4,100	4,814	4,167	3,776		3,776	43.
44.	Total Interest	56,523	47,483	42,394	45,912		45,912	44.
45.	**NET INCOME**	**37,982**	**48,208**	**39,318**	**36,646**	**5,513**	**42,159**	45.
46.	City Payment	18,000	18,000	18,000	18,000		18,000	46.
47.	**NET EARNINGS**	**19,982**	**30,208**	**21,318**	**18,646**	**5,513**	**24,159**	47.

Exhibit A-1

PHILADELPHIA GAS WORKS
STATEMENT OF INCOME
(Dollars in Thousands)

Line No.		Actual 2014-15	Budget 2015-16	Estimate 2015-16	Budget 2016-17	Adjustment	Compliance Budget 2016-17	Line No.
	OPERATING REVENUES							
1	Non-Heating	30,753	26,431	23,693	26,732		26,732	1
2	Gas Transportation Service	39,962	43,872	37,243	45,674		45,674	2
3	Heating	618,164	578,682	473,195	530,631		530,631	3
4	Weather Normalization Adjustment	(10,747)	5,952	37,355	5,905		5,905	4
5	Unbilled Gas Adjustment	(2,105)	(196)	(107)	(51)		(51)	5
6	Total Gas Revenues	676,027	654,741	571,379	608,891		608,891	6
7	Appliance Repair & Other Service Revenues	8,727	8,431	7,508	8,914		8,914	7
8	Other Operating Revenues	12,493	11,616	9,478	13,023		13,023	8
9	Total Other Revenues	21,220	20,047	16,986	21,937		21,937	9
10	Total Operating Revenues	697,247	674,788	588,365	630,828		630,828	10
	OPERATING EXPENSES							
11	Natural Gas	252,158	220,857	145,214	176,731		176,731	11
12	Other Raw Material	11	10	10	10		10	12
13	Sub-Total Fuel	252,169	220,867	145,224	176,741		176,741	13
14	Contribution Margins	445,078	453,921	443,141	454,087		454,087	14
15	Labor & Fringe Benefits	203,067	214,429	211,360	223,735	(2,825) a)	220,910	15
16	Bad Debt Expense	34,833	35,216	29,400	30,654	(1,340) b)	29,314	16
17	Other Expenses & Depreciation	116,457	112,275	122,093	120,033	(1,343) c)	118,690	17
18	Sub-Total Other O&M & Depreciation	354,357	361,920	362,853	374,422	(5,508)	368,914	18
19	Total Operating Expenses	606,526	582,787	508,077	551,163	(5,508)	545,655	19
20	**Operating Income**	90,721	92,001	80,288	79,665	5,508	85,173	20
21	Interest Gain / (Loss) and Other Income	3,784	3,690	1,424	2,893	5 d)	2,898	21
22	Income Before Interest	94,505	95,691	81,712	82,558	5,513	88,071	22
	INTEREST							
23	Long Term Debt	45,756	42,249	37,640	42,582		42,582	23
24	Other Interest	7,448	1,311	1,430	690		690	24
25	AFUDC	(781)	(891)	(843)	(1,136)		(1,136)	25
26	Loss from Extinguishment of Debt	4,100	4,814	4,167	3,776		3,776	26
27	Total Interest	56,523	47,483	42,394	45,912	-	45,912	27
28	**Net Income**	**37,982**	**48,208**	**39,318**	**36,646**	**5,513**	**42,159**	28
29	City Payment	18,000	18,000	18,000	18,000		18,000	29
30	**Net Earnings**	**19,982**	**30,208**	**21,318**	**18,646**	**5,513**	**24,159**	30

Exhibit A-2

PHILADELPHIA GAS WORKS
CASH FLOW STATEMENT
(Dollars in Thousands)

Line No.		Actual 2014-15	Budget 2015-16	Estimate 2015-16	Budget 2016-17	Adjustment	Compliance Budget 2016-17	Line No.
	SOURCES							
1	Net Income	37,982	48,208	39,318	36,646	5,513 e)	42,159	1
2	Depreciation & Amortization	53,258	46,734	46,892	47,493		47,493	2
3	Earnings on Restricted Funds	7,051	(1,098)	(610)	(1,704)		(1,704)	3
4	Proceeds from Bond Refunding to Pay Cost of Issuance	-	-	250	2,700		2,700	4
5	Increased/(Decreased) Other Assets/Liabilities	23,696	13,068	19,378	13,759		13,759	5
6	Available From Operations	121,987	106,912	105,228	98,894	5,513	104,407	6
7	Drawdown of Bond Proceeds				65,000		65,000	7
8	Grant Income	-	-	-	-			8
9	Release of Sinking Fund Asset	8,562	-	3,223	-			9
10	Release of Bond Proceeds to Pay Temporary Financing	-	-	-	71,000		71,000	10
11	Temporary Financing	30,000	48,600	41,000	-			11
12	**TOTAL SOURCES**	**160,549**	**155,512**	**149,451**	**234,894**	**5,513**	**240,407**	12
	USES							
13	Net Construction Expenditures	85,499	110,752	98,983	133,415		133,415	13
14	Funded Debt Reduction:	13,503	-	-	-			14
15	Revenue Bonds	62,190	48,655	38,215	44,740		44,740	15
16	Revenue Bonds Subordinate Debt	-	-	-	-			16
19	Temporary Financing Repayment	-	-	-	71,000		71,000	19
20	Distribution of Earnings	18,000	18,000	18,000	18,000		18,000	20
	Additions to (Reductions of)							
21	Non-Cash Working Capital	(27,736)	(14,687)	(2,321)	(31,987)		(31,987)	21
22	Cash Needs	137,953	162,720	152,877	235,168		235,168	22
23	Cash Surplus (Shortfall)	22,596	(7,208)	(3,426)	(274)	5,513	5,239	23
24	**TOTAL USES**	**160,549**	**155,512**	**149,451**	**234,894**	**5,513**	**240,407**	24
25	Cash - Beginning of Period	105,734	106,136	114,327	110,901		110,901	25
26	Cash - Surplus (Shortfall)	8,593	(7,208)	(3,426)	(274)	5,513	5,239	26
27	**Ending Cash**	**114,327**	**98,928**	**110,901**	**110,627**	**5,513**	**116,140**	27
28	Outstanding Commercial Paper - Working Capital	-	-	-	-			28
29	Outstanding Commercial Paper - Capital	30,000	78,600	71,000	-			29
30	Incremental DSIC Revenue	13,764	27,116	22,518	32,541		32,541	30
31	Internally Generated Funds	31,735	35,036	35,465	35,874		35,874	31
32	**TOTAL IGF + Incremental DSIC Revenue**	45,499	62,152	57,983	68,415		68,415	32

Exhibit A-3

PHILADELPHIA GAS WORKS
DEBT SERVICE COVERAGE
(Dollars in Thousands)

Line No.		Actual 2014-15	Budget 2015-16	Estimate 2015-16	Budget 2016-17	Adjustment	Compliance Budget 2016-17	Line No.
	FUNDS PROVIDED							
1.	Total Gas Revenues	$676,027	$654,741	$571,379	$608,891		608,891	1.
2.	Other Operating Revenues	21,220	20,047	16,986	21,937		21,937	2.
3.	Total Operating Revenues	697,247	674,788	588,365	630,828		630,828	3.
4.	Other Income Inc. / (Dec.) Restricted Funds	10,835	2,592	814	1,189	5 d)	1,194	4.
5.	AFUDC (Interest)	781	891	843	1,136		1,136	5.
6.	**TOTAL FUNDS PROVIDED**	$708,863	$678,271	$590,022	$633,153	$5	633,158	6.
	FUNDS APPLIED							
7.	Fuel Costs	$252,169	$220,867	$145,224	$176,741		176,741	7.
8.	Other Operating Costs	354,357	361,920	362,853	374,422	(5,508) f)	368,914	8.
9.	Total Operating Expenses	606,526	582,787	508,077	551,163	(5,508)	545,655	9.
10.	Less: Non-Cash Expenses	74,535	75,320	78,966	80,727		80,727	10.
11.	**TOTAL FUNDS APPLIED**	$531,991	$507,467	$429,111	$470,436	($5,508)	464,928	11.
12.	Funds Available to Cover Revenue Bond Debt	176,872	170,804	160,911	162,717	5,513	168,230	12.
13.	1975 Ordinance Bonds Debt Service	$26,904	-	-	-			13.
14.	**Debt Service Coverage 1975 Revenue Bonds**	**6.57**	-	-	-			14.
15.	Net Available after Prior Debt Service	$149,968	$170,804	$160,911	$162,717	$5,513	168,230	15.
16.	Equipment Leasing Debt Service	-	-	-	-			16.
17.	Net Available After Prior Capital Leases	149,968	170,804	160,911	162,717	5,513	168,230	17.
18.	1998 Ordinance Bonds Debt Service	$70,139	$91,175	78,653	82,380		82,380	18.
19.	1999 Ordinance Subordinate Bonds Debt Service - (TXC	-	1,917	1,917	-			19.
20.	Total New Debt Service	$70,139	$93,092	$80,570	$82,380		82,380	20.
21.	**Debt Service Coverage 1998 Revenue Bonds**	**2.14**	**1.83**	**2.00**	**1.98**	**0.06**	**2.04**	**21.**
22.	**Net Available After 1998 Debt Service**	**$79,829**	**$77,712**	**$80,341**	**$80,337**	**$5,513**	**85,850**	**22.**
23.	**Aggregate Debt Service (Combined Liens)**	$97,043	$93,092	$80,570	$82,380		82,380	23.
24.	**Fixed Coverage Charge (Combined Liens)**	**1.82**	**1.83**	**2.00**	**1.98**	0.06	**2.04**	24.
25.	**Fixed Coverage Charge including $18.0MM City Fee**	**1.64**	**1.64**	**1.77**	**1.76**	0.06	**1.82**	25.

Exhibit A-4

PHILADELPHIA GAS WORKS
BALANCE SHEET
(Dollars in Thousands)

Line No.		Actual 2014-15	Budget 2015-16	Estimate 2015-16	Budget 2016-17	Adjustment	Compliance Budget 2016-17	Line No.
	ASSETS							
1.	Utility Plant Net	$1,232,370	$1,302,577	$1,284,122	$1,368,695		1,368,695	1.
2.	Sinking Fund Reserve	90,141	107,463	90,748	109,333		109,333	2.
3.	Capital Improvement Fund	-	-	-	113,603		113,603	3.
4.	Capital Expenditures	-	-	-	-		0	4.
5.	Restricted Investment Worker Comp Fund & Health Insurance Escrow	5,820	5,850	2,601	2,607		2,607	5
6.	Cash	114,327	98,928	110,901	110,627	5,513	116,140	6.
	Accounts Receivable:							
7.	Gas Receivable	182,433	188,523	154,885	148,034		148,034	7.
8.	Other	1,250	4,443	1,500	1,500		1,500	8.
9.	Accrued Gas Revenues	5,199	6,676	5,092	5,041		5,041	9.
10.	Reserve for Uncollectible	(102,029)	(111,373)	(92,418)	(90,022)		(90,022)	10.
11.	Accounts Receivable Net	86,853	88,269	69,059	64,553		64,553	11.
12.	Materials & Supplies	50,908	57,776	46,873	47,005		47,005	12.
13.	Other Current Assets	460	534	450	455		455	13.
14.	Deferred Debits	13,135	2,833	23,131	4,782		4,782	14.
15.	Unamortized Bond Issuance Expense	3,473	3,181	663	582		582	15.
16.	Unamortized Extraordinary Loss	30,953	33,698	25,347	21,571		21,571	16.
17.	Deferred Environmental	29,609	28,792	28,767	28,767		28,767	17.
18.	Deferred Pension Outflows	78,129	47,927	47,928	17,908		17,908	18.
19.	Other Assets	35,503	38,052	41,186	39,720		39,720	19.
20.	TOTAL ASSETS	$1,771,681	$1,815,880	$1,771,776	$1,930,208	$5,513	$1,935,721	20.
	EQUITY & LIABILITIES							
21.	City Equity	$277,984	$311,160	$299,302	$317,948	5,513	323,461	21.
	Long Term Debt:							
22.	Revenue Bonds	915,175	890,740	857,615	1,082,875		1,082,875	22.
23.	Unamortized Discount	(787)	(2,035)	(877)	(1,613)		(1,613)	23.
24.	Unamortized Premium	43,360	40,516	54,294	49,013		49,013	24.
25.	Notes Payable	30,000	78,600	71,000	-		0	25.
	Accounts Payable:							
26.	Natural Gas	9,713	14,140	8,586	11,436		11,436	26.
27.	General	46,314	45,685	44,765	44,648		44,648	27.
28.	Customer Deposits	2,858	2,500	2,900	3,000		3,000	28.
29.	Other Current Liabilities	6,196	5,173	5,221	4,930		4,930	29.
30.	Pension Liability	239,869	239,476	239,476	237,239		237,239	30.
31.	Deferred Credits	7,895	2,405	2,668	2,091		2,091	31.
32.	Deferred Pension Inflows	11,653	7,066	7,066	3,876		3,876	32.
	Accrued Credits:							
33.	Interest	6,709	11,591	3,911	10,692		10,692	33.
34.	Taxes & Wages	3,342	5,535	5,451	5,975		5,975	34.
35.	Distribution to City	3,000	3,000	3,000	3,000		3,000	35.
36.	Other Liabilities	168,400	160,328	167,398	155,098		155,098	36.
37.	TOTAL EQUITY & LIABILITIES	$1,771,681	$1,815,880	$1,771,776	$1,930,208	$5,513	$1,935,721	37.
38.	Debt to Equity	77.5%	74.9%	75.3%	78.0%	-0.3%	77.7%	38.

Philadelphia Gas Works
Fiscal Year 2017
Operating Budget Adjustments

Statement of Income

a) The $2,825,000 overall decrease in Labor and Fringe Benefit expenses primary reflects the impact of reducing personnel levels and associated payroll taxes from 1,690 FTEs to 1,650 FTEs and other related healthcare benefit expenses. The breakdown of the savings is as follows:

- $2,862,000 decrease in regular labor expenses:
  - (40.0 FTEs @ $71,550 annual salary);
- $805,000 decrease in healthcare benefit expenses;
- $219,000 decrease in payroll taxes:
  - (2,862,000 Labor Savings @ 6.20% FICA Rate);
  - (2,862,000 Labor Savings @ 1.45% Medicare Rate);
- $887,000 increase in retirement benefit allocation expenses;
- $121,000 increase in vacation cash-out program expenses;
- $53,000 increase in the Internal Auditing Department's labor expenses resulting from the increase of 1.0 FTE to replace eliminated contractor expenses.

b) The $1,340,000 overall decrease in Bad Debt Expense reflects an increase in the collection rate from 96% to 97%.

c) The $1,343,000 overall decrease in Other Expenses and Depreciation costs reflects the following expenditure adjustments:

- $464,000 decrease in the Distribution Department's purchase services budget relating to the External Corrosion Direct Assessment program (ECDA);
- $414,000 decrease in the PFMC's purchase services budget relating to the removal of unforeseen independent analyses;
- $396,000 decrease in the Internal Auditing Department's purchase services budget relating to contractor expenses;
- $100,000 decrease in the Administrative Consulting purchase services budget relating to building consolidation;
- $50,000 decrease in the Corporate Communication Department's advertising budget relating to the Landlord Cooperation program;
- $43,000 decrease in the Administrative Consulting purchase services budget relating to energy consultant expenses;
- $33,000 decrease in the Corporate Communication Department's equipment rental budget;
- $31,000 decrease in the Administrative Consulting purchase services budget reflecting the removal of double counted costs associated with asset management financial services.

Philadelphia Gas Works
Fiscal Year 2017
Operating Budget Adjustments

- $188,000 upward adjustment to budgeted outside legal counsel for Special Legal projects.

d) The $5,000 increase in Other Income represents additional earnings on increased investable cash balances associated with lower operating and maintenance expenses.

Cash Flow Statement

e) Net income increased by $5,513,000 reflecting increased earnings.

Debt Service Coverage

f) Operating expenses are anticipated to decrease reflecting previously mentioned adjustments.

II. RATE OF RETURN

II.A.14. Describe long-term debt reacquisitions by Company and Parent as follows:

II.A.14.a. Reacquisitions by issue by year.

II.A.14.b. Total gain on reacquisitions by issue by year.

II.A.14.c. Accounting of gain for income tax and book purposes.

RESPONSE:

PGW does not have any long-term debt reacquisitions.

II. RATE OF RETURN

II.A.15. Set forth amount of compensating bank balances required under each of the following rate base bases:

II.A.15.a. Annualized test year operations.

II.A.15.b. Operations under proposed rates.

RESPONSE:

PGW does not have compensating bank balances under either scenario.

II. RATE OF RETURN

II.A.16. Provide the following information concerning compensating bank balance requirements for actual test year:

II.A.16.a. Name of each bank.

II.A.16.b. Address of each bank.

II.A.16.c. Types of accounts with each bank (checking, savings, escrow, other services, etc.).

II.A.16.d. Average Daily Balance in each account.

II.A.16.e. Amount and percentage requirements for compensating bank balance at each bank.

II.A.16.f. Average daily compensating bank balance at each bank.

II.A.16.g. Documents from each bank explaining compensating bank balance requirements.

II.A.16.h. Interest earned on each type of account.

RESPONSE:

Please see the response to II.A.15.

II. RATE OF RETURN

II.A.17. Provide the following information concerning bank notes payable for actual test year:

II.A.17.a. Line of Credit at each bank.

II.A.17.b. Average daily balances of notes payable to each bank, by name of bank.

II.A.17.c. Interest rate charged on each bank note (Prime rate, formula rate or other).

II.A.17.d. Purpose of each bank note (e.g., construction, fuel storage, working capital, debt retirement).

II.A.17.e. Prospective future need for this type of financing.

RESPONSE:

PGW does not have any bank notes payable for the actual test year.

II. RATE OF RETURN

II.A.18. Set forth amount of total cash (all cash accounts) on hand from balance sheets for last 24-calendar months preceding test year-end.

RESPONSE:

PHILADELPHIA GAS WORKS
MONTHLY CASH BALANCES

FY	Month	Account 131 $	Account 136 $	Account 135 $	Total $
2016	August*	4,422,416	84,530,278	79,488	89,032,182
2016	July	3,305,574	121,013,460	66,913	124,385,947
2016	June	11,112,370	123,983,032	45,837	135,141,239
2016	May	2,091,590	130,415,615	75,399	132,582,604
2016	April	5,428,782	124,396,237	88,300	129,913,319
2016	March	7,567,028	107,354,308	62,587	114,983,923
2016	February	6,977,435	77,108,429	61,999	84,147,863
2016	January	3,166,059	75,586,680	57,904	78,810,644
2016	December	566,779	72,526,561	53,379	73,146,719
2016	November	2,076,079	73,039,687	53,015	75,168,782
2016	October	(331,794)	80,552,814	58,967	80,279,987
2016	September	1,312,108	93,045,813	63,703	94,421,625
2015	August	2,200,983	112,067,806	57,906	114,326,696
2015	July	592,469	136,459,840	67,839	137,120,148
2015	June	983,382	162,447,947	53,667	163,484,996
2015	May	4,581,318	154,933,582	65,852	159,580,751
2015	April	2,626,834	142,011,154	69,497	144,707,484
2015	March	5,983,204	116,728,832	74,889	122,786,925
2015	February	16,297,892	67,917,818	69,988	84,285,698
2015	January	13,552,184	56,911,497	66,756	70,530,437
2015	December	10,590,488	56,908,930	70,703	67,570,121
2015	November	1,696,151	69,402,915	69,526	71,168,592
2015	October	2,579,965	77,397,125	77,484	80,054,574
2015	September	4,246,890	95,387,242	55,188	99,689,320

*Subject to Audit

II. RATE OF RETURN

II.A.19. Submit details on Company or Parent common stock offerings (past 5 years to present) as follows:

II.A.19.a. Date of Prospectus

II.A.19.b. Date of offering

II.A.19.c. Record date

II.A.19.d. Offering period—dates and number of days

II.A.19.e. Amount and number of shares of offering

II.A.19.f. Offering ratio (if rights offering)

II.A.19.g. Percent subscribed

II.A.19.h. Offering price

II.A.19.i. Gross proceeds per share

II.A.19.j. Expenses per share

II.A.19.k. Net proceeds per share (i-j)

II.A.19.l. Market price per share

II.A.19.l.1. At record date

II.A.19.1.2. At offering date

II.A.19.1.3. One month after close of offering

II.A.19.m. Average market price during offering

II.A.19.m.1. Price per share

II.A.19.m.2. Rights per share—average value of rights

II.A.19.n. Latest reported earnings per share at time of offering

II.A.19.o. Latest reported dividends at time of offering

II. RATE OF RETURN

RESPONSE: Not applicable.

II. RATE OF RETURN

II.A.20. Provide latest available balance sheet and income statement for Company, Parent and System (consolidated).

RESPONSE:

Please see attached.

UNAUDITED
PHILADELPHIA GAS WORKS
(A Component Unit of the City of Philadelphia)
Statements of Revenues and Expenses and Changes in Net Position
Years ended December 31, 2016 and 2015
(Thousands of U.S. dollars)

Line No.	FY2016 Actual		FY2017 Actual	FY2017 Budget	Increase/(Decrease) Actual FY2017 vs Budget Amount	Increase/(Decrease) Actual FY2017 vs Budget %
		Operating revenues:				
		Gas revenues:				
1	$ 6,660	Non-heating	$ 6,295	$ 8,197	$ (1,902)	(23)
2	11,636	Gas transport service	14,558	14,513	45	-
3	132,629	Heating	175,923	173,655	2,268	1
4	150,925	Total gas revenues	196,776	196,365	411	-
5	2,687	Appliance and other revenues	2,819	3,825	(1,006)	(26)
6	2,597	Other operating revenues	2,516	3,429	(913)	(27)
7	156,209	Total operating revenues	202,111	203,619	(1,508)	(1)
		Operating expenses:				
8	46,732	Natural gas	55,486	58,721	(3,235)	(6)
9	5,002	Gas processing	5,196	5,467	(271)	(5)
10	11,943	Field services	12,923	13,367	(444)	(3)
11	11,243	Distribution	13,046	12,952	94	1
12	2,927	Collection and account management	3,551	4,260	(709)	(17)
13	11,215	Provision for uncollectible accounts	9,726	9,726	-	-
14	4,047	Customer services	4,273	4,547	(274)	(6)
15	1,252	Marketing	1,223	1,410	(187)	(13)
16	31,856	Administrative and general	29,492	35,706	(6,214)	(17)
17	16,033	Pensions	17,284	16,908	376	2
18	1,816	Other post-employment benefits	2,403	2,403	-	-
19	2,589	Taxes	2,645	2,719	(74)	(3)
20		Labor Savings		(691)	691	-
21	146,655	Total operating expenses before depreciation	157,248	167,495	(10,247)	(6)
22	16,572	Depreciation	17,437	17,648	(211)	-
23	1,923	Less depreciation expense included in operating expenses above	1,586	2,256	(670)	(30)
24	14,649	Net depreciation	15,851	15,392	459	3
25	161,304	Total operating expenses	173,099	182,887	(9,788)	(5)
26	(5,095)	Operating income	29,012	20,732	8,280	40
27	252	Interest and other income	426	548	(122)	(22)
28	(4,843)	Income before interest expense	29,438	21,280	8,158	38
		Interest expense:				
29	13,466	Long-term debt	13,770	11,940	1,830	15
30	1,777	Other	765	1,573	(808)	(51)
31	(269)	Allowance for funds used during construction	(478)	(294)	(184)	63
32	14,974	Total interest expense	14,057	13,219	838	6
33	(6,000)	Distribution to the City of Philadelphia	(6,000)	(6,000)	-	-
34	$ (25,817)	Excess of revenues over expenses	$ 9,381	$ 2,061	7,320	355
35	277,984	Net position, beginning of year	288,038	288,038		
36	$ 252,167	Net position, end of year	$ 297,419	$ 290,099		

PHILADELPHIA GAS WORKS
(A Component Unit of the City of Philadelphia)
Balance Sheets
December 31, 2016 and 2015
(Thousands of U.S. dollars)

Line No.	Assets	2016	2015
	Current assets:		
1	Cash and cash equivalents	$ 52,489	73,147
2	Cash designated for capital expenditures	-	-
3	Accounts receivable (net of provision for uncollectible accounts of $63,677 and $94,180 for 2016 and 2015, respectively)	139,527	100,786
4	Gas inventories, materials, and supplies	48,963	55,826
5	Capital improvement fund	-	-
6	Workers' compensation escrow fund	2,605	2,597
7	Health insurance escrow fund	-	-
8	Other current assets	31,068	21,077
9	Total current assets	274,652	253,433
	Non-current assets:		
	Utility plant, at original cost:		
10	In service	2,178,632	2,093,113
11	Under construction	105,617	90,507
12	Total	2,284,249	2,183,620
13	Less accumulated depreciation	983,826	940,625
14	Utility plant, net	1,300,423	1,242,995
15	Unamortized bond insurance costs	468	3,375
16	Sinking fund, revenue bonds	86,924	90,269
17	Other non-current assets	34,684	37,562
18	Total non-current assets	1,422,499	1,374,201
19	Total assets	1,697,151	1,627,634
	Deferred outflows of resources		
20	Accumulated fair value of hedging derivatives	15,237	21,421
21	Unamortized losses on reacquired debt	54,025	35,062
22	Deferred outflows related to pension	88,043	78,129
23	Total assets and deferred outflows of resources	$ 1,854,456	1,762,246

PHILADELPHIA GAS WORKS
(A Component Unit of the City of Philadelphia)
Balance Sheets
December 31, 2016 and 2015
(Thousands of U.S. dollars)

Line No.	Liabilities and Net Position	2016	2015
	Current liabilities:		
1	Current portion of revenue bonds	$ 62,871	51,246
2	Notes payable	70,916	30,000
3	Accounts payable	66,662	53,291
4	Customer deposits	3,528	3,299
5	Other current liabilities	18,605	15,716
6	Accrued accounts:		
7	Interest, taxes, and wages	18,122	18,695
8	Distribution to the City	9,000	9,000
9	Total current liabilities	249,704	181,247
	Non-current liabilities:		
10	Long-term revenue bonds	857,187	904,888
11	Other non-current liabilities	145,855	164,049
12	Net pension liabilities	296,093	239,869
13	Total non-current liabilities	1,299,135	1,308,806
14	Total liabilities	1,548,839	1,490,053
	Deferred inflows of resources		
15	Deferred inflows related to pension	8,198	20,026
16	Total liabilities and deferred inflows of resources	1,557,037	1,510,079
	Net position:		
17	Net investment in capital assets	380,366	286,861
18	Restricted (debt service)	89,527	92,867
19	Unrestricted	(172,474)	(127,561)
20	Total net position	297,419	252,167
21	Total liabilities and deferred inflows of resources	$ 1,854,456	1,762,246

II. RATE OF RETURN

II.A.21. Provide Original Cost, Trended Original Cost and Fair Value rate base claims.

RESPONSE: Not applicable.

II. RATE OF RETURN

II.A.22. Provide Operating Income claims under:

II.A.22.(i) Present rates

II.A.22.(ii) Pro forma present rates (annualized & normalized)

II.A.22.(iii) Proposed rates (annualized & normalized)

RESPONSE:

Please see the response provided to Exh. A - III.A.17.

II.A.22.b. Provide Rate of Return on Original Cost and Fair Value claims under:

II.A.22.b.(i) Present rates

II.A.22.b.(ii) Pro forma present rates

II.A.22.b.(iii) Proposed rates

RESPONSE: Not Applicable.

II. RATE OF RETURN

II.A.23. List details and sources of ''Other Property and Investment,'' ''Temporary Cash Investments'' and ''Working Funds'' on test year-end balance sheet.

RESPONSE:

Major items in FERC Account 121 – Non-Utility Property, FERC Account 124 – Other Investments, FERC Account 135 – Working Funds, and FERC Account 136 – Temporary Cash Investments as of August 31, 2016, are detailed below:

FERC Account 121 – Non-Utility Property
Zero

FERC Account 124 – Other Investments
Zero

FERC Account 135 – Working Funds
$69,250

FERC Account 136 - Temporary Cash Investments
$84,529,998

II. RATE OF RETURN

II.A.24. Attach chart explaining Company's corporate relationship to its affiliates (System Structure).

RESPONSE: Not applicable

II. RATE OF RETURN

II.A.25. If the utility plans to make a formal claim for a specific allowable rate of return, provide the following data in statement or exhibit form:

II.A.25.a. Claimed capitalization and capitalization ratios with supporting data.

II.A.25.b. Claimed cost of long-term debt with supporting data.

II.A.25.c. Claimed cost of short-term debt with supporting data.

II.A.25.d. Claimed cost of total debt with supporting data.

II.A.25.e. Claimed cost of preferred stock with supporting data.

II.A.25.f. Claimed cost of common equity with supporting data.

RESPONSE: Not applicable.

II. RATE OF RETURN

II.A.26. Provide the following income tax data:

II.A.26.a. Consolidated income tax adjustments, if applicable.

II.A.26.b. Interest for tax purposes (basis).

RESPONSE: Not applicable.

II. RATE OF RETURN

C. GAS UTILITIES ONLY, IN ADDITION TO PROVIDING THE INFORMATION REQUESTED IN "A." HEREINABOVE:

II.C.1. Provide test year monthly balances for "Current Gas Storage" and notes financing such storage.

RESPONSE:

The following volumes are in dekatherms (Dths). We do not finance storage therefore, there are no notes.

TEST YEAR

MONTH	LNG	STORAGES
September	2,031,381	13,297,401
October	2,178,011	14,979,880
November	2,418,156	14,612,162
December	2,586,649	12,201,881
January	2,430,625	7,109,950
February	2,246,217	3,335,890
March	2,451,287	410,095
April	2,631,590	1,446,083
May	2,661,278	4,013,356
June	2,511,657	6,522,863
July	2,352,316	8,990,604
August	2,192,975	11,387,031

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.1. Provide a comparative balance sheet for the test year and the preceding year which corresponds with the test year date.

RESPONSE:

PHILADELPHIA GAS WORKS
BALANCE SHEET
(Dollars in Thousands)

ASSETS	Actual 2015	Actual 2016	Budget 2017	Forecast 2018
Utility plant Net	$ 1,232,370	1,284,810	1,368,600	1,427,014
Sinking Fund Reserve	90,141	86,652	105,196	106,253
Capital Improvement Funds	-	-	113,603	61,864
Restricted investment (Escrow Health Insurance)	3,223	-	-	-
Restricted investment Workers' Compensation	2,597	2,603	2,610	2,616
Debt Reduction funding	-	-	-	-
Cash	114,327	91,743	105,800	47,439
Gas Receivable	182,433	142,435	136,100	133,168
Other Receivable	1,250	2,046	1,500	1,525
Accrued Gas Revenues	5,199	3,368	5,041	5,356
Reserve for Uncollectible	(102,029)	(74,286)	(71,890)	(70,484)
Accounts Receivable	86,853	73,563	70,751	69,565
Materials and Supplies	50,908	47,891	47,005	49,220
Other Current Assets and Deferred Debits	13,596	31,017	5,237	5,446
Unamortized Bond Issuance Cost	3,473	512	393	341
Unamortized Loss-Reacquired debt	37,471	57,175	47,865	42,199
Deferred Pension Outflows	-	-	41,908	13,952
Deferred Environmental	29,609	28,425	28,767	28,767
Other Assets	107,113	109,170	39,720	40,604
TOTAL ASSETS	$ 1,771,681	$ 1,813,561	$ 1,977,455	$ 1,895,280

III. BALANCE SHEET AND OPERATING STATEMENT

PHILADELPHIA GAS WORKS
BALANCE SHEET
(Dollars in Thousands)

EQUITY & LIABILITIES	**Actual 2015**	**Actual 2016**	**Budget 2017**	**Forecast 2018**
City Equity	$ 277,984	$ 288,038	30,427	40,931
Revenue Bonds	915,175	837,830	1,073,041	1,021,208
TECA Accretions	-	-	-	-
Unamortized Discount/Premium	37,759	78,580	77,792	68,478
Unamortized Premium				
Long Term Debt	957,749	926,423	1,150,833	1,089,686
Notes Payable	30,000	71,000	-	-
City Loan	-	-	-	-
Accounts Payable	56,027	55,870	56,084	57,221
Customer Deposits	2,858	3,308	3,000	2,870
Other Current Liabilities	14,091	13,791	4,930	4,932
Pension Liability	-	-	291,253	285,870
Deferred Credits	-	-	2,091	4,497
Accrued Interest, Taxes, Wages	10,051	6,417	21,539	18,939
Deferred Pension Inflows	-	-	-	-
Accrued Distribution to City	3,000	3,000	3,000	3,000
Other Liabilities	419,921	445,714	414,298	387,334
TOTAL EQUITY & LIABILITIES	$ 1,771,681	$ 1,813,561	$ 1,977,455	$ 1,895,280

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.2. Set forth the major items of Other Physical Property, Investments in Affiliated Companies and Other Investments.

RESPONSE:

There are no items included in Account 121 – Non-Utility Property or Account 124 – Other Investments.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.3. Supply the amounts and purpose of Special Cash Accounts of all types, such as:

III.A.3.a. Interest and Dividend Special Deposits.

III.A.3.b. Working Funds other than general operating cash accounts.

III.A.3.c. Other special cash accounts and amounts (Temporary cash investments).

RESPONSE:

The amounts and purpose of Special Cash Accounts as of August 31, 2016 are as follows:

FERC Account 128 – Other Special Funds
Zero

FERC Account 132 – Interest Special Deposits
Zero

FERC Account 133 – Dividend Special Deposits
Zero

FERC Account 134 – Other Special Deposits
The balance of PGW's Workers Compensation Escrow Fund as of August 31, 2016 is $2,602,790 and consists primarily of money market accounts.

FERC Account 135 – Working Funds
The balance of petty cash and other employee advances as of August 31, 2016 is $69,250.

FERC Account 136 - Temporary Cash Investments
The balance of temporary cash investments as of August 31, 2016 is $84,529,998 and consists primarily of bank deposits, U.S. Treasury and government agency obligations, corporate obligations, and money market accounts.

III. BALANCE SHEET AND OPERATING STATEMENT

The amounts and purpose of Special Cash Accounts as of August 31, 2015 are as follows:

FERC Account 128 – Other Special Funds
Zero

FERC Account 132 – Interest Special Deposits
Zero

FERC Account 133 – Dividend Special Deposits
Zero

FERC Account 134 – Other Special Deposits
The balance of PGW's Workers Compensation Escrow Fund as of August 31, 2015 is $2,597,410 and consists primarily of money market accounts.

The balance of PGW's Health Insurance Escrow Fund as of August 31, 2015 is $3,223,191 and consists primarily of money market accounts.

FERC Account 135 – Working Funds
The balance of petty cash and other employee advances as of August 31, 2015 is $57,906.

FERC Account 136 - Temporary Cash Investments
The balance of temporary cash investments as of August 31, 2015 is $112,067,806 and consists primarily of bank deposits, U.S. Treasury and government agency obligations, corporate obligations, and money market accounts.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.4. Describe the nature and/or origin and amounts of notes receivable, accounts receivable from associated companies, and any other significant receivables, other than customer accounts, which appear on balance sheet.

RESPONSE:

The amounts and nature of notes receivable and other accounts receivable as of August 31, 2016 are as follows:

FERC Account 141 – Notes Receivable
There were no notes receivables outstanding as of August 31, 2016.

FERC Account 143 – Other Accounts Receivable

Reimbursements for projects on PGW property	$2,179,572
Reimbursements for payments to pension beneficiaries	$3,775,273

The amounts and nature of notes receivable and other accounts receivable as of August 31, 2015 are as follows:

FERC Account 141 – Notes Receivable
There were no notes receivables outstanding as of August 31, 2015.

FERC Account 143 – Other Accounts Receivable

Reimbursements for projects on PGW property	$1,160,528
Reimbursements for payments to pension beneficiaries	$6,723,797

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.5. Provide the amount of accumulated reserve for uncollectible accounts, method and rate of accrual, amounts accrued, and amounts written-off in each of last three years.

RESPONSE:

Accumulated Provision for Uncollectible Accounts, Accruals, Write-Offs, and Recoveries for the Twelve Months Ended August 31, 2013, 2014, 2015, 2016 are listed below.

Period Ending	Beginning Balance	Accrual JE #2101	Write-off JE #2102	Recoveries & Other (#3505, (3510,3512)	Ending Balance
8/31/2013	(97,756,706)	(39,965,568)	40,119,166	(7,974,215)	(105,577,323)
8/31/2014	(105,577,323)	(39,081,644)	46,439,096	(9,129,322)	(107,349,193)
8/31/2015	(107,349,193)	(34,879,201)	50,468,105	(10,269,138)	(102,029,427)
8/31/2016	(102,029,427)	(27,133,085)	63,154,534	(8,278,087)	(74,286,066)

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.6. Provide a list of prepayments and give an explanation of special prepayments.

RESPONSE:

ACCOUNT 165 -PREPAYMENTS	August 31, 2016	August 31, 2015
Prepaid Insurance Balance represents unamortized portion of insurance premiums which are expensed over the period of the insurance coverage	$ 568,152	$ 482,092
Prepaid Postage Balance represents outstanding amount of postage meter	$ 260,235	$ 251,392
Miscellaneous Prepaid Expenses	$ 18,898	$ (65,501)
TOTAL:	$ 847,285	$ 667,983

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.7. Explain in detail any other significant (in amount) current assets listed on balance sheet.

RESPONSE:

Current Asset Detail	August 31 2016	August 31 2015
Account 142 - Customer Accounts Receivable		
Gas Accounts Receivable	142,416,635	182,408,394
Merchandise Receivable	18,635	24,743
Total Customer Accounts Receivable	142,435,269	182,433,137
Account 154 - Plant Material & Operating Supplies		
General Storeroom	9,275,693	10,072,913
Odorant & Gas Holders	59,376	44,476
Total Plant Material & Operating Supplies	9,335,069	10,117,389
Account 164 - Gas Storage		
Pipeline Storage	27,402,060	32,028,729
LNG Storage	11,153,837	8,761,964
Total Gas Storage	38,555,897	40,790,693
Account 173 - Accrued Utility Revenue	3,368,490	5,198,709

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.8. Explain in detail, including the amount and purpose, the deferred asset accounts that currently operate to effect or will at a later date effect the operating account supplying:

III.A.8.a. Origin of these accounts.

III.A.8.b. Probable changes to this account in the near future.

III.A.8.c. Amortization of these accounts currently charged to operations or to be charged in the near future.

III.A.8.d. Method of determining yearly amortization for the following accounts:

—Temporary Facilities
—Miscellaneous Deferred Debits
—Research and Development
—Property Losses
—Any other deferred accounts that effect operating results.

RESPONSE:

As of August 31, 2016:

8.a.
ACCOUNT 183.2
OTHER PRELIMINARY SURVEY AND INVESTIGATION

1832.1144	Advanced Engineering	$628,093

Account 1832.1144 represents the preparation of plans, design specifications, prototyping, and costs estimates associated with developing the technology and production processes of the Philadelphia Gas Works' natural gas plant facilities and distribution system.

ACCOUNT 186.0
MISCELLANEOUS DEFERRED DEBITS

The deferred asset account is maintained by the following sub-accts:

1860.1100	Jobs Costs Accumulated Unbilled	$874,018
1860.1145	Environmental Remediation	$28,424,787
1860.1170	State Sales – Uncollectible Gas Accounts	$333,777
1860.1183	Accumulated W/O Reimbursable	$2,728,280
1860.1196	Market Incentive Program	$530,203
1860.1197	Mains & Service	$322,434
1860.1200	Long Term Portion Deferred Operating Expenses	$325,505
1860.1202	PUC Management Audit	$81,376

III. BALANCE SHEET AND OPERATING STATEMENT

Account 1860.1100
represents costs that PGW accumulates when working on a project (i.e. labor).

Account 1860.1145
represents the long term portion of environmental remediation costs projected to occur between September 1, 2017 and August 31, 2047.

Account 1860.1170
represents sales tax PGW paid to the state of Pennsylvania for customer's accounts that were never collected.

Account 1860.1183
Represents estimates for accrued reimbursements due PGW.

Account 1860.1196
Represents promotional incentives paid to customers, which are expected to be returned to PGW in accordance with the terms and conditions of each individual contract.

Account 1860.1197
Represents promotional incentives that pay for customer's mains & services to customers, which are expected to be returned to PGW in accordance with the terms and conditions of each individual contract.

Account 1860.1200
Represents the long term portion of amortized costs associated with rate case filings and mandated management audits.

Account 1860.1202
Represents the unamortized portion of expenses associated with the last PUC Management Audit, which is being amortized over a seven year period.

8.b. There will be no significant changes to the accounts in the near future.

8.c. Amortization is currently being charged to the aforementioned operating accounts.

8.d. Yearly amortization method:
Temporary Facilities – Not applicable
Miscellaneous Deferred Debits – Please see description of accounts above.
Research and Property – Not Applicable
Property Loss – Not Applicable
Any other deferred Accounts that affect operating accounts – Please see description of the accounts above.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.9. Explain the nature of accounts payable to associated companies, and note amounts of significant items.

RESPONSE:

PGW has no associated companies.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.10. Provide details of other deferred credits as to their origin and disposition policy (e.g.—amortization).

RESPONSE:

Account 253_ OTHER DEFERRED CREDITS AS OF AUGUST 31,	2016	2015
Environmental Clean-Up The amount represents proceeds from the insurance companies that will be used to offset future environmental remediation expense.	$ 33,307,000	$ 34,439,000
Appliance Parts & Labor Plans The amount represents payments received from customer which will be amortized over the life of the Plan.	$ 1,180,000	$ 1,358,023
Unidentified Customer Payments This amount represents payments received from customers and are in the process of being researched to properly be applied to the correct customer's accounts	$ 298,000	$ 192,635
Meter Test Deposits This amount represents customer deposits on meters that are being tested.	$ 2,000	$ 2,130
OPEB/GASB 46 This represents other post-employment benefits.	$ 81,443,000	$ 90,014,000
Interest Rate Swap Swap associated with variable rate bonds (Bonds series 8)	$ 31,806,000	$ 39,410,516
Miscellaneous	$ 2,468,000	$ 4,620,693
	$ 150,504,000	$ 170,036,997

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.11. Supply basis for Injury and Damages reserve and amortization thereof.

RESPONSE:

The accumulated provision for injuries and damages at August 31, 2016 is as follows:

ACCOUNT 228.2	$5,307,204
ACCOUNT 228201 RESERVE FOR SUITS AND CLAIMS	$1,713,957

This amount represents the reserve for third party injuries and damages. The reserve is evaluated on a semi-annual basis and includes specifically identified accruals for known, probable future expenses, as determined by Risk Management.

ACCOUNT 228202 RESERVE FOR WORKERS COMPENSATION	$3,593,257

This amount represents the reserve for workers' compensation injuries and damages. The reserve is evaluated on a semi-annual basis and includes not only specifically identified accruals for known, probable future expenses, but also expenses which were incurred but not reported for both the current and prior periods.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.12. Provide details of any significant reserves, other than depreciation, bad debt, injury and damages, appearing on balance sheet.

RESPONSE:

ACCOUNT 242 Accrued Wages as of August 31,	FY 2016	FY 2015
Compensated Absences This amount represents unused employee vacation time earned during the period	$ 3,609,000	$ 3,340,000
Workers Compensation This amount represents the estimated current liability for Worker's Compensation applicable to on-duty employee accidents	$ 2,107,198	$ 4,227,969
Payment to the City This amount represents the current liability for the City payment	$ 3,000,000	$ 3,000,000

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.13. Provide an analysis of unappropriated retained earnings for the Test year and three preceding calendar years.

RESPONSE:

Philadelphia Gas Works
Unappropriated Retained Earnings
(Dollars in Thousands)

	Fiscal Years ended August 31,			
	Actual 2015	Actual 2016	Projected 2017	Projected 2018
Balance, Beginning of Year	258,002	277,984	288,038	30,427
Balance, Transferred from Income	19,982	10,054	3,577	10,504
Balance, Transferred to Other Liabilities [2]	-	-	(261,188)	-
Balance, End of year	277,984	288,038	30,427	40,931

	Calendar Years ended December 31,		
	Actual 2013	Actual 2014 [1]	Actual 2015
Balance, Beginning of Year	329,532	364,592	264,383
Balance, Transferred from Income	35,060	(100,209)	(12,216)
Balance, End of year	364,592	264,383	252,167

[1] Calendar Year 2014 change occurred as a result of the implementation of GASB 68 and GASB 71.
[2] Retained earnings in fiscal year 2017 decreased by $261 million reflecting the implementation of a new accounting procedure associated with GASB 75, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.*

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.14. Provide schedules and data in support of the following working capital items:

III.A.14.a. Prepayments—List and identify all items

III.A.14.b. Federal Excise Tax accrued or prepaid

III.A.14.c. Federal Income Tax accrued or prepaid

III.A.14.d. Pa. State Income Tax accrued or prepaid

III.A.14.e. Pa. Gross Receipts Tax accrued or prepaid

III.A.14.f. Pa. Capital Stock Tax accrued or prepaid

III.A.14.g. Pa. Public Utility Realty Tax accrued or prepaid

III.A.14.h. State sales tax accrued or prepaid

III.A.14.i. Payroll taxes accrued or prepaid

III.A.14.j. Any adjustment related to the above items for ratemaking purposes.

RESPONSE:

14.a. See the response to III.A.6.

14.b through g. Not applicable.

14.h.

August 31, 2015	$140,452
August 31, 2016	$ 36,563

14.i.

August 31, 2015	None
August 31, 2016	None

14. j. Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.15. Supply an exhibit supporting the claim for working capital requirement based on the lead-lag method.

III.A.15.a. Pro forma expenses and revenues are to be used in lieu of book data for computing lead-lag days.

III.A.15.b. Respondent must either include sales for resale and related expenses in revenues and in expenses or exclude from revenues and expenses. Explain procedures followed (exclude telephone).

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.16. Provide detailed calculations showing the derivation of the tax liability offset against gross cash working capital requirements.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.17. Prepare a Statement of Income for the various time frames of the rate proceeding including:

Col. 1—Book recorded statement for the test year.

2—Adjustments to book record to annualize and normalize under present rates.

3—Income statement under present rates after adjustment in Col. 2

4—Adjustment to Col. 3 for revenue increase requested.

5—Income statement under requested rates.

III.A.17.a. Expenses may be summarized by the following expense classifications for purposes of this statement:

Operating Expenses (by category)
Depreciation
Amortization
Taxes, Other than Income Taxes
Total Operating Expense

Operating Income Before Taxes
Federal Taxes
State Taxes
Deferred Federal
Deferred State
Income Tax Credits
Other Credits
Other Credits and Charges, etc.
Total Income Taxes

Net Utility Operating Income

Other Income & Deductions
Other Income
Detailed listing of Other Income used in Tax Calculation
Other Income Deduction
Detailed Listing
Taxes Applicable to Other Income and Deductions
Listing
Income Before Interest Charges

III. BALANCE SHEET AND OPERATING STATEMENT

Listing of all types of Interest Charges and all amortization of Premiums and/or Discounts and Expenses on Debt issues

Total Interest

Net Income After Interest Charges

(Footnote each adjustment to the above statements with explanation in sufficient clarifying detail.)

RESPONSE:

Please see the attached schedule.

PHILADELPHIA GAS WORKS
STATEMENT OF PROJECTED INCOME AT PRESENT AND PROPOSED RATES
TWELVE MONTHS ENDING AUGUST 31, 2018

	(1) Annualized Twelve Months Ended August 31, 2018	(2) Adjustments Under Annualized Rates	(3) Annualized Twelve Months Ended August 31, 2018	(4) Adjustments Under Proposed Rates	(5) Adjusted Twelve Months Ended August 31, 2018
Operating Revenues					
Gas Service Revenues	$561,377,000	-	$561,377,000	$70,000,000	$631,377,000
Transportation Revenues	44,614,000	-	44,614,000	-	44,614,000
Other Operating Revenue	21,022,000	-	21,022,000	-	21,022,000
Total Operating Revenue	627,013,000	-	627,013,000	70,000,000	697,013,000
Operating & Maintenance Expenses					
Natural Gas Costs	184,960,000	-	184,960,000	-	184,960,000
Other Expenses	340,387,000	-	340,387,000	3,117,000	343,504,000
Depreciation	47,180,000	-	47,180,000	-	47,180,000
Total Operating & Maintenance Expenses	572,527,000	-	572,527,000	3,117,000	575,644,000
Revenue From Non-Operating Operations					
Interest Gain / (Loss) and Other Income	3,031,000	-	3,031,000	-	3,031,000
Interest Expense					
Long Term Debt	49,160,000	-	49,160,000	-	49,160,000
Other Interest Expense	(6,893,000)	-	(6,893,000)	-	(6,893,000)
AFUDC	(920,000)	-	(920,000)	-	(920,000)
Loss From Extinguishment of Debt	5,666,000	-	5,666,000	-	5,666,000
Total Interest Expense	47,013,000	-	47,013,000	-	47,013,000
Net Earnings	$10,504,000	$0	$10,504,000	$66,883,000	$77,387,000

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.18. Provide comparative operating statements for the test year and the immediately preceding 12 months showing increases and decreases between the two periods. These statements should supply detailed explanation of the causes of the major variances between the test year and preceding year by detailed account number.

RESPONSE:

Please see attached for comparative statements of The Philadelphia Gas Works for Fiscal Year ended August 31, 2017 and 2018.

Account 480.0 – Residential Sales **($14,874,000)**

The decrease in residential sales is related to a 6.4% (2,354,904 mcf) decrease in projected sales volumes or $30.7 million; this is partially offset by project increases in the cost of natural gas or $15.8 million.

Account 489.3 – Gas Transportation Service Sales **($1,409,000)**

The decrease in Gas Transportation Service Sales is related to projected decrease in sales volumes of 136,000 mcf in firm transportation sales. This loss of sales volumes equates to just over $1.3 million in decreased revenue when comparing FY 2018 to FY 2017.

Account 495.0 – Other Gas Revenues **$19,508,000**

This projected increase is due to the reversal in FY 2017 of an under-recovery from FY 2016. This reversal amounts to $20.9 million which is offset by $1.3 million decrease in Other Gas Revenue.

Account 804.0 – Other Gas Supply Expenses **$8,179,020**

The increase in Other Gas Supply Expenses is related to 11.7% increase in projected gas commodity costs or $19.5 million; this is partially offset by a projected decrease in the volume of natural gas utilized of 2,860,752 mcf or $10.0 million.

Account 870.0 – Distribution Expenses **$1,313,826**

The increase in Distribution Expenses is related to a $0.8 million increase in projected customer installation expenses as well as a $0.7 million increase in the maintenance costs of mains. This is somewhat offset by a $0.2 million decrease in costs associated with the maintenance of services.

Account 901.0 – Customer Accounts Expenses **($2,568,130)**

The decrease in Customer Accounts Expenses is due to a projected decrease in bad debt expense of $3.7 million. This decrease is somewhat mitigated by an increase in Customer Accounts Records & Collections supervision expenses of $1.5 million.

Account 920.0 – Administrative & General **($14,436,906)**

The decrease in Administrative & General Expenses is primarily due to a projected decrease in the cost of Employee Benefits & Pension.

III. BALANCE SHEET AND OPERATING STATEMENT

Account 4270 – Interest on Long Term Debt **$4,326,000**

The increase in interest expense is a result of a $270 bond sale planned for late FY 2017.

Account 4281 – Amortization of Loss on Required Debt **($3,644,204)**

A decrease in amortization expenses is a result of normal amortization.

PHILADELPHIA GAS WORKS
COMPARATIVE OPERATING STATEMENTS
TWELVE MONTHS ENDED AUGUST 31, 2017 & 2018

		FY 2017	FY 2018	Increase/ Decrease
OPERATING REVENUES				
	SALES OF GAS			
4800	Residential Sales	478,919,000	464,045,000	(14,874,000)
4810	Commercial & Industrial Sales	89,534,000	88,679,000	(855,000)
4820	Public Authority Sales	8,402,000	8,110,000	(292,000)
4830	Sales for Resale	10,000	11,000	1,000
4893	Gas Transportation Service Sales	46,023,000	44,614,000	(1,409,000)
4950	Other Gas Revenues	(15,278,000)	4,230,000	19,508,000
	Total Gas Revenues	607,610,000	609,689,000	2,079,000
	OTHER OPERATING REVENUE			
4870	Forfeited Discounts	8,112,000	7,853,000	(259,000)
4880	Miscellaneous Service Revenue	1,212,000	1,206,000	(6,000)
		9,324,000	9,059,000	(265,000)
	TOTAL OPERATING REVENUE	616,934,000	618,748,000	1,814,000
OPERATING & MAINTENANCE EXPENSES				
7000.-7100	STEAM PRODUCTION	892,499	854,000	(38,499)
7120-7170	MANUFACTURED GAS PRODUCTION	829,005	793,000	(36,005)
7340-7420	GAS RAW MATERIAL	1,128,629	1,321,000	192,371
8040-8130	OTHER GAS SUPPLY EXPENSES	178,936,980	187,116,000	8,179,020
8400-8439	OTHER STORAGE EXPENSES	10,107,304	10,236,000	128,696
8500-8700	TRANSMISSION EXPENSES OPERATION SUPERVISION & ENGINEERING	1,499,375	1,278,000	(221,375)
8701-8930	DISTRIBUTION EXPENSES	77,341,172	78,655,000	1,313,828
9010-9080	CUSTOMER ACCOUNTS EXPENSES	61,668,130	59,100,000	(2,568,130)
9200-9310	ADMINISTRATIVE & GENERAL	165,728,906	151,292,000	(14,436,906)
	TOTAL OPERATING EXPENSES	498,132,000	490,645,000	(7,487,000)
OTHER EXPENSES				
4030	DEPRECIATION EXPENSE	46,171,000	47,180,000	1,009,000
4081	TAXES OTHER THAN INCOME TAXES, UTILITY OPERATING INCOME	8,232,000	8,437,000	205,000
	TOTAL DEPRECIATION & TAXES	54,403,000	55,617,000	1,214,000
OTHER INCOME				
4170	Non Utility Revenue	0	0	0
4171	Expense Non-Utility Operations	0	0	0
4180	Non Operating Rental Income	163,000	166,000	3,000
4190	Interst & Dividend Income	1,885,000	2,010,000	125,000
4210	Miscellaneous Non-Operating Income	850,000	855,000	5,000
		2,898,000	3,031,000	133,000
INTEREST EXPENSES				
4270	INTEREST ON LONG TERM DEBT (DR)	44,834,000	49,160,000	4,326,000
4280	AMORTIZATION OF DEBT DISCOUNT AND EXPENSE (DR)	163,000	101,888	(61,112)
4281	AMORTIZATION OF LOSS ON REACQUIRED DEBT	7,890,000	4,245,796	(3,644,204)
4290	AMORTIZATION OF PREMIUM ON DEBT (CR)	(10,037,000)	(9,363,970)	673,030
4310	OTHER INTEREST EXPENSE (DR)	4,006,000	3,789,286	(216,714)
4320	ALLOWANCE FOR BORROWED FUNDS USED DURING CONSTRUCTION (CR)	(1,136,000)	(920,000)	216,000
	TOTAL INTEREST EXPENSES	45,720,000	47,013,000	1,293,000
	NET INCOME	21,577,000	28,504,000	6,927,000

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.19. List extraordinary property losses as a separate item, not included in operating expenses or depreciation and amortization. Sufficient supporting data must be provided.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.20. Supply detailed calculations of amortization of rate case expense, including supporting data for outside services rendered. Provide the items comprising the rate case expense claim (include the actual billings or invoices in support of each kind of rate case expense), the items comprising the actual expenses of prior rate cases and the unamortized balances.

RESPONSE:

Base Rate Case Expenses

Legal Counsel Costs	84,000
Legal Counsel Costs	400,000
Rate Case Consultant	150,000
Rate Case Consultant	1,150,000
Total	**$1,784,000**

The aforementioned projected base rate costs are expected to be incurred by PGW in FY 2017 as a result of the upcoming rate case proceeding. These costs are anticipated to be amortized over a three-year period or approximately $595,000 annually in FY 2017, FY 2018, and FY 2019.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.21. Submit detailed computation of adjustments to operating expenses for salary, wage and fringe benefit increases (union and non-union merit, progression, promotion and general) granted during the test year and six months subsequent to the test year. Supply data showing for the test year:

III.A.21.a. Actual payroll expense (regular and overtime separately) by categories of operating expenses, i.e., maintenance, operating transmission, distribution, other.

III.A.21.b. Date, percentage increase, and annual amount of each general payroll increase during the test year.

III.A.21.c. Dates and annual amounts of merit increases or management salary adjustments.

III.A.21.d. Total annual payroll increases in the test year.

III.A.21.e. Proof that the actual payroll plus the increases equal the payroll expense claimed in the supporting data (by categories of expenses).

III.A.21.f. Detailed list of employee benefits and cost thereof for union and non-union personnel. Any specific benefits for executives and officers should also be included, and cost thereof.

III.A.21.g. Support the annualized pension cost figures.

III.A.21.g (i) State whether these figures include any unfunded pension costs. Explain.

III.A.21.g.(ii) Provide latest actuarial study used for determining pension accrual rates.

III.A.21.h. Submit a schedule showing any deferred income and consultant fee to corporate officers or employees.

III. BALANCE SHEET AND OPERATING STATEMENT

RESPONSE:

21.a. Payroll expense by categories of operating expenses for the twelve months ended August 31, 2018.

	Operations	Maintenance	Total
Steam Production	$188,000	$209,000	$397,000
Manufactured Gas Production	859,000	567,000	1,426,000
Other Gas Supply	1,179,000	0	1,179,000
Other Storage	2,325,000	2,612,000	4,937,000
Transmission	2,088,000.00	0	2,088,000
Distribution	29,107,000	18,923,000	48,030,000
Customer Accounts	16,114,000	0	16,114,000
Customer Service	3,199,000	0	3,199,000
Administrative & General	16,373,000	0	16,373,000
	$71,432,000	$22,311,000	$93,743,000
Total Labor Charged to Stores Expense	$3,255,000	$0	$3,255,000
Total Labor Charged to Clearing Expense	$9,378,000	0	$9,378,000
	$12,633,000	$0	$12,633,000
Total Labor Charged	$84,065,000	$22,311,000	$106,376,000

Neither the Uniform System of Accounts nor Company records distinguish between regular and overtime labor charged to functional accounts.

21.b. Date, percentage increase, and annual amount of each general payroll increase during the test year (twelve months ended August 31, 2018).

	Date Effective	Percent Increase	Estimated FY 2018 Impact
Bargaining Group Local 686, Utility Workers' Union of America	May 15, 2018	2.50%	$1,623,585

III. BALANCE SHEET AND OPERATING STATEMENT

21.c. Dates and annual amounts of merit increases or management salary adjustments.

	Date Effective	Percent Increase	Estimated Annual Amount
Supervisory/Management	May 15, 2018	2.50%	$970,976

21.d. Total annual payroll increases in the test year.

	Estimated Annual Amount
Bargaining Group Local 686, Utility Workers' Union of America	$1,623,585
Supervisory/Management	$970,976

21.e. Proof that the actual payroll plus the increases equal the payroll expense claimed in the supporting data (by categories of expenses).

Total Labor charged to Operating and Maintenance Expenses

Per Twelve Months Ended August 31, 2018	$103,781,439
Salary/Wage Adjustments	2,594,561
Normalized August 31, 2018	$106,376,000

21.f. Detail list of employee benefits and costs thereof for union and non-union personnel.

Twelve Months ending August 31, 2018:

Hospitalization Insurance - Active Employees	30,811,000
401 + 457(K) Plan	1,028,000
Dental Plan - Active Employees	686,000
Legal Services	300,000
Tuition Reimbursement	300,000
OPEB	31,028,000
Pension	51,800,000
Total Benefits	$115,953,000

III. BALANCE SHEET AND OPERATING STATEMENT

21.g. Support the annualized pension cost figures.

(i) The figures include unfunded pension costs.

(ii) Aon's actuarial reports for the plan year ending June 30, 2017 are attached.

21.h. Submit a schedule showing any deferred income and consultant fee to corporate officers or employees.

No deferred income or consultant fees to corporate officers or employees are being claimed in this rate proceeding.

Aon Hewitt
Retirement and Investment Consulting

Proprietary and Confidential



Philadelphia Gas Works Pension Plan - Funding

Actuarial Valuation Report for the Plan Year July 1, 2016 – June 30, 2017

Risk. Reinsurance. Human Resources.

AON
Empower Results®



October 28, 2016

Philadelphia Gas Works
1800 N. Ninth Street
Philadelphia, PA 19122

We have been retained by Philadelphia Gas Works to perform the actuarial valuation of the Philadelphia Gas Works Pension Plan as of July 1, 2016. This report sets forth the contribution range for the Plan Year, running from July 1, 2016 through June 30, 2017. The valuation is based on data sent to us by Philadelphia Gas Works, the Plan as described in the official Plan document, the assets of the Plan as reported by Philadelphia Gas Works, and the stated actuarial assumptions.

The purposes of the actuarial valuation are:

1. To determine the financial condition of the Plan and the contribution requirements for the Plan year;

2. To provide information to be used in the preparation of any required governmental forms;

3. To provide information for use in satisfying the requirements of your auditors;

4. To provide actuarial certification of the adequacy and appropriateness of the cost method and assumptions used for your Plan; and

5. To provide comments on the developing experience under your Plan, the need for changes in the Plan or funding, and other areas of concern to you. In this respect, the actuarial valuation report becomes an essential source of information for discussions throughout the year on the Pension Plan.

Aon Hewitt | Retirement & Investment Consulting
555 East Lancaster Avenue, Suite 300 | Radnor, PA 19087
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In our opinion, this report is complete and accurate, and the actuarial assumptions and methods, in the aggregate, are reasonably related to the experience of the Plan and represent our best estimate of future Plan experience as it should be considered for proper funding of your pension obligations. It is also our opinion that each of the actuarial assumptions and methods utilized in this valuation are reasonable (taking into account the experience of the plan and reasonable expectations) or, in the aggregate, result in total contribution equivalents that would be determined if each assumption and method were reasonable.

Aon Hewitt is pleased to submit this report of the Pension Plan to you, and will also be pleased to discuss any aspects of the report with you after you have had a chance to review it.

Respectfully submitted,

Thomas G. Vicente, FSA, EA
Partner

Enrollment #14-05034

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A. Comparative Summary of Principal Valuation Results

		Actuarial Valuation for Plan Year Beginning			
		July 1, 2016	***July 1, 2015***	***Percent Change***	
1.	**Participant Data**				
	Active Participants	1,251	1,274	(1.8)	%
	Retired Participants	2,192	2,199	(0.3)	%
	Vested Terminated Participants	329	327	0.6	%
	Total	3,772	3,800	(0.7)	%
	Total Payroll	90,860,364	95,186,942	(4.5)	%
	Average Pay	72,630	74,715	(2.8)	%
	Average Age	44.76	44.25	1.2	%
	Average Past Service	15.75	15.49	1.7	%

A. Comparative Summary of Principal Valuation Results (cont.)

	Actuarial Valuation for Plan Year Beginning		
	July 1, 2016	***July 1, 2015[1]***	***Percent Change***
1. **Contribution Range**			
Normal Cost *(Exhibit D)*	$ 7,991,587	$ 7,858,658	1.7 %
Indicated Midyear -			
20 Year Contribution *(Exhibit E)*	$ 29,260,334	$ 26,912,652	8.7 %
30 Year Contribution *(Exhibit E)*	$ 26,470,015	$ 24,019,697	10.2 %
20 Year Contribution as Percentage of Compensation	32.20%	28.27%	13.9 %
30 Year Contribution as Percentage of Compensation	29.13%	25.23%	15.4 %

The Normal Cost above represents the cost of benefits being earned by additional years of service with PGW. This figure has risen since the previous year as the result of an additional year of interest accumulation and a decrease in the discount rate from 7.65% to 7.30%.

The contribution levels are the sum of the Normal Cost and a level dollar amortization of the unfunded actuarial liability. The contribution amounts have increased over the prior period (20 year basis) for several reasons:

a) Discount rate change: The discount rate was changed to 7.30% for the 2015 valuation from the 7.65% rate used the prior year. This increased the measurement of plan liabilities approximately 3.6%. This increased the annual contribution by $2,407,000 (2.6% of pay).

b) Investment returns: The investment return for the period ending June 30, 2016 was approximately $2,900,000. Based on the 7.65% assumption in place on July 1, 2015, a return of $38,200,000 would have been expected over this period. This increased the annual contribution by $631,000 (0.7% of pay). The change to recognizing a smoothed value of assets reduced the impact of the asset returns.

c) Demographic losses: The changes in the plan census differed from those expected by the plan assumptions. Salary used for valuation purposes increased approximately 0.2% for continuing actives compared to a 4.5% salary increase assumption. This decreased plan liabilities approximately 0.5%. In addition, there were 166 actives with 30 or more years of service eligible for full retirement benefits who remained active as of the valuation date. This accounted for an additional decrease in plan liabilities of approximately 0.3%. This decreased the annual contribution by $625,000 (0.7% of pay).

[1] July 1, 2015 contributions shown reflect values stated in the Philadelphia Gas Works Pension Plan – Funding Actuarial Valuation Report for the Plan Year July 1, 2015 – June 30, 2016. Revised asset values were provided after this report was produced.

A. Comparative Summary of Principal Valuation Results (cont.)

		Actuarial Valuation for Plan Year Beginning		
	July 1, 2016	***July 1, 2015***	***Percent Change***	
1. **Liabilities**				
Unfunded Accrued Actuarial Liability (Exhibit E)	$ 224,788,936	$ 195,984,721[1]	14.7	%
Present Value of Accumulated Vested Benefits *(Exhibit F)*	$ 668,800,019	$ 630,269,500	6.1	%
Present Value of Accumulated Plan Benefits *(Exhibit F)*	$ 698,546,139	$ 659,922,176	5.9	%
2. **Development of Actuarial Liability**				
(1) Liability at July 1, 2015		$ 706,703,768		
(2a) Normal Cost	$ 8,355,250			
(2b) Interest Cost	$ 52,769,491			
(2c) Expected Benefit Payments	$ (51,471,949)			
(2d) Total Increase/(Decrease)	9,652,792			
(3) Expected Liability at June 30, 2016		$ 716,356,560		
(3a) Demographic (Gain)/Loss	$ (7,026,826)			
(3b) Discount Rate (Gain)/Loss	$ 25,791,779			
(3c) Mortality (Gain)/Loss	$ 956,164			
(3d) Total (Gain)/Loss	19,721,117			
(4) Actual Liability at July 1, 2016		$ 736,077,677		

[1] Unfunded Accrued Actuarial Liability shown based on June 30, 2015 market value of assets provided by Philadelphia Gas Works. Revised asset values were provided after the July 1, 2015 report was produced and may differ from that report.

A. Comparative Summary of Principal Valuation Results (cont.)

	Actuarial Valuation for Plan Year Beginning		
	July 1, 2016	***July 1, 2015[1]***	***Percent Change***
1. **Assets**			
Market Asset Value *(Exhibit C)*	$ 483,258,662	$ 510,719,047	(5.4)%
Actuarial Asset Value *(Exhibit C)*	$ 511,288,741	$ 510,719,047	0.1%

Plan assets are invested in a mix of stocks and bonds held by the Sinking Fund Commission. The long term asset allocation strategy is an equity allocation of 65% of the portfolio and a fixed income allocation of 35% of the portfolio. The investment return for the period from July 1, 2015 through June 30, 2016 was approximately 0.58%. This represented an under performance of plan investments versus the actuarial assumption of 7.65% for the period (changing to 7.30% beginning July 1, 2016), but not necessarily an underperformance versus independent investment benchmarks. Review of performance against those benchmarks is outside the scope of this report.

Benefit payment distributions were the largest factor in asset movement during the period July 1, 2015 through June 30, 2016. The combination of plan investment returns and employer and employee contributions did not keep pace with the distributions which resulted in a large decrease in plan asset levels (-5.4%).

[1] July 1, 2015 asset information shown based on June 30, 2015 market value of assets provided by Philadelphia Gas Works. Revised asset values were provided after the July 1, 2015 report was produced and may differ from that report.

B. Discussion

Since the last actuarial valuation performed as of July 1, 2015, the demographics of the plan participants has changed as follows:

- The number of plan participants has decreased 0.7%
- The total number of actives in the plan decreased 1.8%
- Total payroll has decreased 4.5%
- Average pay has decreased 2.8%
- Average age of active plan participants increased 1.2%

The restating of the assumptions around the discount rate created an increase in plan liabilities that translates to an increase in the contribution rate (on a 20 year amortization basis). This year, contribution schedules using a 20 year open amortization period and a 30 year closed amortization period of the unfunded liability were included in the range of potential contribution levels. PGW has indicated they plan to contribute the larger of the annual contributions calculated by these two amortization methods.

Both contribution schedules are expected to gradually improve the funded status of the plan.

C. Financial Summary[1]

Assets as of July 1, 2015[2]		$ 510,719,047
Receipts		
Employer Contribution	21,122,557	
Employee Contribution	602,287	
Investment return *	2,872,187	
Total Receipts		$ 24,597,031
Disbursements		
Benefit Payments	50,446,550	
Administrative Expenses	1,610,866	
Total Disbursements		$ 52,057,416
Assets as of July 1, 2016		$ 483,258,662

Asset Information as of July 1, 2016

Asset Allocations	**Current Allocation**	**Target Allocation**
Equity	65.39%	65.00%
Total Fixed Income	34.53%	35.00%
Other	0.08%	0.00%

Annual Rate of Return	**Market Value**	**Assumed Rate**
Rate[3]	0.58%	7.65%

**Net of any additional fund expenses not included in Administrative Expenses under Disbursements*

[1] Asset information as reported by the City of Philadelphia.
[2] July 1, 2015 asset information shown based on June 30, 2015 market value of assets provided by Philadelphia Gas Works. Revised asset values were provided after the July 1, 2015 report was produced and may differ from that report.
[3] The above return was based on a simplified determination of returns. This will differ from the actual time-weighted return for the plan due to the incidence of inflows and outflows from the Trust. The time-weighted return was 0.19% for the year.

C. Financial Summary (cont.)

Development of Actuarial Value of Assets

Market Value of Assets as of July 1, 2015	$	510,719,047
Expected Assets as of July 1, 2016	$	518,296,261
Market Value of Assets as of July 1, 2016	$	483,258,662
Total Gain/(Loss) From Prior Years		
Gain/(Loss) (Current Year)	$	(35,037,599)
Gain/(Loss) (Valuation Year -1)	$	-
Gain/(Loss) (Valuation Year -2)	$	-
Gain/(Loss) (Valuation Year -3)	$	-
Unrecognized Gain/(Loss) From Prior Years		
Gain/(Loss) (Current Year)	$	(28,030,079)
Gain/(Loss) (Valuation Year -1)	$	-
Gain/(Loss) (Valuation Year -2)	$	-
Gain/(Loss) (Valuation Year -3)	$	-
Preliminary Actuarial Value of Assets as of July 1, 2016	$	511,288,741
80% of Market Value of Assets	$	386,606,930
120% of Market Value of Assets	$	579,910,394
Actuarial Value of Assets as of July 1, 2016	$	511,288,741

D. Summary of Valuation Results

	Retired	Vested Terminated	Active	Total
1 Number of Participants Included in the Valuation	2,192	329	1,251	3,772
2 Projected Annual Benefits	$ 50,770,851	$ 3,557,498	$ 119,677,174	$ 174,005,523
3 Present Value of Projected Benefits as of July 1, 2016	$ 520,251,013	$ 14,813,594	$ 290,675,291	$ 825,739,898
4 Present Value of Future Normal Costs	$ -	$ -	$ 89,662,221	$ 89,662,221
5 Accrued Actuarial Liability as of July 1, 2016: *(3)-(4)*	$ 520,251,013	$ 14,813,594	$ 201,013,070	$ 736,077,677
6 Actuarial Asset Value				$ 511,288,741
7 Unfunded Accrued Actuarial Liability: (5)-(6)				$ 224,788,936
8 Normal Cost Payable on July 1, 2016				$ 8,649,940
9 Expected Employee Contributions				$ 658,353
10 Net Employer Normal Cost *(8)-(9)*				$ 7,991,587

E. Contribution Levels

Twenty Year Amortization (Open Amortization Period)

1. Contribution for Normal Cost $ 7,991,587
2. Amortization Schedule

Effective Date	*Amortization Period*	*Initial Amount*	*Unfunded Accrued Actuarial Liability*	*BOY Annual Payment*	
7/1/2016	20	$224,788,936	$ 224,788,936	$ 20,238,354	$ 20,238,354

3. Contributions July 1, 2016: (1) + (2) $ 28,229,941
4. Contributions Mid-year (3) x 1.0365 $ 29,260,334
5. Contributions June 30, 2017: (3) x 1.073 $ 30,290,727

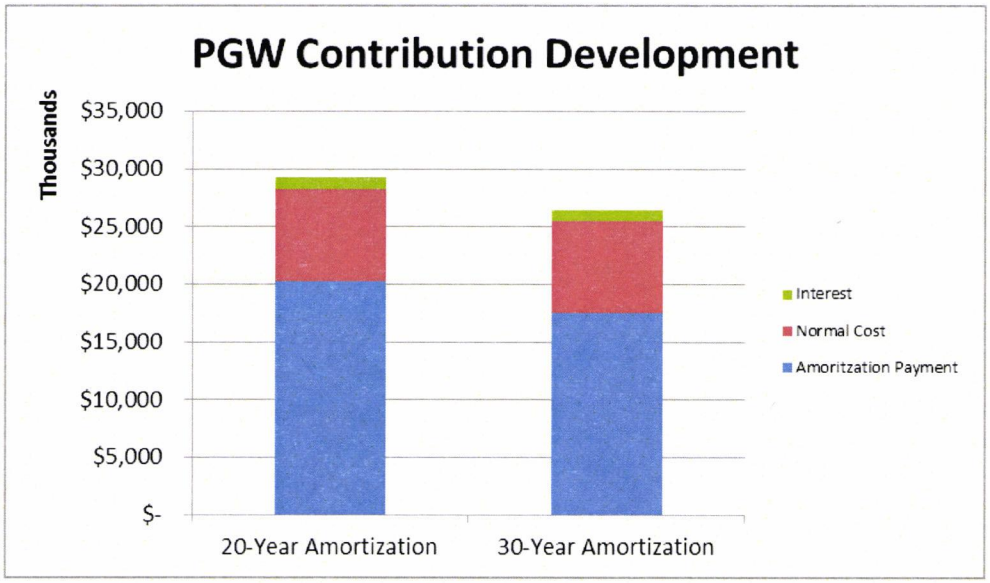
Thirty Year Amortization (Closed Amortization Period)

1. Contribution for Normal Cost $ 7,991,587
2. Amortization Schedule

Effective Date	*Amortization Period*	*Initial Amount*	*Unamortized Amount*	*BOY Annual Payment*
7/1/2015	29	$195,984,721	$ 194,140,348	$ 15,174,714
7/1/2016	30	$ 30,648,588	$ 30,648,588	$ 2,371,581
Total			**$ 224,788,936**	**$ 17,546,295**

3. Contributions July 1, 2016: (1) + (2) $ 25,537,882
4. Contributions Mid-year (3) x 1.0365 $ 26,470,015
5. Contributions June 30, 2017: (3) x 1.073 $ 27,402,147

E. Contribution Levels (cont.)



F. Actuarial Present Value of Accumulated Benefits Determined

Accounting Standards Codification Topic 960

			July 1, 2016		July 1, 2015
1.	Actuarial Present Value of Accumulated Vested Benefits				
	a. Participants currently receiving benefits	$	520,251,013	$	502,054,773
	b. Vested terminated participants	$	14,813,594	$	14,399,979
	c. Active Participants	$	133,735,412	$	113,814,748
	d. Total	$	668,800,019	$	630,269,500
2.	Actuarial Present Value of Accumulated Non-Vested Benefits	$	29,746,120	$	29,652,676
3.	Total Actuarial Present Value of Accumulated Plan Benefits: *(1d) + (2)*	$	698,546,139	$	659,922,176
4.	Net Assets Available for Benefits *(Market Value, Exhibit C)*[1]	$	483,258,662	$	510,719,047
5.	Excess *(deficiency)* of Net Assets Available for Benefits over (under) Actuarial Present Value of Accumulated Plan Benefits: *(4) - (3)*	$	(215,287,477)	$	(149,203,129)
6.	Active Participant Count				
	a. 100% Vested		1,036		1,003
	b. Partially Vested		0		0
	c. Non-Vested		215		271

[1] July 1, 2015 asset information shown based on June 30, 2015 market value of assets provided by Philadelphia Gas Works. Revised asset values were provided after the July 1, 2015 report was produced.

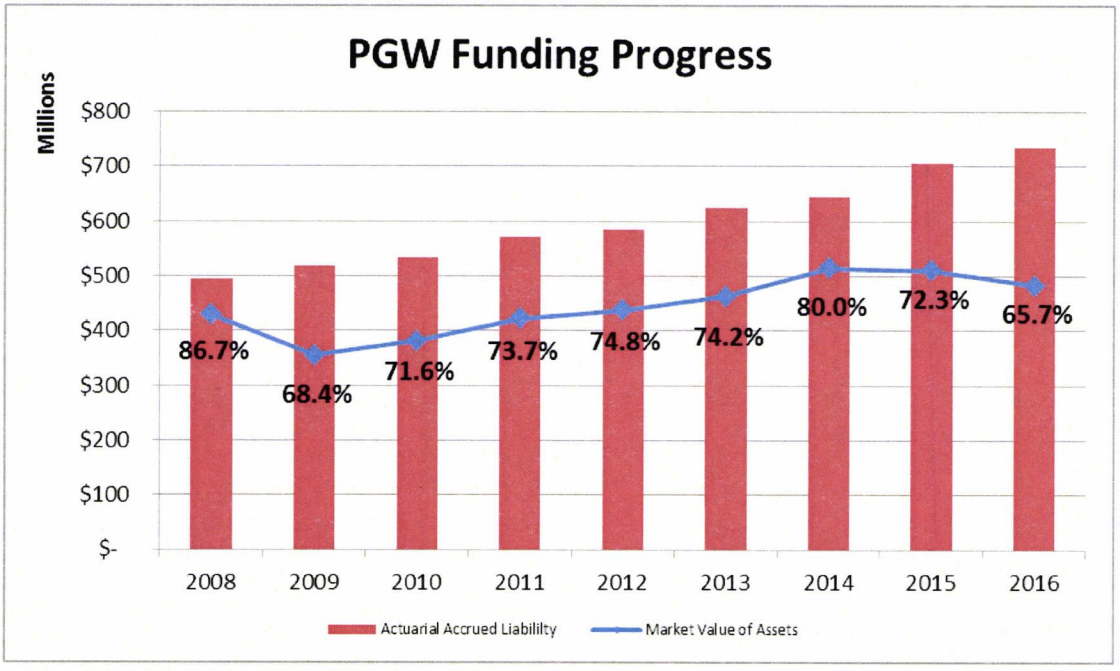
G. Estimated 10-Year Benefit Pay-Out Projections

Plan Year Beginning July 1	Expected Annual Benefit Pay-Out During Plan Year
2016	$ 52,347,089
2017	$ 53,533,015
2018	$ 54,829,606
2019	$ 56,070,639
2020	$ 57,266,902
2021	$ 58,388,061
2022	$ 59,485,838
2023	$ 60,606,023
2024	$ 61,628,671
2025	$ 62,615,164

Note: The above projected pay-outs recognized expected mortality, termination, and incidence of disability and assume all benefits will commence at Assumed Retirement Date. No assumption has been made regarding possible retirements prior to Assumed Retirement Date or anticipation of new entrants.

H. Schedule of Funding Progress

Actuarial Valuation Date	Market Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
9/1/2008	$ 429,170	$ 495,155	$ 65,985	86.67%	$ 106,047	62.22%
9/1/2009	355,499	519,773	164,274	68.40%	108,474	151.44%
9/1/2010	381,975	533,630	151,655	71.58%	111,728	135.74%
9/1/2011	421,949	572,190	150,241	73.74%	103,737	144.83%
9/1/2012	437,780	585,632	147,852	74.75%	107,494	137.54%
9/1/2013	462,691	623,612	160,921	74.20%	103,530	155.43%
9/1/2014	514,944	643,988	129,044	79.96%	105,636	122.16%
7/1/2015	510,719	706,704	195,985	72.27%	95,187	205.89%
7/1/2016	483,259	736,078	252,819	65.65%	90,860	278.25%



Notes:

Covered payroll was assumed to increase by 3% in years when the full valuation was not done.

Asset Values estimated for years when this full valuation was not done.

I. Calculation of Annual Pension Cost

I. Calculation of Annual Pension Cost (20 Year Open Amortization)

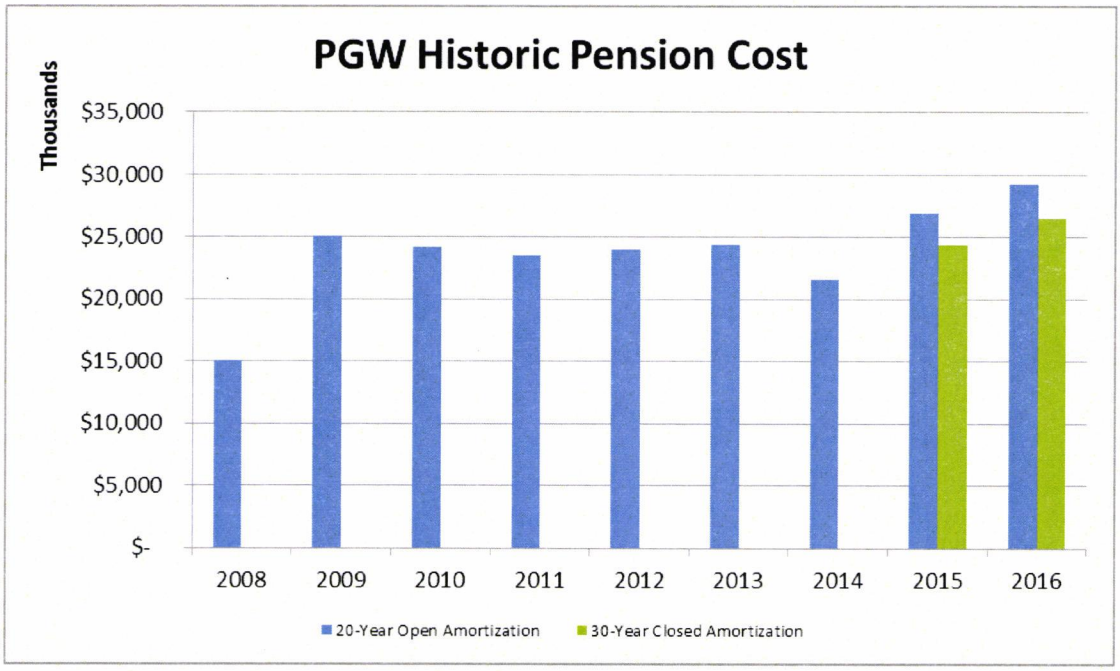
Actuarial Valuation Date	Unfunded Actuarial Accrued Liability	Amortization Payment	Normal Cost	Employee Contribution	Mid-year Contribution
9/1/2008	65,985	$ 6,342	$ 8,125	$ -	$ 15,064
9/1/2009	164,274	15,745	8,292	-	25,029
9/1/2010	151,655	14,851	8,333	-	24,140
9/1/2011	150,241	14,400	8,171	-	23,502
9/1/2012	147,852	14,357	8,782	137	23,951
9/1/2013	160,921	15,127	8,533	207	24,385
9/1/2014	129,044	12,130	8,852	279	21,526
7/1/2015	195,985	18,063	7,859	497	26,913
7/1/2016	224,789	20,238	7,992	658	29,260

I-2. Calculation of Annual Pension Cost (30 Year Closed Amortization)

Actuarial Valuation Date	Unfunded Actuarial Accrued Liability	Amortization Payment	Normal Cost	Employee Contribution	Mid-year Contribution
9/1/2008	65,985	$ 6,342	$ 8,125	$ -	$ N/A
9/1/2009	164,274	15,745	8,292	-	N/A
9/1/2010	151,655	14,851	8,333	-	N/A
9/1/2011	150,241	14,400	8,171	-	N/A
9/1/2012	147,852	14,357	8,782	137	N/A
9/1/2013	160,921	15,127	8,533	207	N/A
9/1/2014	129,044	12,130	8,852	279	N/A
7/1/2015	195,985	15,641	7,859	497	24,398
7/1/2016	224,789	17,546	7,992	658	26,470

Employee contributions estimated based on census data.

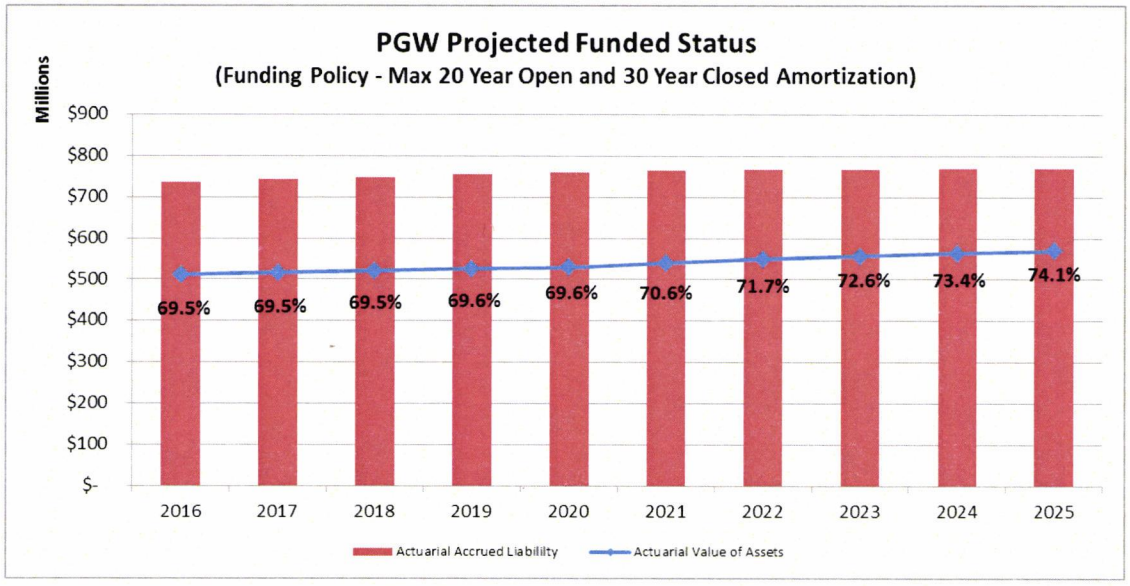
I. Calculation of Annual Pension Cost (cont.)



J. Schedule of Prospective Funded Status

J. Schedule of Prospective Funded Status
(Funding Policy - Max 20 Year Open and 30 Year Closed Amortization)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Actual Mid-Year Contribution	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
7/1/2016	$ 511,289	$ 736,078	$ 224,789	$ 29,260	69.46%	$ 90,860	247.40%
7/1/2017	516,312	743,161	226,849	29,201	69.48%	94,949	238.92%
7/1/2018	520,981	749,322	228,341	29,227	69.53%	99,222	230.13%
7/1/2019	525,256	754,759	229,502	29,361	69.59%	103,687	221.34%
7/1/2020	529,287	760,354	231,067	29,267	69.61%	108,353	213.25%
7/1/2021	539,874	764,209	224,335	28,403	70.64%	113,229	198.12%
7/1/2022	549,285	766,619	217,334	27,526	71.65%	118,324	183.68%
7/1/2023	557,447	767,850	210,403	26,709	72.60%	123,649	170.16%
7/1/2024	564,315	768,739	204,424	25,598	73.41%	129,213	158.21%
7/1/2025	569,580	769,172	199,591	25,018	74.05%	135,028	147.81%



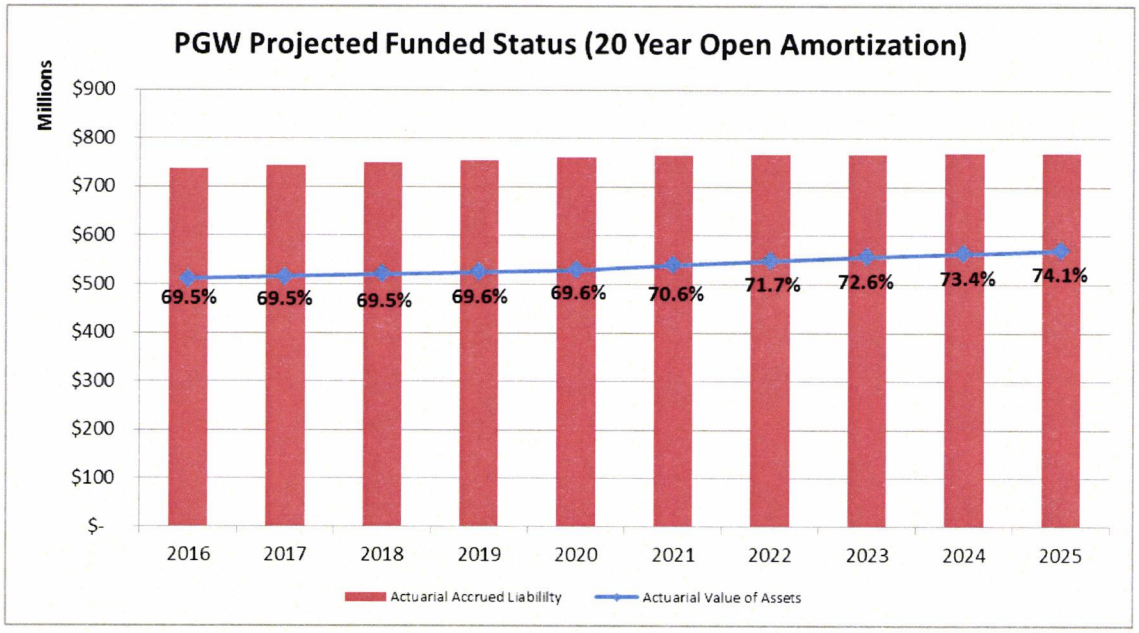
Investment returns assumed to be 7.30% per year.

Covered payroll projected to increase by 4.5% per year.

J. Schedule of Prospective Funded Status (cont.)

J-2. Schedule of Prospective Funded Status (20 Year Open Amortization)

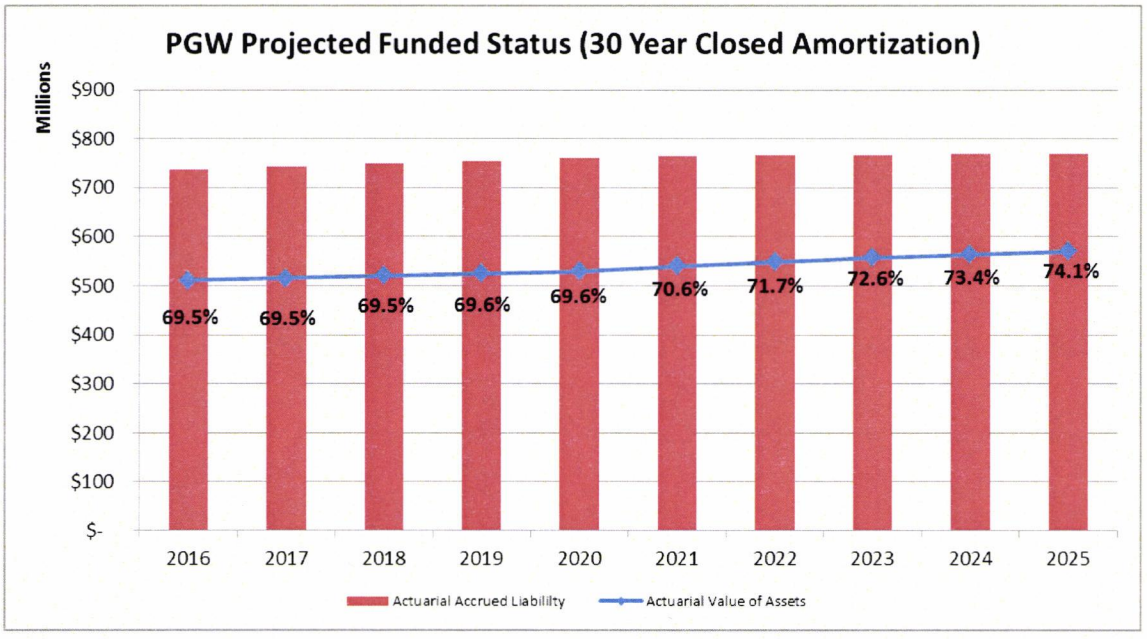
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Calculated Mid-Year Contribution	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
7/1/2016	$ 511,289	$ 736,078	$ 224,789	$ 29,260	69.46%	$ 90,860	247.40%
7/1/2017	516,312	743,161	226,849	29,201	69.48%	94,949	238.92%
7/1/2018	520,981	749,322	228,341	29,227	69.53%	99,222	230.13%
7/1/2019	525,256	754,759	229,502	29,361	69.59%	103,687	221.34%
7/1/2020	529,287	760,354	231,067	29,267	69.61%	108,353	213.25%
7/1/2021	539,874	764,209	224,335	28,403	70.64%	113,229	198.12%
7/1/2022	549,285	766,619	217,334	27,526	71.65%	118,324	183.68%
7/1/2023	557,447	767,850	210,403	26,709	72.60%	123,649	170.16%
7/1/2024	564,315	768,739	204,424	25,598	73.41%	129,213	158.21%
7/1/2025	569,580	769,172	199,591	25,018	74.05%	135,028	147.81%



J. Schedule of Prospective Funded Status (cont.)

J-3. Schedule of Prospective Funded Status (30 Year Closed Amortization)

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Calculated Mid-Year Contribution	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
7/1/2016	$ 511,289	$ 736,078	$ 224,789	$ 26,470	69.46%	$ 90,860	247.40%
7/1/2017	516,312	743,161	226,849	26,587	69.48%	94,949	238.92%
7/1/2018	520,981	749,322	228,341	26,806	69.53%	99,222	230.13%
7/1/2019	525,256	754,759	229,502	27,157	69.59%	103,687	221.34%
7/1/2020	529,287	760,354	231,067	27,293	69.61%	108,353	213.25%
7/1/2021	539,874	764,209	224,335	26,792	70.64%	113,229	198.12%
7/1/2022	549,285	766,619	217,334	26,298	71.65%	118,324	183.68%
7/1/2023	557,447	767,850	210,403	25,880	72.60%	123,649	170.16%
7/1/2024	564,315	768,739	204,424	25,178	73.41%	129,213	158.21%
7/1/2025	569,580	769,172	199,591	25,013	74.05%	135,028	147.81%



K. Distribution of Inactive Participants by Age and Years of Retirement

1. Retirees

Years of Retirement as of July 1, 2016									
								Annual Benefits	
Age	***0-4***	***5-9***	***10-14***	***15-19***	***20-24***	***25+***	***Total***	***Total***	***Average***
15-44	*3*	*0*	*0*	*0*	*0*	*0*	*3*	*$ 31,009*	*$ 10,336*
45-49	*5*	*2*	*0*	*0*	*0*	*0*	*7*	*147,992*	*21,142*
50-54	*47*	*10*	*5*	*0*	*0*	*0*	*62*	*1,928,254*	*31,101*
55-59	*232*	*89*	*9*	*6*	*1*	*3*	*340*	*10,271,567*	*30,210*
60-64	*161*	*147*	*61*	*26*	*4*	*0*	*399*	*11,339,744*	*28,420*
65-69	*86*	*137*	*93*	*70*	*31*	*2*	*419*	*10,529,925*	*25,131*
70-74	*25*	*45*	*41*	*37*	*85*	*3*	*236*	*4,997,089*	*21,174*
75-79	*27*	*19*	*20*	*28*	*105*	*10*	*209*	*4,308,965*	*20,617*
80-84	*24*	*15*	*21*	*24*	*69*	*41*	*194*	*3,247,108*	*16,738*
85-89	*19*	*19*	*13*	*17*	*32*	*85*	*185*	*2,487,435*	*13,446*
90+	*9*	*12*	*10*	*10*	*9*	*88*	*138*	*1,481,763*	*10,737*
Total	***638***	***495***	***273***	***218***	***336***	***232***	***2192***	***$ 50,770,851***	***$ 23,162***
Average Age: 70.72				*Average Retirement Years: 12.04*					

2. Vested Terminated

		Annual Benefits	
Age	***Number***	***Total***	***Average***
15-44	*98*	*$ 707,536*	*$ 7,220*
45-49	*61*	*736,018*	*12,066*
50-54	*106*	*1,295,225*	*12,219*
55-59	*43*	*574,092*	*13,351*
60-64	*18*	*220,525*	*12,251*
65+	*3*	*24,102*	*8,034*
Total	***329***	***$ 3,557,498***	***$ 10,813***

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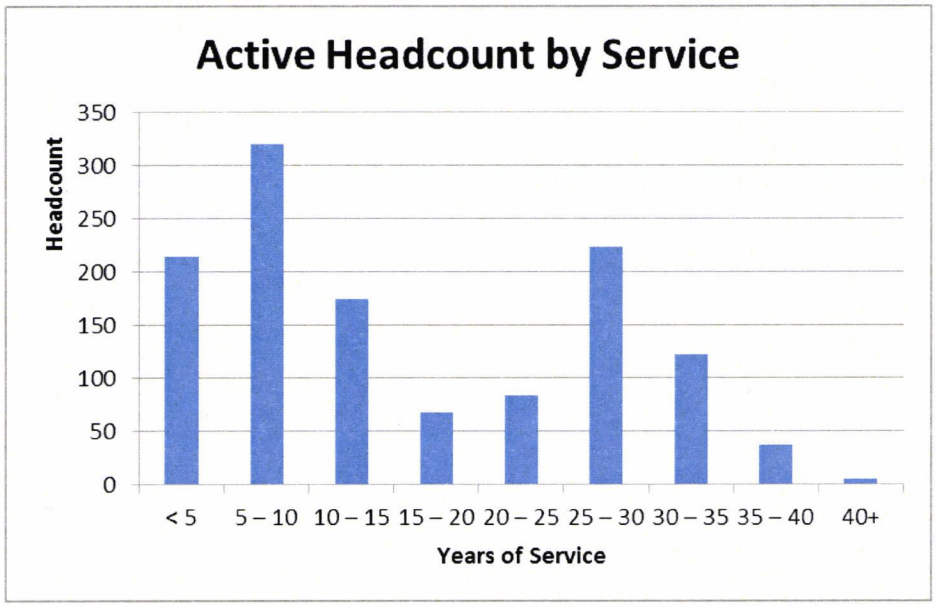
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L. Distribution of Active Participants by Age and Service

(Showing Number of Employees and Average Earnings)

Completed Years of Service as of July 1, 2016													
Age	**00-00**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**	**Earnings Total**	**Average**
15-19	1	1	-	-	-	-	-	-	-	-	2	78,786	39,393
	32,022	46,765	-	-	-	-	-	-	-	-	39,393		
20-24	4	27	2	-	-	-	-	-	-	-	33	1,631,125	49,428
	41,711	49,060	69,828	-	-	-	-	-	-	-	49,428		
25-29	17	51	88	1	-	-	-	-	-	-	157	9,224,560	58,755
	40,698	50,656	66,698	79,816	-	-	-	-	-	-	58,755		
30-34	4	29	90	35	1	-	-	-	-	-	159	10,608,266	66,719
	60,664	56,001	67,375	74,195	81,035	-	-	-	-	-	66,719		
35-39	5	13	35	35	10	1	-	-	-	-	99	7,057,639	71,289
	44,048	57,208	74,479	75,634	79,768	42,090	-	-	-	-	71,289		
40-44	7	15	36	33	16	12	1	-	-	-	120	8,504,496	70,871
	51,230	48,860	71,870	76,213	77,615	82,079	83,846	-	-	-	70,871		
45-49	3	8	21	28	12	26	60	6	-	-	164	12,695,906	77,414
	42,634	66,852	72,529	75,297	84,719	81,576	79,741	79,951	-	-	77,414		
50-54	8	8	27	20	14	23	97	45	2	-	244	18,779,657	76,966
	45,625	59,741	70,433	77,091	78,024	79,204	79,562	82,838	66,962	-	76,966		
55-59	2	8	11	11	9	13	46	61	25	-	186	14,886,095	80,033
	40,838	51,936	64,805	68,187	79,945	72,718	84,019	83,011	93,304	-	80,033		
60-64	1	2	8	8	4	8	17	11	9	3	71	6,018,012	84,761
	66,625	32,625	68,807	65,222	121,812	74,871	76,337	79,665	140,571	96,171	84,761		
65-69	-	1	1	3	2	1	2	-	1	3	14	1,212,302	86,593
	-	54,128	169,125	69,268	95,076	67,819	81,015	-	90,219	90,342	86,593		
70+	-	-	1	1	-	-	-	-	-	-	2	163,520	81,760
	-	-	80,572	82,947	-	-	-	-	-	-	81,760		
	52	163	320	175	68	84	223	123	37	6	1,251	90,860,364	72,630
Total	45,258	52,780	69,390	74,580	82,742	78,355	80,316	82,499	103,294	93,256	72,630		
	Average Age: *44.76*								***Average Service:*** *15.75*				

L. Distribution of Active Participants by Service (cont.)



Service	***Active Headcount***
< 5	*215*
5 – 10	*320*
10 – 15	*175*
15 – 20	*68*
20 – 25	*84*
25 – 30	*223*
30 – 35	*123*
35 – 40	*37*
40+	*6*
Total	***1,251***

M. Data Reconciliation

		Actives	*Term Vested*	*Retiree**	*Total*
1. Participants as of 7/1/15		**1,274**	**327**	**2,199**	**3,800**
a.	New Participants	58	0	0	**58**
b.	Return from Retirement	0	0	0	**0**
c.	Retirements	(39)	(17)	56	**0**
d.	Surviving Spouses	0	0	0	**0**
e.	Rehires	2	(2)	0	**0**
f.	Terminations	(22)	22	0	**0**
g.	Nonvested Terminations	(21)	0	0	**(21)**
h.	Deaths w/ Beneficiary	0	0	(28)	**(28)**
i.	New Beneficiary	0	0	28	**28**
j.	Deaths w/o Beneficiary	(1)	(1)	(66)	**(68)**
k.	Data Corrections	0	0	0	**0**
l.	New QDRO	0	0	3	**3**
m.	Total Increase / (Decrease)	(23)	2	(7)	**(28)**
2. Actual Participants as of 6/30/16		**1,251**	**329**	**2,192**	**3,772**

**Includes Surviving Spouses and Alternate Payees*

N. Actuarial Methods and Assumptions

1. *Cost Methods*

The cost method used is the Projected Unit Credit Cost method. Each year the projected benefits of each participant are estimated and their present value determined. The normal cost for each active participant is determined by dividing this present value by service from entry into the plan to assumed retirement age. The total normal cost is equal to the sum of individual normal costs.

The accrued actuarial liability for each active participant is equal to the normal cost multiplied by service since entry to valuation date. The accrued actuarial liability for inactive participants is equal to the present value of their benefits. The total accrued actuarial liability is equal to the sum of the individual accrued actuarial liabilities.

The Unfunded Accrued Actuarial Liability as of any date is equal to the accrued actuarial liability less the actuarial value of assets as of such date.

Each year actuarial gains and losses occur since actual experience under the Plan will vary from the actuarial assumptions. All gains and losses will be amortized in future years.

2. *Asset Valuation Technique*

The Actuarial Asset Value is equal to the value of fund assets as reported by the City of Philadelphia smoothed over a period of 5 years. The Actuarial Asset Value is further limited to fall within a corridor of 80% and 120% of the Market Value of Assets.

N. Actuarial Methods and Assumptions (cont.)

3. *Actuarial Assumptions*

(Unless otherwise specified, the same assumptions have been used for the determination of the Contribution Range and Accumulated Plan Benefits)

a. *Mortality:* Healthy Lives: RP-2014 mortality table generationally projected with Scale MP-2015:

Percentage of Healthy, Pre-Commencement Participants Expected to Die in the Next Year Prior to Applying Generational Improvement Scale

Age	Males	Females	Age	Males	Females
20	.0510%	.0202%	45	.1207%	.0758%
25	.0545%	.0186%	50	.1979%	.1151%
30	.0470%	.0209%	55	.2967%	.1735%
35	.0557%	.0301%	60	.4954%	.2795%
40	.0750%	.0471%	65	.9486%	.4482%

Disabled Lives: Disabled mortality rates are used for anticipated future disablements and current disabled lives. Sample percentages are as follows:

Percentage of Disabled Participants Expected to Die in the Next Year

Age	Males	Females	Age	Males	Females
20	2.4583%	0.9650%	45	4.3033%	2.3988%
25	2.7457%	1.1974%	50	4.8004%	2.7961%
30	3.0661%	1.4843%	55	5.3120%	3.2594%
35	3.4184%	1.7654%	60	5.8118%	3.7993%
40	3.8373%	2.0579%	65	6.3669%	4.4287%

b. *Interest:* 7.30%, compounded annually.

N. Actuarial Methods and Assumptions (cont.)

c. *Turnover:* A scale varying by age and service with illustrative annual rates of turnover as follows:

	Years of Service					
Age	***0***	***1***	***2***	***3***	***4***	***5***
20	*23.2%*	*17.4%*	*14.4%*	*11.6%*	*8.8%*	*5.8%*
25	*18.8%*	*14.0%*	*11.8%*	*9.4%*	*7.0%*	*4.6%*
30	*14.8%*	*11.0%*	*9.2%*	*7.4%*	*5.6%*	*3.6%*
35	*11.2%*	*8.4%*	*7.0%*	*5.6%*	*4.2%*	*2.8%*
40	*8.8%*	*6.6%*	*5.6%*	*4.4%*	*3.4%*	*2.2%*
45	*7.2%*	*5.4%*	*4.6%*	*3.6%*	*2.8%*	*1.8%*
50	*5.2%*	*3.8%*	*3.2%*	*2.6%*	*2.0%*	*1.2%*
55	*0*	*0*	*0*	*0*	*0*	*0*

d. *Disability* A scale varying by age with illustrative annual rates of disability as follows:

Percentage of Participants Expected to Become Disabled in the Next Year	
Age	**Percentage**
30	*0.0600%*
35	*0.0700%*
40	*0.1100%*
45	*0.2200%*
50	*0.4600%*
55	*1.0200%*
60	*1.6200%*

e. *Salary Increase*

Determination of Contribution Range Salaries are assumed to increase by an amount equal to 4.5% of the salary for the current year.

Accumulated Plan Benefits Past salaries are discounted at the same rate as described above. Future salaries are assumed to remain at the same level as on the valuation date.

N. Actuarial Methods and Assumptions (cont.)

f. *Retirement Age* Retirements are assumed to occur at the following ages:

Age	Service < 30	Service > 30	Age	Service < 30	Service > 30
55	10%	15%	63	25%	50%
56	10%	15%	64	25%	50%
57	10%	15%	65	50%	50%
58	10%	15%	66	50%	50%
59	10%	15%	67	50%	50%
60	10%	15%	68	50%	50%
61	10%	30%	69	50%	50%
62	25%	50%	70+	100%	100%

g. *Salary* Current year salary is assumed to be the greater of the annualized 2016 Taxable Gross Wages based on actual wages through June 30, 2016 and the annual pay rate as provided by Philadelphia Gas Works.

4. Change in Actuarial Assumptions

The mortality table was changed from the RP-2014 mortality table generationally projected with Scale MP-2014 to the RP-2014 mortality table generationally projected with Scale MP-2015 to better reflect actual and future mortality experience.

The discount rate was changed from 7.65% to 7.30%.

O. Summary of the Principal Plan Provisions

Any ambiguities or questionable provisions of this summary should be resolved by reference to the official Plan Document. This summary is not intended to be a source document, but merely an instrument of convenience for the administration of the Plan.

1. *Effective Date:* March 24, 1967, most recently amended as of June 26, 2002.

2. *Eligibility:* Full-time employees hired prior to March 24, 1967 who will have completed 15 years of Credited Service at normal retirement occurring prior to January 1, 1979 or 5 years Credited Service at normal retirement occurring on or after January 1, 1979 became participants on March 24, 1967. Employees hired on or after March 24, 1967 will become participants on their date of employment. A full-time employee is one who works regularly for 20 or more hours each week.

3. *Contribution:* Philadelphia Gas Works pays the entire cost of the Plan for all employees hired prior to May 21, 2011. Union employees hired on or after May 21, 2011 and Non-Union employees hired on or after December 21, 2011 have the option to participate in the Philadelphia Gas Works Pension Plan and contribute 6% of applicable wages to the Plan, or they may elect to participate in the 401(a) Plan with Philadelphia Gas Works contributing 5.5% of applicable wages.

4. *Credited Service:* Years and months of service credited prior to March 24, 1967 and years and months of continuous service thereafter; continuous service is reduced for periods of approved unpaid leaves (except for military leave) in excess of one month. Layoff periods are also excluded and, if in excess of one year, when approved, the employee is considered terminated.

5. *Final Average Compensation:* Average of the five highest consecutive calendar years' earnings during the last 10 years of Credited Service. Compensation includes overtime, bonus, shift differential, and any other special compensation. Per the amendment approved on November 14, 1986, compensation includes amounts deferred under the PGW Employees' Deferred Compensation Plan.

6. *Retirement Dates*

   a. *Normal Retirement:* First of the month next following attainment of age 65 and completion of 5 years of Credited Service.

   b. *Early Retirement*: First of any month after attaining age 55 and completing 15 years of Credited Service, or after completing 30 years of credited service.

   c. *Late Retirement:* First of any month after Normal Retirement up to age 70.

   d. *Disability Retirement*: If permanently disabled and has attained age 45 and completed at least 15 years of Credited Service, provided age plus years of Credited Service equals at least 65. Or after completion of at least 20 years of Credited Service regardless of age, upon recommendation of the Medical Director of the Company.

O. Summary of the Principal Plan Provisions (cont.)

7. *Benefit Formula*

   a. *Normal Retirement:* The monthly equivalent of the greater of (i) or (ii) below, payable for life.

      i. 1.25% of the first $6,600 of Final Average Earnings plus 1.75% of the excess of Final Average Earnings over $6,600, times Credited Service; maximum of 60% of the highest annual earnings during any one of the last 10 years of Credited Service; applicable to all participants.

      ii. 2% of total earnings received during period of Credited Service plus 22.5% of the first $1,200 of such amount; applicable only to participants who were employees on or prior to March 24, 1967.

   b. *Early Retirement:* Same as 7(a) above, based upon Final Average Earnings and Credited Service as of the early retirement date and reduced by the percentage described in 8 below depending upon Credited Service as of the early retirement date.

   c. *Late Retirement:* Same as Normal Retirement Benefit based on Final Average Compensation and Credited Service as of Late Retirement Date.

   d. *Disability Retirement:* Same as Normal Retirement Benefit, based on Final Average Compensation and Credited Service as of date of disability.

8. *Benefits Upon Termination of Employment - Vesting:* All participants who terminate after having completed at least 5 years of Credited Service are entitled to a benefit as described in 7(a) above, based upon Final Average Compensation and Credited Service as of the date of termination.

   Early Commencement of Payments: A former participant who is entitled to a deferred benefit may elect to have his benefit commence on the first day of any month between his 55th and 65th birthdays. Such benefit will be reduced by 3% for each of the first 5 years and 5% for each of the next 5 years by which commencement of payments precedes age 65. If the participant has completed 25 years of Credited Service, his benefit will be unreduced for the first 3 years and reduced by 3% for each of the next 2 years and by 5% for the following 5 years by which commencement of payments precedes age 65.

If a participant has completed 30 or more years of credited service, payments are not reduced.

O. Summary of the Principal Plan Provisions (cont.)

9. *Death Benefits*

   a. *Before Retirement:* Spouses of deceased active participants or of former participants are entitled to vested benefits, provided such participants died after having attained age 45 and completed at least 15 years of Credited Service and whose age plus years of Credited Service equals at least 65 years or who have completed at least 15 years of Credited Service regardless of age.

      The benefit payable is an amount for the spouse's remaining lifetime equal to the amount the beneficiary of the participant would have received had the participant retired due to disability on the day preceding his death and elected the 100% Contingent Annuitant Option.

   b. *After Retirement:* None except as provided by election of an optional form.

10. *Normal Form of Benefits:* Life annuity

11. *Optional Benefit Forms:* 100%, 75%, or 50% Contingent Annuitant option, 75% or 50% Joint and Last Survivor option.

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Philadelphia Gas Works Pension Plan

Actuarial Valuation Report for the Fiscal Year Ending June 30, 2016 – Accounting under GASB 67/68

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October 28, 2016

Philadelphia Gas Works
1800 N. Ninth Street
Philadelphia, PA 19122

We have been retained by Philadelphia Gas Works to perform the actuarial valuation of the Philadelphia Gas Works Pension Plan as of June 30, 2016. This report sets forth the accounting information for the Fiscal Year, running from July 1, 2015 through June 30, 2016. The valuation is based on data sent to us by Philadelphia Gas Works, the Plan as described in the official Plan document, the assets of the Plan as reported by Philadelphia Gas Works, and the stated actuarial assumptions.

The purposes of the actuarial valuation are:

1. To determine the financial condition of the Plan
2. To provide information to be used in the preparation of any required governmental forms;
3. To provide information needed for the completion of financial statement disclosures under GASB statement 67 and GASB statement 68,
4. To provide information for use in satisfying the requirements of your auditors;

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In our opinion, this report is complete and accurate, and the actuarial assumptions and methods, in the aggregate, are reasonably related to the experience of the Plan and represent our best estimate of future Plan experience as it should be considered for proper funding of your pension obligations. It is also our opinion that each of the actuarial assumptions and methods utilized in this valuation are reasonable (taking into account the experience of the plan and reasonable expectations) or, in the aggregate, result in total contribution equivalents that would be determined if each assumption and method were reasonable.

Aon Hewitt is pleased to submit this report of the Pension Plan to you, and will also be pleased to discuss any aspects of the report with you after you have had a chance to review it.

Respectfully submitted,

Thomas G. Vicente, FSA, EA
Partner

Enrollment #14-05034

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A. Comparative Summary of Principal Valuation Results

		Actuarial Valuation for Fiscal Year Ending			
		June 30, 2016	***June 30, 2015***	***Percent Change***	
1.	**Participant Data**				
	Active Participants	1,251	1,274	(1.8)	%
	Retired Participants	2,192	2,199	(0.3)	%
	Vested Terminated Participants	329	327	0.6	%
	Total	3,772	3,800	(0.7)	%
	Total Payroll	90,860,364	95,186,942	(4.5)	%
	Average Pay	72,630	74,715	(2.8)	%
	Average Age	44.76	44.25	1.2	%
	Average Past Service	15.75	15.49	1.7	%

A. Comparative Summary of Principal Valuation Results (continued)

		Actuarial Valuation for Fiscal Year Ending			
		June 30, 2017	***June 30, 2016[1]***	***Percent Change***	
1.	**Contribution Range**				
	Normal Cost *(Exhibit D)*	$ 7,991,587	$ 7,858,658	1.7	%
	Indicated Midyear -				
	20 Year Contribution *(Exhibit E)*	$ 29,260,334	$ 26,912,652	8.7	%
	30 Year Contribution *(Exhibit E)*	$ 26,470,015	$ 24,019,697	10.2	%
	20 Year Contribution as Percentage of Compensation	32.20%	28.27%	13.9	%
	30 Year Contribution as Percentage of Compensation	29.13%	25.23%	15.4	%

The Normal Cost above represents the cost of benefits being earned by additional years of service with PGW. This figure has risen since the previous year as the result of an additional year of interest accumulation and a decrease in the discount rate from 7.65% to 7.30%.

The contribution levels are the sum of the Normal Cost and a level dollar amortization of the unfunded actuarial liability. The contribution amounts have increased over the prior period (20 year basis) for several reasons:

a) Discount rate change: The discount rate was changed to 7.30% for the 2015 valuation from the 7.65% rate used the prior year. This increased the measurement of plan liabilities approximately 3.6%. This increased the annual contribution by $2,407,000 (2.6% of pay).

b) Investment returns: The investment return for the period ending June 30, 2016 was approximately $2,900,000. Based on the 7.65% assumption in place on July 1, 2015, a return of $38,200,000 would have been expected over this period. This increased the annual contribution by $631,000 (0.7% of pay). The change to recognizing a smoothed value of assets reduced the impact of the asset returns.

c) Demographic gains: The changes in the plan census differed from those expected by the plan assumptions. Salary used for valuation purposes increased approximately 0.2% for continuing actives compared to a 4.5% salary increase assumption. This decreased plan liabilities approximately 0.5%. In addition, there were 166 actives with 30 or more years of service eligible for full retirement benefits who remained active as of the valuation date. This accounted for an additional decrease in plan liabilities of approximately 0.3%. This decreased the annual contribution by $625,000 (0.7% of pay).

[1] Contributions shown reflect values stated in the Philadelphia Gas Works Pension Plan – Funding Actuarial Valuation Report for the Plan Year July 1, 2015 – June 30, 2016. Revised asset values were provided after this report was produced.

A. Comparative Summary of Principal Valuation Results (continued)

	Actuarial Valuation for Plan Year Beginning		
	July 1, 2016	***July 1, 2015***	***Percent Change***
1. **Assets**			
Market Asset Value *(Exhibit C)*	$ 483,258,662	$ 510,719,047	(5.4)%

Plan assets are invested in a mix of stocks and bonds held by the Sinking Fund Commission. The long term asset allocation strategy is an equity allocation of 65% of the portfolio and a fixed income allocation of 35% if the portfolio. The investment return for the period from July 1, 2015 through June 30, 2016 was approximately 0.58%. This represented an under performance of plan investments versus the actuarial assumption of 7.65% for the period (changing to 7.30% beginning July 1, 2016), but not necessarily an underperformance versus independent investment benchmarks. Review of performance against those benchmarks is outside the scope of this report.

The benefit payment distributions were the largest factor in asset movement during the period July 1, 2015 through June 30, 2016. The combination of plan investment returns and employer and employee contributions did not keep pace with the distributions which resulted in a large decrease in plan asset levels (-5.4%).

B. Discussion

Since the last actuarial valuation performed as of July 1, 2015, the demographics of the plan participants has changed as follows:

- The number of plan participants has decreased 0.7%
- The total number of actives in the plan decreased 1.8%
- Total payroll has decreased 4.5%
- Average pay has decreased 2.8%
- Average age of active plan participants increased 1.2%

The restating of the assumptions around the discount rate created an increase in plan liabilities that translates to an increase in the contribution rate (on a 20 year amortization basis). This year, contribution schedules using a 20 year open amortization period and a 30 year closed amortization period of the unfunded liability were included in the range of potential contribution levels. PGW has indicated they plan to contribute the larger of the annual contributions calculated by these two amortization methods.

Both contribution schedules are expected to gradually improve the funded status of the plan.

C. Financial Summary

Assets as of June 30, 2015		$ 510,719,047
Receipts		
Employer Contribution	21,122,557	
Employee Contribution	602,287	
Investment return *	2,872,187	
Total Receipts		$ 24,597,031
Disbursements		
Benefit Payments	50,446,550	
Administrative Expenses	1,610,866	
Total Disbursements		$ 52,057,416
Assets as of June 30, 2016		$ 483,258,662

Asset Information as of June 30, 2016

Asset Allocations	**Current Allocation**	**Target Allocation**
Equity	65.39%	65.00%
Total Fixed Income	34.53%	35.00%
Other	0.08%	0.00%

Annual Rate of Return	**Market Value**	**Assumed Rate**
Rate[2]	0.58%	7.65%

**Net of any additional fund expenses not included in Administrative Expenses under Disbursements*

1. Asset information as reported by the City of Philadelphia
2. The above return was based on a simplified determination of returns. This will differ from the actual time-weighted return for the plan due to the incidence of inflows and outflows from the Trust. The time-weighted return was 0.19% for the year.

D. GASB 67 and 68 Reports

Plan Reporting – Unfunded Liability and Normal Cost

The following table illustrates the assets and liabilities as of the end of the Plan Year used for the development of the plan reporting information under GASB 67

		June 30, 2015	June 30, 2016
1.	Fair Market Value of Plan Assets	$ 510,719,047	$ 483,258,662
2.	Accrued Liability		
	a) Active	$ 234,133,325	$ 244,286,562
	b) Inactive (not in pay status)	$ 14,399,979	$ 14,813,594
	c) Inactive (in pay status)	$ 502,054,773	$ 520,251,013
	d) Total	$ 750,588,077	$ 779,351,169
3.	Unfunded Liability	$ 239,869,030	$ 296,092,507
4.	Assets as a percent of liability	68.04%	62.01%

Valuation Date: Actuarial liabilities and assets are calculated as of the Fiscal Year end date.

Discount Rate: The discount rate used to measure the total pension liability was 7.30%. The projection of cash flows used to determine the discount rate assumed the contributions from Plan members will be made at the current contribution rate and that contributions from PGW will be made based on the current, actuarially determined funding policy. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

D. GASB 67 and 68 Reports (continued)

GASB 68 Reporting – Expense

The following table illustrates the development of the plan expense under GASB 68

		June 30, 2015	June 30, 2016
1.	Service Cost	$ 4,890,358	$ 5,399,272
2.	Interest Cost		
	a) Total Pension Liability at Measurement Date	$ 677,401,117	$ 750,588,077
	b) Normal Cost at Measurement Date	$ 4,890,358	$ 5,399,272
	c) Actual Benefit Payments	$ (46,916,787)	$ (50,446,550)
	d) Discount Rate	7.95%	7.65%
	e) Interest Cost	$ 52,377,230	$ 55,903,452
3.	Expected Investment Return		
	a) Plan Fiduciary Net Position at Measurement Date	$ 513,144,714	$ 510,719,047
	b) Actual Contributions-Employer	$ 21,106,136	$ 21,122,557
	c) Actual contributions-Employee	$ 392,884	$ 602,287
	d) Actual Benefit Payments	$ (46,916,787)	$ (50,446,550)
	e) Administrative Expenses	$ (1,480,245)	$ (1,610,866)
	f) Discount Rate	7.95%	7.65%
	g) Expected Return	$ 39,725,809	$ 37,909,786
4.	Pension Expense under GASB 68		
	a) Service Cost	$ 4,890,358	$ 5,399,272
	b) Interest Cost	$ 52,377,230	$ 55,903,452
	c) Expected Investment Return	$ (39,725,809)	$ (37,909,786)
	d) Employee Contributions	$ 392,884	$ 602,287
	e) Administrative Expenses	$ 1,480,245	$ 1,610,866
	f) Plan Changes	$ -	$ -
	g) Amortization of:		
	i) Liability (Gain)/Loss	$ 18,716,812	$ 16,444,055
	ii) Asset (Gain)/Loss	$ (4,901,366)	$ 2,106,154
	iii) Assumption Changes	$ 11,303,724	$ 18,179,802
	h) Total Expense/(Income)	$ 44,534,078	$ 62,336,102

D. GASB 67 and 68 Reports (continued)

GASB 68 Reporting – Amortization of Deferred Inflows/Outflows – 2015 Fiscal Year

The following table illustrates the amortization bases included in the Deferred Inflows/Outflows as of the Measurement Date

Date		Period		Balance		Annual
Established	Type of Base	Original	Remaining	Original	Remaining	Payment
7/1/2014	Liability (Gain)/Loss	4.18	2.18	$ 59,325,855	$ 30,940,279	$ 14,192,788
7/1/2014	Asset (Gain)/Loss	5.00	3.00	$ (39,760,297)	$ (23,856,179)	$ (7,952,059)
7/1/2015	Liability (Gain)/Loss	3.97	2.97	$ 17,960,374	$ 13,436,350	$ 4,524,024
7/1/2015	Asset (Gain)/Loss	5.00	4.00	$ 15,253,464	$ 12,202,771	$ 3,050,693
7/1/2015	Assumption Changes	3.97	2.97	$ 44,875,785	$ 33,572,061	$ 11,303,724
	Total Charges			$ 97,655,181	$ 66,295,282	$ 25,119,170

D. GASB 67 and 68 Reports (continued)

GASB 68 Reporting – Amortization of Deferred Inflows/Outflows – 2015 Fiscal Year (continued)

Deferred Inflows/Outflows

The following table illustrates the Deferred Inflows and Outflows under GASB 68

	Deferred Outflows	Deferred Inflows
1. Difference between actual and expected experience		
a) Measurement Date June 30, 2014 - Experience	$ 30,940,279	$ -
b) Measurement Date June 30, 2015 - Experience	$ 13,436,350	$ -
c) Measurement Date June 30, 2015 - Assumption Changes	$ 33,572,061	$ -
2. Difference between expected and actual earnings on plan investments		
a) Measurement Date June 30, 2014	$ -	$ (23,856,179)
b) Measurement Date June 30, 2015	$ 12,202,771	$ -
3. Contributions made after the Measurement Date	$ 1,675,536	$ -
4. Total	$ 91,826,997	$ (23,856,179)

D. GASB 67 and 68 Reports (continued)

GASB 68 Reporting – Amortization of Deferred Inflows/Outflows – 2016 Fiscal Year

The following table illustrates the amortization bases included in the Deferred Inflows/Outflows as of the Measurement Date

Date		Period		Balance		Annual
Established	Type of Base	Original	Remaining	Original	Remaining	Payment
7/1/2014	Liability (Gain)/Loss	4.18	1.18	$ 59,325,855	$ 16,747,491	$ 14,192,788
7/1/2014	Asset (Gain)/Loss	5.00	2.00	$ (39,760,297)	$ (15,904,120)	$ (7,952,059)
7/1/2015	Liability (Gain)/Loss	3.97	1.97	$ 17,960,374	$ 8,912,326	$ 4,524,024
7/1/2015	Asset (Gain)/Loss	5.00	3.00	$ 15,253,464	$ 9,152,078	$ 3,050,693
7/1/2015	Assumption Changes	3.97	1.97	$ 44,875,785	$ 22,268,337	$ 11,303,724
7/1/2016	Liability (Gain)/Loss	3.89	2.89	$ (8,841,025)	$ (6,568,268)	$ (2,272,757)
7/1/2016	Asset (Gain)/Loss	5.00	4.00	$ 35,037,599	$ 28,030,079	$ 7,007,520
7/1/2016	Assumption Changes	3.89	2.89	$ 26,747,943	$ 19,871,865	$ 6,876,078
	Total Charges			$ 150,599,698	$ 82,509,788	$ 36,730,011

D. GASB 67 and 68 Reports (continued)

GASB 68 Reporting – Amortization of Deferred Inflows/Outflows – 2016 Fiscal Year (continued)

Deferred Inflows/Outflows

The following table illustrates the Deferred Inflows and Outflows under GASB 68

	Deferred Outflows	Deferred Inflows
1. Difference between actual and expected experience		
a) Measurement Date June 30, 2014 - Experience	$ 16,747,491	$ -
b) Measurement Date June 30, 2015 - Experience	$ 8,912,326	$ -
c) Measurement Date June 30, 2015 - Assumption Changes	$ 22,268,337	$ -
d) Measurement Date June 30, 2016 - Experience	$ -	$ (6,568,268)
e) Measurement Date June 30, 2016 - Assumption Changes	$ 19,871,865	$ -
2. Difference between expected and actual earnings on plan investments		
a) Measurement Date June 30, 2014	$ -	$ (15,904,120)
b) Measurement Date June 30, 2015	$ 9,152,078	$ -
c) Measurement Date June 30, 2016	$ 28,030,079	$ -
3. Total, Before Contributions	$ 104,982,176	$ (22,472,388)
4. Contributions made after the Measurement Date	$ 5,533,037	$ -
5. Total, After Contributions	$ 110,515,213	$ (22,472,388)

Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for the Fiscal Year Ending June 30, 2016:

	1% Decrease 6.30%	Current Rate 7.30%	1% Increase 8.30%
1. Total Pension Liability	$ 870,318,731	$ 779,351,169	$ 703,554,212
2. Plan Fiduciary Net Position	$ 483,258,662	$ 483,258,662	$ 483,258,662
3. Net Pension Liability	$ 387,060,069	$ 296,092,507	$ 220,295,550

Valuation Date: Actuarial liabilities and assets are calculated as of the Fiscal Year end date.

The following table illustrates the impact of interest rate sensitivity on the Net Pension Liability for the Fiscal Year Ending June 30, 2015:

	1% Decrease 6.65%	Current Rate 7.65%	1% Increase 8.65%
1. Total Pension Liability	$ 837,437,597	$ 750,588,077	$ 678,134,319
2. Plan Fiduciary Net Position	$ 510,719,047	$ 510,719,047	$ 510,719,047
3. Net Pension Liability	$ 326,718,550	$ 239,869,030	$ 167,415,272

Valuation Date: Actuarial liabilities and assets are calculated as of the Fiscal Year end date.

Changes in Net Pension Liability and Related Ratios

Fiscal Year Ending	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Pension Liability									
Service Cost	N/A	N/A	N/A	N/A	N/A	N/A	8,924,073	4,890,358	5,399,272
Interest Cost	N/A	N/A	N/A	N/A	N/A	N/A	47,098,448	52,377,230	55,903,452
Changes in Benefit Terms	N/A	N/A	N/A	N/A	N/A	N/A	0	0	0
Differences between expected and actual experience	N/A	N/A	N/A	N/A	N/A	N/A	59,325,855	17,960,374	(8,841,025)
Changes in assumptions	N/A	N/A	N/A	N/A	N/A	N/A	0	44,875,785	26,747,943
Benefit Payments	N/A	N/A	N/A	N/A	N/A	N/A	(42,913,000)	(46,916,787)	(50,446,550)
Net Change in Total Pension Liability									
Total Pension Liability (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	604,965,741	677,401,117	750,588,077
Total Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	$ 604,965,741	$ 677,401,117	$ 750,588,077	$ 779,351,169
Plan Fiduciary Net Position									
Contributions-Employer	N/A	N/A	N/A	N/A	N/A	N/A	$ 24,934,000	$ 21,106,136	$ 21,122,557
Contributions-Employee	N/A	N/A	N/A	N/A	N/A	N/A	$ 239,000	$ 392,884	$ 602,287
Net Investment Income	N/A	N/A	N/A	N/A	N/A	N/A	$ 75,303,000	$ 24,472,345	$ 2,872,187
Benefit Payments	N/A	N/A	N/A	N/A	N/A	N/A	$ (42,913,000)	$(46,916,787)	$ (50,446,550)
Administrative Expense	N/A	N/A	N/A	N/A	N/A	N/A	$ (732,000)	$ (1,480,245)	$ (1,610,866)
Other	N/A	N/A	N/A	N/A	N/A	N/A	$ (613)	$ -	$ -
Net Change in Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	N/A			
Plan Fiduciary Net Position (Beginning)	N/A	N/A	N/A	N/A	N/A	N/A	$ 456,314,327	$ 513,144,714	$ 510,719,047
Plan Fiduciary Net Position (Ending)	N/A	N/A	N/A	N/A	N/A	$ 456,314,327	$ 513,144,714	$ 510,719,047	$ 483,258,662
Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	$ 148,651,414	$ 164,256,403	$ 239,869,030	$ 296,092,507

Valuation Date: Actuarial liabilities and assets are calculated as of the Fiscal Year end date.

Schedule of Net Pension Liability

Fiscal Year Ending	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 677,401,117	$ 750,588,077	$ 779,351,169
Plan Fiduciary Net Position	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 513,144,714	$ 510,719,047	$ 483,258,662
Net Pension Liability (Ending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 164,256,403	$ 239,869,030	$ 296,092,507
Net Position as a % of Pension Liability	N/A	N/A	N/A	N/A	N/A	N/A	N/A	75.75%	68.04%	62.01%
Covered Employee Payroll								$ 103,529,519	$ 95,186,942	$ 90,860,364
Net Pension Liability as a % of Payroll								158.66%	252.00%	325.88%

Valuation Date: Actuarial liabilities and assets are calculated as of the Fiscal Year end date.

Actuarially Determined Contribution

Fiscal Year Ending	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actuarially Determined Contribution								$ 24,385,017	$ 21,525,928	$ 26,475,652[1]
Contributions made	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 24,385,017	$ 21,106,136	$ 21,122,557
Contribution Deficiency/(Excess)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ -	$ 419,792	$ 5,353,095
Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$ 103,529,519	$ 95,186,942	$ 90,860,364
Contributions as a percent of covered employee payroll								23.55%	22.61%	29.14%

Notes to schedule:

Actuarial liabilities and assets are calculated as of July 1 immediately following the end of the Fiscal Year in which contributions are reported.

Methods and Assumptions used to determine contribution rates:

Measurement Date: July 1

Actuarial Cost Method: Projected Unit Credit

Asset Valuation Method: Assets smoothed over a 5 year period beginning in 2015 and Market Value in 2014

Amortization Method: Contributions based on greater of 20 year level dollar open amortization method and 30 year level dollar closed amortization method

Salary Increases: 4.50%

General Inflation: 2.00%

Investment Rate of Return: 7.30% in 2016, 7.65% in 2015, 7.95% in 2014

Cost of Living: N/A

Mortality Rates: RP-2014 static Mortality generationally projected with Scale MP-2015 in 2016

1. Based on the Actuarially Determined Contribution as shown in the Actuarial Valuation Report for the Plan Year July 1, 2015 to June 30, 2016.

E. Estimated 10-Year Benefit Pay-Out Projections

Plan Year Beginning July 1	Expected Annual Benefit Pay-Out During Plan Year
2016	$ 52,347,089
2017	$ 53,533,015
2018	$ 54,829,606
2019	$ 56,070,639
2020	$ 57,266,902
2021	$ 58,388,061
2022	$ 59,485,838
2023	$ 60,606,023
2024	$ 61,628,671
2025	$ 62,615,164

Note: The above projected pay-outs recognized expected mortality, termination, and incidence of disability and assume all benefits will commence at Assumed Retirement Date. No assumption has been made regarding possible retirements prior to Assumed Retirement Date or anticipation of new entrants.

F. Distribution of Inactive Participants by Age and Years of Retirement

1. Retirees

Years of Retirement as of July 1, 2016									
								Annual Benefits	
Age	***0-4***	***5-9***	***10-14***	***15-19***	***20-24***	***25+***	***Total***	***Total***	***Average***
15-44	*3*	*0*	*0*	*0*	*0*	*0*	*3*	*$ 31,009*	*$ 10,336*
45-49	*5*	*2*	*0*	*0*	*0*	*0*	*7*	*147,992*	*21,142*
50-54	*47*	*10*	*5*	*0*	*0*	*0*	*62*	*1,928,254*	*31,101*
55-59	*232*	*89*	*9*	*6*	*1*	*3*	*340*	*10,271,567*	*30,210*
60-64	*161*	*147*	*61*	*26*	*4*	*0*	*399*	*11,339,744*	*28,420*
65-69	*86*	*137*	*93*	*70*	*31*	*2*	*419*	*10,529,925*	*25,131*
70-74	*25*	*45*	*41*	*37*	*85*	*3*	*236*	*4,997,089*	*21,174*
75-79	*27*	*19*	*20*	*28*	*105*	*10*	*209*	*4,308,965*	*20,617*
80-84	*24*	*15*	*21*	*24*	*69*	*41*	*194*	*3,247,108*	*16,738*
85-89	*19*	*19*	*13*	*17*	*32*	*85*	*185*	*2,487,435*	*13,446*
90+	*9*	*12*	*10*	*10*	*9*	*88*	*138*	*1,481,763*	*10,737*
Total	***638***	***495***	***273***	***218***	***336***	***232***	***2192***	***$ 50,770,851***	***$ 23,162***
Average Age: 70.72				*Average Retirement Years: 12.04*					

2. Vested Terminated

		Annual Benefits	
Age	***Number***	***Total***	***Average***
15-44	*98*	*$ 707,536*	*$ 7,220*
45-49	*61*	*736,018*	*12,066*
50-54	*106*	*1,295,225*	*12,219*
55-59	*43*	*574,092*	*13,351*
60-64	*18*	*220,525*	*12,251*
65+	*3*	*24,102*	*8,034*
Total	***329***	***$ 3,557,498***	***$ 10,813***

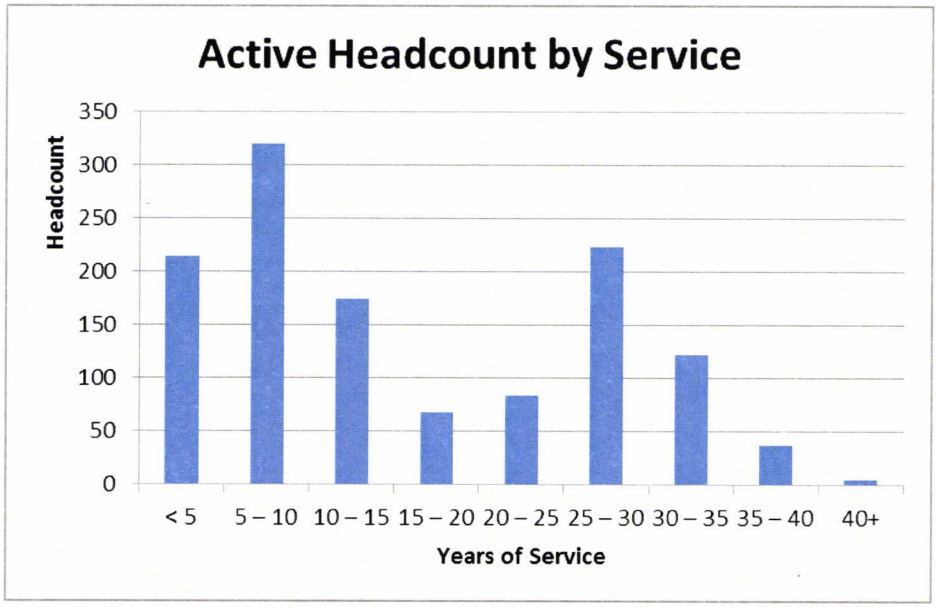
G. Distribution of Active Participants by Age and Service

(Showing Number of Employees and Average Earnings)

	Completed Years of Service as of July 1, 2016												
Age	**00-00**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**	**Earnings Total**	**Average**
15-19	1	1	-	-	-	-	-	-	-	-	2	78,786	39,393
	32,022	46,765	-	-	-	-	-	-	-	-	39,393		
20-24	4	27	2	-	-	-	-	-	-	-	33	1,631,125	49,428
	41,711	49,060	69,828	-	-	-	-	-	-	-	49,428		
25-29	17	51	88	1	-	-	-	-	-	-	157	9,224,560	58,755
	40,698	50,656	66,698	79,816	-	-	-	-	-	-	58,755		
30-34	4	29	90	35	1	-	-	-	-	-	159	10,608,266	66,719
	60,664	56,001	67,375	74,195	81,035	-	-	-	-	-	66,719		
35-39	5	13	35	35	10	1	-	-	-	-	99	7,057,639	71,289
	44,048	57,208	74,479	75,634	79,768	42,090	-	-	-	-	71,289		
40-44	7	15	36	33	16	12	1	-	-	-	120	8,504,496	70,871
	51,230	48,860	71,870	76,213	77,615	82,079	83,846	-	-	-	70,871		
45-49	3	8	21	28	12	26	60	6	-	-	164	12,695,906	77,414
	42,634	66,852	72,529	75,297	84,719	81,576	79,741	79,951	-	-	77,414		
50-54	8	8	27	20	14	23	97	45	2	-	244	18,779,657	76,966
	45,625	59,741	70,433	77,091	78,024	79,204	79,562	82,838	66,962	-	76,966		
55-59	2	8	11	11	9	13	46	61	25	-	186	14,886,095	80,033
	40,838	51,936	64,805	68,187	79,945	72,718	84,019	83,011	93,304	-	80,033		
60-64	1	2	8	8	4	8	17	11	9	3	71	6,018,012	84,761
	66,625	32,625	68,807	65,222	121,812	74,871	76,337	79,665	140,571	96,171	84,761		
65-69	-	1	1	3	2	1	2	-	1	3	14	1,212,302	86,593
	-	54,128	169,125	69,268	95,076	67,819	81,015	-	90,219	90,342	86,593		
70+	-	-	1	1	-	-	-	-	-	-	2	163,520	81,760
	-	-	80,572	82,947	-	-	-	-	-	-	81,760		
	52	163	320	175	68	84	223	123	37	6	1,251	90,860,364	72,630
Total	45,258	52,780	69,390	74,580	82,742	78,355	80,316	82,499	103,294	93,256	72,630		

Average Age: *44.76* ***Average Service:*** *15.75*

G. Distribution of Active Participants by Service (continued)



Service	***Active Headcount***
< 5	*215*
5 – 10	*320*
10 – 15	*175*
15 – 20	*68*
20 – 25	*84*
25 – 30	*223*
30 – 35	*123*
35 – 40	*37*
40+	*6*
Total	***1,251***

H. Data Reconciliation

		Actives	*Term Vested*	*Retiree**	*Total*
1. Participants as of 7/1/15		**1,274**	**327**	**2,199**	**3,800**
a.	New Hires	58	0	0	**58**
b.	Return from Retirement	0	0	0	**0**
c.	Retirements	(39)	(17)	56	**0**
d.	Surviving Spouses	0	0	0	**0**
e.	Rehires	2	(2)	0	**0**
f.	Terminations	(22)	22	0	**0**
g.	Nonvested Terminations	(21)	0	0	**(21)**
h.	Deaths w/ Beneficiary	0	0	(28)	**(28)**
i.	New Beneficiary	0	0	28	**28**
j.	Deaths w/o Beneficiary	(1)	(1)	(66)	**(68)**
k.	Data Corrections	0	0	0	**0**
l.	New QDRO	0	0	3	**3**
m.	Total Increase / (Decrease)	(23)	2	(7)	**(28)**
2. Actual Participants as of 6/30/16		**1,251**	**329**	**2,192**	**3,772**

**Includes Surviving Spouses and Alternate Payees*

I. Actuarial Methods and Assumptions

1. *Cost Methods*

The Cost Method is called the Entry Age Normal Cost Method. The Normal Cost is calculated for each participant as the contribution required, as a level percentage of compensation over the participant's entire period of credited service, to provide his or her projected pension benefits. This contribution is assumed to be payable over a period commencing on the date on which the participant first met the funding eligibility conditions and ending on the assumed retirement date. That percentage, applied to the current year compensation, yields the current year Normal Cost for that participant. The total Normal Cost is the aggregate of the individual Normal Costs. The Plan Sponsor's Normal Cost is the total Normal Cost less that part of the total participant contributions due to be made during the year which is expected to be available at assumed retirement date.

The Plan Sponsor's Accrued Actuarial Liability, as of any date, is determined as the excess of the total present value of benefits for both active and non-active lives, over the total present value of both future normal costs and future employee contributions. This is also equal to the accumulated total of past Normal Costs, assuming this cost method and these assumptions, for this group of participants.

Each year actuarial gains and losses occur since actuarial experience under the Plan will vary from the actuarial assumptions. All gains and losses will be determined each year and amortized from date of inception.

2. *Asset Valuation Technique*

The Actuarial Asset Value is equal to the value of fund assets as reported by the City of Philadelphia with no adjustments.

3. *Accounting Information*

GASB Statement 67
- Measurement Date: June 30, 2016
- Valuation Date: June 30, 2015

GASB Statement 68
- Measurement Date: June 30, 2015
- Valuation Date: June 30, 2015

4. *Actuarial Assumptions*

(Unless otherwise specified, the same assumptions have been used for the determination of the Contribution Range and Accumulated Plan Benefits)

a. *Mortality:* Healthy Lives: RP-2014 mortality table generationally projected with Scale MP-2015:

Percentage of Healthy, Pre-Commencement Participants Expected to Die in the Next Year Prior to Applying Generational Improvement Scale

Age	Males	Females	Age	Males	Females
20	.0510%	.0202%	45	.1207%	.0758%
25	.0545%	.0186%	50	.1979%	.1151%
30	.0470%	.0209%	55	.2967%	.1735%
35	.0557%	.0301%	60	.4954%	.2795%
40	.0750%	.0471%	65	.9486%	.4482%

Disabled Lives: Disabled mortality rates are used for anticipated future disablements and current disabled lives. Sample percentages are as follows:

Percentage of Disabled Participants Expected to Die in the Next Year

Age	Males	Females	Age	Males	Females
20	2.4583%	0.9650%	45	4.3033%	2.3988%
25	2.7457%	1.1974%	50	4.8004%	2.7961%
30	3.0661%	1.4843%	55	5.3120%	3.2594%
35	3.4184%	1.7654%	60	5.8118%	3.7993%
40	3.8373%	2.0579%	65	6.3669%	4.4287%

b. *Interest:* 7.30%, compounded annually.

c. *Turnover:* A scale varying by age and service with illustrative annual rates of turnover as follows:

Years of Service						
Age	***0***	***1***	***2***	***3***	***4***	***5***
20	*23.2%*	*17.4%*	*14.4%*	*11.6%*	*8.8%*	*5.8%*
25	*18.8%*	*14.0%*	*11.8%*	*9.4%*	*7.0%*	*4.6%*
30	*14.8%*	*11.0%*	*9.2%*	*7.4%*	*5.6%*	*3.6%*
35	*11.2%*	*8.4%*	*7.0%*	*5.6%*	*4.2%*	*2.8%*
40	*8.8%*	*6.6%*	*5.6%*	*4.4%*	*3.4%*	*2.2%*
45	*7.2%*	*5.4%*	*4.6%*	*3.6%*	*2.8%*	*1.8%*
50	*5.2%*	*3.8%*	*3.2%*	*2.6%*	*2.0%*	*1.2%*
55	*0*	*0*	*0*	*0*	*0*	*0*

d. *Disability* A scale varying by age with illustrative annual rates of disability as follows:

Percentage of Participants Expected to Become Disabled in the Next Year	
Age	**Percentage**
30	*0.0600%*
35	*0.0700%*
40	*0.1100%*
45	*0.2200%*
50	*0.4600%*
55	*1.0200%*
60	*1.6200%*

e. *Salary Increase*

Determination of Contribution Range Salaries are assumed to increase by an amount equal to 4.5% of the salary for the current year.

Accumulated Plan Benefits Past salaries are discounted at the same rate as described above. Future salaries are assumed to remain at the same level as on the valuation date.

f. *Retirement Age* Retirements are assumed to occur at the following ages:

Age	Service < 30	Service > 30	Age	Service < 30	Service > 30
55	10%	15%	63	25%	50%
56	10%	15%	64	25%	50%
57	10%	15%	65	50%	50%
58	10%	15%	66	50%	50%
59	10%	15%	67	50%	50%
60	10%	15%	68	50%	50%
61	10%	30%	69	50%	50%
62	25%	50%	70+	100%	100%

g. *Salary* Current year salary is assumed to be the greater of the annualized 2016 Taxable Gross Wages based on actual wages through June 30, 2016 and the annual pay rate as provided by Philadelphia Gas Works.

5. Change in Actuarial Assumptions

The mortality table was changed from the RP-2014 mortality table generationally projected with Scale MP-2014 to the RP-2014 mortality table generationally projected with Scale MP-2015 to better reflect actual and future mortality experience.

The discount rate was changed from 7.65% to 7.30%.

J. Summary of the Principal Plan Provisions

Any ambiguities or questionable provisions of this summary should be resolved by reference to the official Plan Document. This summary is not intended to be a source document, but merely an instrument of convenience for the administration of the Plan.

1. *Effective Date:* March 24, 1967, most recently amended as of June 26, 2002.

2. *Eligibility:* Full-time employees hired prior to March 24, 1967 who will have completed 15 years of Credited Service at normal retirement occurring prior to January 1, 1979 or 5 years Credited Service at normal retirement occurring on or after January 1, 1979 became participants on March 24, 1967. Employees hired on or after March 24, 1967 will become participants on their date of employment. A full-time employee is one who works regularly for 20 or more hours each week.

3. *Contribution:* Philadelphia Gas Works pays the entire cost of the Plan for all employees hired prior to May 21, 2011. Union employees hired on or after May 21, 2011 and Non-Union employees hired on or after December 21, 2011 have the option to participate in the Philadelphia Gas Works Pension Plan and contribute 6% of applicable wages to the Plan, or they may elect to participate in the 401(a) Plan with Philadelphia Gas Works contributing 5.5% of applicable wages.

4. *Credited Service:* Years and months of service credited prior to March 24, 1967 and years and months of continuous service thereafter; continuous service is reduced for periods of approved unpaid leaves (except for military leave) in excess of one month. Layoff periods are also excluded and, if in excess of one year, when approved, the employee is considered terminated.

5. *Final Average Compensation:* Average of the five highest consecutive calendar years' earnings during the last 10 years of Credited Service. Compensation includes overtime, bonus, shift differential, and any other special compensation. Per the amendment approved on November 14, 1986, compensation includes amounts deferred under the PGW Employees' Deferred Compensation Plan.

6. *Retirement Dates*

    a. *Normal Retirement:* First of the month next following attainment of age 65 and completion of 5 years of Credited Service.

    b. *Early Retirement*: First of any month after attaining age 55 and completing 15 years of Credited Service, or after completing 30 years of credited service.

    c. *Late Retirement:* First of any month after Normal Retirement up to age 70.

    d. *Disability Retirement*: If permanently disabled and has attained age 45 and completed at least 15 years of Credited Service, provided age plus years of Credited Service equals at least 65. Or after completion of at least 20 years of Credited Service regardless of age, upon recommendation of the Medical Director of the Company.

7. *Benefit Formula*

   a. *Normal Retirement:* The monthly equivalent of the greater of (i) or (ii) below, payable for life.

      i. 1.25% of the first $6,600 of Final Average Earnings plus 1.75% of the excess of Final Average Earnings over $6,600, times Credited Service; maximum of 60% of the highest annual earnings during any one of the last 10 years of Credited Service; applicable to all participants.

      ii. 2% of total earnings received during period of Credited Service plus 22.5% of the first $1,200 of such amount; applicable only to participants who were employees on or prior to March 24, 1967.

   b. *Early Retirement:* Same as 7(a) above, based upon Final Average Earnings and Credited Service as of the early retirement date and reduced by the percentage described in 8 below depending upon Credited Service as of the early retirement date.

   c. *Late Retirement:* Same as Normal Retirement Benefit based on Final Average Compensation and Credited Service as of Late Retirement Date.

   d. *Disability Retirement:* Same as Normal Retirement Benefit, based on Final Average Compensation and Credited Service as of date of disability.

8. *Benefits Upon Termination of Employment - Vesting:* All participants who terminate after having completed at least 5 years of Credited Service are entitled to a benefit as described in 7(a) above, based upon Final Average Compensation and Credited Service as of the date of termination.

   Early Commencement of Payments: A former participant who is entitled to a deferred benefit may elect to have his benefit commence on the first day of any month between his 55th and 65th birthdays. Such benefit will be reduced by 3% for each of the first 5 years and 5% for each of the next 5 years by which commencement of payments precedes age 65. If the participant has completed 25 years of Credited Service, his benefit will be unreduced for the first 3 years and reduced by 3% for each of the next 2 years and by 5% for the following 5 years by which commencement of payments precedes age 65.

   If a participant has completed 30 or more years of credited service, payments are not reduced.

9. *Death Benefits*

   a. *Before Retirement:* Spouses of deceased active participants or of former participants are entitled to vested benefits, provided such participants died after having attained age 45 and completed at least 15 years of Credited Service and whose age plus years of Credited Service equals at least 65 years or who have completed at least 15 years of Credited Service regardless of age.

      The benefit payable is an amount for the spouse's remaining lifetime equal to the amount the beneficiary of the participant would have received had the participant retired due to disability on the day preceding his death and elected the 100% Contingent Annuitant Option.

   b. *After Retirement:* None except as provided by election of an optional form.

10. *Normal Form of Benefits:* Life annuity

11. *Optional Benefit Forms:* 100%, 75%, or 50% Contingent Annuitant option, 75% or 50% Joint and Last Survivor option.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.22. Supply an exhibit showing an analysis, by functional accounts, of the charges by affiliates (Service Corporations, etc.) for services rendered included in the operating expenses of the filing company for the test year and for the 12-month period ended prior to the test year:

III.A.22.a. Supply a copy of contracts, if applicable.

III.A.22.b. Explain the nature of the services provided.

III.A.22.c. Explain basis on which charges are made.

III.A.22.d. If charges allocated, identify allocation factors used.

III.A.22.e. Supply the components and amounts comprising the expense in this account.

III.A.22.f. Provide details of initial source of charge and reason thereof.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.23. Describe costs relative to leasing equipment, computer rentals, and office space, including terms and conditions of the lease. State method for calculating monthly or annual payments.

RESPONSE:

The Philadelphia Gas Works has leasing arrangements with various companies for the leasing of office and computer equipment, vehicles, mobile equipment, and other types of equipment. List below are the long term leases with an explanation of the method used for calculating the monthly or annual payments.

	Annual Payment
Air Gas East	$32,106.82

Under this agreement, the Philadelphia Gas Works rents or leases gas cylinders for use in its operations. The lease has a term of 2 years. The monthly payments are based on a predetermined rental rate and remain constant throughout the term of the lease agreement.

Amquip Corportation	$120,562.39

Under this agreement, the Philadelphia Gas Works procured short term rental of mobile equipment (cranes, dump trucks, grad alls, backhoe/loaders, etc.) as need for use in its operation. The rental of each unit ranges from one week to six months; however, the contract has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Eastern Lift Truck Co.	$43,629.99

Under this agreement, the Philadelphia Gas Works procured short term rental and transport of forklifts as needed for use in its operations. The rental of each unit typically ranged from one to six months; however, the contract has a term of 2 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Blue Lake Pacifica Crane & Equipment	$43,629.99

Under this agreement, the Philadelphia Gas Works procured short term rental and transport of mobile equipment as needed for use in its operations. The rental of each unit typically ranged from one to six months; however, the contract has a term of 2 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Enterprise Rent A Car	$26,115.76

Under this agreement, the Philadelphia Gas Works procured short term rentals of cars and light duty pickup trucks as needed for use in its operations. The rental of each unit typically ranged from one week to six months and the contract has a term limit of 2 year(s). The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

III. BALANCE SHEET AND OPERATING STATEMENT

Ryder Truck Rental Inc $27,256.03

Under this agreement, the Philadelphia Gas Works procured short term rentals of cars and pickup trucks as needed for use in its operations. The rental of each unit typically ranged from one week to six months and the contract has a term limit of 2 year(s). The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Hertz Equipment Rental $79,655.69

Under this agreement, the Philadelphia Gas Works procured short term rental and transport of manlifts as needed for use in its operations. The rental of each unit typically ranged from one to six months; however, the contract has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

J.J. Clark Company $6,355.73

Under this agreement, the Philadelphia Gas Works procured short term rental and transport of forklifts as needed for use in its operations. The rental of each unit typically ranged from one to six months; however, the contract has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Canon Corporation $39,241.31

Under this agreement, the Philadelphia Gas Works leases Canon office technology equipment and supplies including meter usage and print charges for use in its operation. The lease schedule has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Xerox Corporation $151,914.06

Under this agreement, the Philadelphia Gas Works leases Xerox office technology equipment and supplies including meter usage and print charges for use in its operation. The lease schedule has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

Dell Financial Services $39,241.31

Under this agreement, the Philadelphia Gas Works leases Dell office technology equipment and supplies for use in its operation. The lease schedule has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

RICOH USA Inc. $5,207.97

Under this agreement, the Philadelphia Gas Works leases office technology equipment and supplies for use in its operation. The lease schedule has a term of 1 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

III. BALANCE SHEET AND OPERATING STATEMENT

Lenovo Financial Services $702,320.09
Under this agreement, the Philadelphia Gas Works leases technology equipment and supplies for use in its operation. The lease schedule has a term of 4 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

MailFinance $57,774.60
Under this agreement, the Philadelphia Gas Works leases postage/mailing equipment and supplies for use in its operation. The lease schedule has a term of 1 1/2 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

United Rentals $2,873.30
Under this agreement, the Philadelphia Gas Works procured short term rental and transport of man and scissor lifts as needed for use in its operations. The rental of each unit typically ranged from one to four weeks; however, the contract has a term of 1 year. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

Garden State Engine & Equipment Co $25,057.76
Under this agreement, the Philadelphia Gas Works procured short term rental and transport of equipment as needed for use in its operations. The contract has a term of 2 years. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement

Charles Weiner $2,760.00
Under this agreement the Philadelphia Gas Works leases parking space for the Center City district office. The payments are based on a predetermined rental rate constant throughout the term (4years) of the lease agreement

Potomac Parking Logistics LLC $16,600.00
Under this agreement the Philadelphia Gas Works leases parking space for the West Philadelphia District office. The payments are based on a predetermined rental rate constant throughout the term (4 years) of the lease agreement.

1101 Chestnut Street LP $126,216.58
Under this agreement the Philadelphia Gas Works leases space for the Center City district offices. The payments are based on a predetermined rental rate constant throughout the term (8 years) of the lease agreement.

Carmel Realty Associates $126,216.58
Under this agreement the Philadelphia Gas Works leases space for the Frankford district offices. The payments are based on a predetermined rental rate constant throughout the term (1 year) of the lease agreement.

III. BALANCE SHEET AND OPERATING STATEMENT

Germantown Realty Investment Group LP $74,024.38

Under this agreement the Philadelphia Gas Works leases space for the Germantown district offices. The payments are based on a predetermined rental rate constant throughout the term (4 years) of the lease agreement.

Girard Square A NY LP $64,509.88

Under this agreement the Philadelphia Gas Works leases space for the Center City district offices. The payments are based on a predetermined rental rate constant throughout the term (8 years) of the lease agreement.

Department of Public Property $47,906.28

Under this agreement the Philadelphia Gas Works leases space for the Philadelphia Gas Commission offices. The payments are based on a predetermined rental rate constant throughout the term of the lease agreement.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.24. Submit detailed calculations (or best estimates) of the cost resulting from major storm damage.

RESPONSE:

None.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.25. Submit details of expenditures for advertising (National and Institutional and Local media). Provide a schedule of advertising expense by major media categories for the test year and the prior two comparable years with respect to:

III.A.25.a. Public health and safety

III.A.25.b. Conservation of energy

III.A.25.c. Explanation of Billing Practices, Rates, etc.

III.A.25.d. Provision of factual and objective data programs in educational institutions

III.A.25.e. Other advertising programs

III.A.25.f. Total advertising expense

RESPONSE: Please see attached.

PHILADELPHIA GAS WORKS
ADVERTISING SUMMARY

	Period Ending 8/31/2016	Period Ending 8/31/2017	Period Ending 8/31/2018
PRINT			
a. Public Health & Safety	$39,000	$22,500	$15,000
b. Conservation	17,500	15,500	12,500
c. Billing, Rates, Supply, etc.	14,500	10,500	5,500
d. Education Institution Programs	0	0	0
e. Other Advertising Programs	54,760	34,760	20,760
Total Print Expense	$125,760	$83,260	$53,760
TELEVISION			
a. Public Health & Safety	$268,000	$283,000	$300,000
b. Conservation	145,000	147,000	117,000
c. Billing, Rates, Supply, etc.	112,000	112,000	112,000
d. Education Institution Programs	0	0	0
e. Other Advertising Programs	327,760	347,760	307,760
Total Television Expense	$852,760	$889,760	$836,760
RADIO			
a. Public Health & Safety	$295,000	$300,500	$310,500
b. Conservation	92,500	81,500	81,500
c. Billing, Rates, Supply, etc.	150,500	150,500	150,500
d. Education Institution Programs	0	0	0
e. Other Advertising Programs	295,240	305,240	315,240
Total Radio Expense	$833,240	$837,740	$857,740
OUT OF HOME (BILLBOARDS, BUS SHELTERS, SUBWAY CARS, ETC.)			
a. Public Health & Safety	$80,000	$85,000	$85,000
b. Conservation	40,000	40,000	70,000
c. Billing, Rates, Supply, etc.	45,000	45,000	50,000
d. Education Institution Programs	0	0	0
e. Other Advertising Programs	227,800	226,800	230,800
Total Out Of Home Expense	$392,800	$396,800	$435,800
DIGITAL			
a. Public Health & Safety	$20,000	$39,000	$46,500
b. Conservation	15,360	15,360	18,360
c. Billing, Rates, Supply, etc.	21,000	21,000	21,000
d. Education Institution Programs	0	0	0
e. Other Advertising Programs	77,080	55,080	68,080
Total Digital Expense	$133,440	$130,440	$153,940
GRAND TOTAL	$2,338,000	$2,338,000	$2,338,000

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.26. Provide a list of reports, data, or statements requested by and submitted to the Commission during and subsequent to the test year.

RESPONSE:

- Section 1307(f) Gas Cost Rate Filings
    - Annual Pre-Filings
    - Annual Filings
    - Quarterly Filings
- DSIC
    - Quarterly Filings
    - Quarterly Leak Reports
    - Annual Reconciliation
    - Annual Asset Optimization Plan
- LTIIP
- Annual Integrated Resource Planning Report
- NGDC Switching Statistics
- Supplier Security Report
- Gas Annual Report
- Annual Diversity Report
- Annual Unaccounted for Gas Report
- DSM
    - Annual Implementation Plan
    - Annual Report
- LIURP Annual Report
- Chapter 56 Monthly Reporting Requirements
- Chapter 56 Annual Reporting Requirements
- Customer Service Performance Report
- Universal Service and Collections Report
- Cold Weather Survey
- Cold Weather Re-Survey
- Quality of Service Report
- Universal Service and Energy Conservation Plan (Amended)
- Annual Residential Arrearages over $10,000
- Annual Medical Certificates and Renewals accepted by the Company
- Winter Reliability Submission
- Public Utility Security Planning and Readiness Self-Certification
- Gas Safety Division FL-1
- PUC Assessment Report
- PUC Management Audit
- Leak Detection Pilot Program Report

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.27. Prepare a detailed schedule for the test year showing types of social and service organization memberships paid for by the Company and the cost thereof.

RESPONSE:

There were no social and/or service memberships paid during the test year by the Philadelphia Gas Works.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.28. Submit a schedule showing, by major components, the expenditures associated with Outside Services Employed, Regulatory Commission Expenses and Miscellaneous General Expenses, for the test year and prior two comparable years.

RESPONSE:

ACCOUNT 923.0 - OUTSIDE SERVICES EMPLOYEED

		August 31, 2018	August 31, 2017	August 31, 2016
1700	Purchased Services	1,660,000	4,025,000	1,737,143
	Total	$ 1,660,000	$ 4,025,000	$ 1,737,143

ACCOUNT 928.0 - REGULATORY COMMISSION EXPENSE

		August 31, 2018	August 31, 2017	August 31, 2016
100	Labor	$472,000	$460,000	$405,943
200	Taxes	33,000	35,000	28,571
300	Expense of Employees	3,000	3,000	2,519
700	Material	5,000	5,000	2,761
1300	Postage	1,000	1,000	822
1400	Advertising	21,000	37,000	5,364
1600	Dues and Subscriptions	3,356,000	3,231,000	2,970,382
1700	Purchased Services	477,000	476,000	567,867
1800	Insurance	40,000	40,000	37,178
1900	Equipment Rental	7,000	7,000	6,499
2000	Other Rents	50,000	50,000	47,906
2600	Maintenance of Office Equipment	1,000	1,000	0
2900	IT Allocations	12,000	12,000	11,943
3100	Telecommunication Allocations	3,000	3,000	1,952
4020	Amort Deferred Oper & Maint Expense	676,000	676,000	81,376
	Total	$5,157,000	$5,037,000	$4,171,084

III. BALANCE SHEET AND OPERATING STATEMENT

ACCOUNT 930.2 - MISCELLANEOUS GENERAL EXPENSES

		August 31, 2018	August 31, 2017	August 31, 2016
100	Labor	847,462.99	$602,969	$650,368
300	Expense of Employees	$0	$0	$29,005
700	Material	4,383	9,000	14,725
1300	Postage	1,342	11,225	0
1600	Dues and Subscriptions	926,696	908,548	883,494
1700	Purchased Services	439,170	318,000	123,754
1900	Equipment Rental	1,150	1,050	0
2700	Building Services	21,812	19,908	17,900
2900	IT Allocations	225,755	156,348	35,494
3802	Management Fee	29,229	19,000	25,796
4020	Amort Deferred Oper & Maint Expense	40,000	25,000	0
5111	PGW Contribution - 457 Plan	1,028,000	1,008,000	340,669
5117	Contribution - 401A Deferred Compensation Plan	0	0	1,012,423
	Total	$ 3,565,000	$ 3,079,048	$ 3,133,627

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.29. Submit details of information covering research and development expenditures, including major projects within the company and forecasted company programs.

RESPONSE:

No research and development expenditures were incurred during the fiscal year ending August 31, 2016.

There are currently no research and development expenditures expected to be incurred during the fiscal year ending August 31, 2017, and August 31, 2018.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.30. Provide a detailed schedule of all charitable and civic contributions by recipient and amount for the test year.

RESPONSE:

Twelve Months ending August 31, 2018	
Utility Emergency Service fund	$286,000

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.31. Provide a detailed analysis of Special Services—Account 795.

RESPONSE:

The Philadelphia Gas Works' system of accounts does not include Account number 795 as Special Services.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.32. Provide a detailed analysis of Miscellaneous General Expense—Account No. 801.

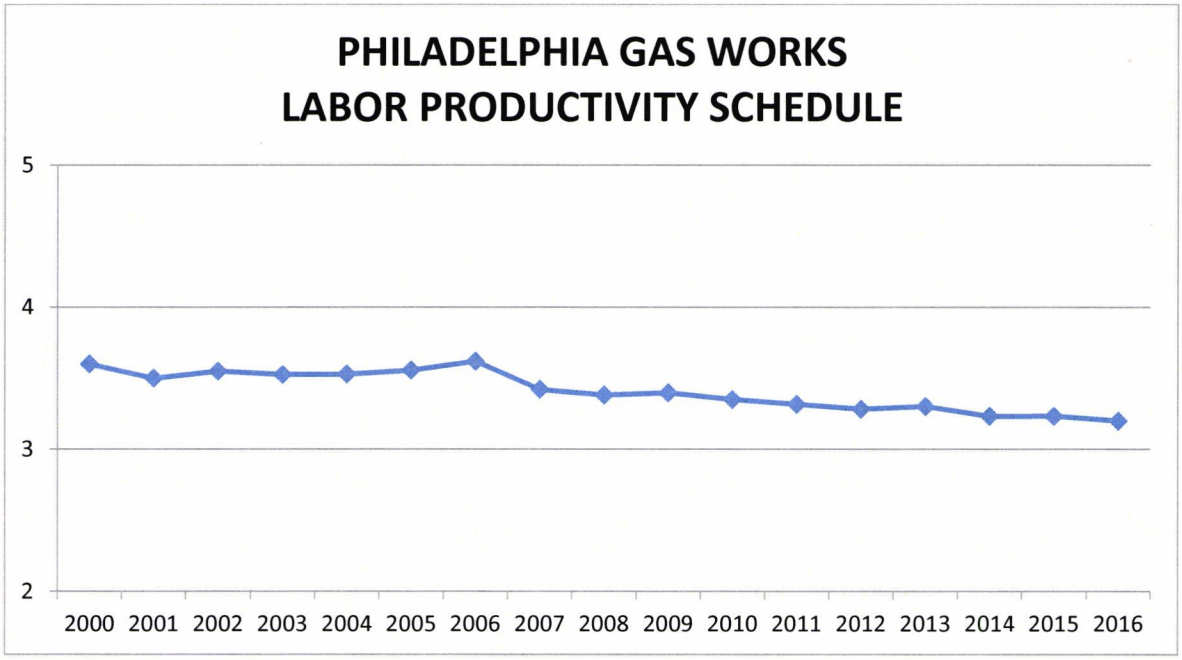
RESPONSE:

The Philadelphia Gas Works' system of accounts does not include Account number 801 as Miscellaneous General Expenses.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.33. Provide a labor productivity schedule.

RESPONSE:



III. BALANCE SHEET AND OPERATING STATEMENT

III.A.34. List and explain all non-recurring abnormal or extraordinary expenses incurred in the test year which will not be present in future years.

RESPONSE:

Philadelphia Gas Works does not have non-recurring abnormal or extraordinary expenses included in the test year.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.35. List and explain all expenses included in the test year which do not occur yearly but are of a nature that they do occur over an extended period of years. (e.g.—Non-yearly maintenance programs, etc.)

RESPONSE:

There are no expenses that fall into this category within the fully projected future test year for the Philadelphia Gas Works.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.36. Using the adjusted year's expenses under present rates as a base, give detail necessary for clarification of all expense adjustments. Give clarifying detail for any such adjustments that occur due to changes in accounting procedure, such as charging a particular expense to a different account than was used previously. Explain any extraordinary declines in expense due to such change of account use.

RESPONSE:

Attached are the results of the actuarial valuation of the Philadelphia Gas Works Health and Life Insurance Plan for Retired Employees as of September 1, 2016. This report presents Brown and Brown Consulting's determination of PGW's obligations and accrual expense under Government Accounting Standards Board Statement 45 (GASB 45) for the fiscal years ending August 31, 2016 and 2017.

Attached are the projected costs of the Plan under GASB 75, which will become effective for financial reporting for fiscal years beginning after June 15, 2017 (i.e., for the fiscal year beginning September 1, 2017, and ending on August 31, 2018). The key changes made by GASB 75 are listed in the actuarial report.

PGW has reflected the adoption of GASB 75 as part of the pro forma statements provided in response to III.A.18. A detail account of the changes by FERC account use has been identified in the spreadsheet titled "Philadelphia Gas Works, Change in Accounting Procedure for Other Post-Employment Benefits, Twelve months Ended August 31, 2016, 2017, and 2018".

PHILADELPHIA GAS WORKS

PHILADELPHIA GAS WORKS HEALTH AND LIFE INSURANCE PLAN FOR RETIRED EMPLOYEES SEPTEMBER 1, 2016 ACTUARIAL VALUATION

Prepared by:
Brown & Brown Consulting
The Curtis Center
601 Walnut Street, Suite 275W
Philadelphia, PA 19106

October 2016

ACTUARIAL STATEMENT

We present in this report the results of the actuarial valuation of the Philadelphia Gas Works Health and Life Insurance Plan For Retired Employees as of September 1, 2016. This report presents our determination of PGW's obligations and accrual expense under Government Accounting Standards Board Statement 45 (GASB 45) for the fiscal years ending August 31, 2016 and 2017. Use of the valuation report for purposes other than fulfilling the requirements of GASB 45 may not be appropriate.

The actuarial calculations and accounting figures shown in this report are based upon the census data submitted by the plan sponsor, and the plan provisions and actuarial assumptions summarized in the Appendices. We have not performed a comprehensive audit of the data provided, but have reviewed the data for reasonableness.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The calculations reported herein are consistent with our understanding of the provisions of GASB 45. The actuarial assumptions employed in the development of the postretirement welfare cost have been selected by Brown & Brown Consulting with the concurrence of the plan sponsor. In our opinion, these assumptions are individually reasonable on their own merits and consistent in the aggregate.

The undersigned credentialed actuaries of Brown & Brown Consulting meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. There is no relationship between the Plan Sponsor and Brown & Brown Consulting that impacts our objectivity.



William J. Patti, MAAA
Enrolled Actuary Number: 14-06221



Curt R. Evans, FSA
Enrolled Actuary Number: 14-05239

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EXECUTIVE SUMMARY

This report presents Philadelphia Gas Works (PGW) management with information concerning the health and life insurance benefits provided to employees after termination or retirement. PGW provides eligible retirees with medical, prescription drug, dental coverage, and life insurance coverage.

We previously performed an actuarial valuation as of September 1, 2015 of the cost and liabilities attributable to these postemployment welfare benefits using the methods and procedures under GASB 45 Statement for Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions. The following valuation results as of September 1, 2016 are based on updated census and actuarial assumptions as of September 1, 2016. The valuation results incorporate updated per capita claims costs and continues to reflect the impact of the high-premium excise tax ("Cadillac Tax") that has a delayed effective date of January 1, 2020 under the Affordable Care Act.

Following are the highlights of our report:

- The Actuarial Accrued Liability at:

	September 1, 2016	September 1, 2015
Retirees	$337,390,000	$353,972,000
Active employees	$152,335,000	$151,462,000
Total	$489,725,000	$505,434,000

- The reported market value of plan assets at August 31, 2016 was $131,867,856 resulting in an Unfunded Actuarial Accrued Liability of $357,857,144. The net OPEB Obligation (NOO) as of August 31, 2016 is $81,443,000.

- The Annual Required Contribution (ARC) for the fiscal year ended August 31, 2016 is $41,782,000. The Annual OPEB cost (AOC) is $40,980,000.

- The ARC for the fiscal year beginning September 1, 2016 is $37,639,000. The AOC is $36,914,000.

SUMMARY OF VALUATION RESULTS

(in thousands)

	Medical, RX and Dental	Cadillac Tax	Life	Total
Actuarial Accrued Liability				
Retiree	$ 319,880	$ 4,325	$ 13,185	$ 337,390
Active	$ 140,474	$ 7,128	$ 4,733	$ 152,335
Total	$ 460,354	$ 11,453	$ 17,918	$ 489,725
Assets	$ -	$ -	$ -	$ 131,868
Unfunded Actuarial Accrued Liability				$ 357,857
Normal Cost	$ 4,945	$ 365	$ 249	$ 5,559
Discount Rate				7.95%

ANNUAL REQUIRED CONTRIBUTION AND OPEB COST

(in thousands)

	Fiscal Year Ending 8/31/2015	8/31/2016	8/31/2017
(1) Normal Cost with interest	$ 6,201	$ 6,320	$ 6,001
(2) Amortization of Unfunded Actuarial Accrued Liability	$ 31,779	$ 35,462	$ 31,638
(3) Annual Required Contribution (ARC)	$ 37,980	$ 41,782	$ 37,639
(4) Net OPEB Obligation at beginning of year	$ 101,788	$ 90,014	$ 81,443
(5) Interest on Net OPEB Obligation	$ 8,092	$ 7,156	$ 6,475
(6) Adjustment to the ARC	$ (8,999)	$ (7,958)	$ (7,200)
(7) Annual OPEB Cost (AOC)	$ 37,073	$ 40,980	$ 36,914
Discount Rate	7.95%	7.95%	7.95%

Annual OPEB COST Summary

Fiscal Year Ending	Annual OPEB Cost ($ thousands)	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation ($ thousands)
8/31/2007	$44,501	42.3%	$25,685
8/31/2008	$44,850	40.8%	$52,255
8/31/2009	$46,009	43.6%	$78,207
8/31/2010	$48,975	53.7%	$105,476
8/31/2011	$45,691	91.3%	$109,448
8/31/2012	$46,105	96.5%	$111,067
8/31/2013	$40,235	105.0%	$109,060
8/31/2014	$37,090	119.6%	$101,788
8/31/2015	$37,073	131.8%	$90,014
8/31/2016	$40,980	120.9%	$81,443

VARIOUS GASB 45 COSTS AND OTHER ITEMS
(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actuarial Accrued Liability (AAL), BOY	573,734	591,599	635,792	654,126	485,722	443,982	436,527	450,289	505,434
Actuarial (Gain)/Loss	0	26,860	0	(186,752)	(59,087)	(23,512)	1,015	44,699	(29,926)
Interest on AAL	28,687	29,580	31,790	37,390	38,858	35,519	34,704	35,798	40,182
Normal Cost with Interest	7,915	8,311	8,793	5,106	5,514	5,230	4,933	6,201	6,320
Benefit Payments	(18,280)	(20,057)	(21,706)	(23,219)	(25,986)	(23,742)	(25,862)	(30,347)	(31,051)
Interest on Benefit Payments	(457)	(501)	(543)	(929)	(1,039)	(950)	(1,028)	(1,206)	(1,234)
AAL, EOY	591,599	635,792	654,126	485,722	443,982	436,527	450,289	505,434	489,725
Market Value of Assets, BOY	0	0	0	0	17,886	38,860	61,796	90,838	104,318
Contributions	18,280	20,057	21,706	41,719	44,486	42,242	44,362	48,847	49,551
Benefit Payments	(18,280)	(20,057)	(21,706)	(23,219)	(25,986)	(23,742)	(25,862)	(30,347)	(31,051)
Investment Income	0	0	0	(614)	2,474	4,436	10,542	(5,020)	9,050
Market Value of Assets, EOY	0	0	0	17,886	38,860	61,796	90,838	104,318	131,868
UAAL at BOY	573,734	591,599	635,792	467,374	467,836	405,122	374,731	359,451	401,116
Normal Cost with Interest	7,915	8,311	8,793	5,106	5,514	5,230	4,933	6,201	6,320
Amortization of UAAL	37,322	38,484	41,359	41,516	41,557	35,986	33,129	31,779	35,462
Annual Required Contribution (ARC)	45,237	46,795	50,152	46,622	47,071	41,216	38,062	37,980	41,782
Interest on Net OPEB Obligation	1,284	2,613	3,910	8,438	8,756	8,885	8,670	8,092	7,156
Adjustment to the ARC	(1,671)	(3,399)	(5,087)	(9,369)	(9,722)	(9,866)	(9,642)	(8,999)	(7,958)
Annual OPEB Cost (AOC)	**44,850**	**46,009**	**48,975**	**45,691**	**46,105**	**40,235**	**37,090**	**37,073**	**40,980**
Net OPEB Obligation, BOY	25,685	52,255	78,207	105,476	109,448	111,067	109,060	101,788	90,014
AOC	44,850	46,009	48,975	45,691	46,105	40,235	37,090	37,073	40,980
Contributions	(18,280)	(20,057)	(21,706)	(41,719)	(44,486)	(42,242)	(44,362)	(48,847)	(49,551)
Net OPEB Obligation, EOY	**52,255**	**78,207**	**105,476**	**109,448**	**111,067**	**109,060**	**101,788**	**90,014**	**81,443**
Discount Rate, BOY	5.00%	5.00%	5.00%	5.00%	8.00%	8.00%	7.95%	7.95%	7.95%
Discount Rate, EOY	5.00%	5.00%	5.00%	8.00%	8.00%	7.95%	7.95%	7.95%	7.95%

10-YEAR EXPECTED CASH PAYOUTS

Current Retirees

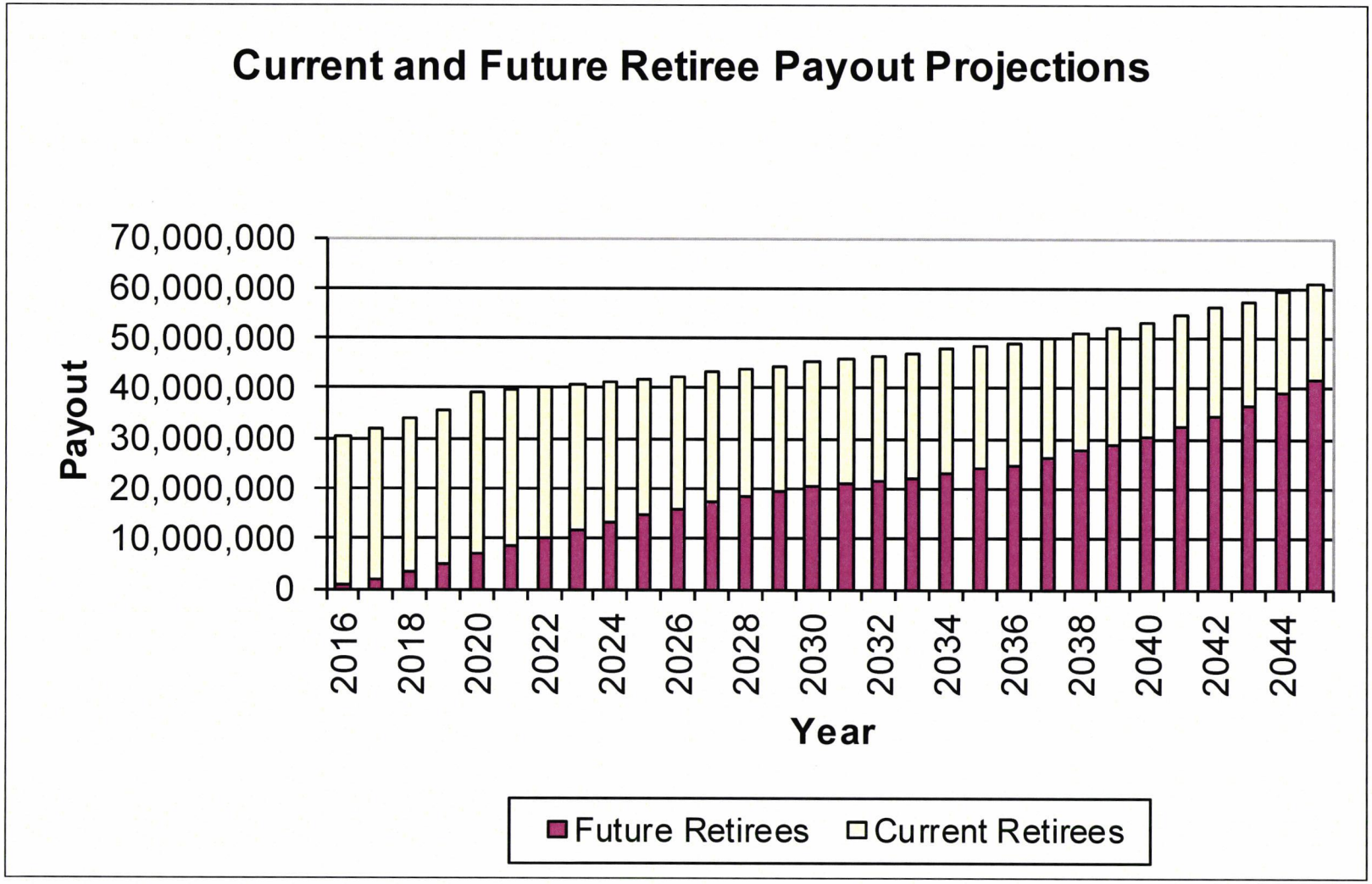
Year Beginning 9/1	Medical, Rx and Dental	Cadillac Tax	Life	Total
2016	28,485,614	0	1,198,728	29,684,342
2017	29,004,807	0	1,188,254	30,193,061
2018	29,437,049	0	1,178,182	30,615,231
2019	29,653,827	0	1,165,121	30,818,948
2020	29,688,277	994,984	1,150,716	31,833,977
2021	29,097,607	903,503	1,139,209	31,140,319
2022	28,177,119	760,798	1,128,811	30,066,728
2023	27,300,752	629,581	1,118,323	29,048,656
2024	26,263,568	455,071	1,107,304	27,825,943
2025	25,556,866	331,917	1,095,297	26,984,080

Future Retirees

Year Beginning 9/1	Medical, Rx and Dental	Cadillac Tax	Life	Total
2016	549,649	0	47,591	597,240
2017	1,768,469	0	92,310	1,860,779
2018	3,141,736	0	135,600	3,277,336
2019	4,717,406	0	181,236	4,898,642
2020	6,394,221	454,703	224,307	7,073,231
2021	7,892,188	548,352	265,408	8,705,948
2022	9,268,597	610,101	306,158	10,184,856
2023	10,819,615	702,631	346,062	11,868,308
2024	12,237,401	783,203	385,558	13,406,162
2025	13,411,063	839,787	424,530	14,675,380

Current and Future Retirees

Year Beginning 9/1	Medical, Rx and Dental	Cadillac Tax	Life	Total
2016	29,035,263	0	1,246,319	30,281,582
2017	30,773,276	0	1,280,564	32,053,840
2018	32,578,785	0	1,313,782	33,892,567
2019	34,371,233	0	1,346,357	35,717,590
2020	36,082,498	1,449,687	1,375,023	38,907,208
2021	36,989,795	1,451,855	1,404,617	39,846,267
2022	37,445,716	1,370,899	1,434,969	40,251,584
2023	38,120,367	1,332,212	1,464,385	40,916,964
2024	38,500,969	1,238,274	1,492,862	41,232,105
2025	38,967,929	1,171,704	1,519,827	41,659,460
	352,865,831	8,014,631	13,878,705	374,759,167


Current and Future Retiree Payout Projections
Payout
70,000,000
60,000,000
50,000,000
40,000,000
30,000,000
20,000,000
10,000,000
0
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
2036
2038
2040
2042
2044
Year
Future Retirees
Current Retirees

APPENDIX 1

SUMMARY OF BENEFITS

A. Eligibility

An employee must retire directly from active service in order to be eligible for postretirement welfare benefits. All nonunion and union employees who satisfy the following eligibility requirements will receive post-retirement welfare benefits:

Normal – age 65 and 5 years of service

Early – age 55 and 15 years of service (pension plan benefit is reduced 3% per year for each of the first 5 years, and reduced 5% per year for each of the next 5 years that commencement of payment precedes Normal retirement)

Special Early – age 55 and 25 years of service (pension plan benefit is unreduced for the first 3 years, reduced 3% per year for each of the next 2 years, and reduced 5% per year for each of the next 5 years that commencement of payment precedes Normal retirement)

Thirty & Out - 30 years of service (pension plan benefit is unreduced)

Disability – age 45 and 15 years of service and rule of 65, or 20 years of service

Pre-Retirement Spouse's Death Benefit – age 45 and 15 years of service and rule of 65, or 20 years of service

If a retiree selects a joint and survivor annuity with his or her spouse as the beneficiary under the pension plan, then the spouse receives lifetime health benefits. Otherwise, spousal coverage stops on the death of the retiree.

Union employees hired on or after May 21, 2011 and Non-Union employees hired on or after December 21, 2011 are entitled to receive post–retirement medical, prescription, and dental benefits for five years only (for Normal or Early, Disability, and Pre-Retirement Spouse's Death).

B. Health Benefits

a. Medical Benefits

For pre-65 retirees, a choice of plans self-funded through Independence Blue Cross including Personal Choice, Blue Cross Blue Shield with Major Medical, or Keystone HMO's. Employees who retire after December 1, 2001 are provided the Keystone 5 Plan at the company expense and they can buy up to a more expensive plan. Employees who retire on or after September 1, 2007 are provided the Keystone 10 Plan at company expense, and they can buy up to a more

expensive plan. Union employees who retire after August 31, 2011are provided the Keystone 15 Plan at company expense and can buy up to a more expensive plan. Management employees who retire after August 31, 2011 continue to receive the Keystone 10 as the base plan and can buy up to a more expensive plan.

Reinsurance provides specific stop loss coverage of $300,000 on pre-65 Medical and Prescription Drug claims.

Eligible pre-65 retirees who relocate outside of the Keystone coverage area may elect to participate in the PGW Retiree Health Reimbursement Arrangement (HRA). Under the HRA, the Keystone base plan premium-equivalent will be credited to a participant's HRA account and will be available to reimburse the participant for eligible medical insurance premiums.

Medicare eligible retirees are provided a fully-insured Medicare Supplement Plan through Independence Blue Cross.

Opt-out benefits of $1,500 per year for Single coverage and $3,000 per year for Husband/Wife coverage are available to eligible retirees. This benefit is not available to a Husband/Wife who both retired from PGW and who are eligible for Medical benefits. Retiree can maintain Prescription Drug and Dental coverage even if they opt out of Medical coverage.

b. Prescription Drug Benefits

Employees who retired on or after April 15, 1976 and prior to December 1, 2001, are offered a Prescription Drug Plan that has been set up for retirees and is separate from the plan that is set up for active employees. The retiree Prescription plan consists of a $2 co-pay for generic drugs, a $2 co-pay for brand name drugs when no generic drugs are available, and a $15 co-pay for brand name drugs when generic drugs are available. There are no deductibles and no lifetime maximums. Employees who retired prior to April 15, 1976 or on or after December 1, 2001 but before September 1, 2007 have a $5 co-pay for generics and a $10 co-pay for brand drugs. Employees who retire on or after September 1, 2007 have a $5 co-pay for generics and a $15 co-pay for brand drugs.

Effective, January 1, 2012 PGW moved Medicare eligible retirees into an EGWP arrangement through Caremark. Covered drugs and co-pays remain the same. Prescription Drug benefits are self-funded for all retirees.

c. Dental Benefits

For employees who retired after April 15, 1978, a basic dental plan is offered at no cost to the retiree. For employees who retired after June 1, 1984, an enhanced dental plan is offered. For eligible retirees who enroll in the enhanced dental plan,

the retiree must pay the difference between the basic and enhanced plans. The dental plans were fully-insured through United Concordia through August 31, 2016. Effective September 1, 2016, the dental benefits are self-funded, which continued to be administered by United Concordia.

C. Death Benefits

a. Nonunion employees are offered voluntary life insurance equal to two times their salary at retirement. At age 65, the life insurance benefit decreases by 5% per year for 15 years until the benefit equals 25% of the original life insurance benefit at age 65. PGW pays the cost of the first $75,000 of coverage. Retirees pay $0.35 per $1,000 for coverage in excess of $75,000.

b. Union employees are offered voluntary life insurance equal to one times their salary at retirement. At retirement, the life insurance benefit decreases by 10% per year for 5 years until the benefit equals 50% of the original life insurance benefit at retirement. Retirees pay $0.35 per $1,000, PGW pays the rest.

c. Upon the death of an active employee prior to satisfying the requirements for Pre-Retirement Spouse's Death Benefits, surviving spouses and dependents are entitled to receive 2 years of health coverage paid by PGW. Upon the death of an active employee on or after satisfying the requirements for Pre-Retirement Spouse's Death Benefits, surviving spouses and dependents are entitled to receive health coverage for life (or for 5 years if hired on or after May 21, 2011 if Union or hired on or after December 21, 2011 if Non-Union) paid by PGW.

D. Contributions

PGW pays the full cost of medical, basic dental, and prescription coverage for employees who retired prior to December 1, 2001. Employees who retire after December 1, 2001 are provided the Keystone 5/Keystone 10/Keystone 15 plan at the company expense and can buy up to a more expensive plan. Retirees also contribute toward enhanced dental plan and life insurance coverage as described above. PGW pays 100% of the cost for the prescription drug plan after drug co-pays.

APPENDIX 2

ACTUARIAL ASSUMPTIONS AND METHODS

Assumptions

The actuarial assumptions used to value the postretirement medical liabilities can be categorized into three groups:

- Economic Assumptions – the discount rate and health care cost trend rates.
- Benefit assumptions – the initial per capita cost rates for medical coverage, and the face amount of employer-paid life insurance.
- Demographic assumptions – including the probabilities of retiring, dying, terminating (without a benefit), becoming disabled, recovery from disability, election (participating rates) and coverage levels.

Actuarial assumptions were based on the actual experience of the covered group, to the extent that creditable experience data was available, with an emphasis on expected long-term future trends rather than giving undue weight to recent past experience. The reasonableness of each actuarial assumption was considered independently based on its own merits, its consistency with each other assumption, and the combined impact of all assumptions.

ECONOMIC ASSUMPTIONS

The economic assumptions used in the valuation are the discount rate and the health care cost trend rates. The economic assumptions are used to account for changes in the cost of benefits over time and to discount future benefit payments for the time value of money.

Discount Rate

The investment return assumption (discount rate) should be the estimated long-term investment yield on the investments that are expected to be used to finance the payments of benefits. The investments expected to be used to finance the payments of benefits would be plan assets for funded plans, assets of the employer for pay-as-you-go plans, or a proportionate combination of the two for plans that are being partially funded. Effective for the fiscal year beginning September 1, 2010, PGW has established an Other Postemployment Benefit Trust and has committed to funding $18,500,000 per year through August 31, 2017. We assumed a discount rate of 7.95% for purposes of developing the liabilities and Annual Required Contribution on the basis that the Plan is being funded and with management's concurrence that 7.95% represents their expected long term investment return on Trust assets.

Health care trend rates

Plan Year	Medical (pre-65)	Medical (post-65)	Prescription Drug	Dental	Expenses
2016	7.0%	5.0%	9.5%	4.0%	4.5%
2017	6.5%	4.5%	8.5%	4.0%	4.5%
2018	6.0%	4.5%	7.5%	4.0%	4.5%
2019	5.5%	4.5%	6.5%	4.0%	4.5%
2020	5.0%	4.5%	5.5%	4.0%	4.5%
2021+	4.5%	4.5%	4.5%	4.0%	4.5%

BENEFIT ASSUMPTIONS

The valuation projects the cost to PGW of providing medical benefits to employees who remain in the medical plan after retirement (postemployment coverage). PGW offers various medical plans at no cost to the retirees. Retirees can buy up to more expensive plans depending on their retirement dates. We have developed age-adjusted claims costs for pre-Medicare benefits provided by PGW based on incurred claims for retirees under the self-funded coverages and premium rates for fully insured coverage for the period September 1, 2016 to August 31, 2017. The developed rates are projected at the assumed trend rates for future years. Following actuarial standards, specifically ASOP 6, leads us to develop age-specific health care cost estimates for the period September 1, 2016 to August 30, 2017 as follows:

Annual Age Specific Per Capita Claims Costs

	Medical				Prescription Drug
Age	Pre 1/1/2012 Retirees	Pre 1/1/2012 Dependents	Post 1/1/2012 Retirees	Post 1/1/2012 Dependents	Retirees/ Dependents
<50	$ 5,567	$ 5,567	$ 5,567	$ 5,567	$ 3,571
50-54	6,767	6,767	6,767	6,767	3,946
55-59	8,466	8,466	8,466	8,466	4,937
60-64	10,197	10,197	10,197	10,197	5,947
65-69	2,459	2,480	2,640	2,661	3,223
70-74	2,459	2,480	2,640	2,661	3,681
75-79	2,459	2,480	2,640	2,661	4,103
80-84	2,459	2,480	2,640	2,661	4,440
85-90	2,459	2,480	2,640	2,661	4,620
90+	2,459	2,480	2,640	2,661	4,690

Post-65 medical costs are based on September 1, 2016 Medicare supplement premium rates of $204.94 for retiree coverage and $411.63 for retiree and spouse coverage for the Special 65 Plan and $219.98 for retiree coverage and $441.71 for retiree and spouse coverage for Security Plan F. The Special 65 Plan is a grandfathered plan that is closed to new retirees. New retirees receive coverage under Security Plan F. The annual per capita claims cost for dental coverage is $156 per retiree and covered dependents.

Expenses
Plan expenses include claims administration and reinsurance costs for the self-funded coverage. The annual per capita expenses for the plan year beginning October 1, 2016 are $889 for retiree pre-65 coverage, $433 for dependent pre-65 coverage, $145 for retiree post-65 coverage and $145 for dependent post-65 coverage.

Morbidity
The above healthcare costs for prescription drug coverage and pre-65 medical coverage reflect the following changes due to increased usage as a result of aging:

Age	Annual Increase
55 – 59	4.0%
60 – 64	3.5%
65 – 69	3.0%
70 – 74	2.5%
75 – 79	2.0%
80 – 84	1.0%
85+	0.5%

DEMOGRAPHIC ASSUMPTIONS

Mortality
Mortality is assumed to follow the sex-distinct RP-2014 Employee, Healthy Annuitant and Disabled Retiree Mortality Tables (head-count weighted) projected with scale MP-2015.

Retirement Rates
Retirement rates applicable once an employee is eligible for retirement benefits vary by age and service with rates as follows:

Age	Service less than 30 years	Service at least 30 years
55-60	10%	15%
61	10%	30%
62-64	25%	50%
65-69	50%	50%
70+	100%	100%

Withdrawal Rates
Turnover rates applicable before an employee is eligible for retirement benefits vary by age and service with illustrative rates as follows:

	Years of Service					
Age	0	1	2	3	4	5
20	23.2%	17.4%	14.4%	11.6%	8.8%	5.8%
25	18.8	14.0	11.8	9.4	7.0	4.6
30	14.8	11.0	9.2	7.4	5.6	3.6
35	11.2	8.4	7.0	5.6	4.2	2.8
40	8.8	6.6	5.6	4.4	3.4	2.2
45	7.2	5.4	4.6	3.6	2.8	1.8
50	5.2	3.8	3.2	2.6	2.0	1.2
55	0.0	0.0	0.0	0.0	0.0	0.0

Disability Rates
Disability rates vary by age with illustrative rates as follows:

Age	Percent Expected to Become Disabled in the Next Year
30	0.06%
35	0.07
40	0.11
45	0.22
50	0.46
55	1.02
60	1.62

Salary Scale 4.5%

Participation Rates
We have assumed 100% of future retirees who meet the eligibility requirements will participate in the postemployment welfare plans upon retirement. Current retirees who have opted out of coverage are assumed to continue to receive opt out payments in the future.

Decrement Timing
Plan benefits are assumed to be paid mid-year.

Data Assumptions
For retirees, actual data was used for type of coverage and spouse's date of birth. For Active employees, 65% of those who become eligible for coverage at retirement are assumed to have spousal coverage, with wives three years younger than husbands, and 100% of those with spousal coverage are assumed to have elected a joint & survivor pension benefit.

Health Care Reform
In March 2010, the Patient Protection and Affordable Care Act (as modified by the Healthcare and Education Reconciliation Act, collectively the "Act") was signed into law. The Philadelphia Gas Works Health and Life Insurance Plan for Retired Employees is considered a standalone plan not subject to the mandated provisions of the new law.

Cadillac Tax
The high cost excise tax ("Cadillac tax") provisions of the Act, which become effective January 1, 2020, are applicable to the Plan. We reflected the Cadillac tax provisions in the valuation. The Cadillac tax is based on annual pre-65 premium equivalent rates for the period September 1, 2016 to August 31, 2017 of $14,964 for retiree coverage and $14,498 for dependent coverage and annual post-65 premium equivalent rates of $6,806 for retiree coverage and $6,827 for dependent coverage. For projecting the Cadillac tax thresholds, we have assumed that the Consumer Price Index (CPI) will increase at 3.0% per annum.

Changes since Last Valuation
The Dental Trend Rate Assumption was revised from 4.5% per annum to 4.0% per annum to reflect current forecast expectations. The CPI Assumption was revised from 3.5% to 3.0% to reflect current long-term inflation expectations.

Methods

Cost Method
The projected unit credit actuarial cost method was used in this valuation to develop the actuarial accrued liability and normal cost. Under the projected unit credit cost method, the present value of benefits is allocated uniformly over the employee's expected working lifetime.

The Actuarial Accrued Liability is that portion of the present value of projected benefits which has been accrued during the employee's working lifetime from hire to valuation date.

The normal cost represents the amount charged for service earned during the current reporting period. The normal cost is calculated by dividing the present value of projected benefits for an employee by the total service to date of first fully eligible for retirement benefits. The normal cost amount is expected to increase annually at the discount rate.

Asset Method
The actuarial value of assets is equal to the market value of plan assets, as reported by PGW.

Amortization Method and Period
The unfunded actuarial accrued liability is amortized as a level dollar amount using an open group period of 30 years.

APPENDIX 3

DEMOGRAPHIC CHARACTERISTICS

Demographic data as of August, 2016 for current retirees and for active employees was provided by PGW. Information used includes gender, dates of birth, hire and retirement, and coverage status.

		Number	Average Age
1.	Retirees*	1,491	68.9
	Beneficiaries	459	79.7
2.	Active Employees		
	- Union	1,110	40.8
	- Management	507	45.4

*There are 943 retirees with dependent coverage that will continue after the death of the retiree.

Retiree and Beneficiary Age Distribution

Age Group	Male	Female	Total
<60	236	73	309
60-64	261	67	328
65-69	257	92	349
70-74	177	66	243
75-79	107	94	201
80-84	89	94	183
85+	145	192	337
Total	1,272	678	1,950

Active Age and Service Distribution

Union

	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<25	65	0	0	0	0	0	0	65
25-29	148	64	1	0	0	0	0	213
30-34	84	65	20	0	0	0	0	169
35-39	38	33	23	5	0	0	0	99
40-44	34	21	21	14	5	0	0	95
45-49	23	13	17	7	18	35	3	116
50-54	25	17	10	9	18	67	31	177
55-59	9	6	7	6	10	46	41	125
60-64	2	2	5	0	7	14	13	43
65-69	1	0	2	0	1	1	2	7
70-74	0	0	0	0	0	0	1	1
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
Total	429	221	106	41	59	163	91	1110

Non-Union

	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<25	15	1	0	0	0	0	0	16
25-29	37	10	0	0	0	0	0	47
30-34	25	34	9	0	0	0	0	68
35-39	13	14	14	6	1	0	0	48
40-44	11	9	8	6	5	0	0	39
45-49	15	15	10	6	6	11	1	64
50-54	9	8	12	7	5	29	16	86
55-59	10	7	5	5	5	6	41	79
60-64	4	6	4	4	3	4	21	46
65-69	2	3	1	3	0	1	2	12
70-74	0	1	0	0	0	0	0	1
75-79	0	0	0	0	0	0	0	0
80-84	0	0	1	0	0	0	0	1
85+	0	0	0	0	0	0	0	0
Total	141	108	64	37	25	51	81	507

APPENDIX 4

VARIOUS GASB 45 COSTS AND OTHER ITEMS
(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Actuarial Accrued Liability (AAL), BOY	489,725	503,173	515,803	527,557	538,407	547,051	555,590	564,657	573,847	583,791
Actuarial (Gain)/Loss	0	0	0	0	0	0	0	0	0	0
Interest on AAL	38,933	40,002	41,006	41,941	42,803	43,491	44,169	44,890	45,621	46,411
Normal Cost with Interest	6,001	5,956	5,988	6,047	6,295	6,478	6,750	6,843	7,194	7,644
Benefit Payments	(30,282)	(32,054)	(33,893)	(35,718)	(38,907)	(39,846)	(40,252)	(40,917)	(41,232)	(41,659)
Interest on Benefit Payments	(1,204)	(1,274)	(1,347)	(1,420)	(1,547)	(1,584)	(1,600)	(1,626)	(1,639)	(1,656)
AAL, EOY	503,173	515,803	527,557	538,407	547,051	555,590	564,657	573,847	583,791	594,531
Market Value of Assets, BOY	131,868	161,587	193,669	228,301	265,686	306,043	349,609	396,638	447,406	502,210
Trust Fund Contributons	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500
Contributions for Benefit Payments	30,282	32,054	33,893	35,718	38,907	39,846	40,252	40,917	41,232	41,659
Benefit Payments	(30,282)	(32,054)	(33,893)	(35,718)	(38,907)	(39,846)	(40,252)	(40,917)	(41,232)	(41,659)
Investment Income	11,219	13,582	16,132	18,885	21,857	25,066	28,529	32,268	36,304	40,661
Market Value of Assets, EOY	161,587	193,669	228,301	265,686	306,043	349,609	396,638	447,406	502,210	561,371
UAAL at BOY	357,857	341,586	322,134	299,256	272,721	241,008	205,981	168,019	126,441	81,581
Normal Cost with Interest	6,001	5,956	5,988	6,047	6,295	6,478	6,750	6,843	7,194	7,644
Amortization of UAAL	31,638	30,199	28,479	26,457	24,111	21,307	18,211	14,854	11,178	7,212
Annual Required Contribution (ARC)	37,639	36,155	34,467	32,504	30,406	27,785	24,961	21,697	18,372	14,856
Interest on Net OPEB Obligation	6,475	5,531	4,337	2,873	1,122	(1,035)	(3,455)	(6,111)	(9,055)	(12,263)
Adjustment to the ARC	(7,200)	(6,151)	(4,823)	(3,195)	(1,247)	1,151	3,842	6,796	10,070	13,637
Annual OPEB Cost (AOC)	**36,914**	**35,535**	**33,981**	**32,182**	**30,281**	**27,901**	**25,348**	**22,382**	**19,387**	**16,230**
Net OPEB Obligation, BOY	81,443	69,575	54,556	36,144	14,108	(13,018)	(43,463)	(76,867)	(113,902)	(154,247)
AOC	36,914	35,535	33,981	32,182	30,281	27,901	25,348	22,382	19,387	16,230
Contributions	(48,782)	(50,554)	(52,393)	(54,218)	(57,407)	(58,346)	(58,752)	(59,417)	(59,732)	(60,159)
Net OPEB Obligation, EOY	**69,575**	**54,556**	**36,144**	**14,108**	**(13,018)**	**(43,463)**	**(76,867)**	**(113,902)**	**(154,247)**	**(198,176)**
Discount Rate, BOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Discount Rate, EOY	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%

NOTES

-Prior to 9/1/10, plan was unfunded. PGW began funding the plan effective 9/1/10.

-Assumes annual trust contributions of $18.5 million throughout forecast period.

-Cumulative difference between ARC and employer contributions is Net OPEB Obligation and is carried as a liability on the balance sheet.

-Amortization method is based on an open group period of 30 years.



Brown & Brown Consulting

November 10, 2016

Mr. Joseph F. Golden, Jr.
Philadelphia Gas Works
800 W. Montgomery Avenue
Philadelphia, PA 19122

Re: Philadelphia Gas Works Health and Life Insurance Plan for Retired Employees (the "Plan")

Dear Joe:

Attached is the projected cost of the Plan under Governmental Accounting Standards No. 75 (GASB 75), which will become effective for financial reporting for fiscal years beginning after June 15, 2017 (i.e., for the fiscal year beginning September 1, 2017 for PGW). The projected costs are based on the same actuarial assumptions as used for the September 1, 2016 GASB 45 valuation (valuation report attached). Appendix 4 of the valuation report includes a cost projection under GASB 45. As required by GASB 75, we may need to gather information from IBC on the total age distribution and total expected post-65 medical claims costs for the entire insured pool included in the rate determination to determine if any adjustments to the expected claims cost would be required.

The key changes made by GASB 75 include the following:

- The net OPEB liability represents the difference between the total OPEB actuarial accrued liability and assets accumulated in a trust restricted to making benefit payments.
- Actuarial accrued liability determined under the entry age actuarial cost method (currently PGW uses Projected Unit Credit).
- Present value is based on long-term expected rate of return on OPEB plan assets to the extent that plan assets are expected to cover projected benefit payments and 20-year tax-exempt, high quality general obligation municipal bond yield or index rate to the extent that projected benefit payments exceed plan assets. *Note, based on PGW's current funding policy, Plan assets are expected to cover projected benefit payments.*
- The total OPEB liability includes the present value of OPEB benefit payments under the terms of the Plan, including certain taxes or other assessments expected to be imposed on the benefit payments.
- Administrative expenses are a separate component of OPEB expense.
- For community-rated plans, age-specific claims costs must be used for each individual.
- Changes in OPEB liability due to changes in plan terms are included in the OPEB expense immediately.

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- Economic and demographic gains and loss are amortized over a closed period equal to the average expected remaining service lives of all participants provided with OPEB through the OPEB plan.
- Differences between projected and actual earnings on OPEB plan investments amortized over a five-year period.
- More extensive note disclosures and required supplementary information (RSI) about the OPEB liabilities.

Please contact us if you have any questions or would like to discuss.

Sincerely,

Curt Evans, FSA
Senior Consulting Actuary

Attachments

cc: Mr. Daniel E. Leonard, Jr.
Mr. William J. Patti

PHILADELPHIA GAS WORKS HEALTH AND LIFE INSURANCE PLAN

GASB 75 PROJECTED COSTS

(in thousands)

FISCAL YEAR ENDING AUGUST 31:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total OPEB liability (TOL), BOY	492,350	504,906	516,808	527,998	536,993	545,896	555,259	564,857	575,050	585,794
Assumption change (gain)/loss	0	0	0	0	0	0	0	0	0	0
Demographic (gain)/loss	0	0	0	0	0	0	0	0	0	0
Service cost	5,610	5,848	6,068	6,273	6,445	6,639	6,826	7,009	7,206	7,406
Benefit payments	(30,988)	(32,807)	(34,615)	(37,781)	(38,723)	(39,148)	(39,819)	(40,156)	(40,596)	(41,282)
Interest on TOL	37,934	38,861	39,737	40,503	41,181	41,872	42,591	43,340	44,134	44,961
Plan amendments	0	0	0	0	0	0	0	0	0	0
Total OPEB liability (TOL), EOY	504,906	516,808	527,998	536,993	545,896	555,259	564,857	575,050	585,794	596,879
Plan fiduciary net position (PFNP), BOY	161,587	193,669	228,301	265,686	306,043	349,609	396,638	447,406	502,210	561,371
Trust employer contributions	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500	18,500
Contributions for benefit payments and expenses	32,054	33,893	35,718	38,907	39,846	40,252	40,917	41,232	41,659	42,339
Benefit payments	(30,988)	(32,807)	(34,615)	(37,781)	(38,723)	(39,148)	(39,819)	(40,156)	(40,596)	(41,282)
Administrative expenses	(1,066)	(1,086)	(1,103)	(1,126)	(1,123)	(1,104)	(1,098)	(1,076)	(1,063)	(1,057)
Investment income	13,582	16,132	18,885	21,857	25,066	28,529	32,268	36,304	40,661	45,364
Plan fiduciary net position (PFNP), EOY	193,669	228,301	265,686	306,043	349,609	396,638	447,406	502,210	561,371	625,235
Net OPEB Liability (NOL) at BOY	330,763	311,237	288,507	262,312	230,950	196,287	158,621	117,451	72,840	24,423
Service Cost	5,610	5,848	6,068	6,273	6,445	6,639	6,826	7,009	7,206	7,406
Interest on TOL	37,934	38,861	39,737	40,503	41,181	41,872	42,591	43,340	44,134	44,961
Expected earnings on plan investments	(13,582)	(16,132)	(18,885)	(21,857)	(25,066)	(28,529)	(32,268)	(36,304)	(40,661)	(45,364)
Administrative expenses	1,066	1,086	1,103	1,126	1,123	1,104	1,098	1,076	1,063	1,057
Change in TOL arising from plan amendments	0	0	0	0	0	0	0	0	0	0
Recognition of deferred inflows	0	0	0	0	0	0	0	0	0	0
Recognition of deferred outflows	0	0	0	0	0	0	0	0	0	0
Pension Expense	**31,028**	**29,663**	**28,023**	**26,045**	**23,683**	**21,086**	**18,247**	**15,121**	**11,742**	**8,060**
Net OPEB liability (NOL) at BOY	(330,763)	(311,237)	(288,507)	(262,312)	(230,950)	(196,287)	(158,621)	(117,451)	(72,840)	(24,423)
Pension expense	(31,028)	(29,663)	(28,023)	(26,045)	(23,683)	(21,086)	(18,247)	(15,121)	(11,742)	(8,060)
Contributions	50,554	52,393	54,218	57,407	58,346	58,752	59,417	59,732	60,159	60,839
Net OPEB Liability, EOY	**(311,237)**	**(288,507)**	**(262,312)**	**(230,950)**	**(196,287)**	**(158,621)**	**(117,451)**	**(72,840)**	**(24,423)**	**28,356**
Expected return on plan investments	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Discount rate	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%	7.95%
Valuation date	9/1/2017	9/1/2018	9/1/2019	9/1/2020	9/1/2021	9/1/2022	9/1/2023	9/1/2024	9/1/2025	9/1/2026
Measurement date	8/31/2018	8/31/2019	8/31/2020	8/31/2021	8/31/2022	8/31/2023	8/31/2024	8/31/2025	8/31/2026	8/31/2027
Reporting date	8/31/2018	8/31/2019	8/31/2020	8/31/2021	8/31/2022	8/31/2023	8/31/2024	8/31/2025	8/31/2026	8/31/2027

PHILADELPHIA GAS WORKS
CHANGE IN ACCOUNTING PROCEDURE
OTHER POST-EMPLOYMENT BENEFITS
TWELVE MONTHS ENDED AUGUST 31, 2016, 2017 & 2018

	Period ($000's)		
	FY 2016	**FY 2017**	**FY 2018**
FERC Account 926			
Retiree Health Insurance Expense[1]	29,251	28,582	-
Retiree Life Insurance Expense[1]	1,800	1,700	-
Other Post Employment Benefit Expense	9,929	6,632	31,028
YTD Total	**40,980**	**36,914**	**31,028**
FERC Account 136			
OPEB Trust Employer Contribution	(18,500)	(18,500)	(18,500)
Retiree Health Insurance Payment	(29,251)	(28,582)	(34,449)
Retiree Life Insurance Payment	(1,800)	(1,700)	(1,700)
YTD Total	**(49,551)**	**(48,782)**	**(54,649)**
FERC Account 253			
OPEB Trust Employer Contribution	18,500	18,500	18,500
Other Post Employment Benefit Expense	(9,929)	(6,632)	(31,028)
Retiree Health Insurance Expense[1]	-	-	34,449
Retiree Life Insurance Expense[1]	-	-	1,700
Adjusting Entry GASB 75[2]	-	(261,188)	-
YTD Total	**8,571**	**(249,320)**	**23,621**
FERC Account 216			
Unappropriated Retained Earnings[2]	-	261,188	-
YTD Total	**-**	**261,188**	**-**

1) Retiree health and life insurance expenses for the FY 2016 and FY 2017 periods are shown as an expense on PGW's income statement, FERC Account 926. Effective September 1, 2017, PGW intends to implement GASB 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions", and in accordance with this new pronouncement, retiree insurance expenses will be shown as a reduction to the Total OPEB liability, FERC Account 253. The change in the accounting procedure for OPEBs has no impact to PGW's ending cash balance

2) Effective September 1, 2017, PGW will begin reporting the balance of the unfunded liability for OPEBs in FERC account 253. This initial entry is offset by a corresponding decrease to Unappropriated Retained Earnings, FERC account 216.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.37. Indicate the expenses that are recorded in the test year, which are due to the placement in operating service of major plant additions or the removal of major plant from operating service, and estimate the expense that will be incurred on a full-year's operation.

RESPONSE:

For PGW's fiscal year 2018 test year, $4,100,000 of cost of removal expenses are included.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.38. Submit a statement of past and anticipated changes, since the previous rate case, in major accounting procedures.

RESPONSE:

Since the previous rate case PGW has implemented the accounting and financial reporting requirements related to recent pronouncements of the Governmental Accounting Standards Board. The accounting and financial reporting impact of these pronouncements is reflected in PGW's financial statements. The reference for any impact is noted in the Management Discussion and Analysis, as well as in the Notes to the Financial Statements.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.39. Identify the specific witness for all statements and schedules of revenues, expenses, taxes, property, valuation, etc.

RESPONSE:

PGW Statement No. 2 – Joseph F. Golden, Jr.

Sponsoring: financial statements; expenses; taxes (where applicable); property valuation, etc.; historical, future, and fully projected future test year; *pro forma* revenues at present rates; *pro forma* adjustments; *pro forma* revenues at proposed rates.

PGW Statement No. 6 – Kenneth S. Dybalski

Sponsoring: additional *pro forma* revenues; *pro forma* revenue adjustments and explanations; rate increase allocation; proposed customer charge increases.

PGW Statement No. 7 – Douglas A. Moser

Sponsoring: results of ongoing efforts to modernize distribution system, improve safety efficiency and customer service; reduce employee benefit costs.

PGW reserves the right to add additional witnesses sponsoring direct or rebuttal testimony. If so, PGW will clearly identify the subject of such testimony.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.40. Adjustments which are estimated shall be fully supported by basic information reasonably necessary.

RESPONSE:

Please see the following:

- PGW Statement No. 2 – Joseph F. Golden, Jr. and accompanying schedules;
- PGW Statement No. 6 – Kenneth S. Dybalski and accompanying schedules.

PGW reserves the right to add additional witnesses sponsoring direct or rebuttal testimony. If so, PGW will clearly identify the subject of such testimony.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.41. Submit a statement explaining the derivation of the amounts used for projecting future test year level of operations and submit appropriate schedules supporting the projected test year level of operations.

RESPONSE:

See PGW Statement No. 2 – Joseph F. Golden, Jr. and accompanying schedules.

PGW reserves the right to add additional witnesses sponsoring direct or rebuttal testimony. If so, PGW will clearly identify the subject of such testimony.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.42. If a company has separate operating divisions, an income statement must be shown for each division, plus an income statement for company as a whole.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.43. If a company's business extends into different states or jurisdictions, then statements must be shown listing Pennsylvania jurisdictional data, other state data and federal data separately and jointly (Balance sheets and operating accounts).

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.44. Ratios, percentages, allocations and averages used in adjustments must be fully supported and identified as to source.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.45. Provide an explanation of any differences between the basis or procedure used in allocations of revenues, expenses, depreciation and taxes in the current rate case and that used in the prior rate case.

RESPONSE:

The allocation approach of the current COS closely resembles what was done in 2009, with the exception of a few small changes to allocators. See PGW Statement No. 5 – Philip Q. Hanser and accompanying schedules, as well as PGW's Cost of Service Study, for all details and changes.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.46. Supply a copy of internal and independent audit reports of the test year and prior calendar year, noting any exceptions and recommendations and disposition thereof.

RESPONSE:

Any party to the proceeding requiring access to audit reports will be afforded the opportunity upon request and a determination of need, subject to the provisions of a Confidentiality Agreement to be entered into between such party and the Company pursuant to a Protective Order.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.47. Submit a schedule showing rate of return on facilities allocated to serve wholesale customers.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.48. Provide a copy of the latest capital stock tax report and the latest capital stock tax settlement.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.49. Submit details of calculations for Taxes, Other than Income where a company is assessed taxes for doing business in another state, or on its property located in another state.

RESPONSE: Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.50. Provide a schedule of federal and Pennsylvania taxes, other than income taxes, calculated on the basis of test year per books, pro forma at present rates, and pro forma at proposed rates, to include the following categories:

a. social security

b. unemployment

c. capital stock

d. public utility realty

e. P.U.C. assessment

f. other property

g. any other appropriate categories

RESPONSE:

a. Social Security

PGW's employer share of Social Security and Medicare Taxes is as follows:

Fiscal Year Ending August 31, 2016	$8,610,481.66
Fiscal Year Ending August 31, 2017	$9,197,000.00
Fiscal Year Ending August 31, 2018	$9,427,000.00

b. Unemployment

PGW's employer Pennsylvania Unemployment Tax Reimbursable is as follows:

Fiscal Year Ending August 31, 2016	$137,243.80
Fiscal Year Ending August 31, 2017	$180,000.00
Fiscal Year Ending August 31, 2018	$184,000.00

c. Capital Stock – Not applicable.

d. Public Utility Realty – Not Applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

e. P.U.C. Assessment

PGW's P.U.C. assessment is expensed as follows:

Fiscal Year Ending August 31, 2016	$2,966,592.19
Fiscal Year Ending August 31, 2017	$3,226,000.00
Fiscal Year Ending August 31, 2018	$3,351,000.00

f. Other Property – Not applicable.

g. Any Other Appropriate Categories – Not applicable.

III. BALANCE SHEET AND OPERATING STATEMENT

III.A.51 – III.A.71. Income Taxes

RESPONSE: This section is not applicable to PGW as tax-exempt municipally-owned company.