

**TABLE 21**  
**PHILADELPHIA**  
**TOTAL MONTHLY EMPLOYMENT AND MONTHLY UNEMPLOYMENT RATES**  
**BASED ON RESIDENCY**  
**January 1991 - November 1993**

<u>Month</u>	<u>Total Employment</u>			<u>Unemployment Rate %</u>		
	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
January	663,700	634,400	630,900	7.4	8.3	9.0
February	665,800	632,900	631,400	7.8	9.1	9.0
March	655,200	630,300	626,500	8.0	8.3	8.1
April	670,800	627,300	624,900	7.8	9.0	8.5
May	665,300	629,900	630,800	9.1	9.5	9.5
June	679,900	642,700	639,600	8.1	9.0	8.8
July	678,800	640,600	642,900	8.5	9.2	9.8
August	668,900	641,900	715,700	8.1	9.2	9.8
September	665,100	639,300	699,200	8.1	8.9	9.0
October	675,300	643,900	639,600	8.0	9.0	9.2
November	675,800	649,500	642,200*	7.6	8.1	8.9*
December	671,300	643,200		7.3	7.6	

Source: Pennsylvania Department of Labor and Industry, Bureau of Research & Statistics.

\* Preliminary Data

**TABLE 22**  
**PHILADELPHIA**  
**NON-FARM PAYROLL EMPLOYMENT\***  
**(Amounts in Thousands)**

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Total Employment	743.1	752.4	755.4	760.3	772.3	775.9	761.6	746.7	718.4	696.1
Manufacturing	109.2	108.6	103.2	99.8	96.0	92.2	87.0	81.6	74.8	68.9
Non-Manufacturing	633.9	643.8	652.2	660.5	676.3	683.7	674.6	665.1	643.8	627.2
Construction and Mining	17.0	17.2	17.3	17.2	17.3	17.5	17.0	16.0	13.4	11.4
Transportation/Public Utilities	46.6	46.4	45.2	44.3	45.0	44.4	40.9	39.9	89.5	37.4
Trade	142.5	145.0	145.8	148.1	148.1	149.3	144.3	136.3	126.52	119.9
Finance/Insurance										
Real Estate	64.7	66.4	66.6	69.5	72.8	71.5	68.6	64.7	61.3	59.8
Services	225.0	228.5	235.9	242.5	250.3	257.2	262.1	265.2	264.4	263.5
Government	138.1	140.3	141.5	138.9	142.8	143.8	141.7	143.0	139.5	135.1

Source: Commonwealth of Pennsylvania, Department of Labor and Industry, Office of Employment Security, Bureau of Research and Statistics.

\* Includes persons employed within the City, without regard to residency.

**TABLE 23**  
**LARGEST 20 NON-GOVERNMENTAL EMPLOYERS**  
**IN THE CITY OF PHILADELPHIA**  
**1992**

<u>Employer (a)</u>	<u>No. of Employees</u>
University of Pennsylvania	22,196 (b)
Thomas Jefferson University	7,886
CoreStates Financial Corporation	7,429
CIGNA Corporation	5,067
Strawbridge & Clothier	4,739
Albert Einstein Healthcare Foundation	4,630
Philadelphia Electric Company	4,166
Hahnemann University	4,110
Bell of Pennsylvania	3,419
Mellon PSFS	3,411
Provident National Bank	3,381
The Medical College of Pennsylvania	3,381
Consolidated Rail Corporation (Conrail)	3,300
ARA Services Inc.	2,949
Philadelphia Newspapers, Inc.	2,797
Pennsylvania Hospital	2,665
The Children's Hospital of Philadelphia	2,650
Graduate Health System	2,524
Drexel University	2,335
USAir	1,974

Source: Philadelphia Business Journal, Book of Business Lists, 1993 Edition; December 28, 1992.

- (a) Does not include federal, state and city agencies.  
 (b) Includes Hospital of the University of Pennsylvania.

**TABLE 24**  
**FORTUNE 500**  
**LARGEST INDUSTRIAL CORPORATIONS**  
**WITH HEADQUARTERS IN PHILADELPHIA PMSA**  
**1992**

<u>Corporation</u>	<u>Type of Industry</u>	<u>Ranking</u>	<u>Sales</u> <u>(\$ Millions)</u>
Sun	Petroleum Refining	59	8,626.0
Unisys	Computers	62	8,421.9
Campbell Soup	Food	85	6,278.5
Scott Paper	Paper Products	110	4,886.2
Crown Cork & Seal	Metal Products	131	3,780.7
Rohm & Haas	Chemicals	153	3,083.0
Amtek	Electronics	420	776.2
Tyco Toys	Toys, Sporting Goods	423	768.4
Betz Laboratories	Chemicals	438	710.2
Toy Technologies	Electronics	480	621.1

Source: Fortune Magazine, April 1993.

**TABLE 25**  
**FORTUNE 500**  
**LARGEST SERVICE CORPORATIONS**  
**WITH HEADQUARTERS IN PHILADELPHIA PMSA**  
**1992**

<u>Corporation</u>	<u>Type of Industry</u>	<u>Ranking</u>	<u>Assets</u> <u>(\$ Millions)</u>
CIGNA	Financial	8/Financial	69,287.0
Bell Atlantic	Utility	3/Utilities	28,099.5
Corestates Finance Corp.	Banking	30/Banking	23,699.1
Philadelphia Electric	Utility	19/Utilities	12,578.2
Consolidated Rail	Transportation	16/Transportation	7,315.0
Penn Mutual Life	Insurance	46/Life Insurance	6,248.4
Alco Standard	Service	21/Service	2,444.8
ARA Group	Service	23/Service	2,005.2
Advanta	Financial	50/Service	1,775.1
U.S. Healthcare	Service	60/Service	981.1
Alco Health Svs.	Service	37/Service	848.7
Intelligent Electronics	Service	45/Transportation	630.3

Source: Fortune Magazine, May 31, 1993.

**TABLE 26**  
**TOTAL INDUSTRY EMPLOYMENT BY ESTABLISHMENT**  
**ANNUAL AVERAGES**  
**(Amounts In Thousands)**  
**PHILADELPHIA PMSA**

<u>ESTABLISHMENT DATA</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Non-Agricultural Employment	2210.2	2203.1	2126.6	2095.5
Goods Producing	469.2	446.6	405.8	386.7
Construction & Mining	105.2	97.3	79.0	73.7
Manufacturing	364.0	349.3	326.8	313.0
Durable Goods	189.4	177.4	160.4	149.9
Nondurable Goods	174.6	171.9	166.4	163.1
Service Producing	1741.0	1756.5	1720.8	1708.8
Transp. & Public Utilities	100.6	101.5	100.7	97.8
Wholesale & Retail Trade	514.1	502.1	481.1	486.9
Fin., Insurance & Real Estate	161.9	160.9	156.3	157.4
Services	662.8	687.4	681.6	685.0
Government	301.6	304.7	301.1	299.7
Federal Government	80.4	80.4	78.8	75.0
State & Local Government	221.2	224.3	222.3	224.7

Source: Bureau of Research & Statistics, Pa. Department of Labor and Industry.

### Income

The following table shows comparable data relating to per-capita income for the City, the PMSA, and the United States.

As shown below, over the past few years, real per-capita income has generally outpaced the urban cost of living index, suggesting that on average, the newly created service jobs have generated positive real income growth for City wage earners.

**TABLE 27**  
**CONSUMER PRICES PERSONAL INCOMES**

	<u>1985</u>	<u>1990</u>	<u>1991</u>	<u>% change</u> <u>1985-1991</u>
CPI-U United States (a)	107.6	130.7	136.2	26.6%
CPI-U Philadelphia PMSA (a)	108.8	135.8	142.2	30.7%
Personal Income Per Capita (b)				
Philadelphia	12,410	16,721	17,430	40.5%
Philadelphia PMSA	15,253	21,347	18,383	20.5%
United States	13,899	18,696	19,091	37.4%

Source:

(a) Consumer Price Index.- All Urban Consumers. U.S. Bureau of Labor Statistics.

(b) U.S. Department of Commerce, Bureau of Economic Analysis. Regional Economic Information System.

**TABLE 28**  
**NUMBER OF FAMILIES BY INCOME RANGE IN PHILADELPHIA PMSA**

<u>Income</u>	<u>Number of Families</u>			<u>Percentage of Families</u>		
	<u>1990</u>	<u>1980</u>	<u>1970</u>	<u>1990</u>	<u>1980</u>	<u>1970</u>
Under \$5,000	244,825	553,891	510,178	5.4%	13.1%	16.9%
\$5,000-9,999	452,700	672,333	1,100,275	10.1	15.9	36.5
\$10,000-14,999	415,303	653,060	848,781	9.2	15.5	28.2
\$15,000-24,999	818,918	1,199,078	434,007	18.2	28.4	14.4
\$25,000-49,999	1,572,890	1,007,274	96,779	35.0	23.9	3.2
\$50,000 and over	<u>988,322</u>	<u>155,024</u>	<u>21,110</u>	<u>22.0</u>	<u>3.7</u>	<u>0.7</u>
Total	4,492,958	4,220,660	3,011,130	100.0%	100.0%	100.0%

**NUMBER OF FAMILIES BY INCOME RANGE IN UNITED STATES**

<u>Income</u>	<u>Number of Families (000's)</u>			<u>Percentage of Families</u>		
	<u>1990</u>	<u>1980</u>	<u>1970</u>	<u>1990</u>	<u>1980</u>	<u>1970</u>
Under \$5,000	4,901	10,663	10,373	5.2%	13.3%	20.3%
\$5,000-9,999	9,184	12,772	16,630	9.7	15.9	32.5
\$10,000-14,999	8,925	12,342	13,617	9.5	15.3	26.6
\$15,000-24,999	16,723	21,384	8,177	17.7	26.6	16.0
\$25,000-49,999	31,334	19,614	2,371*	33.2	24.3	4.6*
\$50,000 and over	<u>23,246</u>	<u>3,692</u>	<u>N/A*</u>	<u>24.6</u>	<u>4.6</u>	<u>N/A*</u>
Total	94,313	80,467	51,168	100.0%	100.0%	100.0%

Source: U.S. Department of Commerce, Bureau of the Census.

\* In 1970 the highest income range was \$25,000 and over.

## Retail Sales

The following table compares retail sales activity among the City, the PMSA, and the United States.

**TABLE 29  
RETAIL SALES**

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988*</u>	<u>1989*</u>	<u>1990*</u>	<u>1991*</u>	<u>1992*</u>
Philadelphia (\$ Billions)									
Durable Goods	1.4	1.2	1.1	2.1	N/A	N/A	N/A	N/A	N/A
Non-Durable Goods	5.1	5.3	5.1	4.8	N/A	N/A	N/A	N/A	N/A
Total	6.5	6.5	6.2	6.9	7.4	8.7	9.1	9.6	8.9
Philadelphia PMSA (\$ Billions)									
Durable Goods	8.4	9.8	11.9	11.6	11.9	12.2	12.2	15.2	14.7
Non-Durable Goods	16.0	17.3	18.0	18.8	20.0	22.1	22.9	23.0	24.9
Total	24.4	27.1	30.3	30.4	31.9	34.3	35.1	38.2	39.6
United States (\$ Billions)									
Durable Goods	463.0	511.3	562.8	576.6	627.4	645.5	646.4	653.0	
Non-Durable Goods	830.9	866.5	882.7	965.5	1,022.6	1,088.1	1,151.5	1,189.7	
Total	1,293.9	1,377.9	1,445.5	1,542.1	1,650.0	1,733.0	1,797.9	1,842.7	

Source: 1984-1987 Wharton Econometric Forecasting Associates; for 1988-1992, U.S. Department of Commerce, Current Business Reports, BR89-R.

The City has ceased its subscription to the Wharton (WEFA) Econometric Philadelphia Model. For 1988-92, Retail Sales per WEFA has been replaced with Retail Sales per U.S. Department of Commerce. The two statistical series may not be exactly equivalent.

The following table reflects taxable sales for Philadelphia from fiscal years 1987 to 1992.

**TABLE 30  
CITY OF PHILADELPHIA  
TAXABLE SALES 1987-1992  
(\$000's)**

<u>Fiscal Year</u>	<u>Taxable Sales</u>
1987	6,978,483
1988	7,438,700
1989	7,930,683
1990	8,184,333
1991	8,010,867
1992	9,274,167

Source: Pennsylvania Department of Revenue.

The City of Philadelphia is the nation's 4th largest metropolitan area in terms of total retail sales.

**TABLE 31**  
**RETAIL SALES BY STORE GROUP (\$000)\***  
**1991**

	<u>Philadelphia</u>	<u>PMSA</u>	<u>Pennsylvania</u>	<u>United States</u>
Total Retail Sales	7,451,387	35,120,446	80,941,685	1,821,385,936
Food	1,826,320	7,708,966	17,794,603	370,254,607
Eating & Drinking	972,845	3,107,033	7,300,361	189,192,158
Gen. Merchandise	837,029	3,999,091	9,230,884	217,493,516
Furniture, Furnishings & Appliances	284,502	1,693,050	3,713,716	89,838,952
Automotive	992,815	7,329,641	16,697,888	375,644,032
Drug	446,234	1,430,456	3,382,091	74,994,271
Other	2,091,642	9,852,209	22,822,142	503,968,400
Per Household Retail Sales	12,382	19,486	17,856	19,443

Source: Sales and Marketing Management. "1992 Survey of Buying Power". August 24, 1992.

\* Total Retail Sales reflects net sales (less refunds and allowances for returns) for all establishments primarily engaged in retail trade. Receipts from repairs and other services are also included, but retail sales by wholesalers and service establishments are not.

### Effective Buying Income and Household Income

The median household effective buying income for the City in 1991 was \$27,520, 86.1% of the Commonwealth median household effective buying income, and 85.8% of the U.S. median household effective buying income. The Philadelphia metropolitan area has the nation's 4th largest total effective buying income. Effective buying income ("EBI") is defined as all personal income less personal taxes, non-tax payments (fines, fees and penalties) and contributions to social insurance. EBI is also commonly referred to as disposable or after-tax income.

**TABLE 32**  
**CITY AND PMSA EFFECTIVE BUYING INCOME**  
**1991**

	Total EBI (000)	Median Household EBI	% of Households by EBI			
			\$10,000- 19,999	\$20,000- 34,999	\$35,000- 49,999	\$50,000 and over
Philadelphia	\$20,575,850	\$27,520	19%	24%	18%	21%
Bucks Co.	10,512,840	46,731	9	19	22	45
Chester Co.	8,297,170	49,334	9	18	19	49
Delaware Co.	9,843,248	40,631	12	21	21	37
Montgomery Co.	15,462,219	47,238	9	19	20	46
Burlington Co., N.J.	7,787,897	48,361	9	18	21	48
Camden Co., N.J.	8,617,024	40,338	13	21	20	37
Glouster Co., N.J.	3,870,100	43,834	11	19	22	41
Total Metro Area	84,966,348	39,012	13	21	20	36
Pennsylvania	178,188,888	31,968	17	25	20	25
United States	3,728,967,043	32,073				

Source: Sales and Marketing Management. "1992 Survey of Buying Power". August 24, 1992.

## Infrastructure

The residents of the City and surrounding counties are served by a commuter transportation system operated by SEPTA. This system includes two subway lines, a network of buses and trolleys, and a commuter rail network joining Center City and other areas of the City to the surrounding counties. The Pennsylvania General Assembly in 1991 enacted legislation providing a dedicated source of revenue to SEPTA for use in maintaining and upgrading its infrastructure. A high speed train line runs from southern New Jersey to Center City and is operated by the Delaware River Port Authority ("DRPA"). The opening of the commuter rail tunnel in 1984 provided a unified City transportation system linking the commuter rail system, the SEPTA bus, trolley, and subway lines, the high speed line to New Jersey and the airport high speed line. An important addition to the area's transportation system was the opening of the airport high speed line between Center City and the Philadelphia International Airport in 1985. The line places the airport less than 25 minutes from the Center City business district and connects directly with the commuter rail network and the Convention Center which opened in June 1993.

Amtrak, SEPTA, Conrail, CSX Transportation and Delaware and Hudson Railroad provide inter-city, commuter and freight rail services connecting Philadelphia to the other major cities and markets in the United States. More than 100 truck lines serve the Philadelphia area.

The City now has one of the most accessible downtown areas in the nation with respect to highway transportation as well as high speed rail by virtue of the recent completion of I-95 in the vicinity of Philadelphia International Airport: the Vine Street Expressway (I-676), running east-to-west through the Central Business District between I-76 and I-95; and now the "Blue Route" (I-476) in suburban Delaware and Montgomery Counties which feeds into the Schuylkill Expressway (I-76) and thus into Center City Philadelphia.

The City owns the Philadelphia International Airport ("PHL") located eight miles southwest of Center City and a smaller airport in Northeast Philadelphia. The PHL is accessible by major highways within the City and from surrounding communities and SEPTA's high speed train line. The PHL annually provides its 16 million passengers with service from seven domestic air carriers, ten commuter airlines, four foreign flag carriers, eleven charter airlines and ten all-cargo carriers. USAir has hub operations in the City. A new terminal with 12 gates for both international and domestic operations opened in March 1991. After sustaining a 7.8% decrease in passengers during 1991, airport traffic rebounded in 1992 with a 6.3% increase, restoring total airport traffic to 16 million passengers. This increase was due primarily to a stabilized international environment after the Persian Gulf war, deep discounts resulting from "air fare wars" in mid-1992 and continued USAir growth in its air hub operations at PHL, including new non-stop service to Paris. A \$50 million domestic terminals renovation program is currently under construction.

Air cargo traffic continues to grow at PHL. Outbound air mail and cargo for 1992 totalled 210,000 tons, representing a 4.3% increase over 1991. This increase is due primarily to continued traffic growth by United Parcel Services Inc. ("UPS"). UPS' 200-acre East Coast hub package handling and sorting facility opened at PHL in September, 1989. In addition, a new 30-acre U.S. Postal Service air mail facility was completed during October, 1991.

The Port of Philadelphia is one of the busiest ports in the United States, holding a leadership position in the handling of many labor-intensive cargoes. It is the leading handler among all U.S. ports of Chilean fruit entering the country, with a 70% market share, and a leader in the handling of high-quality paper and other forest products. Containerized cargo is handled at the Port's two modern container-handling facilities, Packer Avenue Marine Terminal and Tioga Marine Terminal. The Port's publicly-

owned facilities are managed by the Philadelphia Regional Port Authority ("PRPA") and are now benefiting from a \$56 million Commonwealth capital program for facility modernization and expansion. The Port also services a growing number of cruise-ship calls. Foreign trade zones are located in the port district.

The water and wastewater systems of Philadelphia are owned by the City and operated by the City's Water Department. The water system provides water to the City (130 square mile service area) and a portion of the water to the Bucks County Water and Sewer Authority. The City obtains approximately 54 percent of its water from the Delaware River and the balance from the Schuylkill River. The water system serves approximately 494,500 households through 3,300 miles of mains and provides fire protection through more than 27,700 fire hydrants.

The wastewater system services a total of 279 square miles of which 130 square miles are within the City and 149 square miles are in suburban areas. The total population served is approximately 2,286,000, according to the 1990 census. The wastewater system contains three water pollution control plants, 16 pumping stations and approximately 2,955 miles of sewers. By order of the Delaware River Basin Commission, the City is required to achieve effluent limitations which are considered more stringent than those required to achieve secondary treatment levels as defined in the Federal Water Pollution Control Act Amendments of 1972, as amended.

The City is responsible for collecting solid wastes from sources other than industrial or commercial institutions. Approximately 3,200 tons of solid waste per day are collected by the City. Municipal solid waste is disposed of at various landfills operated outside City limits. The City has entered into a contract with a major private contractor for landfill space.

Some elements of the City's capital plant are aged and in need of repair, maintenance and/or reconstruction. The City's Capital Improvement Program for Fiscal Years 1994 through 1999 addresses this need. The City's capital improvement requirements are dictated by the need to provide services and maintain the existing infrastructure. New projects are recommended by the City Planning Commission only if they enhance the City's economy, protect public health and safety, improve the City's neighborhoods, make government more efficient, leverage other government and private funds or preserve unique resources. Examples consistent with these priorities are projects such as the modernization of terminal buildings at the PHL, upgrading police and fire facilities, improvement of housing services, libraries, health facilities, the transit system and numerous projects to enhance the City's industrial and commercial development. Also included in the capital improvement program are projects for the City's museums, recreation facilities and parklands.

## **Housing**

The City boasts a diversity of neighborhoods and housing opportunities. There are over 100 neighborhoods, some of which trace their origin to the eighteenth century and the early settlements of the City. Approximately 60% of the City's housing units are owner-occupied.

Housing costs are low relative to the largest metropolitan areas in the United States, and costs are very competitive with major metropolitan areas in the Northeast. Since 1988, home ownership and rental costs in Philadelphia have increased more slowly than costs in Pittsburgh, Baltimore and Washington, D.C.

**TABLE 33**  
**HOUSING AFFORDABILITY IN MAJOR MARKETS**  
**THIRD QUARTER 1991**

	<u>Median Priced Existing Single Family Home</u>	<u>Median Household Income</u>	<u>Qualifying Income (a)</u>	<u>Composite Affordability Index (b)</u>
United States	\$101,800	\$30,511	\$32,329	94.4
Atlanta, GA	95,100	34,490	30,466	113.2
Baltimore, MD	114,000	33,947	36,902	92.0
Boston, MA	175,500	36,833	56,734	64.9
Chicago, IL	135,800	31,902	43,902	72.7
Cleveland, OH	89,400	30,239	28,607	105.7
Dallas, TX	90,300	32,920	28,967	113.6
Detroit, MI	83,100	33,254	26,974	123.3
Houston, TX	76,700	34,394	24,806	138.7
Kansas City, MO	76,800	30,378	24,409	124.5
Los Angeles, CA (c)	220,300	28,709	72,643	39.5
Miami/Hialeah, FL	99,500	26,351	32,482	81.1
New York/N. New Jersey, Long Island, NY/NJ/CT	176,200	33,823	55,663	60.8
Philadelphia, PA	112,100	30,852	35,948	85.8
Phoenix, AZ	86,500	30,771	28,079	109.6
San Diego, CA (c)	191,800	28,742	63,221	45.5
San Francisco Bay Area (c)	262,000	34,038	86,687	39.3
St. Louis, MO	80,700	31,357	26,036	120.4
Washington, DC/MD/VA	118,200	43,623	52,190	83.6

Source: HSH Associates for Metropolitan Areas; FHFB for U.S.

(a) Based on current lending requirements of the Federal National Mortgage Association using a 20% down payment.

(b) Median Household Income as a percentage of Qualifying Income.

(c) The California Association of Realtors publishes a housing affordability index for areas within the state which differs significantly from these values because it measures the proportion of households which could theoretically afford to purchase the median price home rather than the ability of a median income family to carry the mortgage. California data is provided for comparison only. Source: Home Sales; National Association of Realtors, Economic Research Division; December 1991. Statistics are no longer recorded at the National Association of Realtors.

**TABLE 34  
CHARACTERISTICS OF HOUSING UNITS**

	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1990</u>
<b>Total Housing Units</b>				
City of Philadelphia	649,033	673,524	685,629	674,899
Philadelphia PMSA	1,333,962	1,536,872	1,554,651	1,491,310
Pennsylvania	3,581,877	3,924,757	4,597,412	4,938,140
<b>Percent Owner Occupied</b>				
City of Philadelphia	61.9%	59.7%	61.0%	62.0%
Philadelphia PMSA	70.0%	67.1%	63.4%	68.5%
Pennsylvania	68.3%	68.0%	64.2%	70.6%
<b>Median Value of Owner Occupied Housing</b>				
City of Philadelphia	\$7,000	\$10,600	N/A	\$48,400
Philadelphia PMSA	7,100	14,900	41,700	96,700
Pennsylvania	7,100	13,600	39,100	67,900
<b>Number of Persons per Housing Unit</b>				
City of Philadelphia	3.00	2.50	2.66	2.63

Source: U.S. Department of Commerce, Bureau of the Census.

While the City's housing market has remained fairly stable, there has been significant development in the commercial real estate sector. The tables below summarize certain information concerning real estate assessments and construction activity.

**TABLE 35  
CONSTRUCTION AUTHORIZED BY BUILDING PERMIT  
DECLARED VALUATION  
(Millions of Dollars)**

	<u>Residential</u>	<u>Commercial</u>	<u>Other *</u>	<u>Total</u>	<u>New Housing Units</u>
1980	116.2	147.0	372.2	635.4	2,704
1981	99.1	176.9	151.9	427.9	2,060
1982	88.0	122.7	166.9	377.6	1,768
1983	56.6	40.2	125.8	322.6	1,152
1984	66.7	213.3	261.7	541.7	1,498
1985	147.7	352.1	91.7	591.5	3,027
1986	113.6	252.6	264.6	630.8	2,569
1987	98.0	427.0	118.3	643.3	1,561
1988	163.4	765.8	98.5	1,027.7	2,981
1989	104.9	434.9	118.7	658.5	1,496
1990	84.9	469.9	108.0	662.8	1,213
1991	55.1	391.0	41.7	487.8	614
1992	47.7	371.7	97.4	516.7	361

Source: City of Philadelphia, Department of Licenses and Inspections.

\* Includes construction by government, industrial, medical and educational units.

**TABLE 36**  
**TEN HIGHEST CERTIFIED MARKET AND ASSESSMENT VALUES**  
**FOR TAX YEAR 1993 OF FULLY TAXABLE PROPERTIES**

<u>Rank</u>	<u>Location</u>	<u>1993 Certified Market Value</u>	<u>1993 Certified Assessment Value</u>
1.	1500-42 Market Street	\$240,790,000	\$77,052,800
2.	1650 Market Street	192,128,000	61,480,960
3.	2005 Market Street	133,972,600	42,871,232
4.	1600-22 Market Street	115,000,000	36,800,000
5.	1414-38 South Penn Square	113,537,800	36,332,096
6.	1700-40 Market Street	105,000,000	33,600,000
7.	1835 Market Street	104,425,900	33,416,288
8.	1818-28 Market Street	92,128,800	29,481,216
9.	1801-21 Market Street	85,000,000	27,200,000
10.	124-48 South 6th Street	85,000,000	27,200,000

Source: City of Philadelphia. Board of Revision of Taxes.

**TABLE 37**  
**TEN HIGHEST CERTIFIED MARKET AND ASSESSMENT VALUES**  
**FOR TAX YEAR 1993 OF REAL ESTATE TAX ABATED PROPERTIES**

<u>Rank</u>	<u>Location</u>	<u>1993 Certified Market Value</u>	<u>Taxable Assessment Value</u>	<u>Exempt Assessment Value</u>
1.	1735 Market Street	\$149,156,800	\$6,675,712	\$41,054,464
2.	50 South 16th Street	145,328,800	11,391,040	35,114,176
3.	4301 Byberry Road	144,024,100	19,661,941	26,425,771
4.	1717 Arch Street	140,400,000	7,471,488	37,456,512
5.	1301-25 Chestnut Street	126,500,000	35,062,157	5,417,843
6.	1901-19 Market Street	111,400,000	1,108,332	34,539,668
7.	2001 Market Street	95,327,600	4,099,104	26,405,728
8.	701-39 Market Street	80,214,100	22,802,752	2,865,760
9.	1625-37 Market Street	38,155,000	6,570,764	5,638,836
10.	1327-39 Chestnut Street	37,515,000	8,640,000	3,364,800

Source: City of Philadelphia. Board of Revision of Taxes.

The City has a long tradition of planning and redevelopment. Since the 1950's, the City's Central Business District, known as Center City, has benefited from both commercial and residential revitalization. The Planning Commission's Plan for Center City Philadelphia (1963) established the foundation for public and private investment through the 1960's, 1970's, and early 1980's. In response to evolving development conditions, the Planning Commission in 1988 prepared a new Plan for Center City to guide growth into the 21st Century.

Center City's attractiveness to business recently has been highlighted by the decisions of CIGNA Corporation, Bell Atlantic Corporation, and Consolidated Rail Corporation to locate their headquarters in

the downtown area. In 1991, the Sun Company announced that it would return its corporate offices to Center City from a suburban location.

The concentration of office buildings along the West Market Street corridor has been supplemented by several substantial projects. The largest of these is Rouse and Associates' Liberty Place. Liberty Place, completed in 1990, is a \$520 million project consisting of twin office towers connected by an atrium of retail space and a Ritz Carlton Hotel. The atrium contains a food court and two levels of over 40 retail establishments. The second tower has the CIGNA Corporation (insurance company) as its prime tenant, while several large Philadelphia law firms anchor the first tower. Other recent additions to the skyline stretching along West Market Street include the Blue Cross-Linpro Tower, a 50 story office building occupied by Independence Blue Cross, and the Mellon Bank Center, an award-winning 53 story office building. A few blocks to the North, the Bell Atlantic Tower, One Logan Square and Two Logan Square office buildings have been added.

The second Commerce Square Tower at 20th and Market was completed in 1992. The building houses the corporate offices of Consolidated Rail Corporation. The first Commerce Square building, with IBM as the prime tenant, was completed in 1987. Overall Center City office occupancy rates stood at 83.8% as of March 1993.

To enhance the tourist and retail climate in the Central Business District, City Council passed an ordinance in 1990 that created the Center City District, a special assessment district encompassing the City's central retail and commercial core. In 1991 a special tax assessment on properties in this district began to be used to implement and coordinate additional police, clean-up and tourist aid details there. A centrally coordinated 52-person police detail working out of a new sub-station has facilitated law enforcement and police service, reducing response time. A private contract clean-up detail provides a staff of over 100 covering day and night shifts and cleaning every street and sidewalk every day. Uniformed litter enforcement and community service representatives also patrol the area.

With cooperation from the federal government and the private sector, the City has successfully redeveloped the area adjacent to Independence Mall. The development of a national historic park and new construction of the U.S. Mint, the Federal Reserve Bank of Philadelphia, a Federal Courthouse and office building complex and the headquarters for the Rohm and Haas Corporation, as well as numerous smaller office and commercial projects, have been completed. In the Franklintown area of Center City, a \$92.5 million project consisting of an office and hotel complex has been completed. The office building houses the U.S. headquarters of the SmithKline Beecham Corporation. The 760 room hotel, currently the City's largest, is known as the Wyndham Franklin Plaza. The Four Seasons Hotel is a major international luxury hotel and is located on nearby Logan Circle.

A substantial amount of development attention has been devoted to the Market East area between City Hall and Independence Mall. The Gallery I retail mall opened in 1977 and was followed by a major expansion in 1984. A new commuter rail transportation center and the ARA Tower office building were also completed in 1984. Enhanced lighting and sidewalk improvements were completed on Market Street from Juniper to 5th Streets, and a privately-funded maintenance association was established. The John Wanamaker building at 13th and Market recently underwent \$150 million of improvements, including the total renovation of the John Wanamaker department store and the conversion of 800,000 square feet of space to office use.

Market East is also the site of the new Pennsylvania Convention Center. This Center, completed in June 1993, offers more than 500,000 square feet of meeting and exhibit space and significantly boosts the demand for hotel and retail services in Center City. A 1,200-room Marriott Hotel is slated for completion

in 1994, and more than 2,000 additional rooms in the Market East area are expected to be developed by the end of the decade.

In the 24 months since the start of construction at the Pennsylvania Convention Center, the client reaction to the new convention center and Philadelphia has been extremely positive. Over 100 conventions have been booked, with a total of 686,000 attendees expected and a projected economic impact of nearly \$300 million. An additional 150 conventions are tentatively scheduled, which would bring to the City nearly 950,000 more attendees and an additional economic impact of \$441 million.

The City is moving ahead with plans to transform the Penn's Landing waterfront development area into an active commercial, entertainment and residential complex. Capital funds already have been used to construct the Great Plaza and to provide road connections and utility service. Two large riverfront piers have now been converted to residential and commercial use. Two hotels have opened and several marinas and a United States Coast Guard Operations Center have been added to the waterfront area. A new ferry service connecting Penn's Landing with the New Jersey State Aquarium of Camden has attracted significant ridership in the first year of service.

Complementing downtown commercial growth is the substantial residential reinvestment taking place in the Society Hill, Old City, Franklintown, Washington Square West and Rittenhouse Square areas of Center City. In Society Hill, most of the residential structures have been restored and many new houses have been constructed, while Old City has seen the conversion of many warehouses and commercial structures to residential units. Downtown revitalization also has encouraged residential growth in several neighborhoods adjoining Center City.

Four Commonwealth-sponsored enterprise zones have been designated in Philadelphia's innercity neighborhoods under the Commonwealth's enterprise zone program: American Street, West Parkside, Hunting Park West and the Port Area. The Commonwealth's program provides grants and technical assistance in order to improve the business climate and create jobs in economically depressed neighborhoods. Substantial industrial growth also has occurred in the southeast and northwest sections of the City.

Significant hospital construction projects recently have been completed. These projects include the replacement of substantially all of the patient care rooms at Temple University Hospital, the construction of new patient care facilities at Albert Einstein Medical Center, and the construction of new core buildings at the Hospital of the University of Pennsylvania, Pennsylvania Hospital, and Thomas Jefferson University Hospital.

Health services is a growing and important industry in the regional economy. It functions as an export in a regional balance of accounts, in that revenue and income are attracted to the City from outside the region. Health services payrolls in the City have expanded by 4.9% in the last 12 months. Health-care construction is facilitated by both state and local financing authorities. The Hospitals and Higher Education Facilities Authority of Philadelphia has issued over \$2 billion of revenue bonds for health-care and higher education related projects since its inception in 1974.

Details of the capacity and staff of the the major medical institutions in the City appear in the table on the following page.

TABLE 38  
CITY OF PHILADELPHIA  
HOSPITALS AND MEDICAL CENTERS

<u>Institution</u>	<u>Bed Capacity</u>	<u>Staff*</u>
Albert Einstein Medical Center	618	3,041
American Oncologic Hospital	100	674
Benjamin Franklin Medical Center	156	NR
Charter Fairmount Institute	146	249
Chestnut Hill Hospital	188	782
Children's Hospital of Philadelphia	294	2,840
Children's Rehabilitation Hospital	40	99
Children's Seashore House	70	442
Episcopal Hospital	246	1,016
Frankford Hospital of the City of Philadelphia	367	1,645
Friedman Hospital of the Home for the Jewish Aged	28	248
Friends Hospital	218	509
Germantown Hospital and Medical Center	215	876
Graduate Hospital	310	1,625
Hahnemann University Hospital	567	NR
Hospital of Philadelphia College of Osteopathic Medicine	180	NR
Hospital of Philadelphia College Parkview	214	NR
Hospital of the Medical College of Pennsylvania	389	2,810
Hospital of the University of Pennsylvania	722	4,240
Institute of Pennsylvania Hospital	234	627
Jeanes Hospital	208	844
Jefferson Park Hospital	86	325
John F. Kennedy Memorial Hospital	171	NR
Kensington Hospital	45	141
Lawndale Community Hospital	67	NR
Magee Rehabilitation Hospital	96	470
Mercy Catholic Medical Center	575	2,299
Methodist Hospital	254	955
Moss Rehabilitation Hospital	142	461
Mount Sinai Hospital	162	NR
Naval Hospital	55	237
Nazareth Hospital	337	1,232
Neumann Medical Center	160	NR
North Philadelphia Health System	380	NR
Northeastern Hospital of Philadelphia	200	NR
Pennsylvania Hospital	489	2,062
Philadelphia Psychiatric Center	146	412
Presbyterian Medical Center of Philadelphia	334	1,424
Roxborough Memorial Hospital	154	637
Saint Agnes Medical Center	236	691
Shriners Hospitals for Crippled Children	80	211
St. Christopher's Hospital for Children	146	838
Temple University Hospital	436	NR
Thomas Jefferson University Hospital	692	4,033
Veterans Affairs Medical Center	412	1,536
Wills Eye Hospital	120	501
Total	11,485	41,032

Source: *AHA Guide to the Health Care Field, 1991 Edition.*

- \* Includes full-time equivalents of part-time personnel, but excludes medical and dental interns and residents and other trainees.

The City's efforts to retain and attract industry are directed by the PIDC. Established in 1958, PIDC is a non-profit partnership between the City of Philadelphia and the Greater Philadelphia Chamber of Commerce. The many programs provided by PIDC include (i) direct mortgage funding in a subordinate position at reduced interest rates for fixed asset improvement to companies who intend to build or expand in Philadelphia; (ii) tax-exempt bond funding to eligible borrowers such as non-profit institutions through the Philadelphia Authority for Industrial Development ("PAID"); (iii) funding through the PIDC/Penn Venture Fund for start-up companies or those in the early stage of development as well as to those established firms which seek to expand by introducing a new product or technology; (iv) offering of fully improved parcels of land for sale in more than a dozen designated industrial parks and districts across the City; and (v) offering of development assistance and project management to a range of Philadelphia's development and non-profit corporations.

Tables 39 and 40 list a number of recently completed projects and projects under construction in the City.

**TABLE 39**  
**RECENTLY COMPLETED PROJECTS**  
**APRIL 1993**

<u>Project</u>	<u>Estimated Cost</u>
Pennsylvania Convention Center	\$500,000,000
Two Liberty Place, 17th & Chestnut Streets	310,000,000
Philadelphia Center for Healthcare Sciences	300,000,000
Franklin Mills, Woodhaven Road	300,000,000
Mellon Bank Center, 17th & Market Streets	260,000,000
One Liberty Place, 17th & Market Streets	210,000,000
Vine Street Expressway, 17th Street to I-95	203,000,000
Bell Atlantic Tower, 18th & Arch Streets	200,000,000
Commerce Square, Phase I, 20th & Market Streets	150,000,000
Blue Cross/Linpro Tower, Phase I, 19th & Walnut Streets	150,000,000
John Wanamaker Building Renovation	150,000,000
Two Logan Square, 18th & Arch Streets	130,000,000
Philadelphia International Airport Terminal A	115,000,000
The Bellevue, Broad & Walnut Streets	110,000,000
United Parcel Service, Philadelphia International Airport	108,000,000
Commerce Square, Phase II, 20th & Market Street	100,000,000
Hospital of the University of Pennsylvania	100,000,000
Rittenhouse Hotel, West Rittenhouse Square	100,000,000
Temple University Hospital	79,000,000
Jefferson University Life Sciences Building	76,000,000
St. Christophers Hospital	72,000,000
Franklin Futures Center, 20th & the Parkway	70,000,000
30th Street Station Renovation	61,000,000
Philadelphia International Airport, Parking Garage A-B	60,000,000
Interstate 95 Central Riverfront Ramps	57,000,000
Pier 5 (Residences), Delaware Waterfront	50,000,000
Lincoln Green, Presidential Boulevard	50,000,000
Walnut Street Bridge	45,000,000
Fox Chase Cancer Center	33,000,000
United Parcel Service, Oregon Avenue	25,600,000
Girard/Belmont Bridge Reconstruction	23,000,000
Omni Hotel	22,500,000

Source: Philadelphia City Planning Commission.

TABLE 40  
PROJECTS UNDER CONSTRUCTION

<u>Project</u>	<u>Estimated Cost</u>
Frankford Elevated Subway Reconstruction	\$513,000,000
Railworks and Temple University Station	300,000,000
Philadelphia International Airport Runway Expansion and Terminals B, C, D, E Improvements	343,000,000
Mariott Hotel, 12th and Market Street	200,000,000
Criminal Justice Center	127,000,000
Childrens Hospital Research Facility	100,000,000
Northeast Detention Facility	97,500,000
Hospital of University of Pennsylvania Swing Space Building	57,000,000
Municipal Services Building Rehabilitation	32,900,000
CONRAIL Computer Operations Facility	29,000,000
National Board of Medical Examiners, 38th & Market Streets	23,000,000
Philadelphia Food Distribution Center Improvements	17,000,000
University of Pennsylvania Garage and Retail, 38th & Walnut Streets	16,000,000
Philadelphia International Airport, Replacement HVAC Equipment	16,000,000
University City Regional Rail Station	8,000,000

*Source: Philadelphia City Planning Commission*

**APPENDIX E**

**Text of Proposed Opinion  
of Co-Bond Counsel**

[THIS PAGE INTENTIONALLY LEFT BLANK]

PSFS BUILDING  
12 SOUTH 12TH STREET  
PHILADELPHIA, PENNSYLVANIA 19107  
(215) 922-1300

785 BOURSE BUILDING  
21 SOUTH FIFTH STREET  
PHILADELPHIA, PENNSYLVANIA 19106  
(215) 625-0555

January 27, 1994

City of Philadelphia, Pennsylvania  
1650 Arch Street, Room 1760  
Philadelphia, Pennsylvania 19103  
Attention: Finance Department

Re: \$183,880,000 City of Philadelphia, Pennsylvania,  
Gas Works Revenue Bonds, Fifteenth Series

Ladies and Gentlemen:

We have acted as co-bond counsel in connection with the authorization, issuance and sale of City of Philadelphia, Pennsylvania, Gas Works Revenue Bonds, Fifteenth Series (the "Fifteenth Series Bonds"), under and pursuant to authority contained in the Act of the General Assembly of the Commonwealth of Pennsylvania of October 18, 1972 (P.L. 955) (the "Act"), the City of Philadelphia General Gas Works Revenue Bond Ordinance of 1975, as amended (the "General Ordinance"), and the Fifteenth Supplemental Ordinance thereto approved December 23, 1993 (the "Fifteenth Supplemental Ordinance"). The Fifteenth Series Bonds, in the aggregate principal amount of \$183,880,000, bear interest at the rates set forth in the bond authorization dated January 20, 1994 (the "Bond Authorization") of the bond committee, consisting of the Mayor, the City Controller and the Acting City Solicitor, payable each February 1 and August 1 commencing August 1, 1994. They have been issued for the purpose of funding a portion of the capital improvement program of the Philadelphia Gas Works ("PGW"), refunding certain outstanding maturities of the City of Philadelphia Gas Works Revenue Bonds (the "Refunded Bonds"), and paying the costs of issuance of the Fifteenth Series Bonds. First Fidelity Bank, National Association, Philadelphia, Pennsylvania, serves as Fiscal Agent and Sinking Fund Depository under the General Ordinance.

Capitalized terms used in this opinion and not otherwise defined herein shall have the same meanings as are set forth in the General Ordinance.

The Fifteenth Series Bonds will initially be issued in book-entry form only in the form of one certificate for the amount of Fifteenth Series Bonds maturing in each year, registered in the name of and held by Philadep & Co., as nominee of the Philadelphia Depository Trust Company, Philadelphia, Pennsylvania, which will act as securities depository

for the Fifteenth Series Bonds. The Fifteenth Series Bonds are issuable in principal denominations of \$5,000 or any integral multiple thereof. The Fifteenth Series Bonds mature on the dates and in the amounts specified in the Bond Authorization. The Fifteenth Series Bonds maturing on or after August 1, 2005 are subject to optional redemption, and the Fifteenth Series Bonds maturing on August 1, 2015, August 1, 2021 and August 1, 2024 are subject to mandatory sinking fund redemption, all in the manner specified in the Bond Authorization.

The Fifteenth Series Bonds maturing on and after August 1, 1997 (the "Discount Bonds"), will be issued at initial public offering prices which are less than the amounts payable on the Discount Bonds at maturity. The difference between the initial public offering price of the Discount Bonds of the same maturity and the principal amount payable at maturity constitutes original issue discount which, in accordance with the accrual conventions described in Section 1288 of the Internal Revenue Code of 1986, as amended (the "Code"), is treated as interest.

Fourteen series of Gas Works Revenue Bonds have heretofore been issued pursuant to the General Ordinance and, as of October 31, 1993, the City of Philadelphia (the "City") has estimated that approximately \$704,581,000 in aggregate principal amount of such bonds were outstanding (including the accreted value of capital appreciation bonds to such date). The Fifteenth Series Bonds are equally and ratably secured with all such prior bonds issued under, and will be equally and ratably secured with all bonds issued in the future under, the General Ordinance (all such prior bonds issued under the General Ordinance, the Fifteenth Series Bonds and all bonds to be issued under the General Ordinance in the future, collectively, the "Bonds").

The City of Philadelphia (the "City") has made a pledge of, and granted a security interest in, all Project Revenues (as defined in the General Ordinance) and all accounts, contract rights and general intangibles representing Project Revenues to secure the payment of the Bonds. The General Ordinance provides that, except upon the occurrence of a default, Project Revenues shall be applied in the following order of priority: (1) Net Operating Expenses, as defined therein; (2) required payments into the sinking fund to pay principal of and interest on the Bonds and to accumulate, or to restore any deficiency in, the sinking fund reserve in respect thereof; (3) payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from PGW; (4) payment of interest and sinking fund charges of other general obligation debt incurred for PGW; and (5) payment of City Charges, as defined therein. Under certain circumstances, the remaining balance may be applied to other proper purposes of the City. In the Fifteenth Supplemental Ordinance, the City has covenanted that, as long as any of the Fifteenth Series Bonds remain outstanding, all Project Revenues shall be deposited in, held in, and disbursed from one or more unsegregated accounts of PGW which shall be separate from and not commingled with moneys or accounts of the City not held exclusively for PGW purposes.

In connection with the issuance of the Fifteenth Series Bonds, the City has entered into an Escrow Deposit Agreement with First Fidelity Bank, National Association, Philadelphia, Pennsylvania, as escrow agent (the "Escrow Agent") and as Fiscal Agent, dated January 27, 1994 (the "Escrow Agreement"), pursuant to which certain proceeds of the Fifteenth Series Bonds and other funds will be deposited and held uninvested as cash or invested in direct obligations of the United States of America, the maturing principal of which and interest thereon shall be used to pay the interest on the Refunded Bonds, as and when due through their respective maturity or redemption dates, and to pay the principal of, redemption premium (if any) and interest on the Refunded Bonds on such dates. Drucker & Scaccetti, P.C., Philadelphia, Pennsylvania, has, based on certain information provided to them by the underwriters, verified (i) the mathematical computation of the adequacy of the maturing principal of and interest on the investments purchased with the proceeds of the Fifteenth Series Bonds to make payments of principal of, interest on and redemption premium (if any) on the Refunded Bonds as the same become due and payable; and (ii) the calculations of (a) the yield on the Fifteenth Series Bonds, and (b) the yield on the investments held under the Escrow Agreement purchased with proceeds of the Fifteenth Series Bonds. We have relied upon the verification of the sufficiency of the amounts to be held by the Escrow Agent and the yield calculations in concluding that the Fifteenth Series Bonds are not "arbitrage bonds" within the meaning of Section 148 of the Code.

We have examined (a) such constitutional provisions, statutes and regulations as we deemed necessary, including the Act, the General Ordinance, the Fifteenth Supplemental Ordinance and the Code, (b) the proceedings authorizing the issuance and sale of the Fifteenth Series Bonds, and (c) such certificates, opinions, receipts and other documents as we have deemed necessary, including a non-arbitrage certificate of the City. In making the aforesaid examinations, we have assumed the authenticity of all original documents and the conformity to original documents of all conformed copies and photocopies of documents, the genuineness of all signatures, the due authorization, execution and delivery of all documents and the authority to do so of all persons executing such documents.

On the basis of the foregoing, we are of the opinion that:

1. The City has the power to perform its obligations under the General Ordinance, the Fifteenth Supplemental Ordinance and the Fifteenth Series Bonds and is authorized to issue the Fifteenth Series Bonds. We express no opinion, however, as to the validity or enforceability of any particular category of City Charges or the application of Project Revenues therefor.

2. The terms of the Fifteenth Series Bonds comply with the requirements of the Act, the General Ordinance and the Fifteenth Supplemental Ordinance, and the purposes for

which the Fifteenth Series Bonds have been issued are lawful purposes under the Act and the General Ordinance.

3. The Fifteenth Series Bonds constitute valid, legal and binding obligations of the City, enforceable in accordance with their terms.

4. Assuming continuing compliance by the City with the provisions of the Code, and subject to certain provisions of the Code which are described below, under laws, regulations, rulings and judicial decisions existing on the date of the original delivery of the Fifteenth Series Bonds, interest received by a holder of the Fifteenth Series Bonds, including accrued original issue discount with respect to the Discount Bonds, will be excludable from gross income for federal income tax purposes and will not be considered a tax preference item for purposes of the alternative minimum tax imposed by Section 55 of the Code. However, interest on the Fifteenth Series Bonds may become taxable retroactively if certain requirements relating to arbitrage and arbitrage rebate under Section 148 of the Code are not complied with. For certain corporate holders, interest on the Fifteenth Series Bonds will be taken into account in the calculation of such holders' alternative minimum tax liability and may be subject to the Environmental Tax imposed by Section 59A of the Code.

5. Under the laws of the Commonwealth of Pennsylvania, as enacted and construed on the date of original delivery of the Fifteenth Series Bonds, the Fifteenth Series Bonds and the income therefrom (including any profits made on the sale thereof), are exempt from Pennsylvania personal property taxes, the Pennsylvania personal income tax and the Pennsylvania corporate net income tax.

For purposes of this opinion, the enforceability (but not the validity) of the documents mentioned herein may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws now or hereafter enacted by any state or by the federal government affecting the enforcement of creditors' rights generally and by equitable principles, and the phrase "enforceable in accordance with their terms" shall not mean that specific performance would necessarily be available as a remedy in every situation.

Other than as set forth in Paragraphs 4 and 5 hereof, we express no opinion regarding other federal and state tax consequences arising with respect to the Fifteenth Series Bonds.

We express no opinion herein as to the adequacy or accuracy of any official statement, private placement memorandum or other offering material pertaining to the offering of the Fifteenth Series Bonds.

City of Philadelphia, Pennsylvania

January 27, 1994

Page 5

We call your attention to the fact that the Fifteenth Series Bonds constitute limited obligations of the City and are payable solely from the Project Revenues, as defined in the General Ordinance, and amounts in the sinking fund, including the sinking fund reserve created under the Act and the General Ordinance. The Fifteenth Series Bonds do not pledge the credit or taxing power of the City nor create any debt or charge against property of the City other than the Project Revenues and amounts in such sinking fund, including the sinking fund reserve.

COHEN, SHAPIRO, POLISHER,  
SHIEKMAN AND COHEN

ANDRE C. DASENT, P.C.

[THIS PAGE INTENTIONALLY LEFT BLANK]

APPENDIX F

Specimen Copy of AMBAC  
Municipal Bond Insurance Policy

[THIS PAGE INTENTIONALLY LEFT BLANK]

Issuer:

Policy Number:

Bonds:

Premium:

**AMBAC Indemnity Corporation (AMBAC) A Wisconsin Stock Insurance Company**

in consideration of the payment of the premium and subject to the terms of this Policy, hereby agrees to pay to the United States Trust Company of New York, as trustee, or its successor (the "Insurance Trustee"), for the benefit of Bondholders, that portion of the principal of and interest on the above-described debt obligations (the "Bonds") which shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

AMBAC will make such payments to the Insurance Trustee within one (1) business day following notification to AMBAC of Nonpayment. Upon a Bondholder's presentation and surrender to the Insurance Trustee of such unpaid Bonds or coupon coupons, uncanceled and in bearer form and free of any adverse claim, the Insurance Trustee will disburse to the Bondholder the face amount of principal and interest which is then Due for Payment but is unpaid. Upon such disbursement, AMBAC shall become the owner of the surrendered Bonds and coupons and shall be fully subrogated to all of the Bondholders' rights to payment.

In cases where the Bonds are issuable only in a form whereby principal is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse principal to a Bondholder as aforesaid only upon presentation and surrender to the Insurance Trustee of the unpaid Bond, uncanceled and free of any adverse claim, together with an instrument of assignment, in form satisfactory to the Insurance Trustee, duly executed by the Bondholder or such Bondholder's duly authorized representative, so as to permit ownership of such Bond to be registered in the name of AMBAC or its nominee. In cases where the Bonds are issuable only in a form whereby interest is payable to registered Bondholders or their assigns, the Insurance Trustee shall disburse interest to a Bondholder as aforesaid only upon presentation to the Insurance Trustee of proof that the claimant is the person entitled to the payment of interest on the Bond and delivery to the Insurance Trustee of an instrument of assignment in form satisfactory to the Insurance Trustee, duly executed by the claimant Bondholder or such Bondholder's duly authorized representative, transferring to AMBAC all rights under such Bond to receive the interest in respect of which the insurance disbursement was made. AMBAC shall be subrogated to all the Bondholders' rights to payment on registered Bonds to the extent of the insurance disbursements so made.

In the event the trustee or paying agent for the Bonds has notice that any payment of principal of or interest on a Bond which has become Due for Payment and which is made to a Bondholder by or on behalf of the Issuer of the Bonds has been deemed a preferential transfer and therefore recovered from its registered owner pursuant to the United States Bankruptcy Code in accordance with a final, unappealable order of a court of competent jurisdiction, such registered owner will be entitled to payment from AMBAC to the extent of such recovery if sufficient funds are not otherwise available.

As used herein, the term "Bondholder" means any person other than the Issuer who, at the time of Nonpayment, is the owner of a Bond or of a coupon appertaining to a Bond. As used herein, "Due for Payment", when referring to the principal of Bonds, is when the stated maturity date or a mandatory redemption date for the application of a required sinking fund installment has been reached and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by application of required sinking fund installments), acceleration or other advancement of maturity; and, when referring to interest on the Bonds, is when the stated date for payment of interest has been reached. As used herein, "Nonpayment" means the failure of the Issuer to have provided sufficient funds to the paying agent for payment in full of all principal of and interest on the Bonds which are Due for Payment.

This Policy is noncancelable. The premium on this Policy is not refundable for any reason, including payment of the Bonds prior to maturity. This Policy does not insure against loss of any prepayment or other acceleration payment which at any time may become due in respect of any Bond, other than at the sole option of AMBAC, nor against any risk other than Nonpayment.

In witness whereof, AMBAC has caused this Policy to be affixed with a facsimile of its corporate seal and to be signed by its duly authorized officers in facsimile to become effective as its original seal and signatures and binding upon AMBAC by virtue of the counter-signature of its duly authorized representative.

*[Signature]*  
President



*[Signature]*  
Secretary

Effective Date:

Authorized Representative

UNITED STATES TRUST COMPANY OF NEW YORK acknowledges that it has agreed to perform the duties of Insurance Trustee under this Policy.

*[Signature]*  
Authorized Officer

[THIS PAGE INTENTIONALLY LEFT BLANK]

**APPENDIX G**

**Specimen Copy of FSA  
Municipal Bond Insurance Policy**

[THIS PAGE INTENTIONALLY LEFT BLANK]



**FINANCIAL  
SECURITY  
ASSURANCE**

## MUNICIPAL BOND INSURANCE POLICY

ISSUER:

Policy No.:

Effective Date:

BONDS:

Premium: . . .

FINANCIAL SECURITY ASSURANCE INC. ("Financial Security"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of Financial Security, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest become Due for Payment or the Business Day next following the Business Day on which Financial Security shall have received Notice of Nonpayment, Financial Security will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by Financial Security, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall hereupon vest in Financial Security. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by Financial Security is incomplete, it shall be deemed not to have been received by Financial Security for purposes of the preceding sentence and Financial Security shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, Financial Security shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by Financial Security hereunder. Payment by Financial Security to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of Financial Security under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless Financial Security shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest.

"Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to Financial Security which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

Financial Security may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to Financial Security pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to Financial Security and shall not be deemed received until received by both and (b) all payments required to be made by Financial Security under this Policy may be made directly by Financial Security or by the Insurer's Fiscal Agent on behalf of Financial Security. The Insurer's Fiscal Agent is the agent of Financial Security only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of Financial Security to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, Financial Security agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to Financial Security to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of Financial Security, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be cancelled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, FINANCIAL SECURITY ASSURANCE INC. has caused this Policy to be executed on its behalf by its Authorized Officer.

FINANCIAL SECURITY ASSURANCE INC.

By \_\_\_\_\_  
Authorized Officer

A subsidiary of Financial Security Assurance Holdings Ltd.  
350 Park Avenue, New York, N.Y. 10022-6022

(212) 826-0100

**APPENDIX H**

**Specimen Copy of MBIA  
Financial Guaranty Insurance Policy**

[THIS PAGE INTENTIONALLY LEFT BLANK]

# FINANCIAL GUARANTY INSURANCE POLICY

## Municipal Bond Investors Assurance Corporation

Armonk, New York 10504

Policy No. [NUMBER]

Municipal Bond Investors Assurance Corporation (the "Insurer"), in consideration of the payment of the premium and subject to the terms of this policy, hereby unconditionally and irrevocably guarantees to any owner, as hereinafter defined, of the following described obligations, the full and complete payment required to be made by or on behalf of the Issuer to [INSERT NAME OF PAYING AGENT] or its successor (the "Paying Agent") of an amount equal to (i) the principal of (either at the stated maturity or by any advancement of maturity pursuant to a mandatory sinking fund payment) and interest on, the Obligations (as that term is defined below) as such payments shall become due but shall not be so paid (except that in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments guaranteed hereby shall be made in such amounts and at such times as such payments of principal would have been due had there not been any such acceleration); and (ii) the reimbursement of any such payment which is subsequently recovered from any owner pursuant to a final judgment by a court of competent jurisdiction that such payment constitutes an avoidable preference to such owner within the meaning of any applicable bankruptcy law. The amounts referred to in clauses (i) and (ii) of the preceding sentence shall be referred to herein collectively as the "Insured Amounts." "Obligations" shall mean:

[PAR]  
[LEGAL NAME OF ISSUE]

Upon receipt of telephonic or telegraphic notice, such notice subsequently confirmed in writing by registered or certified mail, or upon receipt of written notice by registered or certified mail, by the Insurer from the Paying Agent or any owner of an Obligation the payment of an Insured Amount or which is then due, that such required payment has not been made, the Insurer on the due date of such payment or within one business day after receipt of notice of such nonpayment, whichever is later, will make a deposit of funds, in an account with State Street Bank and Trust Company, N.A., 113 King Street, New York, New York, or its successor, sufficient for the payment of any such Insured Amounts which are then due. Upon presentation and surrender of such Obligations or presentation of such other proof of ownership of the Obligations, together with any appropriate instruments of assignment to evidence the assignment of the Insured Amounts due on the Obligations as are paid by the Insurer, and appropriate instruments to effect the appointment of the Insurer as agent for such owners of the Obligations in any legal proceeding related to payment of Insured Amounts on the Obligations, such instruments being in a form satisfactory to State Street Bank and Trust Company, N.A., State Street Bank and Trust Company, N.A. will disburse to such owners, or the Paying Agent payment of the Insured Amounts due on such Obligations, less any amount held by the Paying Agent for the payment of such Insured Amounts and legally available therefor. This policy does not insure against loss of any prepayment premium which may at any time be payable with respect to any Obligation.

As used herein, the term "owner" shall mean the registered owner of any Obligation as indicated in the books maintained by the Paying Agent, the Insurer, or any designee of the Issuer for such purpose. The term owner shall not include the Issuer or any party whose agreement with the Issuer constitutes the underlying security for the Obligations.

Any service of process on the Insurer may be made to the Insurer at its offices located at 113 King Street, Armonk, New York 10504 and such service of process shall be valid and binding.

This policy is non-cancellable for any reason. The premium on this policy is not refundable for any reason including the payment prior to maturity of the Obligations.

IN WITNESS WHEREOF, the Insurer has caused this policy to be executed in facsimile on its behalf by its duly authorized officers, this [DAY] day of [MONTH, YEAR], but this policy shall not be valid unless countersigned by an authorized resident licensed agent of the Insurer.

COUNTERSIGNED:

MUNICIPAL BOND INVESTORS  
ASSURANCE CORPORATION

\_\_\_\_\_  
Resident Licensed Agent

\_\_\_\_\_  
President

\_\_\_\_\_  
City, State

Attest:

\_\_\_\_\_  
Assistant Secretary

[THIS PAGE INTENTIONALLY LEFT BLANK]

**New Issue — Book Entry Only**

**Ratings: (See "Ratings" herein)**

In the opinion of Co-Bond Counsel, under existing law, interest on the Bonds is excluded from gross income for federal income tax purposes, subject to the conditions described under "Tax Matters" herein. Interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax applicable to individuals and corporations; however, such interest may be taken into account in the computation of alternative minimum tax for certain corporations. See "Tax Matters" herein for further information concerning other federal tax consequences to holders of the Bonds. In the opinion of Co-Bond Counsel, under existing law, interest on the Bonds is exempt from Pennsylvania personal income tax and from Pennsylvania corporate net income tax, and the Bonds are exempt from personal property taxes in Pennsylvania.

**\$176,280,000**

**City of Philadelphia, Pennsylvania  
Gas Works Revenue Bonds  
consisting of:**

**\$62,315,000**

**Gas Works Revenue Bonds**

**(1975 General Ordinance), Sixteenth Series**

**\$113,965,000**

**Gas Works Revenue Bonds**

**(1998 General Ordinance), Second Series**

**Dated: June 1, 1999**

**Due: July 1, as shown on inside front cover**

The Sixteenth Series Bonds and the Second Series Bonds (collectively, the "Bonds") are issuable as fully registered bonds in the denominations of \$5,000 or any integral multiple thereof, maturing in the aggregate principal amounts and bearing interest at the rates set forth on the inside front cover hereof. The Bonds, when issued, will be registered in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company ("DTC") which will act as securities depository for the Bonds. Purchases of the beneficial ownership interests in the Bonds will be made in book-entry only form. Purchasers will not receive certificates representing their ownership interest in the Bonds purchased, so long as Cede & Co. is the owner of the Bonds as nominee of DTC. References herein to the registered owners shall mean Cede & Co., as aforesaid, and shall not mean the beneficial owners of the Bonds. See "DESCRIPTION OF THE BONDS — Book-Entry Only System"

The principal and redemption price of the Bonds are payable at the corporate trust office of First Union National Bank, Philadelphia, Pennsylvania, Fiscal Agent and Sinking Fund Depository, at the times and in the amounts set forth herein. Interest is payable initially on January 1, 2000 and thereafter semiannually on each July 1 and January 1 by check mailed by the Fiscal Agent to the persons in whose names the Bonds are registered on the fifteenth (15th) day of the month preceding each interest payment date. So long as DTC or its nominee, Cede & Co., is the registered owner of the Bonds, principal of and interest on the Bonds are payable directly to Cede & Co. for redistribution to Participants and in turn to Beneficial Owners as described herein. For so long as any purchaser is the Beneficial Owner of Bonds, such purchaser must maintain an account with a broker or dealer who is, or acts through, a Participant to receive payment of the principal of and interest on such Bonds.

The Bonds are subject to redemption prior to maturity as described herein under the heading "DESCRIPTION OF THE BONDS"

THE BONDS DO NOT PLEDGE THE CREDIT OR TAXING POWER OF THE CITY OF PHILADELPHIA OR CREATE ANY DEBT OR CHARGE AGAINST THE TAX OR GENERAL REVENUES OF THE CITY OR CREATE A LIEN AGAINST ANY CITY PROPERTY OTHER THAN CERTAIN REVENUES AND FUNDS OF THE PHILADELPHIA GAS WORKS REFERRED TO HEREIN.

THE SECOND SERIES BOND SHALL BE SUBORDINATED IN RIGHT OF PAYMENT AND SECURITY TO THE SIXTEENTH SERIES BONDS AND ALL OTHER BONDS ISSUED AND OUTSTANDING UNDER THE 1975 GENERAL ORDINANCE AS DESCRIBED HEREIN.

**PFSA**

The scheduled payment of principal of and interest on the Bonds when due will be guaranteed under insurance policies to be issued concurrently with the delivery of the Bonds by FINANCIAL SECURITY ASSURANCE INC. There will be one policy issued for the Sixteenth Series Bonds and a separate policy issued for the Second Series Bonds.

The Sixteenth Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the refunding of all or a portion of the City's Outstanding Gas Works Revenue Bonds, Eleventh Series C (the "Refunded Bonds") which were issued under the 1975 General Ordinance; (ii) paying the costs of issuing the Sixteenth Series Bonds and any required deposits to the Sinking Fund Reserve for all bonds issued under the 1975 General Ordinance, and (iii) paying any other Project Costs (as defined in the Act) relating to the refunding of the Refunded Bonds or the issuance of the Sixteenth Series Bonds, which may include, without limitation, the repayment to any fund of the City or to accounts of the Philadelphia Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

The Second Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the capital projects included in the capital program of the Gas Works as from time to time included in the capital budgets of the Gas Works, as approved by City Council, which may include, without limitation: (a) the acquisition of land or rights therein; (b) the acquisition, construction or improvement of buildings, structures and facilities together with their related furnishings, equipment, machinery and apparatus; (c) the acquisition, construction or replacement of pipes and pipe lines; and (d) the acquisition or replacement of property of a capital nature for use in the operation, maintenance and administration of the gas works system of the City, (ii) paying the costs of issuing the Second Series Bonds and any required deposits to the Sinking Fund Reserve for all bonds issued under the 1998 General Ordinance, and (iii) paying any other Project Costs (as defined in the Act), which may include, without limitation, the repayment to any fund of the City or to accounts of the Gas Works of amounts advanced for Project Costs.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to their making an informed investment decision.

The Bonds are offered when, as and if issued and accepted by the Underwriters, subject to the prior sale, withdrawal, or modification of the offer without notice, and subject to the approval as to the legality of the issuance of the Bonds by Fox, Rothschild, O'Brien & Frankel, LLP and Wolf, Block, Schain and Simonson, LLP, Co-Bond Counsel, both of Philadelphia, Pennsylvania. Certain legal matters will be passed upon for the Underwriters by DeChiusis, FitzPatrick & Gluck, LLP, Trenton, New Jersey and O'Brien, Kemodle, III P.C., Philadelphia, Pennsylvania, Co-Underwriters' Counsel. Certain legal matters will be passed upon for the City by the Office of the City Solicitor and by Blank Rome Comisky & McCauley, LLP, Philadelphia, Pennsylvania, Special Counsel to the City. Certain legal matters will be passed upon for the Philadelphia Gas Works by its Office of General Counsel. It is anticipated that the Bonds will be available for delivery through the facilities of DTC in New York, New York on or about June 23, 1999.

**Merrill Lynch & Co.**

**First Union Capital Markets Corp.**

**Legg Mason Wood Walker  
Incorporated**

**A. G. Edwards & Sons, Inc.**

**First Liberty Investment Group**

**Loop Capital Markets, LLC**

**RRZ Public Markets, Inc.**

**Salomon Smith Barney**

**\$62,315,000**  
**City of Philadelphia, Pennsylvania**  
**Gas Works Revenue Bonds**  
**(1975 General Ordinance), Sixteenth Series**

<u>Maturity (July 1)</u>	<u>Principal</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Maturity (July 1)</u>	<u>Principal</u>	<u>Interest Rate</u>	<u>Yield</u>
2000	\$ 355,000	4.000%	3.350%	2008	\$8,945,000	5.250%	4.930%
2001	640,000	4.000	4.000	2009	8,990,000	5.250	5.000
2002	670,000	4.000	4.150	2010	—		
2003	695,000	4.250	4.350	2011	—		
2004	725,000	4.300	4.450	2012	—		
2005	7,735,000	5.250	4.625	2013	6,765,000	5.500	5.200
2006	8,120,000	5.250	4.750	2014	7,125,000	5.500	5.230
2007	8,525,000	5.250	4.850	2015	3,025,000	5.500	5.270

**\$106,465,000**  
**City of Philadelphia, Pennsylvania**  
**Gas Works Revenue Bonds**  
**(1998 General Ordinance), Second Series A**

<u>Maturity (July 1)</u>	<u>Principal</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Maturity (July 1)</u>	<u>Principal</u>	<u>Interest Rate</u>	<u>Yield</u>
2000	\$1,720,000	4.250%	3.350%	2010	\$2,655,000	5.000%	5.050%
2001	1,790,000	4.250	4.000	2011	2,790,000	5.000	5.130
2002	1,865,000	4.250	4.150	2012	2,925,000	5.375	5.170
2003	1,945,000	4.250	4.350	2013	3,085,000	5.500	5.200
2004	2,030,000	4.375	4.450	2014	3,255,000	5.500	5.230
2005	2,120,000	4.500	4.625	2015	3,435,000	5.500	5.270
2006	2,215,000	4.500	4.750	2016	3,625,000	5.500	5.320
2007	2,315,000	4.625	4.850	2017	3,820,000	5.000	5.350
2008	2,420,000	4.750	4.930	2018	4,015,000	5.000	5.380
2009	2,535,000	4.750	5.000	2019	4,215,000	5.000	5.400

\$19,070,000 5.000% Term Bonds due July 1, 2023, Yield 5.450%

\$32,620,000 5.000% Term Bonds due July 1, 2029, Yield 5.470%

**\$7,500,000**  
**City of Philadelphia, Pennsylvania**  
**Gas Works Revenue Bonds**  
**(1998 General Ordinance), Second Series B**

\$7,500,000 5.250% Term Bonds due July 1, 2029, Yield 5.470%

CITY OF PHILADELPHIA

MAYOR

HONORABLE EDWARD G. RENDELL

MAYOR'S CABINET

Ben Hayllar .....	Director of Finance
Stephanie L. Franklin-Suber, Esquire .....	City Solicitor
Joseph C. Certaine .....	Managing Director
Stephen P. Mullin .....	City Representative and Director of Commerce

City Treasurer  
Whitney H. Reid

City Controller  
Jonathan A. Sidel

President of City Council  
Honorable Anna Verna

PHILADELPHIA GAS WORKS  
800 W. Montgomery Avenue  
Philadelphia, Pennsylvania 19122

Ben Hayllar, Interim President and Chief Executive Officer  
 Gregory D. Martin, Executive Vice President and Chief Operating Officer  
 Abby L. Pozefsky, Esq., Senior Vice President and General Counsel  
 John Straub, Vice President - Human Resources  
 Thomas Smyth, Vice President and Chief Accounting Officer and Controller  
 Badruddin Z. Karachiwala, Vice President - Gas Management  
 David Lee, Vice President - Information Technology  
 Craig White, Vice President - Marketing  
 Dennis Stinson, Vice President - Operations  
 Peter Yaffe, Vice President - Public Policy

CO-FINANCIAL ADVISORS  
Public Financial Management, Inc.  
Hopkins & Company

FISCAL AGENT  
First Union National Bank

No dealer, broker, salesperson or other person has been authorized to give any information or to make any representations, other than those contained in this Official Statement and, if given or made, such other information or representations must not be relied upon. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person in any jurisdiction in which it is unlawful to make such offer, solicitation or sale.

The information set forth herein has been obtained from the City of Philadelphia, Philadelphia Facilities Management Corporation, Stone & Webster Management Consultants, Inc. and other sources which are believed to be reliable but is not guaranteed by the Underwriters as to accuracy or completeness. The information and the opinions expressed herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the operations of the Philadelphia Gas Works or the City of Philadelphia since the date hereof. Other than with respect to information concerning Financial Security Assurance Inc. ("Financial Security") contained under the caption "Bond Insurance" and Exhibit G-"Specimen Municipal Bond Insurance Policy" herein, none of the information in this Official Statement has been supplied or verified by Financial Security and Financial Security makes no representation or warranty, express or implied, as to (i) accuracy or completeness of such information; (ii) the validity of the Bonds; or (iii) the tax exempt status of the interest on the Bonds.

The order and placement of materials in this Official Statement, including the Appendices hereto, are not to be deemed to be a determination of relevance, materiality or importance, and this Official Statement, including the Appendices, must be considered in its entirety.

IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE PHILADELPHIA GAS WORKS, THE CITY OF PHILADELPHIA AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY.

IN CONNECTION WITH THE OFFERING OF THE BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME WITHOUT PRIOR NOTICE.

CITY OF PHILADELPHIA

---

MAYOR

HONORABLE EDWARD G. RENDELL

---

MAYOR'S CABINET

---

Ben Hayllar .....	Director of Finance
Stephanie L. Franklin-Suber, Esquire .....	City Solicitor
Joseph C. Certaine .....	Managing Director
Stephen P. Mullin .....	City Representative and Director of Commerce

City Treasurer  
Whimsey H. Reid

---

City Controller  
Jonathan A. Sidel

---

President of City Council  
Honorable Anna Verna

---

PHILADELPHIA GAS WORKS  
800 W. Montgomery Avenue  
Philadelphia, Pennsylvania 19122

Ben Hayllar, Interim President and Chief Executive Officer  
Gregory D. Martin, Executive Vice President and Chief Operating Officer  
Abby L. Pozefsky, Esq., Senior Vice President and General Counsel  
John Straub, Vice President - Human Resources  
Thomas Smyth, Vice President and Chief Accounting Officer and Controller  
Badruddin Z. Karachiwala, Vice President - Gas Management  
David Lee, Vice President - Information Technology  
Craig White, Vice President - Marketing  
Dennis Stinson, Vice President - Operations  
Peter Yaffe, Vice President - Public Policy

CO-FINANCIAL ADVISORS  
Public Financial Management, Inc.  
Hopkins & Company

FISCAL AGENT  
First Union National Bank

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
General .....	1
The Philadelphia Gas Works .....	1
Prior Issues of Gas Works Revenue Bonds .....	2
Authorization to Issue the Bonds .....	2
The Bonds .....	3
Purpose of the Bonds .....	4
The Sixteenth Series Bonds .....	4
The Second Series Bonds .....	4
Security for the Bonds .....	5
The Sixteenth Series Bonds .....	5
The Second Series Bonds .....	5
Bond Insurance .....	6
Independent Consultant's Report .....	6
Continuing Disclosure .....	8
Miscellaneous .....	8
PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS .....	9
Plan of Finance .....	9
Estimated Sources and Uses of Proceeds .....	10
DESCRIPTION OF THE BONDS .....	10
General .....	10
Book-Entry Only System .....	11
Optional Redemption .....	13
The Sixteenth Series Bonds .....	13
The Second Series Bonds .....	13
Mandatory Redemption .....	14
The Second Series Bonds .....	14
Notice of Redemption .....	15
Transfer of Bonds .....	15
SECURITY .....	15
Pledge of Revenues and Funds .....	15
Covenant Against Commingling with Other City Funds .....	16
Priority in Application of Revenues .....	16
Project Revenues - 1975 Ordinance Bonds .....	16
Gas Works Revenues - 1998 Ordinance Bonds .....	17
Rate Covenant and Rate Requirements .....	18
Rate Covenant and Rate Requirements -1975 Ordinance Bonds .....	18
Rate Covenants and Rate Requirements - 1998 Ordinance Bonds .....	18
Sinking Funds .....	19
1975 Ordinance Sinking Fund .....	19
1998 Ordinance Sinking Fund .....	19
Sinking Fund Reserves .....	20
1975 Ordinance Sinking Fund Reserve .....	20
1998 Ordinance Sinking Fund Reserve .....	20
BOND INSURANCE .....	21

Bond Insurance Policies .....	21
Financial Security Assurance Inc. ....	21
ADDITIONAL DEBT .....	22
Bond Anticipation Notes .....	22
Subordinated Short-Term Borrowings - Gas Works Notes .....	22
Additional Bonds .....	23
Additional 1975 Ordinance Bonds .....	23
Additional 1998 Ordinance Bonds .....	23
Lease Obligations .....	23
REMEDIES OF BONDHOLDERS .....	23
Limitation on Remedies of Bondholders .....	24
LEGISLATION AFFECTING PGW .....	25
PHILADELPHIA GAS WORKS .....	27
General .....	27
PGW Service Area .....	27
Management Agreement .....	27
Management .....	28
Employee Relations .....	29
Facilities .....	29
THE GAS COMMISSION .....	30
PGW BUDGET, RATES AND FINANCING .....	31
PGW Budget Process and Rate Changes .....	31
Rates and Charges .....	31
Capital Improvement Program .....	32
Internally Generated Funds .....	33
Gas Cost Rate .....	33
Fiscal Year 1999 Operating Budget and Forecast .....	34
Fiscal Year 1999 Capital Budget and Forecast .....	34
Fiscal Year 1998 Operating Budget .....	34
YEAR 2000 ISSUES .....	34
General .....	34
PGW's Year 2000 Compliance .....	35
SUMMARY OF STATEMENTS OF INCOME .....	36
Debt Service Coverage Ratio .....	36
HISTORICAL REVENUES AND DEBT SERVICE COVERAGE .....	37
Management's Discussion and Analysis of Results of Operations and Financial Condition .....	37
Gas Commission .....	39
GAS SUPPLY AND REGULATION .....	40
Competition .....	40
Natural Gas .....	40
Status of Richmond LNG Plant Air Pollution Permitting Process .....	41
Five Year Summary of Gas Sales .....	41
Accounts Receivable .....	42
Risk Management .....	45
Insurance .....	45
LITIGATION .....	46
UNDERWRITING .....	46
RATINGS .....	46
TAX MATTERS .....	46

## TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION .....	1
General .....	1
The Philadelphia Gas Works .....	1
Prior Issues of Gas Works Revenue Bonds .....	2
Authorization to Issue the Bonds .....	2
The Bonds .....	3
Purpose of the Bonds .....	4
The Sixteenth Series Bonds .....	4
The Second Series Bonds .....	4
Security for the Bonds .....	5
The Sixteenth Series Bonds .....	5
The Second Series Bonds .....	5
Bond Insurance .....	6
Independent Consultant's Report .....	6
Continuing Disclosure .....	8
Miscellaneous .....	8
PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS .....	9
Plan of Finance .....	9
Estimated Sources and Uses of Proceeds .....	10
DESCRIPTION OF THE BONDS .....	10
General .....	10
Book-Entry Only System .....	11
Optional Redemption .....	13
The Sixteenth Series Bonds .....	13
The Second Series Bonds .....	13
Mandatory Redemption .....	14
The Second Series Bonds .....	14
Notice of Redemption .....	15
Transfer of Bonds .....	15
SECURITY .....	15
Pledge of Revenues and Funds .....	15
Covenant Against Commingling with Other City Funds .....	16
Priority in Application of Revenues .....	16
Project Revenues - 1975 Ordinance Bonds .....	16
Gas Works Revenues - 1998 Ordinance Bonds .....	17
Rate Covenant and Rate Requirements .....	18
Rate Covenant and Rate Requirements - 1975 Ordinance Bonds .....	18
Rate Covenants and Rate Requirements - 1998 Ordinance Bonds .....	18
Sinking Funds .....	19
1975 Ordinance Sinking Fund .....	19
1998 Ordinance Sinking Fund .....	19
Sinking Fund Reserves .....	20
1975 Ordinance Sinking Fund Reserve .....	20
1998 Ordinance Sinking Fund Reserve .....	20
BOND INSURANCE .....	21

<i>Federal Tax Exemption</i> .....	46
Tax Accounting Treatment of Original Issue Discount and Bond Premium .....	47
Pennsylvania Tax Exemption .....	48
CERTAIN LEGAL MATTERS .....	48
FINANCIAL ADVISORS .....	48
INDEPENDENT AUDITORS .....	49
INDEPENDENT CONSULTANT'S REPORT .....	49
NO LITIGATION OPINION .....	49
NEGOTIABLE INSTRUMENTS .....	49
VERIFICATION OF MATHEMATICAL COMPUTATIONS .....	49
CERTAIN REFERENCES .....	49
CONTINUING DISCLOSURE .....	50
ADDITIONAL INFORMATION .....	50
APPENDICES:	
A Financial Statements of PGW for Fiscal Years Ended August 31, 1998 and 1997	
B Independent Consultant's Report	
C Summaries of Legislation Authorizing the Issuance of the Bonds	
D Certain Information Concerning the City of Philadelphia	
E Form of Continuing Disclosure Agreement	
F Text of Proposed Opinion of Co-Bond Counsel	
G Specimen Municipal Bond Insurance Policy	

[This Page Intentionally Left Blank]

# OFFICIAL STATEMENT

of the

## CITY OF PHILADELPHIA, PENNSYLVANIA

respecting its

— \$176,280,000

City of Philadelphia, Pennsylvania  
Gas Works Revenue Bonds  
consisting of:

\$62,315,000

Gas Works Revenue Bonds  
(1975 General Ordinance), Sixteenth Series

\$113,965,000

Gas Works Revenue Bonds  
(1998 General Ordinance), Second Series

### INTRODUCTION

#### General

This Official Statement, including the cover page, table of contents, tables and appendices, sets forth information with respect to the issuance by the City of Philadelphia, Pennsylvania (the "City"), of \$176,280,000 aggregate principal amount of its Gas Works Revenue Bonds consisting of \$62,315,000 aggregate principal amount of its Gas Works Revenue Bonds (1975 General Ordinance), Sixteenth Series (the "Sixteenth Series Bonds") and \$113,965,000 aggregate principal amount of its Gas Works Revenue Bonds (1998 General Ordinance), Second Series (the "Second Series Bonds" and together with the Sixteenth Series Bonds, the "Bonds").

This introduction is a brief description of certain matters described in this Official Statement and is qualified by reference to the entire Official Statement. Persons considering a purchase of any of the Bonds should read this Official Statement, including the cover page, table of contents, tables and appendices, in its entirety. The information contained herein is subject to change. Reference should be made to APPENDIX C-Summaries of Legislation Authorizing the Issuance of the Bonds for definitions of terms used but not otherwise defined herein.

#### The Philadelphia Gas Works

The Philadelphia Gas Works (the "Gas Works" or "PGW") presently consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing and distribution of gas within the City, and all property, books and records employed and maintained in connection with the operation, maintenance and administration thereof. See "PHILADELPHIA GAS WORKS" herein.

PGW serves the entire 129 square mile area contained within the boundaries of the City and is the distributor and principal supplier of gas in the City. PGW has no distribution mains and provides no service to customers outside the City limits. As of August 31, 1998, PGW served approximately 512,000 customers.

The Philadelphia Home Rule Charter provides for a Gas Commission (the "Gas Commission") to be *constituted and appointed and to exercise such powers and perform such duties as may from time to time be provided in contracts between the City and the operator of PGW, or, in the absence of a contract, as may be provided by ordinance.* For details of the Gas Commission's various responsibilities and oversight of the operations of PGW, see "THE GAS COMMISSION" herein.

Since January 1, 1973, PGW has been managed by the Philadelphia Facilities Management Corporation ("PFMC"), a not-for-profit corporation, pursuant to an agreement between the City and PFMC dated December 29, 1972, as amended, authorized by ordinances of City Council (the "Management Agreement").

Rates and charges of PGW, including the Gas Cost Rate, are fixed by the Gas Commission and not by the Public Utility Commission of the Commonwealth. The Court of Common Pleas of Philadelphia County has ruled that decisions of the Gas Commission regarding PGW rate increases are subject to court review. See "PGW BUDGET, RATES AND FINANCING" herein for a further discussion of PGW's budget process and recent rate proceedings.

The Financial Statements of PGW for the Fiscal Years ended August 31, 1998 and 1997 are presented in APPENDIX A. For information regarding the government of and fiscal affairs of the City, see APPENDIX D - "Certain Information Concerning the City of Philadelphia."

#### **Prior Issues of Gas Works Revenue Bonds**

Since 1975, the City has issued fifteen (15) separate series of Gas Works Revenue Bonds and one Revenue Anticipation Note under the 1975 General Ordinance (collectively, the "Prior 1975 Ordinance Bonds"), all pursuant to the First Class City Revenue Bond Act of the Commonwealth of Pennsylvania, Act No. 234, approved October 18, 1972 P.L. 955 (the "Act") and the General Gas Works Revenue Bond Ordinance of 1975, approved May 30, 1975, Bill No. 1871, as amended and supplemented from time to time (the "1975 General Ordinance"). As of May 1, 1999, \$472,535,552 aggregate principal amount of Prior 1975 Ordinance Bonds remained outstanding of which \$59,325,000 in principal amount will be refunded through the issuance of the Sixteenth Series Bonds. The Prior 1975 Ordinance Bonds were all issued on a parity basis and share equally and ratably in the pledge of revenues provided for in the 1975 General Ordinance. In the 1975 General Ordinance, the City has, for the security and payment of all Prior 1975 Ordinance Bonds issued under the 1975 General Ordinance, granted a security interest in all Project Revenues. For the definition of Project Revenues, see Appendix C- Summaries of Legislation Authorizing the Issuance of the Bonds. In the 1998 General Ordinance (herein defined), the City has covenanted that it will not issue any further bonds under the 1975 General Ordinance except to refund Prior 1975 Ordinance Bonds and any other bonds or notes issued under the 1975 General Ordinance, including the Sixteenth Series Bonds.

In addition to the Prior 1975 Ordinance Bonds, the City issued its Gas Works Revenue Bonds (1998 General Ordinance), First Series under the Act and the General Gas Works Revenue Bond Ordinance of 1998, approved May 8 1998, Bill No. 980232 (the "1998 General Ordinance"). The First Series Bonds which are currently outstanding in the principal amount of \$287,185,000 (and which are hereinafter referred to as the "Prior 1998 Ordinance Bonds") and all other Gas Works Revenue Bonds of the City of Philadelphia issued under the 1998 General Ordinance (including the Second Series Bonds) shall be subordinate in right of payment and security to the Prior 1975 Ordinance Bonds and all other bonds and notes issued under the 1975 General Ordinance, including the Sixteenth Series Bonds.

#### **Authorization to Issue the Bonds**

The Sixteenth Series Bonds are being issued pursuant to the Act, the 1975 General Ordinance and the Sixteenth Supplemental Ordinance to the 1975 General Ordinance duly adopted by City Council of the City of Philadelphia on May 27, 1999, and signed by the Mayor on May 31, 1999, Bill No. 990285 (the "Sixteenth Supplemental Ordinance") and a determination by the Bond Committee of the City (consisting of the Mayor, the City Controller and the City Solicitor), or a majority of them dated June 11, 1999 (the "Sixteenth Series Bond Authorization"). The Sixteenth Series Bonds, all Prior 1975 Ordinance Bonds and all additional bonds which may hereafter be issued under the 1975 General Ordinance are hereinafter referred to as the "1975 Ordinance Bonds". 1975

Ordinance Bonds are secured solely by moneys derived, directly or indirectly, from PGW's Project Revenues as provided in the Act and the 1975 General Ordinance, as amended and supplemented. 1975 Ordinance Bonds of all series issued or to be issued are issued on a parity basis and share equally and ratably in the pledge of revenues provided for in the 1975 General Ordinance.

The Second Series Bonds are being issued pursuant to the Act, the 1998 General Ordinance, and the Second Supplemental Ordinance to the 1998 General Ordinance duly adopted by City Council of the City of Philadelphia on May 27, 1999, and signed by the Mayor on May 31, 1999, Bill No. 990286 (the "Second Supplemental Ordinance") and a determination by the Bond Committee of the City (consisting of the Mayor, the City Controller and the City Solicitor), or a majority of them dated June 11, 1999 (the "Second Series Bond Authorization"). The Second Series Bonds, the Prior 1998 Ordinance Bonds and all additional bonds which may hereafter be issued under the 1998 General Ordinance are hereinafter referred to as the "1998 Ordinance Bonds." All 1998 Ordinance Bonds shall be subordinated in right of payment and security to the 1975 Ordinance Bonds. 1998 Ordinance Bonds may be issued as 1998 Ordinance Senior Bonds or 1998 Ordinance Subordinate Bonds. 1998 Ordinance Senior Bonds shall, subject to the right of payment and security of the 1975 Ordinance Bonds, be prior in right of payment and security to 1998 Ordinance Subordinate Bonds, and the coverage requirement for debt service on 1998 Ordinance Senior Bonds under the Rate Covenant for the 1998 Ordinance Bonds (the "1998 Ordinance Rate Covenant") shall be 150%. 1998 Ordinance Subordinate Bonds shall be subordinate to 1998 Ordinance Senior Bonds in right of payment and security and shall have a coverage requirement under the 1998 Ordinance Rate Covenant of 100%. See "SECURITY - Priority in Application of Gas Works Revenues". The Second Series Bonds are being issued as 1998 Ordinance Senior Bonds. 1998 Ordinance Senior Bonds shall not have any preference, priority or distinction as to lien or otherwise, except as otherwise provided in a supplemental ordinance, over any other 1998 Ordinance Senior Bonds issued under the 1998 General Ordinance. Similarly, 1998 Ordinance Subordinate Bonds shall not have any preference, priority or distinction as to lien or otherwise, except as otherwise provided in a supplemental ordinance, over any other 1998 Ordinance Subordinate Bonds issued under the 1998 General Ordinance. In the 1998 Ordinance, the City has pledged for the security and payment of all Bonds issued under the 1998 General Ordinance a lien on and security interest in all Gas Works Revenues (as defined in the 1998 General Ordinance), all accounts, contract rights and general intangibles representing the Gas Works Revenues and all funds and accounts established under the 1998 General Ordinance. Such lien is subject to the prior pledge and lien on the Project Revenues created by the 1975 General Ordinance for the benefit of the 1975 Ordinance Bonds.

#### The Bonds

The Bonds will be dated June 1, 1999, and will bear interest from such date, payable commencing on January 1, 2000 and on each July 1 and January 1 thereafter. The Bonds will be issued as fully registered bonds in the subseries and in the aggregate principal amounts set forth on the inside front cover hereof in denominations of \$5,000 or any integral multiple thereof. The principal and redemption price of the Bonds will be payable at the corporate trust office of First Union National Bank (the "Fiscal Agent") in Philadelphia, Pennsylvania. Interest on the Bonds will be paid by check mailed by the Fiscal Agent to the persons in whose names the Bonds are registered on the fifteenth day of the month preceding each interest payment date; except in the case of any default by the City in payment of interest due, which shall be payable to the persons in whose names the Bonds are registered on a special record date as determined by the Fiscal Agent. See "DESCRIPTION OF THE BONDS" herein. Registered Owners of at least \$1,000,000 aggregate principal amount of either series of Bonds may elect to receive interest payments with respect to such series by wire transfer 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.

Initially the Bonds will be available in book-entry form only. See "DESCRIPTION OF THE BONDS - Book-Entry Only System" herein.

The Bonds are subject to optional redemption and mandatory redemption as described herein. See "DESCRIPTION OF THE BONDS."

## **Purpose of the Bonds**

### **The Sixteenth Series Bonds**

The Sixteenth Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the refunding of all or a portion of the City's Outstanding Gas Works Revenue Bonds, Eleventh Series C (the "Refunded Bonds") which were issued under the 1975 General Ordinance; (ii) paying the costs of issuing the Sixteenth Series Bonds and any required deposits to the Sinking Fund Reserve established by the 1975 General Ordinance (the "1975 Ordinance Sinking Fund Reserve"); and (iii) paying any other Project Costs (as defined in the Act) relating to the refunding of the Refunded Bonds or the issuance of the Sixteenth Series Bonds, which may include, without limitation, the repayment to any fund of the City or to accounts of the Philadelphia Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

The proceeds of the Sixteenth Series Bonds, after payment of financing costs and the required payment into the 1975 Ordinance Sinking Fund Reserve will be deposited in one or more escrow or similar accounts with the Fiscal Agent under the 1975 General Ordinance separate and apart from all other accounts of the City or the Gas Works, including the Sinking Fund established by the 1975 General Ordinance (the "1975 Ordinance Sinking Fund"), to be held for the benefit of the holders of the applicable Refunded Bonds and applied to payment of Refunded Bonds in accordance with a certificate of the Director of Finance or an escrow deposit agreement. See "PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS - Plan Of Finance."

### **The Second Series Bonds**

The Second Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the capital projects included in the capital program of the Gas Works as from time to time included in the capital budgets of the Gas Works, as approved by City Council, which may include, without limitation, (a) the acquisition of land or rights therein; (b) the acquisition, construction or improvement of buildings, structures and facilities together with their related furnishings, equipment, machinery and apparatus; (c) the acquisition, construction or replacement of pipes and pipe lines; and (d) the acquisition or replacement of property of a capital nature for use in the operation, maintenance and administration of the gas works system of the City; (ii) paying the costs of issuing the Second Series Bonds and any required deposit to the Sinking Fund Reserve established by the 1998 General Ordinance (the "1998 Ordinance Sinking Fund Reserve"); and (iii) paying any other Project Costs (as defined in the Act), which may include, without limitation, the repayment to any fund of the City or to accounts of the Gas Works of amounts advanced for Project Costs.

The proceeds of the Second Series Bonds, after payment of the financing costs, the required payment into the 1998 Ordinance Sinking Fund Reserve and the repayment to the City and the Gas Works of amounts previously advanced for Project Costs, will be deposited and held in and disbursed for capital projects from one or more unsegregated accounts of the Gas Works which shall be separate and apart 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. See "SECURITY" and "REMEDIES OF BONDHOLDERS" for a discussion of the effectiveness of separation of the proceeds of the Sixteenth Series Bonds and Second Series Bonds and revenues from other City accounts and for a discussion of the pledge of revenues and funds to the repayment of the Sixteenth Series Bonds and the Second Series Bonds.

## **Security for the Bonds**

### **The Sixteenth Series Bonds**

The Sixteenth Series Bonds are secured solely by and are payable solely from the Project Revenues and the 1975 Ordinance Sinking Fund, including the 1975 Ordinance Sinking Fund Reserve therein, as provided in the Act and the 1975 General Ordinance, as amended and supplemented. Neither the general credit nor the taxing power of the City is pledged to any such payment.

The City has pledged and granted a security interest in all Project Revenues and the proceeds thereof for security and payment of all 1975 Ordinance Bonds, including the Sixteenth Series Bonds. The City has covenanted in the Sixteenth Supplemental Ordinance to deposit into one or more escrow or similar accounts with the Fiscal Agent under the 1975 General Ordinance separate and apart from all other accounts of the City or the Gas Works, including the 1975 Ordinance Sinking Fund established by the 1975 General Ordinance, to be held for the benefit of the holders of the applicable Refunded Bonds and applied to payment of Refunded Bonds in accordance with a certificate of the Director of Finance or an escrow deposit agreement. See "PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS - Plan Of Finance." The City further covenants in the Sixteenth Supplemental Ordinance that, so long as any of the Sixteenth Series Bonds shall remain outstanding, all pledged Project Revenues shall be deposited and held and disbursed from one or more unsegregated accounts of PGW, 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 PGW purposes. Pursuant to the 1975 General Ordinance, all moneys deposited in the 1975 Ordinance Sinking Fund (including the 1975 Ordinance Sinking Fund Reserve), are subject to a security interest in favor of all holders of 1975 Ordinance Bonds until such moneys are properly disbursed. See "SECURITY - Pledge of Revenues and Funds" and "REMEDIES OF BONDHOLDERS" herein.

The 1975 General Ordinance requires PGW to comply with a rate covenant which requires the City to impose, charge and collect in each fiscal year, rates and charges which, together with all other Project Revenues to be received in such fiscal year, shall be sufficient to meet debt service coverage requirements as specified in the 1975 General Ordinance (the "1975 Ordinance Rate Covenant"). See "SECURITY - Rate Covenant and Rate Requirements" and APPENDIX C - "Summaries of Legislation Authorizing the Issuance of the Bonds" herein.

The 1975 General Ordinance permits the issuance of additional bonds which are on a parity basis with the Sixteenth Series Bonds. Any additional bonds issued under the 1975 General Ordinance may be issued only for the purpose of refunding 1975 Ordinance Bonds and for no other purpose. See "SECURITY - Additional Parity Bonds" herein.

The 1975 General Ordinance establishes the 1975 Ordinance Sinking Fund Reserve within the 1975 Ordinance Sinking Fund as a separate account which is held for the benefit of owners of all 1975 Ordinance Bonds. See "SECURITY - 1975 Ordinance Sinking Fund Reserve" herein.

All outstanding 1975 Ordinance Bonds and all 1975 Ordinance Bonds which may be issued in the future are issued on a parity basis, are payable from Project Revenues and are prior in right of payment and security to any 1998 Ordinance Bonds.

### **The Second Series Bonds**

The Second Series Bonds are secured solely by and are payable solely from the Gas Works Revenues and the 1998 Ordinance Sinking Fund, including the 1998 Ordinance Sinking Fund Reserve therein, as provided in the Act and the 1998 General Ordinance, as amended and supplemented. Such pledge of Gas Works Revenues is subject and subordinate to the prior pledge of Project Revenues granted by the 1975 General Ordinance. Neither the general credit nor the taxing power of the City is pledged to any such payment.

The City has pledged and granted a security interest in all Gas Works Revenues and the proceeds thereof for security and payment of all 1998 Ordinance Bonds, including the Second Series Bonds. The City has covenanted that as long as any of the Second Series Bonds remain outstanding, the proceeds of the Second Series Bonds and all pledged Gas Works Revenues shall be deposited and held and disbursed from one or more unsegregated accounts of PGW, 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 PGW purposes. However, the effectiveness of the separation of Second Series Bond proceeds and Gas Works Revenues from other City accounts may be limited under certain circumstances, including a bankruptcy filing by the City. See "SECURITY" and "REMEDIES OF BONDHOLDERS" herein.

The 1998 General Ordinance establishes the 1998 Ordinance Sinking Fund Reserve which is established in the Sinking Fund as a separate account and which, unless expressly stated to the contrary in any supplemental ordinance with respect to the issuance of additional 1998 Ordinance Bonds, is held for the benefit of owners of all 1998 Ordinance Bonds issued under the 1998 General Ordinance. See "SECURITY - Sinking Fund Reserves" herein.

The 1998 General Ordinance requires PGW to comply with a rate covenant which requires the City to impose, charge and collect in each Fiscal Year, rates and charges which, together with all other Gas Works Revenues to be received in such Fiscal Year, shall be sufficient to meet debt service coverage requirements as specified in the 1998 General Ordinance, including certain debt service coverage requirements (the "1998 Ordinance Rate Covenant"). See "SECURITY - Rate Covenant and Rate Requirements" and APPENDIX C - "Summaries of Legislation Authorizing the Issuance of the Bonds" herein.

The 1998 General Ordinance permits the issuance of additional bonds for the purpose of financing capital projects or for refunding outstanding debt issued for the benefit of PGW, including 1975 Ordinance Bonds, 1998 Ordinance Senior Bonds and 1998 Ordinance Subordinate Bonds. See "ADDITIONAL DEBT - Additional Bonds" herein.

The City expects that the capital improvements program of PGW will require the issuance of additional 1998 Ordinance Bonds in subsequent fiscal years. See APPENDIX B - "Independent Consultant's Report."

Pursuant to an Ordinance adopted on May 4, 1998, Bill No. 980234 (the "Note Ordinance"), the City is authorized to issue, from time to time, tax-exempt notes (the "Gas Works Notes") junior in priority of payment to the 1975 Ordinance Bonds and 1998 Ordinance Senior Bonds and on a parity with 1998 Ordinance Subordinate Bonds. The \$77,000,000 aggregate principal amount of Gas Works Notes which were outstanding under the Note Ordinance and due on or before May 28, 1999 were paid in full on that date. Pursuant to the Note Ordinance, the City issued \$50,000,000 of Gas Works Notes on June 4, 1999 and expects to issue an additional \$15,000,000 of Gas Works Notes on or before December 31, 1999. See "ADDITIONAL DEBT - Subordinated Short-Term Borrowings - Gas Works Notes."

#### **Bond Insurance**

The scheduled payment of principal of and interest on the Bonds when due will be guaranteed under insurance policies to be issued concurrently with the delivery of the Bonds by Financial Security Assurance Inc. There will be one policy for the Sixteenth Series Bonds and a separate policy for the Second Series Bonds. See "BOND INSURANCE" herein and APPENDIX G - "Specimen Municipal Bond Insurance Policy."

#### **Independent Consultant's Report**

The report of Stone & Webster Management Consultants, Inc. ("Stone & Webster"), an independent consulting firm with respect to the City and PGW is appended hereto as APPENDIX B (the "Independent Consultant's Report"). In its report, Stone & Webster has concluded, based upon its investigation, inter alia, that:

PGW is a competently managed and operated gas distribution utility. PGW and its facilities are organized, operated and maintained at a level equal to or in excess of regulatory requirements and generally accepted industry practices. PGW's facilities are in good operating condition.

Based on its evaluation of financial forecast information covering the period 1999 through 2005, and on the basis of actual and estimated future annual financial operations of PGW's facilities and certain assumptions with respect thereto over the amortization period of either the Sixteenth Series Bonds or the Second Series Bonds, which assumptions Stone & Webster believes to be reasonable, current and future project revenues which are pledged under the 1975 General Ordinance and/or the 1998 General Ordinance comply with the requirements of the definition of project revenues in Section 2 of the Act, and over the amortization period of the Sixteenth Series Bonds and/or the Second Series Bonds, such project revenues will be adequate to meet all expenses of operation and maintenance, repair and replacement, reserve fund deposits, debt service on the 1975 General Ordinance Bonds (including the Sixteenth Series Bonds) and debt service on the 1998 Ordinance Bonds (including the Second Series Bonds), as the same shall become due and payable, and the surplus requirements of the rate covenants contained in Section 4.03(b) of the 1975 General Ordinance and Section 4.03(b) of the 1998 General Ordinance.

The project revenues which are pledged as security for the bonds issued under the 1975 General Ordinance and the 1998 General Ordinance, respectively, are currently and are projected to be sufficient to comply with the Rate Covenants set forth in Section 4.03(b) of the 1975 General Ordinance and Section 4.03(b) of the 1998 General Ordinance. The forecast envisions an increase in net project revenues in the amount of \$20,000,000 beginning in the year 2002. PGW anticipates such increase in net project revenues from a general rate increase, from revenue enhancements or equivalent savings in operating expenses or from a combination thereof.

Since October 1998, there has been significant turnover in senior management. These positions have been filled either on a temporary or permanent basis, except for the Chief Financial Officer whose functions have been otherwise allocated.

The capital improvements needed to meet current budgeted and forecasted results, 2000 through 2005, are premised on additional funds amounting to \$75,000,000. For purposes of Stone & Webster's Report it is assumed that this \$75,000,000 will be financed in Fiscal Year 2003 by issuance of tax-exempt revenue bonds bearing interest at a rate no greater than 6.5%.

The capital improvements proposed during the forecast period, 2000 through 2005, will, along with continued good operation and maintenance practices, enable PGW to maintain its system in good operating condition. Review of present management practices indicates that this is likely to continue, provided that the necessary capital budgets of PGW are approved.

In early 1999, the PFMC Board requested qualifications from and initiated discussions with a large number of utilities to determine their interest and ability and the feasibility and desirability of contracting out for all or a portion of the management functions of PFMC. After an interview and review process, PFMC has determined to proceed with a request for proposal ("RFP") process in order possibly to contract out only the gas management and supply function. PFMC has decided not to pursue an RFP for more general management services at this time.

Contracted PGW gas supplies plus spot market purchases plus anticipated additional contracted supplies plus supplemental gas capacities as well as the pipeline transport capacity to move these supplies to PGW are adequate to meet PGW's forecast of demand on a day of maximum demand (a design peak day), or an hour of maximum demand (a design peak hour), and during a year of maximum demand (a design peak year). If PGW's plans for outsourcing of supply services materialize, in Stone & Webster's opinion this would not impact PGW's ability to continue to meet maximum demands.

The continuing decline in Philadelphia population (estimated to have declined 9.4% between 1990 and 1998) and loss of jobs (decline of 4.0% between 1980 and 1990), if they continue, will eventually limit customer growth. This assumption is included in PGW's forecast.

Fiscal Year 1999 is turning out to be warmer than most years. PGW's current estimate (based on actual data through February 1999 and six months of best projections based upon currently available information) is that Fiscal Year 1999 will have 14.7% fewer degree days than an average year, decreasing expected firm sales for the year.

PGW firm sales volumes over the forecast period (2000 to 2005) are expected to increase by 1.7 percent. Interruptible sales volumes are forecasted to increase 21.6% over the same period and transport sales are projected to be flat.

No change in current legislation was factored into these forecasts, since, at the date of the Stone & Webster Report (May 6, 1999), bills pending in the Pennsylvania state legislature concerning open access on distribution systems had not been enacted and, at such date, such bills did not apply to municipal utilities such as PGW.

On June 16, 1999, the Pennsylvania legislature passed legislation which provides for the deregulation of the natural gas industry in Pennsylvania and the implementation of choice of suppliers of natural gas for retail customers of gas distribution companies. Such legislation does apply to PGW. See "LEGISLATION AFFECTING PGW" herein.

The Independent Consultant's Report and the accompanying forecasts are based on assumptions of future events and should not be construed as a statement of fact. Such assumptions were provided by, or reviewed with and approved by, PGW, and were based on circumstances and information available at the date of the Independent Consultant's Report. Stone & Webster analyzed such information as it considered appropriate for use in evaluating the assumptions pertaining to the financial statement forecasts, which assumptions Stone & Webster believe to be reasonable for the purpose of its report. The Independent Consultant's Report should be read in its entirety for an understanding of the information and assumptions on which the above conclusions and other conclusions and findings contained in the Independent Consultant's Report are based.

#### **Continuing Disclosure**

In order to enable the Underwriters to comply with Rule 15c2-12 promulgated by the Securities and Exchange Commission, the City will enter into a Continuing Disclosure Agreement with the Fiscal Agent acting in the capacity thereunder as dissemination agent for the Bonds. See "CONTINUING DISCLOSURE" herein.

#### **Miscellaneous**

Any quotation from, and summaries and explanations of, the Constitution and laws of the Commonwealth and ordinances of the City contained herein do not purport to be complete and are qualified in their entirety by reference to the official compilations thereof, and all references to the Bonds are qualified in their entirety by reference to the definitive forms of the Bonds. All capitalized terms used herein, unless otherwise defined herein, shall have the meanings ascribed to them in the Act, the 1975 General Ordinance and the 1998 General Ordinance. See APPENDIX C herein. Copies of the Act, the 1975 General Ordinance, the Sixteenth Supplemental Ordinance, the 1998 General Ordinance and the Second Supplemental Ordinance are available from the Office of the Director of Finance, 13th Floor, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102.

This Official Statement speaks only as of the date printed on the cover hereof. The information contained herein is subject to change. The Official Statement will be made available through one or more of the Nationally Recognized Municipal Securities Information Repositories.

## PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS

### Plan of Finance

The Sixteenth Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the refunding of all or a portion of the City's Outstanding Gas Works Revenue Bonds, Eleventh Series C (the "Refunded Bonds") which were issued under the 1975 General Ordinance; (ii) paying the costs of issuing the Sixteenth Series Bonds and any required deposits to the 1975 Ordinance Sinking Fund Reserve; and (iii) paying any other Project Costs (as defined in the Act) relating to the refunding of the Refunded Bonds or the issuance of the Sixteenth Series Bonds, which may include, without limitation, the repayment to any fund of the City or to accounts of the Philadelphia Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

The Refunded Bonds are as follows:

<u>Series of Bonds Refunded</u>	<u>Maturity Date</u>	<u>Redemption Date</u>	<u>Par Amount to be Refunded</u>
Eleventh Series C	January 1, 2010	July 1, 1999	\$41,410,000
Eleventh Series C	January 1, 2015	July 1, 1999	17,915,000
Total Par Amount to be Refunded			<u>\$59,325,000</u>

A portion of the proceeds of the Sixteenth Series Bonds, together with other moneys available to PGW for such purpose, will be deposited in a refunding escrow account (the "Escrow Account") held by First Union National Bank, as escrow agent. The escrow agent will hold and administer the Escrow Account, and will apply the amounts therein to payment on July 1, 1999 of the principal of and redemption premium, if any, and interest on the Refunded Bonds. The Escrow Account is pledged solely for the benefit of the holders of the Refunded Bonds.

Pursuant to certain provisions of the 1975 General Ordinance and as a result of the deposit of moneys in the Escrow Account, the Refunded Bonds will be deemed no longer outstanding.

The Second Series Bonds are being issued for the purpose of providing funds for any or all of the following purposes: (i) the capital projects included in the capital program of the Gas Works as from time to time included in the capital budgets of the Gas Works, as approved by City Council, which may include, without limitation, (a) the acquisition of land or rights therein; (b) the acquisition, construction or improvement of buildings, structures and facilities together with their related furnishings, equipment, machinery and apparatus; (c) the acquisition, construction or replacement of pipes and pipe lines; and (d) the acquisition or replacement of property of a capital nature for use in the operation, maintenance and administration of the gas works system of the City; (ii) paying the costs of issuing the Second Series Bonds and any required deposit to the 1998 Ordinance Sinking Fund Reserve; and (iii) paying any other Project Costs (as defined in the Act), which may include, without limitation, the repayment to any fund of the City or to accounts of the Gas Works of amounts advanced for Project Costs.

**Estimated Sources and Uses of Proceeds**

The sources and uses of proceeds of the Sixteenth Series Bonds and the Second Series Bonds are estimated to be as follows:

<u>Estimated Sources of Proceeds:</u>	<u>Sixteenth Series</u>	<u>Second Series</u>	<u>Total</u>
Principal Amount	\$62,315,000.00	\$113,965,000.00	\$176,280,000.00
Original Issue Premium/(Discount)	1,474,677.60	(4,043,373.25)	(2,568,695.65)
Accrued Interest	<u>200,394.03</u>	<u>347,394.51</u>	<u>547,788.54</u>
Total	<u>\$63,990,071.63</u>	<u>\$110,269,021.26</u>	<u>\$174,259,092.89</u>
<u>Estimated Use of Proceeds:</u>			
Capital Improvement Program	—	\$100,000,000.00	\$100,000,000.00
Deposit to Escrow Account	\$62,571,325.20	—	62,571,325.20
Deposit to 1998 Ordinance Sinking Fund Reserve	—	7,401,200.00	7,401,200.00
Costs of Issuance <sup>1</sup>	1,218,352.40	2,520,426.75	3,738,779.15
Accrued Interest	<u>200,394.03</u>	<u>347,394.51</u>	<u>547,788.54</u>
Total	<u>\$63,990,071.63</u>	<u>\$110,269,021.26</u>	<u>\$174,259,092.89</u>

<sup>1</sup>Includes bond insurance premiums, the fees and expenses of various counsel and the Fiscal Agent, consultant's fees, fees of accountants and Underwriters' discount.

**DESCRIPTION OF THE BONDS**

**General**

The Bonds will be dated June 1, 1999 and will bear interest from such date, payable initially on January 1, 2000 and on each July 1 and January 1 thereafter. The Bonds will be issued as fully registered bonds in the aggregate principal amount set forth on the cover page hereof in denominations of \$5,000 or any integral multiple thereof. The Bonds, when issued, will be registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"), one bond for each maturity. Purchases of beneficial interests in the Bonds will be made in book-entry only form (without certificates) in the denomination of \$5,000 or any integral multiple thereof.

The principal of, and premium, if any, on the Bonds will be payable at the principal corporate trust office of the Fiscal Agent in Philadelphia, Pennsylvania. Interest on the Bonds, when due, will be paid by checks, mailed by the Fiscal Agent to the persons in whose names the Bonds are registered on the fifteenth (15<sup>th</sup>) day of the month preceding each interest payment date. So long as the Bonds are in book-entry form, the principal of and interest on the Bonds are payable by checks mailed to or by wire transfer of funds to Cede & Co., as nominee for DTC as registered owner thereof for redistribution by DTC to the Direct Participants (as defined herein) and in turn to Indirect Participants or Beneficial Owners as described under "Book-Entry Only System" below. Registered owners of at least \$1,000,000 aggregate principal amount of either series of Bonds may elect to receive interest payments with respect to such series by wire transfer, provided that notice is provided to the Fiscal Agent not less than ten (10) days prior to the relevant interest payment date. In the event of any default by the City in the payment of interest due on any interest payment date, such defaulted interest shall be payable to the persons in whose names the Bonds are registered at the close of business on a special record date which shall be at least 15 days prior to the date set for the payment of such defaulted

interest established by notice mailed by or on behalf of the City to the registered owners of the Bonds not less than fifteen (15) days preceding such special record date.

### **Book-Entry Only System**

The following information concerning DTC and DTC's book-entry only system has been obtained from DTC. The City, the Underwriters and the Fiscal Agent make no representation as to the accuracy of such information.

Initially, the Bonds will be available in book-entry form only. Purchasers of the Bonds will not receive certificates representing their interests in the Bonds purchased. DTC will act as securities depository for the Bonds. The ownership of one fully-registered Sixteenth Series Bond and of one fully-registered Second Series Bond in the aggregate principal amount of each maturity of the Sixteenth Series Bonds and the Second Series Bonds, respectively, will be issued, registered in the name of Cede & Co., as nominee for DTC and deposited with DTC.

DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking corporation" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934, as amended. DTC holds securities that its participants (the "Participants") deposit with DTC. DTC also facilitates the settlement among Participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in accounts of the Participants, thereby eliminating the need for physical movement of securities certificates. "Direct Participants" include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is owned by a number of its Direct Participants and by the New York Stock Exchange, Inc., the American Stock Exchange, Inc. and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as securities brokers and dealers, banks and trust companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (the "Indirect Participants"). The Rules applicable to DTC and its Participants are on file with the Securities and Exchange Commission (the "SEC"). So long as the Bonds are maintained in book-entry form with DTC, the following procedures will be applicable with respect to the Bonds.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Sixteenth Series Bond and Second Series Bond (the "Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase, but Beneficial Owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry only system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. The deposit of Bonds with DTC and their registration in the name of Cede & Co. effect no change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds. DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to Cede & Co. If less than all of the Sixteenth Series Bonds or Second Series Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. will consent or vote with respect to Bonds. Under its usual procedures, DTC mails an Omnibus Proxy to the issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal, interest and premium, if any, with respect to the Bonds will be made to DTC. DTC's practice is to credit Direct Participants' accounts on the payable date in accordance with their respective holdings shown on DTC's records unless DTC has reason to believe that it will not receive payment on the payable date. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant and not of DTC, the Fiscal Agent or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, premium and interest, if any, with respect to the Bonds to DTC is the responsibility of the Fiscal Agent, disbursement of such payments to Direct Participants is the responsibility of DTC, and disbursement of such payments to the Beneficial Owners is the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the City and the Fiscal Agent. In addition, the City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). Under either of such circumstances, in the event that a successor securities depository is not obtained, Sixteenth Series Bond certificates and Second Series Bond certificates will be printed and delivered.

So long as Cede & Co. is the registered owner of the Bonds, as nominee of DTC, references herein to the bondholders or registered owners of the Bonds means Cede & Co., not the Beneficial Owners of the Bonds.

THE CITY, THE FISCAL AGENT AND THE UNDERWRITERS CANNOT AND DO NOT GIVE ANY ASSURANCES THAT DTC WILL DISTRIBUTE TO ITS PARTICIPANTS OR THAT DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL DISTRIBUTE TO BENEFICIAL OWNERS OF THE BONDS (I) PAYMENTS OF THE PRINCIPAL, INTEREST OR PREMIUM, IF ANY, ON THE BONDS, OR (II) CONFIRMATION OF OWNERSHIP INTERESTS IN THE BONDS, OR (III) REDEMPTION OR OTHER NOTICES, OR THAT THEY WILL DO SO ON A TIMELY BASIS, OR THAT DTC, DIRECT PARTICIPANTS OR INDIRECT PARTICIPANTS WILL SERVE AND ACT IN THE MANNER DESCRIBED IN THIS OFFICIAL STATEMENT. THE CURRENT "RULES" APPLICABLE TO DTC ARE ON FILE WITH THE SEC AND THE CURRENT "PROCEDURES" OF DTC TO BE FOLLOWED IN DEALING WITH ITS PARTICIPANTS ARE ON FILE WITH DTC.

NEITHER THE CITY, THE FISCAL AGENT NOR THE UNDERWRITERS WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC, DIRECT PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS OF THE BONDS WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DIRECT PARTICIPANT OR ANY INDIRECT PARTICIPANT, (II) THE PAYMENT BY DTC TO ANY DIRECT PARTICIPANT OR BY ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER IN RESPECT OF THE PRINCIPAL AMOUNT OR REDEMPTION PRICE OF, OR INTEREST ON, ANY BONDS, (III) THE DELIVERY OF ANY NOTICE BY DTC, ANY DIRECT PARTICIPANT OR ANY INDIRECT PARTICIPANT, (IV) THE SELECTION OF THE BENEFICIAL OWNERS TO RECEIVE PAYMENT IN THE EVENT OF ANY PARTIAL REDEMPTION OF THE BONDS, OR (V) ANY OTHER ACTION TAKEN BY DTC, ANY DIRECT PARTICIPANT OR ANY INDIRECT PARTICIPANT.

DTC's management is aware that some computer applications, systems and the like for processing data ("Systems") that are dependent upon calendar dates, including dates before, on and after January 1, 2000, may encounter "Year 2000 Problems." DTC has informed its Participants and other members of the financial community (the "Industry") that it has developed and is implementing a program so that its Systems, as the same relate to the timely payment of

distributions (including principal and income payments) to security holders, book-entry deliveries and settlement of trades within DTC ("DTC Services"), continue to function appropriately. This program includes a technical assessment and a remediation plan, each of which is complete. Additionally, DTC's plan includes a testing phase, which is expected to be completed within appropriate time frames.

However, DTC's ability to perform properly its services is also dependent upon other parties, including but not limited to issuers and their agents, as well as third party vendors from whom DTC licenses software and hardware, and third party vendors on whom DTC relies for information or the provision of services, including telecommunication and electrical utility service providers, among others. DTC has informed the Industry that it is contacting (and will continue to contact) third party vendors from whom DTC acquires services to: (i) impress upon them the importance of such services being Year 2000 compliant; and (ii) determine the extent of their efforts for Year 2000 remediation (and, as appropriate, testing) of their services. In addition, DTC is in the process of developing such contingency plans as it deems appropriate.

The foregoing information with respect to DTC has been provided to the Industry for informational purposes only and is not intended by DTC to serve as a representation, warranty or contract modification of any kind.

**Optional Redemption**

**The Sixteenth Series Bonds**

The Sixteenth Series Bonds maturing on or before July 1, 2009 are not subject to optional redemption prior to maturity. The Sixteenth Series Bonds maturing on and after July 1, 2010 are subject to redemption, at the direction of the City, in whole or in part at any time on or after July 1, 2009 at the option of the City, in such order of maturity as may be designated by the City at the Redemption Prices (expressed as a percentage of the principal amount of the Sixteenth Series Bonds to be so redeemed) set forth opposite the applicable redemption period in the table below, in each case together with interest accrued to the redemption date:

<u>Redemption Period</u> <u>(Both Dates Inclusive)</u>	<u>Redemption Price</u>
July 1, 2009 through June 30, 2010	101%
July 1, 2010 and thereafter	100%

**The Second Series Bonds**

The Second Series Bonds maturing on or before July 1, 2009 are not subject to optional redemption prior to maturity. The Second Series Bonds maturing on or after July 1, 2010 are subject to redemption, at the direction of the City, in whole or in part at any time on or after July 1, 2009 at the option of the City, from such subseries and in such order of maturity as may be designated by the City, at the Redemption Prices (expressed as a percentage of the principal amount of the Second Series Bonds to be so redeemed) set forth opposite the applicable redemption period in the table below, in each case together with interest accrued to the redemption date:

<u>Redemption Period</u> <u>(Both Dates Inclusive)</u>	<u>Redemption Price</u>
July 1, 2009 through June 30, 2010	101%
July 1, 2010 and thereafter	100%

## Mandatory Redemption

### The Second Series Bonds

The Second Series A Bonds maturing on July 1, 2023 are subject to mandatory redemption prior to maturity, in part, by lot, at the times and in the amounts set forth below at a price equal to 100% of the principal amount of such Second Series A Bonds being redeemed, plus accrued interest to the date of redemption:

<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>	<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>
2020	\$4,425,000	2022	\$4,880,000
2021	\$4,645,000	2023*	\$5,120,000

The Second Series A Bonds maturing on July 1, 2029 are subject to mandatory redemption prior to maturity, in part, by lot, at the times and in the amounts set forth below at a price equal to 100% of the principal amount of such Second Series A Bonds being redeemed, plus accrued interest to the date of redemption:

<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>	<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>
2024	\$4,645,000	2027	\$5,570,000
2025	\$4,935,000	2028	\$5,925,000
2026	\$5,245,000	2029*	\$6,300,000

The Second Series B Bonds maturing on July 1, 2029 are subject to mandatory redemption prior to maturity, in part, by lot, at the times and in the amounts set forth below at a price equal to 100% of the principal amount of such Second Series B Bonds being redeemed, plus accrued interest to the date of redemption:

<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>	<u>Year</u> <u>(July 1)</u>	<u>Principal</u> <u>Amount</u>
2024	\$1,000,000	2027	\$1,250,000
2025	\$1,100,000	2028	\$1,400,000
2026	\$1,200,000	2029*	\$1,550,000

\* Total Maturity

## **Notice of Redemption**

Notice of redemption of the Bonds shall be made not less than thirty (30) nor more than sixty (60) days before the date fixed for redemption, by first class mail postage prepaid to the registered owners appearing on the Bond Register of the Bonds to be redeemed. Any notice of redemption mailed in accordance with the requirements set forth in the 1975 General Ordinance (in the case of the Sixteenth Series Bonds) and the 1998 General Ordinance (in the case of the Second Series Bonds) 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. A notice with respect to an optional redemption may state that it is conditioned upon the deposit of moneys with the Fiscal Agent on or before the date fixed for redemption and in such event, such notice shall be of no effect unless such moneys are deposited. Notice having been so given and provision having been made for redemption from funds on deposit with the Fiscal Agent or Sinking Fund Depository, all interest on Bonds called for redemption accruing after the date fixed for redemption shall cease, and the registered owners of the Bonds called for redemption shall have no security, benefit or lien under the 1975 General Ordinance or any rights thereunder, except to receive payment of the redemption price, and the registered owners of the Second Series Bonds called for redemption shall have no security, benefit or lien under the 1998 General Ordinance or any rights thereunder, except to receive payment of the redemption price.

## **Transfer of Bonds**

The Bonds are transferable and exchangeable by the registered owners thereof at the principal corporate trust office of the Fiscal Agent in Philadelphia, Pennsylvania in the manner and subject to the limitations contained in the 1975 General Ordinance, in the case of the Sixteenth Series Bonds, and in the 1998 General Ordinance, in the case of the Second Series Bonds. The Fiscal Agent shall not be required to issue or to register the transfer of or exchange any Bonds (a) during the period fifteen (15) Business Days next preceding any interest payment date for such Bonds, or (b) during the period twenty (20) Business Days next preceding the first publication or mailing of any notice of redemption of such Bonds.

## **SECURITY**

### **Pledge of Revenues and Funds**

The Sixteenth Series Bonds are secured solely by and are payable solely from Project Revenues and the 1975 Ordinance Sinking Fund, including the 1975 Ordinance Sinking Fund Reserve therein, as provided in the Act and the 1975 General Ordinance, as amended and supplemented. Project Revenues include 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, including all accounts, contract rights and general intangibles representing the Project Revenues and all proceeds of any of the foregoing.

The Act subjects all moneys deposited in the 1975 Ordinance Sinking Fund, including the 1975 Ordinance Sinking Fund Reserve, to a security interest for the 1975 Ordinance Bonds until such moneys are properly disbursed and provides that no bonds issued under the Act shall pledge the credit or taxing power of the City or 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 Project Revenues and moneys deposited in the 1975 Ordinance Sinking Fund.

The Second Series Bonds are secured solely by and are payable solely from Gas Works Revenues and the 1998 Ordinance Sinking Fund, including the 1998 Ordinance Sinking Fund Reserve therein, as provided in the Act and the 1998 General Ordinance, as amended and supplemented. Gas Works Revenues include all operating and nonoperating revenues of the Gas Works derived from its activities and assets involved in the 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 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. At such time as there are no 1975 Ordinance Bonds outstanding, Gas Works Revenues shall not include any portions of the Gas Works' rents, rates and charges which are securitized and sold pursuant to the 1998 General Ordinance. See "The 1998 General Ordinance - Security" in APPENDIX C hereto. **The pledge of the Gas Works Revenues under the 1998 General Ordinance to secure 1998 Ordinance Bonds is at all times subject and subordinate to the pledge of revenues under the 1975 General Ordinance to secure the 1975 Ordinance Bonds.**

The Act subjects all moneys deposited in the 1998 Ordinance Sinking Fund, including the 1998 Ordinance Sinking Fund Reserve, to a security interest for the 1998 Ordinance Bonds until such moneys are properly disbursed and provides that no bonds issued under the Act shall pledge the credit or taxing power of the City or 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 Gas Works Revenues and moneys deposited in the 1998 Ordinance Sinking Fund.

#### **Covenant Against Commingling with Other City Funds**

The City has covenanted in the Sixteenth Supplemental Ordinance that so long as any of the Sixteenth Series Bonds remain outstanding, all pledged Project 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. The City has covenanted in the Second Supplemental Ordinance that so long as any of the Second Series Bonds 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. See "REMEDIES OF BONDHOLDERS".

#### **Priority in Application of Revenues**

##### **Project Revenues - 1975 Ordinance Bonds**

The 1975 General Ordinance creates a lien on and pledge of all Project Revenues of PGW for the benefit of the holders of 1975 Ordinance Bonds and creates a priority in application of Project Revenues in each fiscal year as follows

First, to Net Operating Expenses;

Second, to required payments into the 1975 Ordinance Sinking Fund to pay the principal of, and interest on all 1975 Ordinance Bonds and, if required, to accumulate funds in, or to restore any deficiency in, the 1975 Ordinance Sinking Fund Reserve;

Third, to the payment of any general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from PGW<sup>1</sup>;

Fourth, to the payment of interest and sinking fund charges of other general obligation debt incurred by PGW, and

Fifth, to the payment of City Charges, including the Base Payment (currently \$18,000,000).

---

<sup>1</sup> No general obligation debt of the City described in items Third and Fourth above is currently outstanding.

City Charges are the proportionate charges 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 agreement between the City and the manager of the Gas Works and all other payments made to the City from Project Revenues. During PGW's Fiscal Years 1994-1998, City Charges exclusive of the \$18,000,000 Base Payment and of rate hearing charges have averaged approximately \$1,970,000 per year.

The 1998 General Ordinance and the 1998 Note Ordinance establish a priority in application of Gas Works Revenues that modifies the application of Project Revenues after item Second above. See "SECURITY- Priority in Application of Revenues- Gas Works Revenues - 1998 Ordinance Bonds" herein.

The 1975 General Ordinance provides that all interest and income earned on moneys held in the 1975 Ordinance Sinking Fund Reserve may, to the extent not required to comply with the requirements of the 1975 General Ordinance relating to the 1975 Ordinance Sinking Fund Reserve, be transferred to the operating funds of PGW to be applied as Project Revenues in accordance with the terms of the 1975 General Ordinance. To the extent that in any fiscal year a balance remains in the Project Revenues (after application under the 1975 General Ordinance as modified by the 1998 General Ordinance and 1998 Note Ordinance), such balance, upon approval of the Gas Commission, may be paid to the City, provided that in a given fiscal year such balance does not exceed the amount of the 1975 Ordinance Sinking Fund Reserve earnings transferred to the operating funds of PGW during the same fiscal year.

#### **Gas Works Revenues - 1998 Ordinance Bonds**

The 1998 General Ordinance creates a lien on and pledge of all Gas Works Revenues for the benefit of the holders of the 1998 Ordinance Bonds and creates a priority in application of Gas Works Revenues in each fiscal year as follows:

First, to Net Operating Expenses then payable:

Second, to debt service on the 1975 Ordinance Bonds and amounts required to be paid into the 1975 Ordinance Sinking Fund Reserve:

Third, to debt service on 1998 Ordinance Senior Bonds, payments (other than termination payments) due to the issuers of Qualified Swaps and Exchange Agreements related to 1998 Ordinance 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 (the "Prior Obligations");

Fourth, to payments due to issuers of Credit Facilities related to 1998 Ordinance Senior Bonds:

Fifth, to debt service on 1998 Ordinance Subordinate Bonds (including the First Series C Bonds and notes issued under the City's General Inventory and Receivables Gas Works Revenue Note Ordinance of 1998, 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 1998 Ordinance Subordinate Bonds.

Sixth, to payments due to issuers of Credit Facilities related to 1998 Ordinance Subordinate Bonds:

Seventh, to required payments of the Rebate Amount to the United States:

Eighth, to replenishment of any deficiency in the 1998 Ordinance Sinking Fund Reserve:

Ninth, to payment of general obligation bonds of the City adjudged to be self-liquidating from Gas Works Revenues;<sup>1</sup>

Tenth, to debt service on other general obligation bonds issued for PGW<sup>1</sup>; and

Eleventh, to 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. As described above City Charges include charges for services performed for PGW by various City departments, including the expenses of the Gas Commission which also includes the cost of rate hearings. During PGW's Fiscal Years 1993-1998, City Charges exclusive of the \$18,000,000 base payment and of rate hearing charges have averaged approximately \$1,970,000 per year.

## **Rate Covenant and Rate Requirements**

### **Rate Covenant and Rate Requirements -1975 Ordinance Bonds**

The 1975 General Ordinance contains the 1975 Ordinance Rate Covenant requiring that, so long as 1975 Ordinance Bonds are outstanding, the City impose, charge and collect in each fiscal year, such gas rates and charges as shall, together with all other Project Revenues to be received in such fiscal year, be sufficient to provide, after meeting any 1975 Ordinance Sinking Fund Reserve requirements, the greater of (a) the sum of all Net Operating Expenses payable during such fiscal year plus 150% of the debt service requirements for such year on all outstanding 1975 Ordinance Bonds or (b) the sum of all Net Operating Expenses payable during such fiscal year plus the debt service requirements for such year on all outstanding 1975 Ordinance Bonds and all outstanding City general obligation bonds issued for improvements to PGW. For a further discussion of the 1975 Rate Covenant and other rate requirements applicable to PGW, see "PGW BUDGET, RATES AND FINANCING" and "HISTORICAL REVENUES AND DEBT SERVICE COVERAGE."

### **Rate Covenants and Rate Requirements - 1998 Ordinance Bonds**

The 1998 General Ordinance contains the 1998 Ordinance Rate Covenant that requires the City, at a minimum, to impose, charge and collect in each Fiscal Year of the Gas Works such gas rates and charges as shall, together with all other Gas Works Revenues to be derived in such Fiscal Year, equal not less than the greater of:

1. The sum of:

1.1 all Net Operating Expenses payable during such Fiscal Year;

1.2 all principal of and interest on 1975 Ordinance Bonds issued and outstanding under the 1975 General Ordinance payable during such Fiscal Year and amounts required to be paid into the 1975 Ordinance Sinking Fund Reserve during such Fiscal Year;

1.3 150% of the amount required to pay 1998 Ordinance Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding 1998 Ordinance Senior Bonds and 100% of the amounts payable in respect of the Prior Obligations during such Fiscal Year;

1.4 the amount required to pay 1998 Ordinance Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding 1998 Ordinance Subordinate Bonds and other obligations of the Gas Works on a parity with 1998 Ordinance Subordinate Bonds payable during such Fiscal Year;

---

No general obligation debt of the City described in items Ninth and Tenth above is currently outstanding

1.5 the amount, if any, required to be paid into the 1998 Ordinance Sinking Fund Reserve during such Fiscal Year;

1.6 the Rebate Amount required to be paid to the United States during such Fiscal Year; and

1.7 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

2. The sum of:

2.1 all Net Operating Expenses payable during such Fiscal Year;

2.2 all principal of and interest on 1975 Ordinance Bonds issued and outstanding under the 1975 General Ordinance payable during such Fiscal Year and amounts required to be paid into the 1975 Ordinance Sinking Fund Reserve during such Fiscal Year;

2.3 all 1998 Ordinance Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding 1998 Ordinance Bonds and all amounts payable in respect of obligations of the Gas Works which are on a parity with any of the 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve;

2.4 the Rebate Amount required to be paid to the United States during such Fiscal Year; and

2.5 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 a further discussion of the 1975 Ordinance Rate Covenant, the 1998 Ordinance Rate Covenant and other rate requirements applicable to PGW, see "PGW BUDGET, RATES AND FINANCING" and the table "HISTORICAL REVENUES AND DEBT SERVICE COVERAGE."

## **Sinking Funds**

### **1975 Ordinance Sinking Fund**

Pursuant to the Act, the 1975 General Ordinance establishes the 1975 Ordinance Sinking Fund for the benefit and security of the holders of all 1975 Ordinance Bonds to be held separate and apart from all other accounts of the City and directs the Director of Finance to deposit therein from the Project 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, on or before each interest and principal payment date of the 1975 Ordinance Bonds, the amounts required to pay the principal of and interest on the 1975 Ordinance Bonds then becoming due and payable. It is the current practice of the City to make deposits into the 1975 Ordinance Sinking Fund on or immediately prior to the date on which debt service payments are due. To the extent moneys are on deposit in the 1975 Ordinance Sinking Fund which are not currently required for the payment of debt service, such moneys shall be invested at the direction and under the management of the Director of Finance. Interest and profit from any such investment shall be added to the 1975 Ordinance Sinking Fund and credited in reduction of or to satisfy required deposits into the 1975 Ordinance Sinking Fund. The 1975 Ordinance Sinking Fund is established solely for the benefit and security of the holders of 1975 Ordinance Bonds, holders of 1998 Ordinance Bonds have no claim to the 1975 Ordinance Sinking Fund.

### **1998 Ordinance Sinking Fund**

Pursuant to the Act, the 1998 General Ordinance establishes the 1998 Ordinance Sinking Fund for the benefit and security of the holders of all 1998 Ordinance Bonds to be held in the name of the City separate and apart from all other accounts of the City and directs the Director of Finance to deposit therein 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, on or before each interest and principal payment date of the 1998 Ordinance Bonds, the amounts required to pay the principal of and interest on the 1998 Ordinance Bonds then becoming due and payable. It is the current practice of the City to make deposits into the 1998 Ordinance Sinking Fund on or immediately prior to the date on which debt service payments are due. To the extent moneys are on deposit in the 1998 Ordinance Sinking Fund which are not currently required for the payment of debt service, such moneys shall be invested at the direction and under the management of the Director of Finance of the City. The 1998 Ordinance Sinking Fund shall be a consolidated fund for the benefit of the holders of all 1998 Ordinance Bonds from time to time Outstanding under the 1998 General Ordinance and may be invested and reinvested on a consolidated basis. The principal of and interest and profits (and losses, if any) realized on investments in the 1998 Ordinance Sinking Fund shall be allocated pro rata among the series of 1998 Ordinance Bonds or to the specific 1998 Ordinance Bonds in respect of which such investments were made without distinction of priorities. Payments shall be made from the 1998 Ordinance Sinking Fund in the order of priority set forth in the 1998 General Ordinance, except that 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 1998 Ordinance Bonds shall be held and applied exclusively to the payment of such particular principal, interest or premium. The 1998 Ordinance Sinking Fund is established solely for the benefit and security of the holders of 1998 Ordinance Bonds; holders of 1975 Ordinance Bonds have no claim to the 1998 Ordinance Sinking Fund.

### **Sinking Fund Reserves**

#### **1975 Ordinance Sinking Fund Reserve**

The 1975 General Ordinance establishes the 1975 Ordinance Sinking Fund Reserve as part of the 1975 Ordinance Sinking Fund. The City is required to deposit in the 1975 Ordinance Sinking Fund Reserve from the proceeds of sale of each series of 1975 Ordinance Bonds an amount equal to the maximum amount required in any Fiscal Year to pay the principal of and interest on the 1975 Ordinance Bonds of such series coming due and payable in that Fiscal Year unless the Supplemental Ordinance authorizing the series of 1975 Ordinance Bonds authorizes the accumulation from Project Revenues of a reserve of such amount over a period of not more than six Fiscal Years after the issuance and delivery of the 1975 Ordinance Bonds. The 1975 Ordinance Sinking Fund Reserve requirement will be funded on the date of issuance of the Sixteenth Series Bonds from moneys currently on deposit in the 1975 Ordinance Sinking Fund Reserve. The money and investments (valued at market) in the 1975 Ordinance Sinking Fund Reserve must be held and maintained, at all times, in an amount equal to the maximum of the principal and interest requirements of all outstanding 1975 Ordinance Bonds in any subsequent Fiscal Year. The City verifies the value of amounts in the 1975 Ordinance Sinking Fund Reserve on a periodic basis. As of May 1, 1999, the value of the funds and investments on deposit in the 1975 Sinking Fund Reserve was required to be at least \$59,849,032, and the amount in the 1975 Ordinance Sinking Fund Reserve met this requirement. If, at any time, the moneys in the 1975 Ordinance Sinking Fund (other than the 1975 Ordinance Sinking Fund Reserve) are insufficient to pay, as and when due, debt service on any 1975 Ordinance Bonds, the 1975 Ordinance Sinking Fund Depository is required to pay over to the Fiscal Agent, from the 1975 Ordinance Sinking Fund Reserve, the amount of the deficiency. The 1975 Ordinance Sinking Fund and 1975 Ordinance Sinking Fund Reserve are managed by, and invested and reinvested under the direction of, the Director of Finance of the City. The 1975 General Ordinance provides that interest and income earned on moneys held in the 1975 Ordinance Sinking Fund Reserve may be transferred and paid by the Director of Finance to the operating funds of PGW and applied as Project Revenues in the manner described under "SECURITY - Priority in Application of Revenues - Project Revenues - 1975 Ordinance Bonds." The 1975 Ordinance Sinking Fund Reserve is established solely for the benefit and security of the holders of 1975 Ordinance Bonds; holders of 1998 Ordinance Bonds have no claim to the 1998 Ordinance Sinking Fund Reserve.

#### **1998 Ordinance Sinking Fund Reserve**

The 1998 General Ordinance establishes the 1998 Ordinance Sinking Fund Reserve as part of the 1998 Ordinance Sinking Fund. Unless otherwise provided in the applicable Supplemental Ordinance, the City is required to deposit in the 1998 Ordinance Sinking Fund Reserve from the proceeds of sale of each series of the 1998 Ordinance Bonds issued under the 1998 General Ordinance an amount which, together with other amounts in the 1998 Ordinance Sinking Fund Reserve, will cause the amount in the 1998 Ordinance Sinking Fund Reserve to equal the 1998 Ordinance

**Sinking Fund Reserve Requirement.** Upon the issuance of the Second Series Bonds, the City shall deposit an amount of cash into the 1998 Ordinance Sinking Fund Reserve, such that the aggregate of such cash and amounts then held in the 1998 Ordinance Sinking Fund Reserve shall be equal to the 1998 Ordinance Sinking Fund Reserve Requirement. If, at any time, the moneys in the 1998 Ordinance Sinking Fund (other than the 1998 Ordinance Sinking Fund Reserve) are insufficient to pay, as and when due, debt service on any 1998 Ordinance Bonds, the 1998 Ordinance Sinking Fund Depository is required to pay over to the Fiscal Agent, from the 1998 Ordinance Sinking Fund Reserve, the amount of the deficiency. If by reason of such withdrawal (including draws on any Credit Facilities held to satisfy the 1998 Ordinance Sinking Fund Reserve Requirement) or for any other reason there shall be a deficiency in the 1998 Ordinance Sinking Fund Reserve, the City covenants to restore such deficiency (either by a deposit of funds or the reinstatement of the cash limits of the Credit Facilities) within twelve (12) months. The 1998 Ordinance Sinking Fund Reserve shall be valued by the 1998 Ordinance Sinking Fund Depository promptly after any withdrawal from the 1998 Ordinance Sinking Fund Reserve or any other event indicating a possible deficiency in the 1998 Ordinance Sinking Fund Reserve and on August 31 of each Fiscal Year. The 1998 Ordinance Sinking Fund and 1998 Ordinance Sinking Fund Reserve are managed by, and invested and reinvested under the direction of, the Director of Finance of the City. The 1998 Ordinance Sinking Fund Reserve is established solely for the benefit and security of the holders of 1998 Ordinance Bonds; holders of 1975 Ordinance Bonds have no claim to the 1998 Ordinance Sinking Fund Reserve.

In lieu of a deposit to the 1998 Ordinance Sinking Fund Reserve or in substitution for amounts in the 1998 Ordinance 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 (3) highest rating categories by Moody's or S&P, all in the manner described under "THE 1998 GENERAL ORDINANCE - Sinking Fund and Sinking Fund Reserve" in APPENDIX C.

## **BOND INSURANCE**

### **Bond Insurance Policies**

Concurrently with the issuance of the Sixteenth Series Bonds and the Second Series Bonds, Financial Security Assurance Inc. will issue its Municipal Bond Insurance Policies for the Bonds (each a "Policy" and collectively, the "Policies"). There will be one Policy issued for the Sixteenth Series Bonds and a separate Policy issued for the Second Series Bonds. The Policies guarantee the scheduled payment of principal of and interest on the Bonds when due as set forth in the form of the Policy included as APPENDIX G to this Official Statement.

**THE POLICIES ARE NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.**

### **Financial Security Assurance Inc.**

Financial Security is a New York domiciled insurance company and a wholly owned subsidiary of Financial Security Assurance Holdings Ltd. ("Holdings"). Holdings is a New York Stock Exchange listed company whose major shareholders include Fund American Enterprises Holdings, Inc., The Tokio Marine and Fire Insurance Co., Ltd. and U.S. WEST Capital Corporation. The shareholders of Holdings are not liable for the obligations of Financial Security.

At March 31, 1999, Financial Security's total policyholders' surplus and contingency reserves were approximately \$1,077,088,000 and its total unearned premium reserve was approximately \$607,467,000 in accordance with statutory accounting principles. At March 31, 1999, Financial Security's total shareholders' equity was approximately \$512,383,000 in accordance with generally accepted accounting principles.

The financial statements included as exhibits to the annual and quarterly reports filed by Holdings with the Securities and Exchange Commission are hereby incorporated herein by reference. Also incorporated herein by reference are any such financial statements so filed from the date of this Official Statement until the termination of the offering of the Bonds. Copies of materials incorporated by reference will be provided upon request to Financial Security: 350 Park Avenue, New York, New York 10022, Attention: Communications Department (telephone (212) 826-0100)

The Policies do not protect investors against changes in market value of the Sixteenth Series Bonds and Second Series Bonds, which market value may be impaired as a result of changes in prevailing interest rates, changes in applicable ratings or other causes. Financial Security makes no representation regarding the Bonds or the advisability of investing in the Bonds. Financial Security makes no representation regarding the Official Statement, nor has it participated in the preparation thereof, except that Financial Security has provided to the City the information presented under this caption for inclusion in the Official Statement.

Information regarding Financial Security's Year 2000 compliance program is available at Financial Security's website, [www.fsa.com/Y2k](http://www.fsa.com/Y2k).

## ADDITIONAL DEBT

### Bond Anticipation Notes

The Act authorizes the City to issue revenue bond anticipation notes as well as Gas Works Revenue Bonds. Section 16 of the Act provides that the City may issue its revenue bond anticipation notes which shall be payable by exchange for, or out of the proceeds of the sale of, a designated series of revenue bonds referred to in the bond anticipation notes. The reference to the revenue bonds shall specify a maximum rate of interest to be borne by said bonds and may provide that said bonds shall be offered for sale, but if no proposals shall be received, the sole remedy of the holders of the revenue bond anticipation notes shall be either to accept the bonds at the specified maximum interest rate, or to extend the maturity of the revenue bond anticipation notes for one or more specified additional periods of not less than six months during which additional offers of the bonds may be made.

The City has no present intention to issue revenue bond anticipation notes.

### Subordinated Short-Term Borrowings - Gas Works Notes

The City is authorized to issue, from time to time, Gas Works Notes pursuant to The City of Philadelphia Municipal Utility Inventory and Receivables Financing Act of the Commonwealth of Pennsylvania (the "Inventory and Receivables Financing Act") and the Note Ordinance, in amounts, as approved by the Mayor, the City Controller and the City Solicitor or any two of them (the "Committee"), presently not to exceed \$100,000,000 aggregate principal amount and interest at any one time outstanding. Such amount can, in the future, be increased by action of Council. The proceeds of the Gas Works Notes may be used to finance or refund the costs of acquisition or funding of Inventory or Receivables (as such terms are defined in the Note Ordinance) of PGW or to refund Gas Works Notes. The Gas Works Notes are junior in priority of payment to the 1975 Ordinance Bonds and 1998 Ordinance Senior Bonds and on a parity with 1998 Ordinance Subordinate Bonds. The Note Ordinance provides that the final maturity date of Gas Works Notes shall be no later than the earlier of 270 days after the date of issuance or May 8, 2003.

The Note Ordinance requires establishment of a sinking fund for the benefit and security of the holders of each series of the Gas Works Notes. The City covenants to deposit in the sinking fund for the Gas Works Notes from 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 Gas Works Notes, the amount required, after taking into account amounts paid from refunding Gas Works Notes and credit support instruments, to pay the Gas Works Notes then becoming due and payable.

The \$77,000,000 in aggregate principal amount of Gas Works Notes which were outstanding under the Note Ordinance and due on or before May 28, 1999 were paid in full on that date. Pursuant to the Note Ordinance, the City issued \$50,000,000 of Gas Works Notes on June 4, 1999 and expects to issue an additional \$15,000,000 in Gas Works Notes on or before December 31, 1999. Morgan Guaranty Trust Company of New York has issued a letter of credit with respect to Gas Works Notes issued under the Note Ordinance. The agreement pursuant to which such letter of credit was issued provides that PGW may not issue any additional 1998 Ordinance Subordinate Bonds without the prior consent of Morgan Guaranty Trust Company of New York as issuer of the letter of credit.

## **Additional Bonds**

### **Additional 1975 Ordinance Bonds**

The 1975 General Ordinance permits the issuance of additional 1975 Ordinance Bonds on a parity with the Sixteenth Series Bonds and all other currently outstanding 1975 Ordinance Bonds, provided, among other requirements, that an independent engineer determines that estimated Project Revenues will be sufficient to meet the 1975 Ordinance Rate Covenant. The 1998 General Ordinance limits the issuance of additional 1975 Ordinance Bonds, providing that they may only be issued to refund 1975 Ordinance Bonds. See APPENDIX C for a discussion of the provisions relating to the issuance of additional 1975 Ordinance Bonds.

### **Additional 1998 Ordinance Bonds**

The 1998 General Ordinance permits the issuance of additional 1998 Ordinance Bonds which are 1998 Ordinance Senior Bonds on a parity with the Second Series Bonds and other 1998 Ordinance Senior Bonds or as 1998 Ordinance Subordinate Bonds which are on a parity with other 1998 Ordinance Subordinate Bonds. All 1998 Ordinance Bonds are subordinated to 1975 Ordinance Bonds. In order to issue additional 1998 Ordinance Bonds, among other requirements, it is necessary that a financial report of the chief fiscal officer of the City be provided which determines that, over the amortization period of the additional 1998 Ordinance Bonds, estimated Gas Works Revenues will be sufficient to meet the 1998 Ordinance Rate Covenant. See APPENDIX C for a discussion of the provisions relating to the issuance of additional 1998 Ordinance Bonds.

The 1998 General Ordinance affords, by its terms, greater flexibility to the City and enables the City to meet the 1998 Ordinance Rate Covenant and incur additional indebtedness, including 1998 Ordinance Bonds, in excess of amounts which could be issued under the 1975 General Ordinance, without the necessity of having to increase Gas Works Revenues.

The Independent Consultant's Report assumes that PGW will issue additional 1998 Ordinance Bonds in the approximate amount of \$75,000,000 in Fiscal Year 2003. See APPENDIX B - "Independent Consultant's Report."

## **Lease Obligations**

PGW has entered into and in the future may, from time to time, enter into, capital lease obligations. Capital leases outstanding on June 24, 1998 are on a parity with 1998 Ordinance Bonds and subordinate to the Sixteenth Series Bonds and other 1975 Ordinance Bonds. Capital lease obligations incurred after June 24, 1998 may be on a parity with 1998 Ordinance Subordinate Bonds or may otherwise be payable solely from Gas Works Revenues, to the extent that such Gas Works Revenues are otherwise available.

## **REMEDIES OF BONDHOLDERS**

Remedies under the Act and the 1975 General Ordinance available to holders of 1975 Ordinance Bonds including the holders of the Sixteenth Series Bonds, and remedies under the Act and the 1998 Ordinance available to holders of the 1998 Ordinance Bonds, including the holders of the Second Series Bonds, and to any trustee for holders of such bonds appointed by the holders of 25% in principal amount of any series of bonds in default are described in the summaries contained in APPENDIX C hereof. In addition to the remedies described therein, Bondholders or a trustee therefor are entitled under the Pennsylvania Uniform Commercial Code to all remedies of secured parties in respect of the Project Revenues and the 1975 Ordinance Sinking Fund (including the 1975 Ordinance Sinking Fund Reserve), in the case of holders of the 1975 Ordinance Bonds, and Gas Works Revenues and the 1998 Ordinance Sinking Fund (including the 1998 Ordinance Sinking Fund Reserve), in the case of holders of the 1998 Ordinance Bonds.

## Limitation on Remedies of Bondholders

The ultimate enforcement of bondholders' rights upon any default by the City in the performance of its obligations under the Act, the 1975 General Ordinance, the Sixteenth Supplemental Ordinance and the Sixteenth Series Bonds or under the Act, the 1998 General Ordinance, the Second Supplemental Ordinance and the Second Series Bonds, will depend upon the application of remedies provided in the Act, the applicable General Ordinance, the applicable Supplemental Ordinance and other applicable laws. Litigation may be necessary to obtain relief in accordance with these remedies. Such litigation may be protracted and costly. Remedies such as mandamus, specific performance or injunctive relief are equitable remedies that are subject to the discretion of the courts.

The following references to the Federal Bankruptcy Code and the Intergovernmental Cooperation Act should not be construed as implying that the City has any expectation or plan to seek to invoke the provisions of such statutes or that if the City were to seek to invoke such provisions, that the consent of the Governor would be obtained. Further, such references are not intended to imply that even if the City were to file for protection under the Federal Bankruptcy Code, any proposed restructuring would include a dilution of the sources of payment of and security for the Sixteenth Series Bonds or Second Series Bonds. The foregoing statutory provisions have not been subject to extensive interpretation by the courts and there can be no assurance that the following discussion accurately reflects the interpretation that a court may make.

Enforcement of bondholders' rights may be limited by and is subject to the provisions of the Federal Bankruptcy Code, as now or hereafter enacted, or to other laws or legal or equitable principles which may affect the enforcement of creditors' rights. The Intergovernmental Cooperation Authority Act for Cities of the First Class (Act No. 1991- 6, P.L. 9) (the "Pennsylvania Intergovernmental Cooperation Act") adopted in 1991 prevents the City from filing a petition for relief under Chapter 9 of the Federal Bankruptcy Code as long as the Authority created thereunder has outstanding any bonds issued pursuant to the Pennsylvania Intergovernmental Cooperation Act, or if no such bonds are outstanding requires approval, in writing, by the Governor, prior to a filing under Chapter 9 by the City. There are currently bonds outstanding that were issued under the Pennsylvania Intergovernmental Cooperation Act, which bonds are scheduled to mature at various dates to and including June 15, 2023, subject to redemption prior to maturity. If the City were to obtain authorization from the Governor to file a petition under Chapter 9 of the Federal Bankruptcy Code and in fact filed such a petition, the enforcement of bondholders' rights and remedies might be limited. See "BACKGROUND - The Pennsylvania Intergovernmental Cooperation Authority" in APPENDIX D.

The filing of a petition under Chapter 9 operates as an automatic stay of the commencement or continuation of any judicial or other proceeding against the debtor or its property. However, a petition filed under Chapter 9 does not operate as a stay of application of pledged special revenues to the payment of indebtedness secured by such revenues. Special revenues include receipts derived from the ownership or operation of systems that are used to provide utility services and proceeds of borrowings to finance such systems and would include the pledged Gas Works Revenues and Project Revenues. The Federal Bankruptcy Code further provides that special revenues acquired by the debtor after commencement of a Chapter 9 case shall remain subject to any lien resulting from any security agreement entered into by the debtor before the commencement. However, the lien on special revenues derived from a system will be subject to the payment of the necessary operating expenses of that system. Therefore, Project Revenues acquired by the City after the filing of a Chapter 9 petition will remain subject to the lien of the 1975 General Ordinance and the Sixteenth Supplemental Ordinance in favor of holders of the Sixteenth Series Bonds and Gas Works Revenues acquired by the City after the filing of a Chapter 9 petition will remain subject to the lien of the 1998 General Ordinance and the Second Supplemental Ordinance in favor of holders of the Second Series Bonds, but will be subject to the payment of PGW's necessary operating expenses as determined by the City. These required payments could be inconsistent with the requirement in the 1975 General Ordinance with respect to the 1975 Ordinance Bonds, that, under certain circumstances, at least 50% of the Project Revenues be deposited in the 1975 Ordinance Sinking Fund on a daily basis. If the pledged Project Revenues or Gas Works Revenues cannot support both the applicable debt service requirements and operating expenses of PGW, it is possible that payments to holders of the Sixteenth Series Bonds and of the Second Series Bonds may be reduced. The Federal Bankruptcy Code also provides that a transfer of property of a debtor to or for the benefit of a bondholder, on account of such bond, may not be avoided as a preferential transfer.

Unless the debtor consents or the plan proposed under Chapter 9 provides, the bankruptcy court may not interfere with any of the property or revenues of a Chapter 9 debtor or with such debtor's use or enjoyment of any income producing property. Accordingly, if the City should decide to use the proceeds of the Sixteenth Series Bonds or the Project Revenues pledged for the benefit of holders of the Sixteenth Series Bonds or to use the proceeds of the Second Series Bonds or the Gas Works Revenues pledged for the benefit of holders of the Second Series Bonds other than to benefit the Gas Works, it is unclear whether a bankruptcy court would have the power to interfere with that decision. Even if a bankruptcy court had such power, the court, in the exercise of its equitable powers, could refuse to require the City to use the proceeds of Sixteenth Series Bonds and the Project Revenues to pay holders of the Sixteenth Series Bonds or the proceeds of the Second Series Bonds and the Gas Works Revenues to pay holders of the Second Series Bonds, could permit a subordination of the liens to new bonds if the former were found more than "adequately protected" or could avail itself of a broad range of equitable remedies. The Federal Bankruptcy Code gives a bankruptcy court wide power to effectively administer the bankrupt estate.

Under the Federal Bankruptcy Code, the debtor may file a plan for the adjustment of its debts which may include provisions modifying or altering the rights of creditors generally, or any class of them, secured or unsecured. The plan, when confirmed by the court, binds all creditors which had notice or knowledge of the plan and discharges all claims against the debtor provided for in the plan. No plan may be confirmed unless certain conditions are met, among which are that the plan is in the best interest of creditors, is feasible and has been accepted by each class of claims impaired thereunder. Each class of claims has accepted the plan if the votes of at least two-thirds in dollar amount and more than one-half in number of the allowed claims of the class that are voted are cast in favor of the plan. Even if the plan is not so accepted, it may be confirmed if the court finds that the plan is fair and equitable and certain tests are met. Thus, under the above-described "cramdown" provisions of the Federal Bankruptcy Code, a plan of adjustment could be imposed on the bondholders that would give them less than their anticipated rate of interest on the bonds or possibly even less than a full return of their principal and/or extend the time for payment of principal or interest on the bonds.

#### LEGISLATION AFFECTING PGW

PGW, as a municipally-owned utility serving customers within its municipal limits, is not a "public utility" within the meaning of the Pennsylvania Public Utility Code, as currently enacted, and therefore is not generally subject to regulation by the Pennsylvania Public Utility Commission ("PUC"). On June 16, 1999, the Pennsylvania Legislature passed House Bill 1331 ("HB1331") which amends the Public Utility Code by providing for the deregulation of the natural gas industry in Pennsylvania and the implementation of choice of suppliers of natural gas for retail customers of gas distribution companies. In addition, HB1331 provides that PGW will become subject to regulation by the PUC on July 1, 2000 and that choice among natural gas suppliers will be provided to PGW's customers in 2002 or 2003 after the resolution of PGW's initial tariff and restructuring proceedings by the PUC. It is expected that the Governor will sign the legislation.

In brief, HB1331 requires each natural gas utility under PUC jurisdiction (including PGW) to "unbundle" and establish separate charges for natural gas supply services and natural gas distribution services. HB1331 encourages competition for retail customers among natural gas suppliers. It provides that each natural gas distribution utility will file a restructuring proceeding with the PUC and, in the context of that proceeding, the utility's tariff will be revised to reflect the unbundling referred to above and to implement customer choice.

HB1331 contains provisions which are designed to (i) preserve the tax-exempt status of bonds or other obligations issued by the City for PGW, including the Bonds, and (ii) preserve the ability of the City to comply with its covenants, including the City's covenants with respect to the imposition and collection of rates and charges, to the holders of such bonds and other obligations, including the Bonds. HB1331 provides, among other things:

- Commencing July 1, 2000, PGW will become regulated by the PUC and, except as otherwise provided in HB1331, the provisions of the Public Utility Code will apply to PGW as if it were a public utility.

- Notwithstanding the initiation of customer choice in gas suppliers, PGW's gas distribution business will remain a regulated monopoly. The PUC, instead of the Philadelphia Gas Commission, will set rates for PGW's customers.

- In setting rates and notwithstanding any other provision of the Public Utility Code, the PUC must permit the City to impose, charge and collect rates or charges as necessary to permit the City to comply with its covenants to the holders of any Approved Bonds, as defined in HB1331. All bonds issued by the City on behalf of PGW under the First Class City Revenue Bond Act, including the Bonds, are Approved Bonds.

- The PUC is barred from requiring the City or PGW to take any action (or omit taking any actions) under the Public Utility Code if such action or omission would have the effect of causing the interest on any tax exempt bonds issued by the City, including the Bonds, to be includable in the gross income of the holders of such bonds for federal income tax purposes.

- PGW will be required to file a proposed tariff and a restructuring proposal with the PUC between January 1 and June 30, 2002, unless PGW and the PUC agree to an earlier filing.

- Pending resolution of the restructuring proceeding by the PUC, the tariff that existed prior to July 1, 2000 will remain in place.

- At the beginning of PGW's fiscal year immediately following the conclusion of its restructuring proceeding, PGW will be required to implement customer choice and to permit licensed natural gas suppliers to deliver gas to their customers in Philadelphia using PGW's distribution system.

- The PUC must continue the existing senior citizen discount for all individuals who are properly receiving the discount at the time PGW's restructuring proceeding is resolved unless Philadelphia City Council modifies the program. HB1331 permits, but does not require, the PUC to approve a senior citizen discount program in the future for those individuals who are not covered by the existing senior citizen discount program.

- The PUC is required to provide for a management audit of all employees, records, equipment, contracts, assets, liabilities, appropriations and obligations of PGW prior to the commencement of the restructuring proceeding.

- Effective, June 30, 2000, the Philadelphia Gas Commission is abrogated to the extent inconsistent with HB1331.

- The City cannot be required to take any action under the Public Utility Code if the effect of the action is to cause a variation in the City's financial plan approved by the Pennsylvania Intergovernmental Cooperation Authority.

- The City's executive or legislative powers to "legislate or otherwise determine the powers, functions, budgets, activities and mission of PGW" are not abrogated or limited.

It is impossible to predict, at this time, the full impact of HB1331 on PGW, the outcome of PGW's initial tariff and restructuring proceeding or the ultimate effect of HB1331 on PGW's revenues and expenses. No assurance can be given to purchasers of the Bonds that deregulation of the gas industry in Pennsylvania and or regulation of PGW by the PUC will not adversely affect Project Revenues or Gas Works Revenues or the sufficiency of Project Revenues or Gas Works Revenues to comply with the rate covenants in the 1975 and 1998 General Ordinances.

Potential purchasers of Bonds should be aware that the Independent Consultant's Report has not taken into account the effect, if any, HB1331 might have on PGW or its operations.

## PHILADELPHIA GAS WORKS

### General

PGW consists of all the real and personal property owned by the City and used for the acquisition, manufacture, storage, processing and distribution of gas in the City, and all property, books and records employed and maintained in connection with the operation, maintenance and administration thereof. Included in such assets, in addition to an extensive distribution system, are facilities for the production of gas to supplement the natural gas supply from pipeline transmission companies and facilities for storage. Such facilities include two liquefied natural gas ("LNG") plants.

Of total gas revenues for the twelve month period ended August 31, 1998, approximately 72% was derived from residential customers, approximately 24% was derived from commercial and industrial customers and approximately 4% was derived from municipal and housing authority customers.

Operating results for PGW and debt service coverage for PGW for the five fiscal years ended August 31, 1998 are shown below under the heading "SUMMARY OF STATEMENTS OF INCOME - Debt Service Coverage Ratio." For a further explanation of revenues and expenses, see "MANAGEMENT'S DISCUSSION AND ANALYSIS OF RESULTS OF OPERATIONS AND FINANCIAL CONDITION" and APPENDIX B. See also the table entitled "Historical Revenues and Debt Service Coverage" below for future debt service payments.

### PGW Service Area

PGW, the nation's largest municipally-owned gas utility, purchases, sells and distributes gas within the limits of the City. The City's boundaries enclose a predominately urbanized area of 129 square miles in southeastern Pennsylvania along the Delaware River. Within these boundaries, PGW maintains a distribution system with approximately 6,000 miles of gas mains and service pipes serving slightly more than a half million customers. The mix of sales to PGW's customers, net of transportation sales, during each of the five Fiscal Years ended August 31, 1998 is shown in the following table:

	<u>Percent of Gas Sales for the Years Ended August 31</u>				
	1994	1995	1996	1997	1998
Residential	68.4	64.5	67.7	67.0	65.8
Commercial and Industrial	27.4	31.2	28.1	29.0	30.2
Municipal and Housing Authority	<u>4.2</u>	<u>4.3</u>	<u>4.2</u>	<u>4.0</u>	<u>4.0</u>
TOTAL	100	100	100	100	100

For a discussion of PGW's sales, see "GAS SUPPLY AND REGULATION - Five Year Summary of Gas Sales."

### Management Agreement

PFMC has operated PGW pursuant to a Management Agreement since January 1, 1973 (the "Management Agreement"). Under the Management Agreement, various aspects of PFMC's management of PGW are subject to review and approval by the Gas Commission and, where authorization of City Council is required, recommendation of the City's Director of Finance and the Gas Commission. The Gas Commission has various

responsibilities for the oversight of the operations of PGW; the Director of Finance of the City oversees certain financial practices of PGW and the operations of its pension plan; and the City's Law Department is the designated legal advisor to the Gas Commission and PGW. See "THE GAS COMMISSION" and "PGW BUDGET, RESOURCES AND FINANCING" for discussions of the Gas Commission and rate proceedings.

The term of the Management Agreement commenced on January 1, 1973 for a period of two years. In the absence of notice of cancellation, the term is automatically extended for additional two year periods. The term is subject to cancellation by the City at any time, or upon the expiration of the two-year period, upon ninety days notice. No cancellation will be effective unless and until approved by resolution or ordinance of City Council.

## **Management**

PFMC is responsible for providing executive management of PGW under the Management Agreement. The Management Agreement states that PFMC shall provide a chief executive officer, chief operating officer, chief financial officer and other personnel as deemed appropriate by PFMC. Certain PFMC personnel, including the chief executive officer, chief operating officer and the chief financial officer, provided to PGW are subject to the approval of the Gas Commission. PFMC's officers also serve as officers of PGW.

In early 1999, the PFMC Board requested qualifications from and initiated discussions with a large number of utilities to determine their interest and ability and the feasibility and desirability of contracting out for all or a portion of the management functions of PFMC. After an interview and review process, PFMC has decided to proceed with a request for proposal process in order possibly to contract out only the gas management and supply function. PFMC has decided not to pursue a request for proposal for more general management services at this time.

The following brief resumes provide pertinent information on the management of PFMC and PGW:

### **Ben Hayllar, Interim President and Chief Executive Officer**

Dr. Hayllar currently serves as Interim President and Chief Executive Officer of PGW. He also serves as a member of the Board of Directors of the Philadelphia Facilities Management Corporation having been appointed to the Board on December 19, 1994. Dr. Hayllar also serves as the Director of Finance, City of Philadelphia having been appointed to that position by Mayor Edward G. Rendell on October 4, 1993. As a member of the Mayor's Cabinet and the Chief Financial Officer of the City, he is involved with financial and fiscal policy development and directly oversees all City financial activities, including Budget, Accounting, Revenue collection, Treasury functions, Procurement, Minority Business Enterprise Council, Risk Management and Bureau of Administrative Adjudication. Dr. Hayllar is Chairman of the Philadelphia Board of Pensions and Retirement and is a member of various boards and commissions including City Planning Commission, Convention Center, Criminal Justice Coordinating Commission, Mall Maintenance Corporation, Mayor's Office of Community Services, Pennsylvania Intergovernmental Cooperation Authority, Penn's Landing Corporation, Philadelphia Authority for Industrial Development Corporation, Philadelphia Historical Preservation Corporation and the Sinking Fund Commission. Prior to becoming Philadelphia's Director of Finance, he was Director of Finance for the City of Pittsburgh (from 1989 to 1993) and Vice President/Division Manager, Metropolitan Banking, Equibank (from 1985 to 1989). Dr. Hayllar holds a Ph.D. in communications, an M.A. in Elizabethan and Jacobean Theater and a B.A. in Liberal Arts from the University of Pittsburgh.

### **Gregory D. Martin, Executive Vice President and Chief Operating Officer**

Mr. Martin is Executive Vice President and Chief Operating Officer of PGW. In this capacity, Mr. Martin manages the gas operations, customer service and systems technology activities. Prior to his appointment to PGW, Mr. Martin was Vice President, Gas Management at Equitable Gas Company in Pittsburgh, Pennsylvania. There, he directed and managed the gas supply purchasing, planning, off-system marketing and sales, federal regulatory, retail transportation and gas measurement functions. He also held the position of Vice President, Consumer Products at Equitable Gas - Energy, a non-regulated marketing affiliate of Equitable Gas Company. Mr. Martin has also held positions as Gas Procurement Administrator with the Charlottesville Gas Utility Division in Charlottesville, Virginia, Special Assistant to Commissioner Wesley Long at the District of Columbia Public Service Commission and Special

Assistant to Commissioner Matthew Holder at the Federal Energy Regulatory Commission. Mr. Martin holds an M.A. and a B.A. in Political Science from the University of Wisconsin and University of New Orleans, respectively.

**Abby L. Pozefsky, Esq. - Senior Vice President and General Counsel**

Ms. Pozefsky was appointed Senior Vice President and General Counsel in July 1998. She serves as General Counsel, managing all legal work, and is also responsible for oversight of the Human Resources Department. She previously held the position of Chief Deputy City Solicitor of Regulatory Affairs for the City of Philadelphia Law Department. In her twelve years with the City Law Department she served in various capacities, including general counsel to the Water Department, the Philadelphia Airport and the City Municipal Energy Office. Prior to that she held a variety of positions in public and private practice. She received her Bachelor of Arts degree cum laude from the University of Pennsylvania, and a Juris Doctor degree from New York University Law School.

**Thomas Smyth, Vice President and Chief Accounting Officer and Controller**

Mr. Smyth was appointed Vice President, Controller and Chief Accounting Officer in February 1999. He is responsible for General Accounting, Financial Reporting, Accounts Payable, Inventory Accounting and Property Records. He previously held the position of Executive Director - Internal Auditing since commencing employment with PGW in July 1997. Before joining PGW, he held various positions with the Bell Atlantic Corporation and a major transportation company. Mr. Smyth received his Bachelor of Science degree in Business Administration from Delaware Valley College, Doylestown, Pennsylvania and Master of Business Administration degree from LaSalle University in Philadelphia, Pennsylvania. He is a member of the American Institute and the Pennsylvania State Society of Certified Public Accountants.

**David Lee, Vice President - Information Technology and Chief Information Officer**

Mr. Lee has been Vice President - Information Technology and Chief Information Officer at PGW since October, 1996 and has responsibility for the vision and strategic planning and management of information technology enterprise wide. Mr. Lee has a diverse background in the professional services, environmental, steel, healthcare, and engineering service industries having worked for U.S. Steel, Westinghouse, Alcoa, Thrift Drugs, TAD, and Contemporary Technologies, Inc. He has held a variety of professional and consulting positions in Information Technology with fourteen years in general management overseeing subsidiary IT operations, business unit IT functions and managing corporate headquarters computing services. Mr. Lee has a BA from the University of Illinois Urbana-Champaign and received his MBA (Finance) and MS (Information Systems) from the University of Pittsburgh. His advanced executive education is from the Wharton Business School, University of Pennsylvania.

**Employee Relations**

In March, 1999, PGW employed 1,903 people. Presently, approximately 80% of PGW's employees are represented by the Gas Works Employees' Union Local 686, and 20% are unaffiliated management. The current agreement with the Gas Works Employees' Union Local 686 will expire on May 15, 2001.

**Facilities**

Production Facilities - The principal PGW gas facilities include nine city gate stations and two major gas production plants in the Richmond and Passyunk sections of the City. Located at these plants are two LNG facilities, a gas control center, a de-activated propane air facility, two gas holders and training facilities

Natural gas is received through nine City gate stations from two pipeline transmission companies, Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO). The facilities at each of the City gate stations perform two basic functions, metering the flow of gas and controlling the pressure delivered to PGW's distribution system.

The gas control dispatchers, located at the Richmond plant, monitor and control gas flow and pressure from the nine City gate stations to the high pressure distribution system. The gas control dispatchers also provide direction to the production plant operators concerning startup, shutdown and gas flow output from the supplemental facilities. Operations are facilitated through the use of a computer system which includes a backup unit and an auxiliary power supply.

The LNG storage and vaporization facility at the Passyunk plant receives its liquefied gas supply from the Richmond plant via cryogenic trailer trucks. The Passyunk LNG facility consists of one LNG storage tank of 3,066,000 gallons (i.e. the equivalent of 253,300 thousand cubic feet ("Mcf") of natural gas) and three LNG vaporizers, with a total daily output capacity of 90,000 mcf per day.

The Richmond LNG plant has facilities for liquefaction in addition to storage and vaporization. During the non-heating season, PGW uses the Richmond LNG plant to liquefy and store natural gas from the pipelines. The LNG plant has the capacity to liquefy and store approximately 23,500 Mcf per day and the two storage tanks have a combined capacity of 48,970,000 gallons of LNG (4,045,800 Mcf). Regasification of the liquid is accomplished with six vaporizers having a total output of 450,000 Mcf per day.

The Passyunk LPG plant has the air compression and propane vaporization capacity to produce 60,000 dekatherms ("Dth") of LPG mix per day and has a liquid propane storage capacity of approximately 662,250 gallons. This facility is idle and it is not presently anticipated to be used.

Both the Richmond and Passyunk plants have a low pressure gas holder, however, the Passyunk holder has been removed from service. The Richmond holder has an operating capacity of 1,000 Mcf, and provides operational flexibility.

Distribution Facilities - The principal gas distribution facilities consist of approximately 3,006 miles of main, approximately 500,000 service pipes, 205 regulator stations, 521,000 active meters, miscellaneous valves, instruments and other appurtenances. There are five different operating pressure systems; each system is connected to the others by control regulators. The high pressure systems operate at approximately 110, 60 and 35 pounds per square inch gauge ("psig"); the intermediate pressure system operates at 5 psig; and the low pressure system operates between 6 and 9 inches of water column (approximately .25 psig). The majority of customers are served from the low pressure system.

Approximately 58% of the mains are cast iron pipe, 34% are steel pipe, 5% are ductile iron pipe and 3% are plastic pipe. Approximately 51% of the service laterals are steel and approximately 49% are plastic.

Other Facilities - PGW's executive and operating offices are located at 800 West Montgomery Avenue which is a 150,000 square foot office building which was completed in 1988. The former office building at that site houses a distribution and field service dispatch center, operating stations and warehouse, management information systems, call center, customer service personnel and a metal fabrication shop. Additional facilities include eight district offices and three operating stations for customer service and distribution crews. There are also a warehouse facility and an automotive maintenance and repair facility. The automotive maintenance and repair facility is responsible for the upkeep of PGW's fleet of approximately 1,000 vehicles and equipment. PGW also maintains minor automobile repair facilities at its operating stations.

## THE GAS COMMISSION

The Management Agreement provides for a five member Gas Commission consisting of the City Controller (or his representative), two members appointed by City Council and two members appointed by the Mayor, and vests in the Gas Commission the responsibility for overseeing the operation by PFMC of PGW. The City Controller holds office during his incumbency. The members appointed by the City Council and the Mayor each serve for terms of four years and hold office until their successors are appointed and qualified. There is currently one vacancy on the Gas Commission which will be filled by the Mayor. The four current members of the Gas Commission are listed below:

### **Marian B. Tasco**

Chairwoman - Mrs. Tasco currently represents the Ninth District in Philadelphia City Council. Mrs. Tasco was appointed to the Gas Commission by City Council on August 2, 1992.

### **Jonathan A. Saidel**

Mr. Saidel is the City Controller of the City. Mr. Saidel's current term of office as Controller and his position on the Gas Commission commenced on January 1, 1998.

### **Joan L. Krajewski**

Mrs. Krajewski currently represents the Sixth District in Philadelphia City Council. Mrs. Krajewski was appointed to the Gas Commission by City Council on April 7, 1998.

### **Royal E. Brown**

Mr. Brown was appointed to the Gas Commission by the Mayor on August 8, 1996. Mr. Brown is Senior Director, Treasury Services, Independence Blue Cross.

The Management Agreement grants the Gas Commission certain specified powers and duties and all other powers not specifically granted to PFMC. The powers and duties granted to the Gas Commission include the fixing of PGW rates and charges, approval of personnel provided by PFMC, review of gas supply contracts for approval by City Council, approval of changes in tests and standards of gas quality and pressure, approval of PGW's operating budget, review of PGW's capital budgets and recommendations thereon to City Council, approval of certain loans, access to and review of all books, records and accounts of PGW, prescription of insurance requirements, promulgation of standards for procurement and disposal of material, supplies and services and approval of all real property acquisitions for further approval of City Council. See "PROPOSED LEGISLATION" for a discussion of proposed legislation which could affect the regulation of PGW.

## PGW BUDGET, RATES AND FINANCING

The revenues which PGW uses to pay debt service on its indebtedness and to fund its operations are derived primarily from the sale of gas and related services to its customers. Rate and tariff charges for the sale of gas services are proposed by PGW based on, among other factors, anticipated revenues and expenses, required debt service coverage and need for funds for capital expenditures.

### PGW Budget Process and Rate Changes

The Management Agreement requires PGW to prepare an annual operating budget and an operating forecast for the three years following the budget year. The operating budget and forecast are subject to the approval of the Gas Commission. PGW also prepares annually a proposed capital budget and a forecast for the five years following the budget year. The capital budget and forecast are reviewed by the Director of Finance of the City and the Gas Commission and are forwarded to the City Council for approval.

Whenever a rate change is sought by PGW or other parties, the Gas Commission holds public hearings on the proposed change at which PGW and other interested parties are permitted to present evidence to support their position with respect to the rates. Community Legal Services, Inc. was appointed by the Gas Commission in 1988 to serve as Public Advocate in rate hearings to represent residential customers. The Gas Commission issues orders based upon its findings. These orders may direct PGW to reduce expenses in certain areas or increase spending on certain items or to undertake specific projects. The Gas Commission considers a number of factors before determining whether to accept, modify or reject the rate increases proposed by PGW. The Gas Commission's orders regarding rates may be appealed by PGW and other interested parties to the Court of Common Pleas of Philadelphia County with further right to appeal to the Commonwealth Court.

### Rates and Charges

The rates determined by the Gas Commission to be charged by PGW for providing gas and related services are subject to various statutory provisions. The 1975 General Ordinance, the 1998 General Ordinance and the Management Agreement, the complete text of which was authorized by ordinance, each contain a rate covenant. See APPENDIX C for further descriptions of the 1975 General Ordinance and the 1998 General Ordinance.

The Management Agreement directs the Gas Commission, without further authorization of City Council, to fix rates and charges (other than charges to the City and the Philadelphia Board of Education, which are subject to approval of City Council) which, together with other Project Revenues (as defined in the Management Agreement), will in each fiscal year produce revenues sufficient, at a minimum:

- (a) to pay all the operation and maintenance costs and expenses of PGW, including but not limited to depreciation, employee retirement costs and a management fee to PFMC not exceeding \$750,000 in 1998, to pay debt service (including sinking fund deposits) becoming due in such fiscal year on debt incurred for PGW and to meet applicable rate covenants;
- (b) to make annual payments to the City in the aggregate principal amount of \$18 million dollars;
- (c) to provide appropriations for debt reduction and capital additions not otherwise provided which are determined by the Gas Commission to be reasonable and which are approved by City Council, and
- (d) to provide reasonable additions to working capital as may be determined by PFMC and approved by the Gas Commission

The Management Agreement provides that, for purposes of complying with such rate requirements, the amount of operating expenses which do not represent an actual outflow of funds (e.g., depreciation) may be included in determining whether revenues are sufficient to meet other costs, expenses and requirements.

The Management Agreement also requires the rate schedules to be nondiscriminatory and based on a suitable and reasonable classification of the services provided, taking into consideration the nature and purpose of the use, the quantity used, the time when used, the available supply of gas and other competing fuels, the maximum demand and State and Federal laws, regulations and guidelines. The Gas Commission authorized the Gas Works to grant a 20% discount to persons 65 years of age and over for residential use.

The Philadelphia Home Rule Charter contains provisions which authorize the Department of Public Property of the City, pursuant to standards determined by City Council, to fix rates and impose charges in the amount necessary to yield the City at least an amount equal to PGW's operating expenses and debt service payments (including sinking fund requirements), but only in the event PGW is not managed and operated pursuant to a lease with an entity other than the City. Since PGW currently is, and since January 1, 1973 has been, managed by PFMC pursuant to the Management Agreement, the Department of Public Property of the City currently does not fix rates and impose charges as provided in the Philadelphia Home Rule Charter.

### Capital Improvement Program

The rates proposed by PGW and approved by the Gas Commission also take into account the needs of PGW's capital improvement program (the "Capital Improvement Program") which generally are funded by the sale of revenue bonds, use of capital leases and internally generated funds ("IGF"). Net proceeds of revenue bond sales are placed into restricted segregated accounts for the Capital Improvement Program and are requisitioned for expenditures as required for the Capital Improvement Program or to reimburse PGW for expenditures made in advance of issuance of bonds. For use of the proceeds of the Second Series Bonds, see "PLAN OF FINANCE AND ESTIMATED SOURCES AND USES OF PROCEEDS." PGW determines its capital improvement requirements from projected customer additions, pipeline gas availability, peak day gas requirements, enforced relocation due to highway and bridge construction and the need to maintain its plant and equipment in a safe, adequate and reliable manner. For further discussion of the Capital Improvement Program, - see APPENDIX B - "Independent Consultant's Report."

The following table represents information regarding actual net capital expenditures for each of the five Fiscal Years 1994-1998:

	<u>FISCAL YEAR</u>				
	<u>NET CAPITAL EXPENDITURES</u>				
	<u>(Dollar Amounts in Thousands)</u>				
	<u>(August 31)</u>				
	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Gas Supply	\$ 5,979	\$ 4,585	\$ 126	\$ 858	\$ 978
Distribution	35,398	34,657	31,205	37,719	32,452
Field Services	5,738	11,365	13,159	8,132	12,157
Other	<u>5,452</u>	<u>2,022</u>	<u>619</u>	<u>5,793</u>	<u>24,910</u>
Total	<u>\$ 52,567</u>	<u>\$ 52,629</u>	<u>\$ 45,109</u>	<u>\$ 52,502</u>	<u>\$ 70,497</u>
Internally Generated Funds To Fund Capital Expenditures	<u>\$ 00</u>	<u>\$ 9,600</u>	<u>\$ 24,300</u>	<u>\$ 47,100</u>	<u>\$ 21,483</u>

Net of reimbursements, contributions and salvage.

## **Internally Generated Funds**

PGW provides for a portion of capital costs to be funded through the use of IGF. IGF consists of net revenues after payment of City charges which are available in part because of the level of debt service coverage established by the Gas Commission and achieved by PGW's operations. See "Debt Service Coverage Ratio" below. A decline in net revenues reduces IGF and requires that the shortfall be funded from the issuance of bonds or other indebtedness or the incurrence of capital leases. In Fiscal Years 1994-1998, PGW generated approximately \$102.5 million in IGF or 37% of actual capital expenditures in such five year period.

## **Gas Cost Rate**

PGW's biggest expense item is generally the cost of the natural gas delivered into its distribution system. These costs are recovered on a dollar for dollar basis through the operation of the Gas Cost Rate ("GCR") as authorized by the Gas Commission.

PGW is required to make an annual gas cost recovery filing with quarterly updates to the Gas Commission. Prior to industry restructuring mandated under FERC Order No. 636, the cost of bundled pipeline sales service was reviewed and approved by FERC. Because of reduced review by FERC, local distribution companies face greater accountability and risks related to their purchasing practices for gas supply, transportation and storage. The purchasing practices of PGW are reviewed by the Gas Commission. The Gas Commission establishes procedures for determining appropriate gas purchasing costs and a GCR factor applicable to firm service customers.

The base rate established from time to time by the Commission in its rate proceedings includes a fuel component cost. The GCR is designed to permit PGW, on an annual or quarterly basis, to adjust its gas cost charge to firm sales customers to approximate its actual cost of natural gas. PGW calculates its anticipated annual cost for natural gas and allocates that cost to its customers on a level basis for payment during the fiscal year. GCR collections are then matched against actual costs for the year to date, and the GCR is adjusted annually or quarterly if necessary, to credit or charge customers in the upcoming period for overpayment or underpayment of natural gas costs to date.

For Fiscal Year 1998, the base cost of fuel included in PGW's base rate was \$3.18 per Mcf, and the GCR rate was \$1.4272 per Mcf. The Gas Commission has approved a GCR rate of \$1.0114 per Mcf for applicable gas usage after January 19, 1999 for the remainder of the Fiscal Year 1999. The annual GCR reconciliation amounts (which reflect the difference between the GCR collections and the actual costs of the natural gas delivered into PGW's distribution system) was an undercollection of \$11,001,276 in Fiscal Year 1997, an undercollection of \$3,614,000 in Fiscal Year 1998. These amounts were included by the Gas Commission in establishing the GCR rates for Fiscal Year 1998 and Fiscal Year 1999 respectively.

## **Fiscal Year 1999 Operating Budget and Forecast**

On May 4, 1999, the Gas Commission approved PGW's revised Fiscal Year 1999 Operating Budget which was filed on February 10, 1999, subject to several adjustments, the net effect of which is a reduction by approximately \$500,000. The Gas Commission voted to disapprove the forecast for Fiscal Years 2000 to 2004. Prior to June 1, 1999, PGW will file the Fiscal Year 2000 Operating Budget and an accompanying five year forecast through the year 2005.

## **Fiscal Year 1999 Capital Budget and Forecast**

On May 4, 1999, the Gas Commission gave recommendations to City Council for approval of a PGW Capital Budget for Fiscal Year 1999 in the amount of \$45,598,208. This represents \$5,911,792 in reductions from PGW's proposed Capital Budget Fiscal Year 1999. The Gas Commission recommended that the City Council reject PGW's five year forecast. Prior to June 1, 1999, PGW will file the Fiscal Year 2000 Capital Budget and an accompanying five year forecast through the year 2005.

The Fiscal Year 1999 Capital Budget and Five Year Forecast in the net amounts of \$45,598,208 and \$243,950,000, respectively, provide funds for the customary maintenance, construction and replacement items necessary to continue service to PGW's customers. Over 67% of the expenditures in the Fiscal Year 1999 Capital Budget and approximately 80% of the five year forecast expenditures are for replacement facilities to ensure continuing safe reliable and adequate service. The largest portion over a six year budget horizon is allocated to the Distribution Department and the second largest portion is allocated to the Gas Processing Department. Unlike the Distribution Department budget which recurs in similar amounts annually, the Gas Processing Department budget includes one time expenditures to replace PGW's LNG (liquified natural gas) liquefaction capabilities. The balance of the Capital Budget expenditures are included to provide new and expanded gas service to present and future customers and investment in necessary support facilities. For a discussion of the Fiscal Year 1999 Capital Budget and Forecast, see APPENDIX B - "Independent Consultant's Report - Capital Improvement Program."

### **Fiscal Year 1998 Operating Budget**

On June 17, 1997, PGW filed its 1998 Operating Budget (the "1998 Operating Budget") with the Gas Commission. This budget was prepared on base rate levels then in effect as approved by the Gas Commission on December 19, 1991. The filing did not present a request for an increase in base rates. On July 9, 1997, PGW filed revisions to the Operating Budget impacted by revisions of the Gas Cost Rate previously filed on June 30, 1997. On September 19, 1997, PGW filed further revisions to its Operating Budget based on a revised GCR for Fiscal Year 1998. PGW filed the last revision to its Fiscal Year 1998 Operating Budget on October 3, 1997, which included an updated financing plan which proposed a \$75.0 million revenue bond issue. On October 29, 1997, the Gas Commission approved the 1998 Operating Budget.

## **YEAR 2000 ISSUES**

### **General**

Year 2000 Computer Issues ("Year 2000 Issues") relate to the potential problems with computer systems or any equipment with computer chips that use dates where the data has been stored as just two digits (e.g. "97" for 1997). On January 1, 2000, any clock or date recording mechanism including date sensitive software which only uses two digits to represent the year, may recognize a date using "00" as the year 1900 rather than the year "2000". This could result in a system failure or miscalculations, causing disruption of operations, including, among other things, a temporary inability to process transactions such as metering, distribution of natural gas, accounting matters, mailing invoices or similar functions.

### **PGW's Year 2000 Compliance**

The Gas Works' operating and capital plans contain provisions for compliance with year 2000 ("Year 2000") readiness requirements for PGW's major applications. Commencing in 1997, the Gas Works entered into three initiatives consisting of a full review, evaluation and eventual remediation of potential Year 2000 problems in its computer network systems (software and hardware) and other embedded programs at its main offices, and all plant and other company locations. Additionally, certification is being requested from significant vendors as to their compliance with Year 2000 readiness requirements. PGW has identified as its most vulnerable areas the SCADA system, which is used to measure, supervise and control the flow of gas from the transmission lines, and the computer legacy system. PGW is in the process of replacing both of these systems with Year 2000 compliant components. It is anticipated that this process will be fully implemented by December 31, 1999. If necessary modifications and conversions by PGW and those with which it conducts business are not completed timely, the Year 2000 issue may have a material adverse effect on PGW's operations.

## SUMMARY OF STATEMENTS OF INCOME

Information for the Fiscal Years ended August 31, 1998 and 1997 should be read in conjunction with and was derived from the audited financial statements and notes in APPENDIX A hereto. The financial information presented below for the six months ended February 28, 1999 and 1998, were derived from unaudited financial statements and were prepared by the management of PGW on the same basis as the audited financial statements included elsewhere herein. In the opinion of management, the financial information includes all adjustments (consisting of normal recurring adjustments) necessary to present fairly the information set forth therein.

	(DOLLAR AMOUNTS IN THOUSANDS)					Six Months Ended	
	Fiscal Years Ended August 31					February 28 (1)	
	1994	1995	1996	1997	1998	1998	1999
<b>Operating Revenues</b>	\$ 573,919	\$ 478,950	\$ 576,048	\$ 550,970	\$497,695	\$316,410	\$304,614
<b>Operating Expenses</b>							
Natural Gas & Raw Material	274,103	213,645	276,856	271,631	\$246,699	\$167,622	\$150,764
Gas Processing	21,822	18,645	14,846	14,238	13,582	7,533	7,589
Field Services	23,036	17,448	18,492	18,883	16,032	10,853	10,051
Distribution	25,003	19,561	22,817	20,454	16,500	9,764	7,944
Customer Activities	76,821	78,593	73,029	69,722	71,593	35,430	31,608
Administrative & General	36,793	44,593	44,997	45,200	42,268	31,284	33,534
Pensions	12,712	4,462	7,337	4,591	3,334	1,667	391
Taxes other than income	11,615	5,999	6,532	6,517	6,235	3,289	3,174
Depreciation	23,776	24,277	33,769	31,848	35,391	17,696	15,373
<b>Total Operating Expenses</b>	<u>\$ 505,681</u>	<u>\$ 427,223</u>	<u>\$ 498,675</u>	<u>\$ 483,084</u>	<u>\$451,634</u>	<u>\$285,138</u>	<u>\$260,428</u>
<b>Operating Income (Loss)</b>	<u>\$ 68,238</u>	<u>\$ 51,727</u>	<u>\$ 77,373</u>	<u>\$ 67,886</u>	<u>\$ 46,061</u>	<u>\$31,272</u>	<u>\$44,186</u>
Interest and Other Income	6,989	29,293	7,668	7,514	5,370	1,689	3,443
Income before interest expense	\$ 75,227	\$ 81,020	\$ 85,041	\$ 75,400	\$ 51,431	\$32,961	\$47,629
Interest Expense	55,516	55,746	53,736	51,429	50,456	25,843	27,205
<b>Net Income (Loss) (2)</b>	<u>\$ 19,711</u>	<u>\$ 25,274</u>	<u>\$ 31,305</u>	<u>\$ 23,971</u>	<u>\$ 975</u>	<u>\$7,118</u>	<u>\$20,424</u>

<sup>1</sup> Provided by PGW Management. Interim results are not necessarily indicative of year-end results as certain revenues and expenses are seasonal.

<sup>2</sup> Net Income is before payment of the \$18,000,000 Base Payment portion of City Charges.

### Debt Service Coverage Ratio

The annual operating budget approved by the Gas Commission estimates the level of revenues required to reach at least the minimum debt service coverage ("DSC") ratio mandated by the 1975 General Ordinance

and the 1998 General Ordinance. The following table presents historical revenue and debt service coverage calculated under the 1975 General Ordinance.

### HISTORICAL REVENUES AND DEBT SERVICE COVERAGE

	1994	1995	1996	1997	1998
Operating Revenues	\$573,919	\$478,950	\$576,048	\$550,970	\$497,695
Interest and Other Income	6,989	29,293	7,668	7,514	5,370
AFUDC (Interest)	731	301	173	45	431
<b>Total Revenues</b>	<b>\$581,639</b>	<b>\$508,544</b>	<b>\$583,889</b>	<b>\$558,529</b>	<b>\$503,496</b>
Adjustments	(1,606)	1,128	(1,061)	(1,045)	273
<b>Project Revenues</b>	<b>\$580,033</b>	<b>\$509,672</b>	<b>\$582,828</b>	<b>\$557,484</b>	<b>\$503,769</b>
Operating Expenses	505,681	427,223	496,675	483,084	451,634
Less					
Depreciation	27,913	28,755	39,062	36,652	41,019
Other Adjustments	(1,502)	728	1,277	875	736
<b>Net Operating Expenses</b>	<b>\$479,270</b>	<b>\$397,740</b>	<b>\$458,336</b>	<b>\$445,557</b>	<b>\$409,879</b>
<b>Net Revenues</b>	<b>\$100,763</b>	<b>\$111,932</b>	<b>\$124,492</b>	<b>\$111,927</b>	<b>\$93,890</b>
Debt Service Requirements					
Revenue Bonds	67,140	74,518	74,518	74,523	61,923
PMA/ Capital Leasing	-	2,243	4,249	6,193	8,213
Commercial Paper Notes	1,775	2,641	2,103	1,230	2,775
<b>Total Debt Service</b>	<b>\$68,915</b>	<b>\$79,402</b>	<b>\$80,870</b>	<b>\$81,946</b>	<b>\$72,911</b>
<b>Net Project Revenues</b>	<b>\$31,848</b>	<b>\$32,530</b>	<b>\$43,622</b>	<b>\$29,981</b>	<b>\$20,979</b>
Available for other purposes					
<b>Debt Service Coverage</b>	<b>1.50</b>	<b>1.50</b>	<b>1.67</b>	<b>1.50</b>	<b>1.52</b>
Revenue Bonds					

### Management's Discussion and Analysis of Results of Operations and Financial Condition

#### Result of Operations Fiscal Year 1998 Compared with Fiscal Year 1997

Operating Revenues - Operating Revenues were \$497.7 million in 1998, a \$53.3 million or 10% decline from the 1997 level. This reduction was principally due to the significantly warmer weather experienced in 1998 compared to the relatively normal conditions experienced in 1997. Degree days during the 1998 heating season totaled 3,996, a decline of 626 degree days or nearly 14% from the 4,622 experienced in the 1997 heating season. Total sales volumes in 1998 declined by .6 Bcf or 1% from 1997 levels. However, firm sales declined in all categories including residential, commercial and industrial. Firm gas sales were down 6.6 Bcf or 9% compared to the prior year. Transportation sales in 1998 rose by 6.0 Bcf from the level experienced in 1997.

Cost of Fuel - The cost of natural gas utilized decreased by \$24.9 million or 9% to \$246.7 million in 1998 compared with \$271.6 million in 1997. The volumes of gas utilized declined by 10% due mainly to the warmer weather experienced which reduced overall sendout requirements. This decrease was offset somewhat by a slight rise in the unit cost of PGW's gas supply. Variations in the cost of purchased gas are passed through to customers under the Gas Cost Rate ("GCR") provision of PGW's rate schedules. Over recoveries or under recoveries of purchased gas costs are subtracted from or added to gas recoveries and are included in current assets or liabilities, thereby eliminating the effect that recovery of gas costs would otherwise have on net income.

Other Operating Expenses - Total operating and maintenance costs in 1998 decreased by \$10.1 million or 6% from the 1997 level. A reduction in costs associated with street operations and infrastructure improvements was offset, in part, by higher expenses in marketing, administrative and other categories, including bad debt expense which rose by \$.7 million or 2%.

Bad debt expense in 1998 totaling \$34.1 million was 2% higher than the 1997 level based on the most recent accounts receivable collectibility evaluation. As a result of the continuation of successful collection programs and reduced billings associated with the warmer weather, the accumulated provision for uncollectible accounts as of August 31, 1998 reflects a balance of \$64.7 million, compared to the \$77.1 million balance in 1997.

Depreciation expense increased \$3.5 million in 1998 compared with 1997 mainly as a result of the inclusion of cost of removal directly against the depreciation expense. In fiscal year 1997, cost of removal was charged against the reserve when incurred. In both the 1998 and the 1997 Fiscal Years, the composite rate was 3.2% based on a depreciation study completed in 1997.

Interest Expense - Total interest expense decreased by \$1.0 million in 1998 compared with 1997 due primarily to scheduled maturities of long-term debt and a refunding issue. These decreases were offset somewhat by higher interest costs on PGW's Tax Exempt Commercial Paper program primarily resulting from a higher average outstanding balance and higher rates.

Net Income - Net income before distribution to the City for 1998 was \$1.0 million, compared with \$24.0 million in 1997. This reduction resulted principally from decreased margins due to the substantially warmer weather in 1998 compared to the previous year.

Ratios and Coverages - PGW's bond debt capitalization ratio was 76% in 1998, compared to the 72% in 1997. PGW has a mandatory debt service coverage ratio of 1.50 times on bonds issued under the 1975 General Ordinance. In Fiscal Year 1998, the debt service coverage was 1.52 times bond debt service for such bonds compared to a debt service coverage of 1.50 times bond debt service in 1997.

Long-Term Debt - During Fiscal Year 1998, PGW issued \$287.2 million in revenue bonds, of which \$103.6 million was issued to fund capital improvements and \$183.6 million was issued to refund certain maturities of PGW's outstanding bonds. Total long-term debt outstanding including the current portion was \$818.3 million at the end of Fiscal Year 1998, compared with the \$728.1 million in Fiscal Year 1997.

Short-Term Debt - Due to the highly seasonal nature of PGW's business, short-term debt is used to meet working capital requirements. PGW, pursuant to the provisions of certain Ordinances and Resolutions of the City, may sell short-term notes in a principal amount which, together with interest, currently may not exceed \$100,000,000 outstanding at any one time. These notes are intended to provide additional working capital and are supported by an irrevocable letter of credit and a security interest in PGW's revenues. The notes outstanding at August 31, 1998 had an average weighted interest rate of approximately 3.55% and an average term to maturity of 38 days. The principal amounts outstanding at August 31, 1998 and 1997 were \$56.0 million and \$30.0 million, respectively.

Capital Expenditures - Capital expenditures for construction of distribution facilities, purchase of equipment, information technology enhancements and other general improvements were \$70.5 million in 1998 compared to \$52.5 million in 1997. During 1998, PGW funded \$21.5 million or 30% of its capital expenditures through internally generated funds, compared to \$47.1 million or 90% in 1997.

#### Results of Operations and Financial Condition - Fiscal Year 1999

Fiscal Year 1999, for the second consecutive year, has been one of the warmest in the City's history. Based on six months of actual results (September 1998 through February 1999), actual weather conditions at March and April 1999 and projections based upon other current information, PGW currently estimates that the number of degree days for Fiscal Year 1999 will be approximately 3,925, which is 675 fewer degree days or 15% less than the normal budget. This 15% decline has affected PGW's sales. Management projects a decrease in firm sales, compared to budgeted amounts, of nearly 6.8 Bcf, a decline of 11.1%. Firm sales, which principally comprise the heating load, tend to be directly affected by the changes in the weather. Residential, commercial and industrial categories of firm sales are projected to fall 9.7%, 14.7% and 20.4%, respectively. Sales to interruptible customers are forecasted to decline 9%, to 8.7 Bcf due to the price advantage of competing alternate fuel supplies which

lowered customer usage. Transportation service volumes are expected to be down .6 Bcf or 4% from budgeted volume.

The aforementioned decline in sales and transportation service has a substantial effect on income currently projected to be received in Fiscal Year 1999 as compared to budgeted income. Total gas revenues are estimated to decline from the budgeted level of \$541.9 million to approximately \$466.5 million, a decrease of \$75.4 million (13.9%). In order to offset that decline and ultimately meet the rate covenants under the 1975 and 1998 General Ordinances, PGW initiated a series of expense reductions, as budgeted, and other initiatives. Total reductions and savings from initiatives are projected to be approximately \$18.5 million. At April 1, 1999, nearly \$15.0 million of such reductions had been realized. The remaining \$3.5 million of reductions and initiatives are anticipated to be realized by August 31, 1999. The reductions and expense initiatives consist of (1) a decrease in the reserve for bad debt (savings of \$3.5 million); (2) a decrease in labor costs for overtime associated with normal winter and routine operations, personnel reductions achieved through a hiring freeze and the capitalization of applicable labor costs to capital projects (savings of \$5.0 million); (3) restricted operating and maintenance spending (savings of \$4.3 million); and (4) reduction in pension actuarial expense as a result of the overfunded status of PGW's pension fund (\$5.1 million). In addition, other income, primarily earnings on restricted funds, is expected to produce \$6 million in interest income and the refunding of certain outstanding Gas Works revenue bonds is expected to result in \$2.1 million in debt service savings.

Since October 1998 there has been significant turnover in senior management. These management positions have been filled either on a temporary or permanent basis, except for the Chief Financial Officer whose functions are otherwise allocated. There is a present investigation by the District Attorney's Office into PGW management issues. Additionally, there is a ratepayer lawsuit that has been filed alleging improper expenses by certain senior managers. PGW does not believe that the amounts at issue are material, or that the investigation or the lawsuit will ultimately have a material impact on PGW's financial condition.

PGW fully expects to meet the rate covenants under the 1975 and 1998 General Ordinances for Fiscal Year 1999 as a result of these implemented expenditure reductions and other initiatives. Furthermore, PGW will be realizing approximately \$4,000,000 in additional revenue in Fiscal Year 1999 due to the recent interim approval by the Philadelphia Gas Commission of a doubling (to \$8 per month) of the customer charge for residential customers, which interim increase is effective June 1, 1999 through May 31, 2000.

### Gas Commission

On April 27, 1999, PGW received interim approval (final approval must be obtained by May 2000) from the Philadelphia Gas Commission to adjust the two components of its general gas rate to approximately 494,000 residential customers. The charge on the volume of gas used has been reduced while the monthly fixed customer charge has been increased.

The \$3.94 per Mcf of natural gas that is charged to residential customers has been reduced by \$.51 to \$3.43 per Mcf and the \$4.00 per month fixed charge has been increased by \$4.00 to \$8.00. During a normal winter, when heating bills are their highest, this change will result in lower gas costs. In the summer months, when heating costs are at their lowest, the customer would have a \$4.00 increase in his or her gas charge. Over an entire year, in a normal winter, the customer will pay the same under the new rate structure as under the old rate structure. However, in a colder than normal winter, gas costs will be lowered because customers are paying less on the amount of gas used to heat their homes.

The change in the two rate components will increase cash flow during the warm months, and reduce the magnitude of the winter increase in gas bills which results in slow payments and delinquencies. The net result of this change will be an increase in PGW revenue of approximately \$4,000,000 in Fiscal Year 1999.

The Gas Works' monthly charge of \$4.00 had been the lowest of area gas utilities, while \$8.00 per month is approximately average for the cost of surrounding utilities.

Further, to better manage financial risks associated with weather, PGW has proposed weather insurance. For this purchase, \$3,000,000 is included in the Fiscal Year 2000 operating budget, which is subject to approval by the Gas Commission.

## GAS SUPPLY AND REGULATION

In 1992, the Federal Energy Regulatory Commission ("FERC") issued Order 636 which restructured the interstate pipeline industry to provide non-discriminatory, open-access to all transporters. All interstate pipelines regulated by the FERC were required to exit the gas supply business as a result of Order 636. The interstate pipelines were historically permitted by the FERC to pass through, on a dollar-for-dollar basis, all of their gas supply costs to the pipelines' customers. Therefore, the revenues of the pipelines pledged to their bonds remained unchanged by Order 636 simply because of the historical pass-through nature of the pipelines' gas supply costs.

In the restructured, unbundled marketplace resulting from Order 636, PGW had to contract individually for its gas supply, storage and transportation requirements on the pipelines. PGW now has in place firm contracts for natural gas supply with seven producers, marketers and aggregators, for all of its firm requirements. Further, it has contracted for natural gas storage services with five different pipeline affiliates' operating storage facilities. This permits the injection of summer supply and its storage and subsequent withdrawal to meet higher winter demands of its firm heating customers. Finally, it has contracted for firm transportation service with the two directly connected pipelines, as well as with the necessary upstream pipelines feeding these pipelines, to deliver all volumes purchased, together with those volumes withdrawn from storage.

The two interstate pipelines delivering natural gas to PGW have limited delivery capacity and cannot meet PGW's peak-day or winter season requirements. Therefore, PGW owns and operates supplemental LNG and Propane-air facilities to meet incremental demand in excess of flowing gas and underground storage supplies. PGW's supplies of natural gas and LNG are adequate to meet its projected demand under either normal or design (colder than normal) conditions in the future. The use of the propane-air facility, however, is not anticipated under current requirements and it is therefore, at present, temporarily maintained in an inactive mode of operation.

### Competition

PGW competes to supply natural gas to interruptible customers who are capable of switching to alternative fuels, including fuel oil, propane and electricity. PGW also competes to supply natural gas to transportation customers who might seek to buy gas from any supplier and use PGW's distribution system for transportation of that gas. PGW has negotiated contracts with such customers. In addition, PGW's rate schedules offer gas transportation service, firm and interruptible, to potential customers. PGW also has Boiler and Power Plant Services (BPS) and Load Balancing Service (LBS) sales rates that permit discounts to compete with alternative fuels, provided that the rate per Mcf is not less than 110% of the avoided gas costs for gas sold under these rate schedules. If proposed legislation of customer choice becomes law in the Commonwealth of Pennsylvania, and if it applies to PGW, then all other classes of PGW's customer base will be subject to competitive threat. PGW is aggressively implementing improved customer service initiatives, cost reductions, efficiency improvement programs, and pricing options to improve its ability to compete.

### Natural Gas

Natural gas expense for the 1994 Fiscal Year increased by \$29.7 million or 12% from the previous year to a total of \$272.9 million. This was the result of greater sendout requirements reflecting the colder winter heating season and higher pipeline supplier prices. In addition, a decline in the level of natural gas refunds received from pipeline suppliers further contributed to the added expense.

In Fiscal Year 1995, natural gas costs declined by \$59.4 million or 22% from the prior year's level to a total of \$213.5 million. The substantially warmer winter heating season was principally responsible for reduced sendout requirements combined with lower pipeline supplier prices. Natural gas refunds received from pipeline suppliers were higher than the previous period further reducing natural gas expenses.

Natural gas expenses for Fiscal Year 1996 increased by \$63.1 million or nearly 30% over the previous year's level, to a total of \$276.6 million. A 23% rise in degree days compared to the previous year resulted in greater sendout requirements during the winter heating season, while higher prices from pipeline suppliers added to the natural gas cost. A decline in refunds received from pipeline suppliers further contributed to the additional costs in Fiscal Year 1996.

In Fiscal Year 1997, natural gas expenses decreased by \$4.9 million or 2% from the prior year to a level of \$271.7 million. Sendout requirements were substantially less reflecting a relatively normal winter period compared to Fiscal Year 1996 and refunds received from pipeline suppliers were slightly higher. These reductions were offset, in part, by higher pipeline supplier prices.

In Fiscal Year 1998, natural gas expenses decreased by \$24.9 million or 9% from the prior year to a level of \$246.7 million. Sendout requirements were substantially less because of a warmer than normal winter period compared to Fiscal Year 1997 and refunds from pipeline suppliers were approximately \$3 million lower.

#### **Status of Richmond LNG Plant Air Pollution Permitting Process**

The "Air Pollution Permitting Process" requires that a plan (the "Plan"), describing PGW's strategy for compliance, be submitted for approval. After approval of the Plan, an application has to be submitted with procedures and timetables for implementing the items in the approved Plan such as construction, start-up and testing.

The Plan was submitted on time and is awaiting final action by Philadelphia Air Management Services Department ("Air Management"). A public hearing was held with no adverse modifications to PGW's Plan. The Plan was accepted by Air Management and is pending final approval by the United States Environmental Protection Agency.

#### **Five Year Summary of Gas Sales**

Total gas sales for PGW are comprised of sales to firm and interruptible customers. Firm customers receive gas service under various schedules which anticipate no interruptions in the delivery of natural gas. Firm service is sold to residential, commercial and industrial customers depending on the type of service required and represented 84.5% of total gas sales by volume in Fiscal Year 1998. Interruptible sales service is offered to customers under schedules or contracts which anticipate and permit interruptions on short notice, generally in peak-load periods. Interruptible service is sold to high volume commercial and industrial customers and represented 15.5% of total gas sales in Fiscal Year 1998. (See "OPERATING DATA" below for a five year summary of gas sales).

Gas sales in Fiscal Year 1994 totaled 74.9 Bcf, a decrease of 0.5 Bcf from the prior year. Temperatures during the Fiscal Year 1994 heating season were colder than normal resulting in 4,998 degree days, an increase of 398 degree days from normal and 267 degree days or 5.6% more than experienced in the previous fiscal year. Sales to firm customers of 65.3 Bcf were 2.3 Bcf higher than the previous year. Associated interruptible revenues decreased by 22% to \$36.3 million as competition from lower fuel oil prices lowered demand for gas.

Gas sales for Fiscal Year 1995 totaled 67.8 Bcf, a decrease of 7.1 Bcf from the prior year. Temperatures during the Fiscal Year 1995 heating season were warmer than normal resulting in 4,200 degree days, an decrease of 400 degree days from normal and 798 degree days or 16% less than experienced in the previous fiscal year. Sales to firm customers of 56.2 Bcf were 9.1 Bcf lower than the previous year. Associated interruptible revenues increased by 12% to \$40.5 million as competition from lower fuel oil prices lowered demand for gas.

Gas sales in Fiscal Year 1996 totaled 75.8 Bcf, an increase of 8.0 Bcf from the prior year. Temperatures during the Fiscal Year 1996 heating season were colder than normal resulting in 5,169 degree days, an increase of 569 degree days from normal and 969 degree days or 23% more than experienced in the previous fiscal year. Sales to firm customers of 65.4 Bcf were 9.2 Bcf higher than the previous year. Associated interruptible revenues increased by 7% to \$43.3 million.

Gas sales in Fiscal Year 1997 totaled 69.9 Bcf, a decrease of 5.9 Bcf from the prior year. Temperatures during the Fiscal Year 1997 heating season were slightly colder than normal resulting in 4,622 degree days, an increase of 22 degree days from normal and 547 degree days or 11% less than experienced in the previous fiscal year. Sales to firm customers of 59.8 Bcf were 5.6 Bcf lower than the previous year. Associated interruptible revenues increased by 2% to \$44.2 million.

Gas sales in Fiscal Year 1998 totaled 63.4 Bcf, a decrease of 6.3 Bcf from the prior year. Temperatures during the Fiscal Year 1998 were warmer than normal resulting in 3,996 degree days, a decrease of 604 degree days from normal and 626 degree days or 13% less than experienced in the previous fiscal year. Sales to firm customers of 53.6 Bcf were 6.1 Bcf lower than the previous year. Associated interruptible revenues decreased by 14% to \$38.6 million.

#### **Accounts Receivable**

Gas accounts receivable as of February 28, 1999 were \$24 million less than the balance for the previous twelve months. This 13% decline is due primarily to a weather related reduction in revenues. Delinquent gas accounts receivable as of February 28, 1999 were \$25 million less than the balance for the comparable period. This 20% decline is due in part to an increase in customer accounts written off, a weather related reduction in revenues and improved collections.

**ACCOUNTS RECEIVABLE, RESERVE FOR BAD DEBT, WRITE-OFF  
EXPENSES, DELINQUENT CUSTOMERS AND REVENUE STATISTICS**

(Dollars in Thousands)

Fiscal Years Ended August 31,

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
Billed Gas Revenues					
During the Year	\$554,212	\$477,601	\$539,119	\$548,455	\$497,985
Accounts Receivable at					
August 31,	171,730	140,002	143,303	132,560	110,790
Reserve For Bad Debt	73,772	79,195	83,214	77,100	64,724
Net Accounts Receivable					
at August 31,	97,958	60,807	60,089	55,460	46,066
Reserve For Bad Debt as					
a Percentage of Accounts					
Receivable	43.0%	56.6%	58.1%	58.2%	58.4%
Net Write-Offs during the Year	\$23,927	\$37,518	\$33,975	\$39,149	\$45,973
Receivable as a Percentage					
of Billed Gas Revenues	31.0%	29.3%	26.6%	24.2%	22.2%
Delinquent Customers					
(Annual Average)	143,613	112,712	119,806	120,901	117,394
Delinquent Customers at					
August 31,	121,317	114,179	115,618	118,925	107,750

**AGING ANALYSIS OF GAS ACCOUNTS RECEIVABLE**

(Dollar Amounts in Thousands)

As of February 28, 1999

<u>Customer</u> <u>Classifications</u>	<u>Current*</u>	<u>30 Days</u>	<u>60 Days</u>	<u>90 Days</u> <u>&amp; Over</u>	<u>Total</u>	<u>Delinquent</u> <u>Accounts</u>
Residential & Small Commercial	\$ 46,947	\$ 32,164	\$ 12,060	\$ 48,488	\$ 139,659	142,975
Industrial & Large Commercial	8,561	3,254	1,173	1,317	14,305	1,102
Final Billings (a)	<u>636</u>	<u>699</u>	<u>371</u>	<u>8,026</u>	<u>9,732</u>	<u>19,256</u>
Total (b)	\$ 56,144	\$36,117	\$ 13,604	\$57,831	\$ 163,696	163,333

As of February 28, 1998

<u>Customer</u> <u>Classifications</u>	<u>Current*</u>	<u>30 Days</u>	<u>60 Days</u>	<u>90 Day</u> <u>&amp; Over</u>	<u>Total</u>	<u>Delinquent</u> <u>Accounts</u>
Residential & Small Commercial	\$ 41,212	\$ 24,164	\$ 16,889	\$48,639	\$ 130,904	125,108
Industrial & Large Commercial	9,555	3,599	1,087	961	15,202	669
Final Billings (a)	<u>606</u>	<u>814</u>	<u>827</u>	<u>12,522</u>	<u>14,819</u>	<u>18,045</u>
Total (b)	\$ 51,373	\$ 28,577	\$18,803	\$62,172	\$ 160,925	143,822

(a) Gas service on these accounts has been terminated. These accounts include both voluntary and involuntary terminations.

(b) This amount represents Gas Accounts Receivable and does not include other miscellaneous Accounts Receivable which would be included in the Accounts Receivable figures on the preceding chart.

\* Current includes all amounts under repayment agreements regardless of age.

**SELECTED OPERATING DATA**

The following data are based upon the records of PGW. For further information, see "APPENDIX A - Financial Statements of PGW for Fiscal Years Ended August 31, 1998 and 1997."

**SELECTED OPERATING DATA**  
**(Dollars in Thousands)**

	<b><u>FISCAL YEARS ENDED AUGUST 31,</u></b>				
	<b><u>1994</u></b>	<b><u>1995</u></b>	<b><u>1996</u></b>	<b><u>1997</u></b>	<b><u>1998</u></b>
Degree Days	4,998	4,200	5,169	4,622	3,996
% of normal (4 600) degree days	109%	91%	112%	100%	87%
Maximum 24-Hour Sendout (Mcf)	752,707	641,343	620,873	661,715	464,464
Peak-day Avg. Temperature (Degrees)	2	16	11	12	28
<b>Gas Revenues &amp; Sales By Customer Classification</b>					
Gas Operating Revenues					
Residential					
Heating	\$378,815	\$312,886	\$360,820	\$367,113	\$333,557
Non-Heating	25,747	22,806	21,754	22,112	20,944
Industrial and Commercial					
Firm	88,887	78,132	88,320	90,047	82,126
Interruptible	36,253	40,502	43,266	44,247	38,034
Gas Transportation	380	1,307	1,108	1,441	2,258
Other gas revenues (Municipal, Phila. Housing Authority ("PHA") Unbilled revenues, and the GCR Adjustment	31,819	17,347	53,592	18,822	11,849
<b>Total Gas Revenues</b>	<b>\$561,901</b>	<b>\$472,980</b>	<b>\$568,860</b>	<b>\$543,782</b>	<b>\$488,768</b>
Other Operating Revenues	12,018	5,970	7,188	7,188	8,927
<b>Total Operating Revenues</b>	<b>\$573,919</b>	<b>\$478,950</b>	<b>\$576,048</b>	<b>\$550,970</b>	<b>\$497,695</b>
Other Income	6,989	29,293	7,668	7,514	5,370
<b>Total Revenues and Other Income</b>	<b>\$580,908</b>	<b>\$508,243</b>	<b>\$583,716</b>	<b>\$558,484</b>	<b>\$503,065</b>

**SELECTED OPERATING DATA (Cont'd.)**  
**(Dollars in Thousands)**

	FISCAL YEARS ENDED AUGUST 31,				
	1994	1995	1996	1997	1998
<b>Summary of Customers At End of Period</b>					
Residential	493,606	492,601	480,614	486,716	487,876
Industrial and Commercial					
Firm	23,930	24,066	23,909	24,165	23,961
Interruptible	413	423	441	454	450
Municipal and PHA	2	2	2	2	2
<b>Total Customers</b>	<b>517,951</b>	<b>517,092</b>	<b>514,966</b>	<b>511,337</b>	<b>512,289</b>
<b>Gas Sales By Classification (Mmcf)</b>					
Residential					
Heating	48,355	41,240	48,917	44,556	39,505
Non-Heating	2,833	2,506	2,413	2,253	2,116
Industrial and Commercial					
Firm	10,976	9,609	10,977	10,190	9,254
Interruptible	9,519	11,563	10,153	9,816	9,629
Other	3,177	2,891	3,365	3,066	2,776
<b>Total Gas Sales &amp; Transport</b>	<b>74,860</b>	<b>67,809</b>	<b>75,825</b>	<b>69,881</b>	<b>63,280</b>
<b>Supply &amp; Disposition Of Gas (Mmcf)</b>					
Natural Gas Purchased	81,294	69,871	77,882	74,069	64,159
Liquefied Petroleum	134	0	0	0	0
Liquefied Natural Gas	4,230	2,282	4,287	4,062	4,277
<b>Total Gas Supply</b>	<b>85,658</b>	<b>72,253</b>	<b>82,169</b>	<b>78,131</b>	<b>68,436</b>
<b>Deduct:</b>					
Additions to (Withdrawals) from					
Gas Storage	3,337	(1,128)	(899)	394	(722)
PGW's Use and Other	7,461	5,572	7,243	7,856	5,878
<b>Total Gas Sales</b>	<b>74,860</b>	<b>67,809</b>	<b>75,825</b>	<b>69,881</b>	<b>63,280</b>
<b>Average Monthly Usage of Residential Customers (Mcf):</b>					
Heating	9.8	8.3	9.8	9.0	6.7
Non-Heating	2.9	2.7	2.7	2.6	2.5
<b>Average Monthly Bill Of Residential Customers:</b>					
Heating	\$76.60	\$63.00	\$72.42	\$74.33	\$78.36
Non-Heating	\$26.28	\$24.12	\$24.10	\$25.50	\$25.37

**Risk Management**

PGW has begun the process of implementing a risk management program. Draft policy and procedures have been developed, information systems are being installed, and in-house training has been completed. PGW plans to conduct a simulation program and thereafter finalize its risk management policy and procedures.

**Insurance**

PGW is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. PGW is principally insured through insurance carriers. PGW's property is insured against the risk of loss or damage without aggregate limits, in the amount of \$250,000,000 per occurrence with a \$100,000 deductible subject, however, to an annual aggregate limit of \$100,000,000 for earthquake and an annual aggregate limit of \$50,000,000 for flood, generally, and to lower flood limits as to the Richmond Plant. A deductible of \$100,000 applies to specific storage tanks at the Passyunk Plant. In addition, PGW maintains boiler and machinery, blanket crime, and other forms of property insurance. With respect to incidents arising between October 1, 1986 and August 31, 1991 and between September 1, 1994, and August 31, 1996, PGW maintained policies of liability insurance insuring against the risk of damage or injury to the public for \$25,000,000 in excess of \$500,000 for any one incident, generally without aggregate limits. Effective September 1, 1996 PGW increased its policies of liability insurance against risk of damage or injury to the public to \$35,000,000. Effective September 1, 1991 through August 31, 1994, the liability insurance retention level was increased from \$500,000 to \$2,000,000 for any one incident. Where PGW and PFMC have potential liability, PGW will defend against the actions and make settlements on behalf of PGW and PFMC with respect to losses incurred

by PFMC and PGW up to \$500,000. PFMC and PGW are insured under the same liability policy insuring against risk of damage or injury to the public. PGW also maintains \$35,000,000 of workers' compensation insurance in excess of \$500,000 per incident for on-duty injuries to employees. During the last three fiscal years, no claim settlements have exceeded the level of insurance coverage. None of PGW's losses have been settled with the purchase of annuity contracts.

## LITIGATION

In the normal course of their business operations, PGW and/or PFMC are from time to time sued or threatened with litigation. Most frequently such litigation alleges property damage or personal injury to third parties. However, other forms of litigation also arise from time to time. PGW is aware of no litigation pending or threatened which alone or in the aggregate would have a material adverse effect on PGW's operations or financial condition. PGW believes it has set aside sufficient reserves to meet liabilities arising out of litigation to the extent not covered by insurance.

## UNDERWRITING

Pursuant to a Purchase Contract, the Underwriters have jointly and severally agreed, subject to certain terms and conditions, to purchase the Bonds from the City for a purchase price of \$172,479,946.69, which is equal to the par amount of \$176,280,000, less the underwriters' discount of \$1,231,357.66 and net original issue discount of \$2,568,695.65, plus accrued interest. The Underwriters' obligations pursuant to the Purchase Contract are subject to certain conditions precedent. The Underwriters are obligated to purchase all of the Bonds, if any are purchased.

Prudential Securities has entered into an agreement with RRZ Public Markets, Inc. ("RRZ") pursuant to which Prudential Securities will act as underwriter and distribution agent for RRZ in connection with the Bonds.

## RATINGS

It is expected that Moody's Investors Service, Inc., Standard and Poor's Ratings Services and Fitch IBCA, Inc. will assign ratings of "Aaa", "AAA" and "AAA", respectively, to both the Sixteenth Series Bonds and the Second Series Bonds subject to their issuance, based upon the issuance of the Policies. Any explanation of these ratings may only be obtained from the rating agencies. A credit rating is not a recommendation to buy, sell or hold securities. No assurance is given that such ratings will be maintained for any given period of time or that they may not be lowered or withdrawn entirely by the rating agencies if, in their judgment, circumstances so warrant. Any such downward change in or withdrawal of any of such ratings may have an adverse effect on the market price of the Bonds.

## TAX MATTERS

### Federal Tax Exemption

In the opinion of Co-Bond Counsel, under existing law, interest on the Bonds is excluded from gross income for federal income tax purposes. The opinion set forth in the preceding sentence is subject to the condition that the City comply with all requirements of the Internal Revenue Code of 1986, as amended (the "Code"), that must be satisfied subsequent to the issuance of the Bonds in order that interest thereon be (or continue to be) excluded from gross income for federal income tax purposes. Failure to comply with certain of such requirements could cause the interest on the Bonds to be so included in gross income retroactive to the date of issuance of the Bonds. The City has covenanted to comply with all such requirements.

In the opinion of Co-Bond Counsel, under existing law, interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax applicable to individuals and corporations. The Code, however, also includes in the computation of the alternative minimum tax applicable to certain corporations (as

defined for federal income tax purposes) a tax preference item computed with respect to the corporation's adjusted current earnings. Because adjusted current earnings of a corporation would generally include tax-exempt interest received, a corporation may be subject to an alternative minimum tax upon receipt of interest on the Bonds.

The Superfund Amendments and Reauthorization Act of 1986 includes, among other things, a provision which imposes an environmental tax (the "Environmental Tax") on corporations based on the excess of "modified alternative minimum taxable income" over \$2,000,000 for taxable years beginning before January 1, 1996. Since modified alternative minimum taxable income is generally defined in the same manner as alternative minimum taxable income, to the extent that interest on the Bonds is included in adjusted current earnings, such interest may subject a corporation to the Environmental Tax. On the date hereof, the Environmental Tax has not been reauthorized with respect to taxable years beginning on or after January 1, 1996, and holders of the Bonds should consult their tax advisors with respect to a possible reauthorization of the Environmental Tax.

Prospective purchasers of the Bonds should be aware that certain federal income tax consequences may apply to certain holders of the Bonds, including the following:

(i) The Code denies a deduction for all of the interest on indebtedness incurred or continued to purchase or carry the Bonds or, in the case of a financial institution, all of that portion of a holder's interest expense allocated to interest on the Bonds.

(ii) With respect to property and casualty insurance companies, the Code reduces the deduction for losses incurred by 15% of the sum of certain items, including interest on the Bonds.

(iii) Interest on the Bonds earned by certain foreign corporations doing business in the United States could be subject to the branch profits tax.

(iv) Passive investment income, including interest on the Bonds, may be subject to federal income taxation for S corporations that have Subchapter C earnings and profits at the close of the taxable year, if more than 25% of the gross receipts of such S corporations are passive investment income.

(v) The Code requires recipients of certain Social Security and certain Railroad Retirement benefits to take into account receipts or accruals of interest on the Bonds in determining whether such benefits may be included in gross income.

Except as expressly stated above to be their opinion, Co-Bond Counsel does not express any opinion as to any other federal income tax consequences of acquiring, carrying, owning or disposing of the Bonds, and the prospective purchasers of the Bonds should consult their tax advisers as to the applicability of these and any other collateral consequences of ownership of the Bonds.

No assurance can be given that amendments to the Code or other federal legislation will not be introduced and/or enacted which would cause the interest on the Bonds to be subject, directly or indirectly, to federal income taxation or adversely affect the market price of the Bonds or otherwise prevent the holders of the Bonds from realizing the full current benefit of the status of the interest thereon.

The text of the proposed approving opinion of Co-Bond Counsel is included as APPENDIX F hereto.

#### **Tax Accounting Treatment of Original Issue Discount and Bond Premium**

The initial public offering price of certain Bonds listed on the inside front cover of the Official Statement (the "OID Bonds") is less than the amount payable at maturity of such Bonds. The difference between the initial public offering price at which each maturity of OID Bonds is sold and the amount payable at maturity is original issue discount ("OID"), which constitutes interest which is excluded from gross income of an owner of OID Bonds for federal income tax purposes.

Owners of OID Bonds should consult their own tax advisers with respect to the determination for federal income tax purposes of interest accrued upon sale or redemption of OID Bonds, with respect to the owners' basis for determining gain or loss for federal income tax purposes upon a disposition of OID Bonds, with respect to the collateral federal tax consequences of an accrual of OID and with respect to state and local tax consequences of owning OID Bonds. Collateral tax consequences and the application of state and local taxes may be deemed to apply to OID in the year of accrual even though there will not be a corresponding cash payment until a later year.

The initial public offering price of certain Bonds listed on the inside cover of the Official Statement is in excess of the amount payable at maturity of such Bonds. An amount equal to the excess of the purchase price of a Bond over its stated redemption price at maturity constitutes premium on such Bond. The purchaser of such a Bond must amortize any premium over the Bond's term using constant yield principles. The amount of amortized bond premium (i) reduces the holder's basis in the Bond for purposes of determining gain or loss for federal income tax purposes upon the sale or other disposition of the Bond and (ii) is not allowed as a deduction for federal income tax purposes to the holder. Purchasers of Bonds at a premium, whether at the time of initial issuance or subsequent thereto, should consult their own tax advisers with respect to the determination and treatment of premium for federal income tax purposes and with respect to state and local tax consequences of owning such Bonds.

### **Pennsylvania Tax Exemption**

In the opinion of Co-Bond Counsel, under existing law, interest on the Bonds is exempt from Pennsylvania personal income tax and from Pennsylvania corporate net income tax, and the Bonds are exempt from personal property taxes in Pennsylvania.

### **CERTAIN LEGAL MATTERS**

All legal matters incident to the authorization, issuance and sale of the Bonds is subject to approval of the legality of the issuance of the Bonds by Fox, Rothschild, O'Brien & Frankel, LLP and Wolf, Block, Schorr and Solis-Cohen LLP, Co-Bond Counsel, both of Philadelphia, Pennsylvania. The proposed form of such opinion is included herein as APPENDIX F. Certain legal matters will be passed upon for the Underwriters by DeCotiis, FitzPatrick & Gluck, LLP, Trenton, New Jersey and Obra S. Kemodle, III, P.C., Philadelphia, Pennsylvania, Co-Underwriters' Counsel. Certain legal matters will be passed upon for the City by the Office of the City Solicitor and by Blank Rome Comisky & McCauley, LLP, Philadelphia, Pennsylvania, Special Counsel to the City. Certain legal matters will be passed upon for PGW by its Office of General Counsel.

### **FINANCIAL ADVISORS**

Public Financial Management, Inc., and Hopkins & Company, both of Philadelphia, Pennsylvania, have served as co-financial advisors (the "Co-Financial Advisors") to the City in respect to the sale of the Bonds. The Co-Financial Advisors assisted in the preparation of this Official Statement, and in other matters relating to the planning, structuring and issuance of the Bonds, and have provided other advice. Public Financial Management, Inc. and Hopkins & Company are each financial advisory and consulting organizations and neither is engaged in the business of underwriting, marketing or trading of municipal securities or any other negotiable instruments.

## **INDEPENDENT AUDITORS**

The financial statements of PGW for the fiscal years ended August 31, 1998 and 1997 have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report included in APPENDIX A to this Official Statement.

## **INDEPENDENT CONSULTANT'S REPORT**

The report prepared by Stone & Webster Management Consultants, Inc., and contained herein as APPENDIX B, has been included in reliance upon the expertise of that company as an independent consulting firm having broad experience in the design and analysis of the operation of gas works or gas distribution systems of the magnitude and scope of PGW and having skill in assessing assumptions used in the preparation of forecast financial statements of gas works systems.

## **NO LITIGATION OPINION**

There is no controversy or litigation of any nature now pending or threatened in writing seeking to restrain or enjoin the issuance, sale, execution or delivery of the Bonds, or in any way contesting or affecting the validity of the Bonds or any proceedings of the City taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or security provided for the payment of Bonds or the existence or powers of the City.

Upon delivery of the Bonds, the Office of the City Solicitor shall furnish a certificate, in form satisfactory to Co-Bond Counsel, to the effect, among other things, that, except for litigation which in the opinion of the Office of the City Solicitor is without merit, and except as disclosed in this Official Statement, to the best of its knowledge, no litigation or other legal proceedings are pending or threatened in writing, to restrain or enjoin the issuance or delivery of the Bonds or the collection or pledge of any moneys provided for the payment of the Bonds or contesting or affecting the validity of the Bonds or contesting the powers of the City or its authority for the issuance of such bonds.

## **NEGOTIABLE INSTRUMENTS**

The Act provides that bonds issued thereunder shall have all the qualities and incidents of securities under the Uniform Commercial Code of the Commonwealth of Pennsylvania and shall be negotiable instruments.

## **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

The accuracy of the mathematical computations of the adequacy of the maturing principal amounts of and interest on the investments held in the Escrow Account to pay (1) interest when due on all Refunded Bonds and (2) the principal amount and applicable redemption premium, if any, of the Refunded Bonds when due will be verified solely as to mathematical accuracy by Drucker & Scaccetti, P.C., independent certified public accountants.

## **CERTAIN REFERENCES**

All summaries of the provisions of the Bonds and the security therefor, the Act, the 1975 General Ordinance, the Sixteenth Supplemental Ordinance, the 1998 General Ordinance and the Second Supplemental Ordinance set forth herein and in APPENDIX C hereof, and all summaries and references to other materials not purported to be quoted in full are only brief outlines of certain provisions thereof and do not constitute complete statements of such documents or provisions. Reference is made hereby to the complete documents relating to such matters for the complete terms and provisions thereof. So far as statements are made in this Official Statement

involving matters of opinion, whether or not expressly so stated, they are made merely as such and not as representations of fact.

### CONTINUING DISCLOSURE

In order to enable the Underwriters to comply with the requirements of Rule 15c2-12 promulgated by the Securities and Exchange Commission, the City will enter into a Continuing Disclosure Agreement (the "Continuing Disclosure Agreement") with the Fiscal Agent acting thereunder in the capacity of dissemination agent for the Bonds which shall constitute a written undertaking for the benefit of the owners and beneficial owners of the Bonds. See APPENDIX E - "FORM OF CONTINUING DISCLOSURE AGREEMENT" for the detailed provisions of the Continuing Disclosure Agreement.

The City is in compliance with its continuing disclosure obligations with respect to all Gas Works Revenue Bonds.

### ADDITIONAL INFORMATION

Upon written request to the office of the Director of Finance and payment of the costs of duplication and mailing, the Annual Report of the City for the Fiscal Year ended June 30, 1998, and the audited combined financial statements of the City for the Fiscal Year ended June 30, 1998, will be made available, as well as other pertinent information. Such a request should be addressed to: Office of the Director of Finance, Municipal Services Building, 1401 John F. Kennedy Boulevard, Philadelphia, Pennsylvania 19102. The City will provide copies of the foregoing documents to one or more nationally recognized municipal securities information depositories. The City will provide financial and other information regarding the Gas Works from time to time to Standard & Poor's Ratings Services, Moody's Investors Service, Inc. and Fitch IBCA, Inc. in connection with securities ratings issued by those rating agencies of obligations of the Gas Works. The City will continue these practices in future years on an annual basis on behalf of the Gas Works as well as all bonds issued for the Gas Works.

This Official Statement has been duly executed and delivered by the following officers on behalf of the City of Philadelphia.

#### CITY OF PHILADELPHIA, PENNSYLVANIA

By: /s/ Edward G. Rendell  
Mayor

/s/ Jonathan A. Sidel  
City Controller

/s/ Stephanie L. Franklin-Suber  
City Solicitor

Approved

/s/ Ben Havllar  
Director of Finance

---

## **Appendix A**

---

Financial Statements of PGW for Fiscal Years Ended  
August 31, 1998 and 1997

---

[This Page Intentionally Left Blank]



## INDEPENDENT AUDITORS' REPORT

To the Controller of the City of Philadelphia  
and the Chairwoman and Members of  
the Philadelphia Gas Commission  
Philadelphia, Pennsylvania

We have audited the accompanying balance sheets of the Philadelphia Gas Works (the "Company") as of August 31, 1998 and 1997 and the related statements of income, changes in City equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

Except as discussed in the following paragraph, we conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

Governmental Accounting Standards Board Technical Bulletin 98-1, *Disclosures about Year 2000 Issues*, requires disclosure of certain matters regarding the year 2000 issue. The Company has included such disclosures in Note 13. Because of the unprecedented nature of the year 2000 issue, its effects and the success of related remediation efforts will not be fully determinable until the year 2000 and thereafter. Accordingly, insufficient audit evidence exists to support the Company's disclosures with respect to the year 2000 issue made in Note 13. Further, we do not provide assurance that the Company is or will be year 2000 ready, that the Company's year 2000 remediation efforts will be successful in whole or in part, or that parties with which the Company does business will be year 2000 ready.

In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had we been able to examine evidence regarding year 2000 disclosures, such financial statements present fairly, in all material respects, the financial position of the Philadelphia Gas Works as of August 31, 1998 and 1997, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

The supplementary information in the schedules of funding progress and employer contributions on page 20 is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. This supplementary information is the responsibility of the Company's management. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the supplementary information and, accordingly, express no opinion on it.

*Deloitte & Touche LLP*

December 24, 1998

PHILADELPHIA GAS WORKS  
BALANCE SHEETS  
August 31, 1998 and 1997

ASSETS	Notes	(Thousands of Dollars)		EQUITY AND LIABILITIES	Notes	(Thousands of Dollars)	
		1998	1997			1998	1997
Utility plant, at original cost:	1,8			City equity	2	\$ 251,962	\$ 268,987
In service		\$ 1,230,152	\$ 1,178,450	Long-term debt:	8,9		
Under construction		<u>40,979</u>	<u>25,270</u>	Revenue bonds		750,084	637,885
Total		1,271,131	1,203,720	Subordinate lease obligations		<u>27,959</u>	<u>54,028</u>
Less accumulated depreciation		<u>448,765</u>	<u>414,941</u>	Total long-term debt		<u>778,053</u>	<u>691,913</u>
Utility plant, net		<u>821,366</u>	<u>788,779</u>	Current liabilities:			
Restricted investment funds:				Notes payable	8	56,190	30,000
Bonding fund, revenue bonds	2,3,8	<u>85,111</u>	<u>79,679</u>	Current portion of long-term debt:	8,9		
Capital improvement fund	3,8	<u>65,624</u>	<u>21,657</u>	Revenue bonds		34,187	31,250
Current assets:				Subordinate lease obligations		6,083	4,969
Cash and cash equivalents	1,3	<u>9,863</u>	<u>1,264</u>	Accounts payable		29,427	36,524
Accounts receivable:				Customer deposits		1,331	1,705
Customers	1,4	88,280	109,867	Other current liabilities and deferred credits	1,11,12	8,954	11,462
Others	2	1,708	959	Accrued accounts:			
Accrued gas revenues	1	7,350	8,700	Interest, taxes and wages		9,459	9,364
Accumulated provision for uncollectible accounts	1,4	<u>(64,724)</u>	<u>(77,100)</u>	Distribution to the City	2	<u>3,000</u>	<u>3,000</u>
Accounts receivable, net		<u>32,624</u>	<u>42,426</u>	Total current liabilities		<u>148,631</u>	<u>128,274</u>
Materials and supplies	1	<u>52,448</u>	<u>54,212</u>	Employees' deferred compensation plan	5	<u>34,024</u>	<u>31,656</u>
Other current assets and deferred debits	1,4,7,12	<u>25,487</u>	<u>29,203</u>	Other liabilities and deferred credits	1,11,12	<u>16,691</u>	<u>21,373</u>
Total current assets		<u>120,442</u>	<u>127,125</u>	Commitments and contingencies	12		
Unamortized bond issuance costs	1,8	<u>11,128</u>	<u>7,509</u>	Total equity and liabilities		<u>\$ 1,229,361</u>	<u>\$ 1,142,201</u>
Unamortized losses on reacquired debt	1,8	<u>47,121</u>	<u>37,137</u>				
Employees' deferred compensation plan	5	<u>34,024</u>	<u>31,656</u>				
Deferred CRP surcharges	4	<u>22,500</u>	<u>22,693</u>				
Other assets and deferred debits	1,4,11,12	<u>22,044</u>	<u>25,968</u>				
Total assets		<u>\$ 1,229,361</u>	<u>\$ 1,142,201</u>				

See accompanying notes to financial statements.

**PHILADELPHIA GAS WORKS**  
**STATEMENTS OF INCOME**  
For the Years Ended August 31, 1998 and 1997

(Thousands of Dollars)

	<u>Notes</u>	<u>1998</u>	<u>1997</u>
<b>Operating revenues:</b>			
Nonheating	1,4,6,7,8	\$ 81,513	\$ 90,451
Gas transport service		2,258	1,441
Heating		406,826	450,241
Unbilled gas adjustment		(1,829)	1,650
Total gas revenues		<u>488,768</u>	<u>543,783</u>
Other operating revenues		8,927	7,187
Total operating revenues		<u>497,695</u>	<u>550,970</u>
<b>Operating expenses:</b>			
Natural gas	1,12	246,699	271,627
Other raw material		0	4
Gas processing		13,582	14,238
Field service		16,032	18,883
Distribution		16,500	20,454
Collection		9,165	9,460
Meter reading		3,627	3,844
Provision for uncollectible accounts		34,130	33,474
Customer services		12,826	13,205
Customer accounting		6,577	5,898
Marketing		5,268	3,841
Administrative and general	11	42,268	45,200
Pensions	10	3,334	4,590
Taxes		6,235	6,517
Total operating expenses except undistributed depreciation		<u>416,243</u>	<u>451,235</u>
Depreciation	1,8	41,019	36,652
Less depreciation distributed through clearing accounts	1,8	5,628	4,804
Total depreciation		<u>35,391</u>	<u>31,848</u>
Total operating expenses		<u>451,634</u>	<u>483,083</u>
Operating income		46,061	67,887
Interest and other income	1	5,370	7,514
Income before interest expense		<u>51,431</u>	<u>75,401</u>
<b>Interest expense:</b>			
Long-term debt	1,8	43,027	44,887
Other		7,860	6,587
Allowance for funds used during construction	1	(431)	(44)
Total interest expense		<u>50,456</u>	<u>51,430</u>
Net income		975	23,971
Distribution to the City of Philadelphia	2	18,000	18,000
Transferred (from) to City equity		<u>\$ (17,025)</u>	<u>\$ 5,971</u>

See accompanying notes to financial statements.

**PHILADELPHIA GAS WORKS**  
**STATEMENTS OF CASH FLOWS**  
For the Years Ended AUGUST 31, 1998 AND 1997

	(Thousands of Dollars)	
	1998	1997
<b>Cash flows from operating activities:</b>		
Operating income	\$ 48,061	\$ 67,887
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	36,854	41,879
Other income (expense)	1,348	4,549
Changes in assets and liabilities:		
Accounts receivable	9,802	(2,357)
Materials and supplies inventories	1,764	2,508
Other assets and deferred debits	8,238	(5,297)
Accounts and construction contracts payable	(7,096)	4,573
Other current liabilities	(2,787)	(2,036)
Other liabilities and deferred credits	(2,314)	8,661
<b>Net cash provided by operating activities</b>	<b>91,868</b>	<b>120,367</b>
<b>Cash flows from noncapital financing activities:</b>		
Interest income on temporary investments	1,278	1,287
Interest payments on notes payable	(2,992)	(1,350)
Increase in notes payable	26,190	15,000
Distribution to the city of Philadelphia	(18,000)	(18,000)
<b>Net cash (used in) provided by non-capital financing activities</b>	<b>8,478</b>	<b>(3,063)</b>
<b>Cash flows from capital &amp; related financing activities:</b>		
<b>Capital spending activities:</b>		
Net construction expenditures	(70,496)	(52,107)
Drawdowns on capital improvement fund	50,163	5,806
<b>Net cash (used in) capital spending activities</b>	<b>(20,333)</b>	<b>(46,301)</b>
<b>Other capital financing activities:</b>		
Proceeds from long-term debt issued	287,101	23,000
Deposited with escrow agent for defeasance of debt	(183,622)	0
Capital improvement fund deposits	(94,130)	(22,831)
Long-term debt issuance expenses	(5,832)	(169)
Interest income on capital improvement fund	1,540	203
Interest income on sinking fund	1,099	1,238
Sinking Fund Deposits	(5,432)	(1,238)
Principal payments on long-term debt	(33,338)	(38,805)
Interest payments on long-term debt	(36,798)	(41,911)
<b>Net cash (used in) capital financing activities</b>	<b>(69,412)</b>	<b>(80,513)</b>
<b>Net cash (used in) capital &amp; related financing activities</b>	<b>(89,745)</b>	<b>(126,814)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>8,599</b>	<b>(9,510)</b>
Cash and cash equivalents at beginning of the year	1,284	10,794
<b>Cash and cash equivalents at end of the year</b>	<b>\$ 9,883</b>	<b>\$ 1,284</b>

Supplemental Disclosure of Non-Cash Capital and Related Financing Activities

The company incurred non-cash interest expense as follows for the years ended August 31, 1998 and 1997:

	1998	1997
Accreted interest	\$ 3,814	\$ 3,371
Amortization of discount	1,010	1,133
Amortization of premium	51	0
Amortization of bond issuance costs	725	707
Amortization of losses on reacquired debt	3,103	3,272

See accompanying notes to financial statements.

# PHILADELPHIA GAS WORKS

## NOTES TO FINANCIAL STATEMENTS

### For the Years Ended August 31, 1998 and 1997

#### 1. *SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:*

The accounting methods employed by the Philadelphia Gas Works (the "Company" or "PGW") are prescribed by the City of Philadelphia (the "City") and are, in all material respects, in conformity with generally accepted accounting principles. Such methods include informed estimates and judgments of management for those transactions that are not yet complete or for which the ultimate effects cannot be precisely determined. Actual results may differ from these estimates. The principal accounting policies within this framework are described as follows:

#### Regulation

The Company is subject to the rules and regulations of the Philadelphia Gas Commission (the "PGC") and generally maintains its accounts in accordance with the prescribed Uniform System of Accounts.

On May 15, 1996, the Company filed with the PGC its 1997 Operating Budget which was based upon existing rate levels. On September 24, 1996, the PGC approved the 1997 Operating Budget.

On June 17, 1997, the Company filed with the PGC its 1998 Operating Budget which was based on existing rate levels. The 1998 Operating Budget was approved on October 29, 1997.

On August 26, 1998, the Company filed with the PGC its 1999 Operating Budget which was based upon existing rate levels. The PGC has not yet approved the 1999 Operating Budget.

On July 9, 1998, the Company filed with the PGC a preliminary 1999 Capital Budget, which was subsequently finalized with a September 18, 1998 filing. The PGC has not yet reviewed the budget for its recommendation to City Council for approval. However, an ordinance has been prepared granting PGW interim capital spending authority until the budget is approved.

#### Utility Plant

Utility plant is stated at original cost. Utility plant in service includes a Synthetic Natural Gas Plant ("SNG Plant") that is being maintained primarily in a reserve status and a propane/air facility ("L.P. Plant") which is not currently in use. At August 31, 1998 and 1997, the net book value of the SNG Plant was \$16,402,000 and \$21,869,000, respectively, and the net book value of the L.P. Plant was \$3,395,000 and \$4,527,000, respectively.

#### Allowance for Funds Used During Construction

Allowance for funds used during construction ("AFUDC") is an estimate of the cost of funds used for construction purposes. The AFUDC, as calculated on borrowed funds, reduces interest expense. The AFUDC rate applied to construction work in progress was 6.1% in both the 1998 and 1997 fiscal years.

**PHILADELPHIA GAS WORKS**  
**STATEMENTS OF CHANGES IN CITY EQUITY**  
**For the Years Ended August 31, 1998 and 1997**

---

	(Thousands of Dollars)	
	<u>1998</u>	<u>1997</u>
Balance, beginning	\$ 268,987	\$ 263,016
Transferred from statements of income	<u>(17,025)</u>	<u>5,971</u>
Balance, ending	<u>\$ 251,962</u>	<u>\$ 268,987</u>

1. *SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (Cont'd)*

Property Additions, Retirements, Sales and Maintenance

The cost of additions, replacements and betterments are capitalized and included in the utility plant accounts. The cost of property sold or retired is eliminated from the utility plant and accumulated depreciation accounts. Normal repairs, maintenance, the cost of minor property items and the expense of retirement of utility plant are charged to operating expenses as incurred.

Depreciation

Historically, depreciation is provided on a straight-line method using rates applied to each asset category. In both the 1998 and the 1997 fiscal years, the composite rate was 3.2% based on a depreciation study completed in 1997. In a previous rate order, the PGC disallowed the accrual of the net salvage component in depreciation. In fiscal year 1997, cost of removal was charged against the reserve when incurred. In fiscal year 1998, the cost of removal was charged to expense when incurred.

Accrued Gas Revenues

Revenues are recognized as gas is distributed. Estimated revenues from gas distributed and unbilled are accrued and included in income.

Customers

The Company's service territory encompasses the City of Philadelphia. Of the Company's approximate 512,000 customers, over 95 percent are residential.

Customer Receivables

The Company's tariffs provide for various agreements under which residential customers may pay arrearages with extended terms. Certain of such agreements, if adhered to, provide for forgiveness of arrearages. At August 31, 1998 and 1997, the number of customers with agreements providing for forgiveness of arrearages approximated 2,000 in 1998 and 3,000 in 1997.

In November 1993, the Gas Service Tariff was amended to discontinue offering new forgiveness agreements. In its place, the Company offers a discounted payment plan for current receivables with a possible forgiveness of arrearages in five years. The total number of customers with discounted payment plans as of August 31, 1998 and 1997 was approximately 51,000 and 55,000, respectively.

Gas Cost Rate

PGW's single greatest operating expense is the cost of natural gas and raw materials. This cost, as well as certain other specific costs, including earned Customer Responsibility Program ("CRP") discounts and conservation program costs, are recovered through the operation of the Gas Cost Rate ("GCR") which is approved by the PGC. The base rate approved by the Gas Commission includes a fuel component. PGW calculates its anticipated annual cost for fuel and allocates the excess of that cost over the base rate component, and certain other specific costs to its customers on a levelized basis for payment during the fiscal year, using the GCR. At the end of the fiscal year, costs recovered through the GCR and base rate are compared to the actual cost of fuel and other specific costs and customers can be credited

1. *SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (Cont'd)*

Gas Cost Rate (Cont'd)

or charged for over-recovery or under-recovery. An over-recovery is a liability at the end of the fiscal year in which it occurs, while an under-recovery is a deferred debit until billed. The GCR is adjusted in the subsequent fiscal year to reflect the under-recovery or over-recovery. Changes in the GCR impact the reported amounts of gas revenues and operating expenses, but do not affect operating income or net income. (Also, see Note 7).

On August 2, 1996, the Company filed its GCR Tariff proposal for the 1997 fiscal year at a charge of \$1.6517 per/Mcf to be effective September 1, 1996. On September 24, 1996, the PGC authorized a temporary GCR rate, a charge of \$1.6517 per/Mcf to be effective October 1, 1996, while the PGC continued its ongoing review of the Company's filing. On November 12, 1996, the PGC completed its GCR review and authorized a charge of \$1.4272 per/Mcf to be effective December 1, 1996.

On August 1, 1997, the Company filed with the PGC its GCR tariff for the 1998 fiscal year at a charge of \$1.2231 per/Mcf to be effective on September 1, 1997. The PGC completed its GCR review and authorized a charge of \$1.4272 per/Mcf.

On August 3, 1998, the Company filed with the PGC its GCR tariff for the 1999 fiscal year at a charge of \$1.2466 per/Mcf to be effective on September 1, 1998. While the PGC is currently reviewing this proposal, the current rate of \$1.4272 per/Mcf continues to be effective.

Materials and Supplies

Materials and supplies, consisting primarily of fuel stock, gases stored to meet peak demand requirements and spare parts, are stated at the lower of average cost or market.

Bond Issuance Costs, Debt Discount and Premium

Discount/Premiums and expenses arising from the issuance of revenue bonds are amortized using the interest method over the term of the particular bond issue.

Losses on Reacquired Debt

Losses on reacquired debt are deferred and amortized, using the interest method, to interest expense over the life of the refunding bond issue as required by the PGC.

Pensions

The Company has a noncontributory pension plan (the "Pension Plan") covering all employees and providing for retirement payments at age sixty-five or earlier under various options. In accordance with Resolutions of the PGC, Ordinances of City Council and as prescribed by the City's Director of Finance, the Pension Plan is being funded with contributions by the Company to the Sinking Fund Commission of the City.

1. *SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES: (Cont'd)*

Statements of Cash Flow

For the purpose of reporting cash flows, all non-restricted highly liquid investments (stated at cost which approximates market) with original maturities of three months or less are considered cash equivalents.

Reserve for Injuries and Damages

The Company is principally insured through insurance carriers; however, the Company is required to cover settlement of claims which are excluded under the provisions of such insurance policies. A reserve has been established, in accordance with PGC regulations, in an amount which estimates settlements to be paid by the Company in the next fiscal year.

Estimated losses from claims for occurrences not covered by insurance, which will not be paid in the next fiscal year have been accrued and deferred. Such liabilities have been established based upon Company history and consultation with counsel. Such expenses are expected to be recovered through future rates. Charges against the reserve are made as claims are settled. (Also, see Note 11).

Adoption of Accounting Standards

For the year ended August 31, 1997, the Company adopted Government Accounting Standards Board (GASB) Statements No. 27, *Accounting for Pensions by State and Local Governmental Employers* and No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*.

The Company's adoption of GASB No. 27 had no significant effects on its financial statement. (Also, see Note 10.)

In 1997, the Company elected to early adopt Governmental Accounting Standards Board Statement No. 31, (GASB No. 31) *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*. The statement establishes fair value standards for investments held by governmental entities, except for certain money market investments, as defined, which are recorded at amortized cost. The statement also establishes new reporting standards for investment income. (Also, see Note 3.)

In preparing its general purpose financial statements, the Company retroactively applied the provisions of GASB No. 31, by restating the beginning City Equity as of August 31, 1996 as follows:

	<u>City Equity</u>
Beginning fund balance, as previously reported	\$ 263,252,000
Adoption of GASB No. 31	<u>(236,000)</u>
Beginning fund balance, as restated	<u>\$ 263,016,000</u>

The Company's investments consist of money market investments that have a remaining maturity at time of purchase of one year or less.

Presentation

Certain 1997 amounts have been reclassified to conform with the 1998 presentation.

## 2. OWNERSHIP AND MANAGEMENT:

The Company is owned by the City. As of January 1, 1973, under the terms of a two-year agreement automatically extended for successive two-year periods unless canceled upon 90 days notice by the City, the Company is being managed by the Philadelphia Facilities Management Corporation ("PFMC"). The agreement, as amended, provides for reimbursement to PFMC of actual costs incurred in managing the Company, not to exceed a total of \$900,000 and \$875,000 in fiscal year 1998 and 1997, respectively. (Also, see Note 11.) The agreement requires the Company to make annual payments of \$18,000,000 to the City.

In 1995, the City granted the Company \$21,135,000 to be utilized as "project revenues". Such amounts are non-refundable, and accordingly, were recorded by the Company as non-operating revenues in 1995. The City received the related funds by entering into a Forward Purchase Agreement, linked to expected future earnings in the Sinking Fund (see Note 8). Under its arrangement with the Company, the City has traditionally granted such earnings to the Company. In conjunction with the Forward Purchase Agreement, the City has agreed to withhold such grants for seven (7) years on balances in the Sinking Fund up to approximately \$61,000,000.

The Company engages in various other transactions with the City. The Company provides gas service to the City. Operating revenues include \$7,700,000 in 1998 and \$8,281,000 in 1997 relating to sales to the City. Water and sewer services and licenses are purchased from the City. Such purchases totaled \$855,000 in 1998 and \$776,000 in 1997. Amounts payable to the City were \$421,000 and \$654,000 at August 31, 1998 and 1997, respectively.

Certain activities of the PGC are paid for by the Company. Such payments totaled \$1,275,000 in 1998 and \$1,167,000 in 1997.

## 3. CASH AND INVESTMENTS:

### A. Cash

Cash consists primarily of bank deposits. Bank balances of such deposits at August 31, 1998 and 1997 were \$1,689,000 and \$1,302,000, respectively. Book balances of such deposits at August 31, 1998 and 1997 were (\$567,000) and (\$141,000), respectively. Deposited funds are either insured by a federal agency or collateralized in accordance with City and State statutes. Federal depository insurance on these balances at August 31, 1998 and 1997 was \$392,000, and \$437,000, respectively. The composition of the Company's deposits throughout the year ended August 31, 1998 was not significantly different from that at the balance sheet date.

### B. Investments

Statutes authorize the Company to invest in obligations of the U.S. Treasury, U.S. Government Agencies and Instrumentalities, and repurchase agreements (collateralized by obligations of the U.S. Treasury and Government Agencies). In the opinion of management, for the years ended August 31, 1998 and 1997, the Company operated, in all material respects, within the provisions of such statutes.

3. *CASH AND INVESTMENTS: (Cont'd)*

B. Investments (Cont'd)

The Company's investments are categorized below to give an indication of the level of credit risk assumed at year-end. Category 1 includes investments that are insured or registered or for which the securities are held by the Company or its agent in the Company's name. Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the Company's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the counterparty or by its trust department or agent, but not in the Company's name. Repurchase agreements with a carrying amount (at market value) of \$1,900,000 and \$0 at August 31, 1998 and 1997, respectively, were classified as Category 1 Investments. Money market accounts with a carrying amount (at market value) of \$8,550,000 and \$1,425,000 at August 31, 1998 and 1997, respectively, could not be classified as to credit risk.

The Company's Sinking Fund and Capital Improvement Fund deposits, consisting primarily of U.S. Treasury and government agency obligations, are maintained by the City or in the Company's name by its agent and are considered Category 1 Investments. At August 31, 1998 and 1997, \$65,624,000 and \$21,657,000 was restricted to the purchase of utility plant.

The amount of the Company's investments in the various categories of credit risk during the year ended August 31, 1998 and 1997, was not significantly different from the categorization at the balance sheet date.

4. *DEFERRED EXPENSES:*

In compliance with rate orders issued by the PGC, the cost of projects which produce benefits over an extended period are deferred. Such costs are being amortized to expense over a period matching their useful lives which range from two to ten years. The unamortized expenses included in other current assets as of August 31, 1998 and 1997 were \$3,665,000 and \$2,250,000, respectively. The unamortized expenses included in deferred debits as of August 31, 1998 and 1997, were \$5,405,000 and \$5,270,000, respectively.

On November 9, 1995, the PGC, as part of the approval of the 1996 Operating Budget, allowed the Company to defer and recover in rates over a ten-year period beginning in 1995, \$37,500,000 of outstanding accounts receivable deemed to be not collectible, due to anticipated restrictions on Crisis grants. Any subsequent grants received have been used to reduce this regulatory asset. The balance of the regulatory asset at August 31, 1998 and 1997, was \$22,500,000 and \$22,693,000, respectively.

5. *DEFERRED COMPENSATION PLAN:*

The Company offers its employees a deferred compensation plan (the "Plan") created in accordance with Internal Revenue Code Section 457. The Plan, available to all Company employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency.

All amounts of compensation deferred under the Plan, all property and rights purchased with those amounts, and all income attributable to those amounts, property, or rights are (until paid or made available to the employee or other beneficiary) solely the property and rights of the Company (without being restricted to the provisions of benefits under the Plan), subject only to the claims of the Company's general creditors. Participants' rights under the plan are equal to those of general creditors of the Company in an amount equal to the fair market

5. *DEFERRED COMPENSATION PLAN: (Cont'd)*

value of the deferred account for each participant. The Company believes that it is unlikely that it will use the Plan's assets to satisfy the claims of general creditors in the future.

The Plan provides that in the absence of gross negligence, fraud or willful misconduct, neither the Company nor the Plan Administrator shall be accountable or liable for any investment loss.

The following is a summary of the increases and decreases in Plan assets:

	<u>Thousands of Dollars</u>	
	<u>1998</u>	<u>1997</u>
Plan Assets (at estimated Market Value) September 1	\$31,656	\$23,216
Contributions	3,853	3,297
Return on Investment	215	6,250
Payments to Eligible Participants and Beneficiaries	<u>(1,700)</u>	<u>(1,107)</u>
Plan Assets (at estimated Market Value) August 31	<u>\$34,024</u>	<u>\$31,656</u>

6. *NOTES PAYABLE:*

Pursuant to the provisions of certain Ordinances and Resolutions of the City, the Company may sell short-term notes in a principal amount which, together with interest, may not exceed \$100,000,000 outstanding at any one time. These notes are intended to provide additional working capital. They are supported by an irrevocable letter of credit and a subordinated security interest in the Company's revenues.

The notes outstanding at August 31, 1998 had an average weighted interest rate of approximately 3.55% and remaining time to maturity of 2 days to 133 days. The principal amount outstanding at August 31, 1998 and 1997 was \$56,000,000, and \$30,000,000, respectively.

The Company also had other notes outstanding with a principal amount of \$190,000 at August 31, 1998 related to the acquisition of long term assets.

7. *GCR TARIFF RECONCILIATION:*

During the year ended August 31, 1998, the Company's actual gas costs under the GCR Tariff exceeded its billed gas costs by \$3,614,000. During the year ended August 31, 1997, the Company's actual gas costs under GCR Tariff exceeded its billed gas costs by \$11,001,000. According to the procedure described in Note 1, the Company recognized this amount as revenue and as a deferred debit at August 31, 1998 and 1997. In each instance, the GCR Tariff mechanism amortizes the expense through increased rates during the following fiscal year.

8. *LONG-TERM DEBT:*

The following summary of long-term debt consists primarily of bonds issued by the City under agreements whereby the Company must reimburse the City for the principal and interest payments required by the bond ordinances:

8. LONG-TERM DEBT: (Cont'd)

(THOUSANDS OF DOLLARS)						
	AUGUST 31, 1998			AUGUST 31, 1997		
	<i>Current Portion</i>	<i>Long- Term Portion</i>	<i>TOTAL</i>	<i>Current Portion</i>	<i>Long- Term Portion</i>	<i>TOTAL</i>
Revenue Bonds	\$34,590	\$757,389	\$791,979	\$32,325	\$649,241	\$681,566
Unamortized Debt Disc.	(679)	(10,568)	(11,247)	(1,075)	(11,356)	(12,431)
Unamortized Premium	276	3,273	3,549	-	-	-
Total Revenue Bonds	<u>\$34,187</u>	<u>\$750,094</u>	<u>\$784,280</u>	<u>\$31,250</u>	<u>\$637,885</u>	<u>\$669,135</u>
Subordinate Lease Obligations	\$6,083	\$27,959	\$34,042	\$5,013	\$54,447	\$59,460
Unamortized Debt Discount	-	-	-	(44)	(421)	(465)
Subordinate Lease Obligations	<u>6,083</u>	<u>27,959</u>	<u>34,042</u>	<u>4,969</u>	<u>54,026</u>	<u>58,995</u>
<b>TOTAL</b>	<u>\$40,270</u>	<u>\$778,053</u>	<u>\$818,323</u>	<u>\$36,219</u>	<u>\$691,911</u>	<u>\$728,130</u>

Principal maturities and scheduled interest payments for revenue bonds and total payments related to the subordinate lease obligations during the next five fiscal years are as follows:

YEAR ENDING AUGUST 31	THOUSANDS OF DOLLARS			
	REVENUE BONDS PRINCIPAL	REVENUE BONDS INTEREST	SUBORDINATE LEASE OBLIGATIONS	TOTAL
1999	\$34,590	\$43,407	\$7,882	\$85,879
2000	32,540	43,423	7,988	83,954
2001	32,827	43,129	7,977	83,933
2002	32,547	41,979	5,953	80,479
2003	29,989	42,607	3,997	76,593

On June 24, 1998, the Company issued \$287,185,000 of new debt for the purpose of retiring approximately \$172,465,000 of existing debt and establishing funds to support new capital spending. The refunding of existing debt at lower interest rates resulted in an accounting loss of \$20.9 million (which is being deferred and amortized), but a present value savings of \$9.4 million. Of the \$92.6 million of new funds raised to support construction activity at August 31, 1998, \$50.4 million remains on deposit in a restricted account for capital purposes. This financing, was the first series issued under a 1998 General Ordinance which authorized the issuance of Gas Works Revenue Bonds consisting of serial and term bonds, maturing at various dates through 2028.

Under the authority of the General Ordinance of 1975, the City has issued fifteen series of Gas Works Revenue Bonds consisting of serial and term bonds with interest rates ranging from 4.40% to 7.70%, maturing at various dates through 2026. Proceeds of all series of Revenue Bonds were applied to reduce capital improvement loans from the City which had been previously approved by the voters, but for which bonds had not been issued, to fund future capital projects by deposits in the Capital Improvement Fund or to refund bonds previously issued. The serial bonds are not subject to redemption prior to maturity while the term bonds are subject to redemption at the option of the City after a designated date, either in whole or in part, at varying redemption prices. In addition, the term bonds are subject to mandatory redemption after a designated date prior to maturity at a redemption price of 100% of principal amount and accrued interest. Funds deposited in a Sinking Fund may be used for this purpose.

Under the terms of both General Ordinances, the City is required to maintain rates to allow the Company to satisfy revenue bond debt coverage ratio requirements.

8. *LONG-TERM DEBT: (Cont'd)*

Also provided by both General Ordinances is the establishment of a Sinking Fund into which deposits are made sufficient to meet all principal and interest requirements of the bonds as they become due. Both General Ordinances also provides that sinking fund reserves be maintained as part of the Sinking Fund, which reserves have heretofore initially been funded from the proceeds of each series of bonds in an amount equal to the maximum annual debt service requirement on the bonds of each such series in any fiscal year. Monies in the sinking fund reserve are to be applied to the payment of debt service, if for any reason, other monies in the Sinking Fund should be insufficient. (Also, see Note 2.)

The revenue bonds are, and will be, equally and ratably collateralized by a security interest in all of the Company's project revenues and monies in the Sinking Fund.

A portion of certain revenue bonds were issued as zero coupon securities. Interest on these securities is accrued and compounded on the payment dates of the current interest bonds within the issue. The accrued interest to the date of compounding is reported as long-term debt.

Subordinate Lease Obligations

In 1989, the Company refinanced the net book value, which approximated the fair market value, of its Headquarters and office complex at 800 W. Montgomery Avenue. This was accomplished through the sale of the facility to the Philadelphia Municipal Authority ("PMA"), an agency of the City, and its leaseback to the Company under a lease which expires June 1, 2014 at which time title transfers to the Company. As part of the indenture, the Company has guaranteed lease payments in an amount equal to the scheduled debt service on the bonds issued by PMA to finance the facility purchase. This lease obligation is subordinate to the Gas works Revenue Bonds, other general obligation debt and notes payable. Proceeds from the refinancing of the building were utilized in the Company's capital program. The total amount financed was \$25,000,000.

The gross amount of assets under such lease obligation is approximately \$22,807,000 at August 31, 1997 and 1996, while accumulated amortization approximated \$4,418,000 and \$3,951,000, respectively, at August 31, 1997 and 1996. This obligation was satisfied with proceeds from the June 24, 1998 refinancing.

In January 1996, the Company entered into a refinancing of the net book value of existing and to be installed equipment. The installed equipment, worth approximately \$12.7 million and \$7.4 million of equipment to be installed, is owned by the City for use by the Company. Pursuant to the Lease and Leaseback Agreements, the equipment is leased by PMA to the investor and the investor leases the equipment back to PMA. Payments made by the City under the Sublease are made solely from the revenues of the Company and are subordinate to certain other payments from the Company's revenues. Accordingly, these assets and corresponding lease obligations are included in the Company's financial statements.

The gross amount of assets under such lease obligation is approximately \$19,900,000 and \$15,900,000 at August 31, 1998 and 1997, while accumulated amortization approximated \$1,861,000 and \$637,000, respectively, at August 31, 1998 and 1997. The amortization of such assets is included in depreciation expense in the statements of income.

Aggregate future minimum lease payments at August 31, 1998 approximated \$13,811,000 which includes imputed interest of \$1,511,000.

8. *LONG-TERM DEBT: (Cont'd)*

In August, 1997, the City entered into a contract with PMA to have PMA provide certain capital equipment to the Company. The equipment value cannot exceed \$32,000,000. The equipment is owned by PMA and leased to the City for the exclusive use of PGW. PMA will issue revenue bonds to provide funding to purchase the equipment. On August 22, 1997, PMA issued \$23,000,000 of revenue bonds with terms to October 1, 2004. Payments made by the City under the contract are made solely from the revenues of the Company and are subordinate to certain other payments from the Company's revenues. Accordingly, these assets and corresponding lease obligations are included in the Company's financial statements.

The gross amount of assets under such lease obligation is approximately \$9,796,000 and \$2,557,000 at August 31, 1998 and 1997, respectively, while accumulated amortization approximated \$926,000 at August 31, 1998. There was no amortization in 1997. The amortization of such assets is included in depreciation expense in the statements of income. The unexpended balance of the \$23,000,000 of PMA bond proceeds in the capital improvement fund is restricted to the purchase of additional utility plant (Also, see Note 3).

Aggregate future minimum lease payments at August 31, 1998 approximated \$26,000,000 which includes imputed interest of \$4,200,000.

9. *DEFEASED DEBT:*

Defeased debt of the Company (bonds issued by the Company now payable from the proceeds of irrevocably pledged assets) at August 31, 1998 was as follows:

	<u>Maturing to</u>	<u>Interest Rate</u>	<u>Thousands of Dollars</u>
7 <sup>th</sup> Series	03/15/13	6.0%	\$10,675
11 <sup>th</sup> Series	01/01/15	6.75 - 7.25%	15,330
12 <sup>th</sup> Series A	05/15/12	6.0%	29,510
12 <sup>th</sup> Series B	05/15/20	6.8 - 7.1%	66,700
13 <sup>th</sup> Series	06/15/21	7.7%	65,005
14 <sup>th</sup> Series	07/01/26	6.25 - 7.0%	88,905
15 <sup>th</sup> Series	08/01/10	4.4 - 5.5%	28,090
PMA Lease	05/01/14	7.0 - 7.625%	20,405

The investments held by the trustee and the defeased bonds are not recognized on the Company's balance sheets in accordance with the terms of the Indentures of Defeasance. The investments pledged for the redemption of the defeased debt have maturities and interest payments scheduled to coincide with the trustee cash requirements for debt service.

The assets pledged, primarily noncallable U.S. Government Securities, had a market value of \$34,936,000 at August 31, 1998, bearing interest on face value at 0% to 9.125%.

10. *ACCOUNTING FOR PENSION COSTS:*

A. Plan Description

The Company sponsors a public employee retirement system ("PERS"), a single employer defined benefit plan to provide pension benefits for all of its employees, whose annual covered payroll (which was substantially equal to total payroll) at August 31, 1998 and 1997, was \$96,380,000 and \$98,549,000, respectively.

10. ACCOUNTING FOR PENSION COSTS: (Cont'd)

A. Plan Description (Cont'd)

At September 1, 1996, the date of the last actuarial valuation, the Pension Plan membership consisted of:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits, but not yet receiving them:	<u>2,231</u>
Current employees:	
Vested	1,375
Non-vested	<u>619</u>
TOTAL CURRENT EMPLOYEES:	<u>1,994</u>
TOTAL MEMBERSHIP:	<u>4,225</u>

The Pension Plan provides retirement benefits as well as death and disability benefits. Retirement benefits vest after 10 years of credited service. Employees who retire at or after age 65 are entitled to receive an annual retirement benefit, payable monthly, in an amount equal to the greater of:

- 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 years of credited service, with a maximum of 60% of the highest annual earnings during the last 10 years of credited service.
- 2% of total earnings received during the period of credited service plus 22.5% of the first \$100 of such amount, applicable only to participants who were employees on or prior to March 24, 1967.

Final Average Earnings are the employee's average pay, over the highest five years of the last ten years of credited service. Employees with 15 years of credited service may retire at or after age 55 and receive a reduced retirement benefit.

Covered employees are not required to contribute to the Pension Plan. The Company is required by statute to contribute the amounts necessary to finance the Pension Plan. Benefit and contribution provisions are established by City ordinance and may be amended only as allowed by City ordinance.

The City of Philadelphia issues a publicly available financial report that includes financial statements and required supplementary information for the Pension Plan. The report may be obtained by writing to the Director of Finance of the City of Philadelphia.

E. Annual Pension Cost, Contributions Required and Contributions Made

The Company's annual pension cost is equal to its annual required contribution. The annual required contribution for the current year was determined based on an interim actuarial study of September 1, 1997 updating the September 1996 study, using the projected unit credit method. Significant actuarial assumptions used for the above valuation include: a) a rate of return on the investment of present and future assets of 8.25% per year compounded annually, b) projected salary increases of 3%, and c) 62 as the assumed retirement age. Both a) and b) included an inflation component of 3%. The assumptions did not include post retirement benefit increases.

10. ACCOUNTING FOR PENSION COSTS: (Cont'd)

B. Annual Pension Cost, Contributions Required and Contributions Made (Cont'd)

The actuarial asset value is equal to the value of the fund assets as reported by the City of Philadelphia with no adjustments. The unfunded actuarial accrued liability is being amortized over eleven (11) years.

The Pension Plan funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. Level percentages of payroll employer contribution rates are determined using the Projected Unit Credit actuarial funding method.

In 1998, contributions of \$3,334,000 consisted of: a) \$5,139,000 normal cost less b) \$1,805,000 amortization of the excess of the plan assets over the pension benefit obligation. Contributions totaling \$4,590,000 were made in 1997. These contributions consisted of the net of: a) \$4,694,000 normal cost less b) \$104,000 amortization of the excess of the plan assets over the pension benefit obligation. In 1996, contributions of \$7,337,000 consisted of: a) \$4,704,000 normal cost and b) \$2,633,000 amortization of the unfunded pension benefit obligation.

Fiscal year 1998 contributions were made in accordance with actuarial recommendations determined through an actuarial update performed in fiscal year 1998. Fiscal year 1997 contributions were made in accordance with actuarial recommendations determined through an actuarial study performed in September, 1996. Fiscal year 1996 contributions were made in accordance with actuarial recommendations determined through an actuarial study performed in September, 1994.

Historically, payments to beneficiaries are made by the Company and not from the assets of the Pension Plan. In recent years, payments to beneficiaries exceeded the Company's actuarially computed pension contribution. Withdrawals from pension assets of \$24,334,000 in 1998, \$23,380,000 in 1997, and \$20,391,000 in 1996 were utilized to meet beneficiary payment obligations.

C. Historical Trend Information (unaudited)

Historical trend information reflecting funding progress and contributions made by the Company is presented on page 20.

D. Post Employment Benefit information

In addition to providing pension benefits, the Company also provides health care and life insurance benefits to Pension Plan beneficiaries and their dependents. Such benefits are funded on a pay-as-you-go basis. The Company recognizes the cost of providing health care benefits for the 1,990 and 2,027 beneficiaries and their dependents for the 1998 and 1997 fiscal years, respectively, and the cost of providing such benefits for 1,968 and 1,990 active employees and their dependents for the 1998 and 1997 fiscal years, respectively, by charging the annual insurance premiums to expense. Total premiums incurred for health care amounted to \$21,524,000 in 1998 and \$19,438,000 in 1997, of which approximately 43% and 45%, respectively, represents payments on behalf of retired employees and their dependents. Total premiums for group life insurance were \$1,341,000 in 1998 and \$1,184,000 in 1997, approximately 28% and 29%, respectively, and is attributable to retired employees.

11. *RISK MANAGEMENT:*

The Company is exposed to various risks of loss related to torts: theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Company is principally insured through insurance carriers. The Company's property is insured against the risk of loss or damage, without aggregate limits, in the amount of \$250,000,000 per occurrence with a \$100,000 deductible; subject, however, to an annual aggregate limit of \$100,000,000 for earthquake and an annual aggregate limit of \$50,000,000 for flood, generally, and to lower flood limits as to the Richmond Plant. In addition, the Company maintains boiler and machinery, blanket crime, and other forms of property insurance. With respect to incidents arising between October 1, 1986 and August 31, 1991 and between September 1, 1994, and August 31, 1996, the Company maintains policies of liability insurance insuring against the risk of damage or injury to the public for \$25,000,000 in excess of \$500,000 for any one incident, generally without aggregate limits. Effective September 1, 1996, the Company increased its policies of liability insurance against risk of damage or injury to the public to \$35,000,000. Effective September 1, 1991 through August 31, 1994, the liability insurance retention level was increased from \$500,000 to \$2,000,000 (see below) for any one incident in accordance with instructions from the PGC. In the instance in which the Company and PFMC have potential liability, the Company will defend against the actions and make settlements on behalf of the Company and PFMC with respect to losses incurred by PFMC and the Company up to \$500,000. PFMC and the Company are insured under the same liability policy insuring against risk of damage or injury to the public. The retention level for coverage under this policy was reduced to \$500,000 effective September 1, 1994. The Company also maintains \$35,000,000 of workers' compensation insurance in excess of \$500,000 per incident and additional coverage to the statutory limit on a single occurrence basis for on-duty injuries to employees. During the last three fiscal years, no claim settlements have exceeded the level of insurance coverage. None of the Company's losses have been settled with the purchase of annuity contracts. Director's and officer's liability is the responsibility of the City.

Claims and settlement activity is as follows (Also, see Note 1):

YEAR ENDED AUGUST 31	<u>THOUSANDS OF DOLLARS</u>				
	BEGINNING OF YEAR CLAIMS	CURRENT YEAR CLAIMS AND ESTIMATE ADJUSTMENTS	CLAIMS SETTLED	END OF YEAR CLAIMS	CURRENT RESERVE AMOUNT
1997	12,044	2,599	(4,368)	10,275	4,982
1998	10,275	4,048	(6,618)	7,705	3,503

Also, the Company has entered into several one year contracts to provide health care for both active and retired employees which are experience rated, and premiums are adjusted annually; in addition, the Company has acquired approximately \$158,000,000 of group life insurance coverage for both active and retired employees, which is retrospectively rated on a monthly basis. (Also, see Note 10D).

12. *COMMITMENTS AND CONTINGENCIES:*

Commitments for major construction and maintenance contracts were approximately \$3,210,000 as of August 31, 1998.

The Company is committed under various noncancellable operating lease agreements to pay minimum annual rentals as follows:

12. *COMMITMENTS AND CONTINGENCIES: (Cont'd)*

<u>Year Ending</u> <u>August 31</u>	<u>Thousands of Dollars</u>
1999	\$2.258
2000	665
2001	438
2002	326
2003	296

Rent expense for the years ended August 31, 1998 and 1997 amounted to \$3,066,000 and \$2,724,000, respectively.

On April 16, 1992, the Federal Energy Regulatory Commission ("FERC") issued Order No. 636 which requires the Company's pipeline suppliers, among other things, to unbundle all services performed and to implement a straight fixed-variable rate design. FERC Order No. 636 also requires the Company to pay transition costs. At August 31, 1993, the pipelines had received FERC authorization to commence billing a portion of their transition costs. The Company's total exposure to transition costs stemming from FERC Order No. 636 is not fully determinable until pipeline suppliers file for cost recovery. Based on their approved filings and in anticipation of future filings for known costs, it is estimated that the Company's liability for transition costs on August 31, 1998 and 1997 is approximately \$15,000,000 and \$18,000,000, respectively. Therefore, the Company has recorded both a deferred debit and a deferred credit on the balance sheet of \$15,000,000 and \$18,000,000 at August 31, 1998 and 1997, respectively. As of August 31, 1998, the Company has paid approximately \$20,661,000 of principal and interest for FERC Order No. 636 transition costs to its pipeline suppliers. Such amounts have been recovered through the normal GCR.

The Company, in the normal course of conducting business, has entered into long-term contracts for the supply of natural gas and firm transportation and long-term firm gas storage service. The Company's cumulative obligations for demand charges for all of these services is approximately \$5,920,000 per month.

The Company has entered into contracts to purchase \$25.2 million of natural gas at firm prices ranging from \$2.20 to \$2.69 per mcf during the period September, 1998 through January, 1999.

13. *YEAR 2000 ISSUE (UNAUDITED)*

The Company has entered into various contracts to replace obsolete software and systems and to make existing software and systems year 2000 compliant. The year 2000 issue is the result of shortcomings in many electronic data processing systems and other electronic equipment that may adversely affect the Company's operations. As of August 31, 1998, the stage of the projects ranged from assessment to implementation. During 1998, \$14.2 million was spent studying, remediating and replacing software and systems. This amount includes the cost of replacing non-compliant obsolete systems which may have been replaced for other business reasons, such as aeregulation, within the same time frame. As of August 31, 1998, the Company had commitments outstanding totaling \$10.7 million for future remediation and replacement.

Because of the unprecedented nature of the Year 2000 issue, its effects and the success of related remediation efforts will not be fully determinable until the year 2000 and thereafter. Management cannot assure that the Company is or will be Year 2000 ready, that the Company's remediation efforts will be successful in whole or in part, or that parties with whom the Company does business will be Year 2000 ready.

PHILADELPHIA GAS WORKS  
 SCHEDULE OF PENSION FUNDING PROGRESS (unaudited)

(Thousands of Dollars)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	(Overfunded) Unfunded AAL (UAAL)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll ((b-a)/c)
9/1/92	259,911	299,484	39,573	86.79%	100,512	39.37%
9/1/93	277,370	310,775	33,405	89.25%	109,036	30.64%
9/1/94	300,824	288,420	(12,404)	104.30%	101,409	(12.23)%
9/1/95	330,829	327,420	(3,409)	101.04%	96,290	(3.54)%
9/1/96	349,675	301,883	(47,792)	115.83%	98,549	(48.50)%
9/1/97	390,631	338,825	(51,806)	115.29%	96,380	(53.75)%

PHILADELPHIA GAS WORKS  
 SCHEDULE OF PENSION PLAN EMPLOYER CONTRIBUTIONS (unaudited)

(Thousands of Dollars)

Fiscal Year Ended	Annual Contribution	Percent Required/ Contributed
8/31/93	12,469	100%
8/31/94	12,712	100%
8/31/95	4,462	100%
8/31/96	7,337	100%
8/31/97	4,590	100%
8/31/98	3,334	100%

---

## **Appendix B**

---

Independent Consultant's Report

---

[This Page Intentionally Left Blank]

May 6, 1999

Honorable Ben Hayllar  
Director of Finance  
City of Philadelphia  
1401 John F. Kennedy Boulevard  
1330 Municipal Services Building  
Philadelphia, Pennsylvania 19102

**Subject: Independent Consultant's Report  
City of Philadelphia, Pennsylvania  
Gas Works Revenue Bonds (1998 General Ordinance), Second Series and  
Gas Works Revenue Bonds (1975 General Ordinance), Sixteenth Series**

Dear Mr. Hayllar:

The attached report contains the findings and conclusions of Stone & Webster Management Consultants, Inc., (Stone & Webster) with respect to the issuance of up to \$115,000,000 of Gas Works Revenue Bonds (1998 General Ordinance), Second Series (the "Second Series Bonds") and up to \$80,000,000 of Gas Works Revenue Bonds (1975 General Ordinance) Sixteenth Series (the "Sixteenth Series Bonds") (collectively the "Bonds").

The Second Series of Bonds are being issued in order to fund a portion of the Philadelphia Gas Works' (PGW) capital improvement program, fund a sinking fund reserve and pay the costs of issuance. These Bonds will constitute the second debt issued under the 1998 General Ordinance. The Sixteenth Series Bonds are being issued to refund all or a portion of the City's outstanding Gas Works Revenue Bonds, Eleventh Series C and Fourteenth Series as well as fund a sinking fund reserve and pay costs of issuance. These Bonds will be issued under the 1975 General Ordinance.

Stone & Webster has broad experience in the technical and financial analysis of the operation of a gas distribution system of the magnitude and scope of PGW and has a favorable reputation for competence in such field and is qualified to do such work (see Appendix for Stone & Webster qualifications).

## SCOPE OF WORK

Stone & Webster has prepared a detailed report including historic and forecast schedules. The basis for the report is our review of PGW's operations, facilities, and its customer, sales, and financial forecasts. As the basis for our report, we have conducted an independent investigation of such physical properties and books and records that we deemed necessary in order to make the findings and conclusions contained herein. The report also provides an assessment of the condition of the physical plant including PGW's existing production, storage and distribution facilities, among others, based upon on-site inspections of facilities. It reviews and evaluates existing and planned natural gas transport and supply contracts with respect to volumes of gas to be delivered and evaluates the adequacy of present inventory, current and future gas supplies, pipeline transportation

Stone & Webster Management Consultants, Inc.

One Penn Plaza, 250 W. 34th Street  
New York, New York 10119-2998  
Phone: 212.290.7000  
Fax: 212.290.7033  
[www.stoneweb.com](http://www.stoneweb.com)

capacity, and supplemental gas production capabilities. Furthermore, an evaluation and description of PGW's capital improvement program for fiscal years 1999 through 2005 is addressed with the objective of judging the consistency and reasonableness of the major replacements and improvements which will be made to the gas system.

The report provides an overview of PGW's long-term capital program and an assessment of the regulatory and rate setting environment under which the imposition and collection of rates and charges will occur. This financial assessment, based on PGW's 1999 through 2005 financial forecast, is structured to permit the reader to make an estimate of PGW's ability to meet the current and future costs of operation and maintenance, as well as its ability to meet debt service coverage tests and other bond covenants set forth in the legislation which governs debt financing.

## **FINDINGS AND CONCLUSIONS**

Detailed findings and conclusions are contained in the attached report; however, subject to such findings and conclusions, the following points summarize Stone & Webster's key opinions relevant to issuance of the Bonds:

### Operations

- PGW is a competently managed and operated gas distribution utility. PGW and its facilities are organized, operated and maintained at a level equal to or in excess of regulatory requirements and generally accepted industry practices. Based upon our investigation, we believe PGW's facilities are in good operating condition.

### Finance

- Based on our investigation and evaluation of financial forecast information covering the period 1999 through 2005, and on the basis of actual and estimated future annual financial operations of PGW's facilities and certain assumptions with respect thereto over the amortization period of either the Second Series Bonds or the Sixteenth Series Bonds, which assumptions we believe are reasonable, current and future project revenues which are pledged under the General Ordinances (hereinafter defined) comply with the requirements of the definition of project revenues in Section 2 of The First Class City Revenue Bond Act (the "Act") and, over the amortization period of the Bonds, will be adequate to meet all expenses of operation and maintenance, repair and replacement, reserve fund deposits, debt service on the bonds issued under the General Ordinances as the same shall become due and payable and the surplus requirements of the rate covenants contained in Section 4.03(b) of the Ordinance of City Council approved May 30, 1975, Bill Number 1871, as amended (the "1975 General Ordinance") and in Section 4.03(b) of the General Gas Works Revenue Bond Ordinance of 1998 (the "1998 General Ordinance") (collectively the "General Ordinances").
- The project revenues which are pledged as security for the bonds issued under the General Ordinances are projected to be sufficient to comply with the rate covenants set forth in Section 4.03(b) of each of the General Ordinances. The forecast projects an increase in the amount of \$20 million of revenue enhancement in 2002 which continue thereafter. These enhancements can be effected by either a general rate increase or from equivalent savings in operating expenses or from a combination of both.
- The capital improvements included in this forecast which are needed to meet current budgeted and forecasted results, 2000 through 2005, are premised on additional funds amounting to \$75 million. It is anticipated that this will be financed by a revenue bond placement in fiscal year 2003. It is assumed for purposes of this report that all revenue bonds will be tax exempt and the 2003 bonds will be issued at an interest rate no greater than 6.5%.

### Management

- Since October, 1998, there has been significant turnover in senior management. These positions have been filled either on a temporary or permanent basis, except for the Chief Financial Officer whose functions have been otherwise allocated.

### Capital Expenditures

- The capital improvements proposed during the budget and forecast period, 2000 through 2005, will, along with continued good operation and maintenance practices, enable PGW to maintain its system in good operating condition. Our review of present management practices indicates that this is likely to continue, provided the necessary capital budgets of PGW are approved. (Detailed engineering quality assurance inspections and testing were not performed.)

### RFP Process

- In early 1999 the Philadelphia Facilities Management Corporation ("PFMC") Board, a non-profit Pennsylvania corporation incorporated by the City for the purpose of operating PGW, requested qualifications from and initiated discussions with a large number of utilities to determine their interest and ability and the feasibility and desirability of contracting out for all or a portion of the management functions of PFMC. After an interview and review process, PFMC has determined to proceed with a request for proposal (RFP) process to possibly contract out only the gas management and supply function. PFMC has decided not to pursue an RFP for more general management services at this time.

### Gas Supplies

- Contracted PGW gas supplies plus spot market purchases plus anticipated additional contracted supplies plus supplemental gas capacities as well as the pipeline transport capacity to move these supplies to PGW are adequate to meet PGW's forecast of demand on a day of maximum demand (a design peak day), or an hour of maximum demand (a design peak hour), and during a year of maximum demand (a design peak year). If PGW's plans for outsourcing of supply services materialize, in Stone & Webster's opinion this would not impact PGW's ability to continue to meet maximum demands.

### Sales

- The continuing decline in Philadelphia population (estimated to have declined 9.4% between 1990 and 1998) and loss of jobs (decline of 4.0% between 1980 and 1990), if they continue, will eventually limit residential customer growth. This assumption is included in PGW's forecast.
- Fiscal year 1999 is turning out to be warmer than most years. PGW's current estimate (based on actual data through February 1999 and six months of best projections based upon currently available information) is that fiscal year 1999 will have 14.7% fewer degree days than an average year, decreasing expected firm sales for the year.

- PGW firm sales volumes over the forecast period (2000 to 2005) are expected to increase by 1.7 percent. Interruptible sales volumes are forecasted to increase 21.6% over the same period and transport sales are projected to be flat.

#### Legislation

- No change in current legislation has been factored into these forecasts, since bills pending in the Pennsylvania state legislature concerning open access on distribution systems have not been enacted at the date of this report and at such date such bills do not apply to municipal utilities such as PGW.

The accompanying forecasts are based on assumptions of future events and should not be construed as a statement of fact. These assumptions have been provided by or have been reviewed with and approved by PGW and are based on present circumstances and information currently available. During this assignment, we analyzed such information as was considered appropriate for use in evaluating the assumptions pertaining to the financial statement forecasts. Based on current information, we believe that the assumptions are reasonable. These assumptions may be affected by future events and, therefore, the actual results that will be achieved may vary from the forecast.

Sincerely,

STONE & WEBSTER MANAGEMENT CONSULTANTS, INC.



Edward A. McGee  
Vice President  
(Responsible Officer)



Christopher A. Pioli  
Executive Consultant  
(Project Manager)

INDEPENDENT CONSULTANT'S  
REPORT ON THE PHILADELPHIA GAS WORKS

TABLE OF CONTENTS

	PAGE
INTRODUCTION.....	1
GENERAL.....	3
The Philadelphia Gas Works.....	3
Organization and Administration.....	4
Service Area.....	7
Sales and Transport Forecast.....	8
FACILITIES.....	11
Processing Facilities.....	11
Distribution Facilities.....	12
Other Facilities.....	12
Condition of Facilities.....	12
GAS MANAGEMENT.....	16
Supply Services.....	16
Supply/Demand Balance.....	17
CAPITAL IMPROVEMENT PROGRAM.....	19
Budget Process.....	19
Capital Budget and Forecast.....	19
Gas Processing.....	20
Distribution.....	20
Field Service.....	21
Transportation.....	21
Other Departments.....	21
Conclusions.....	22
RATES AND REGULATION.....	23
Regulatory Environment.....	23
Energy Assistance Programs.....	25
Rate Schedules and Developments.....	28
FINANCIAL CONSIDERATIONS.....	30
Revenue Bond Financing.....	30
Current Estimate of 1999 Results.....	32
Statement of Income.....	33

#### LIST OF FIGURES\*

Figure 1	Philadelphia Gas Works Organization
Figure 2	Map of the Philadelphia Gas Works Service Area
Figure 3**	Philadelphia Population Statistics
Figure 4**	Philadelphia Employment Statistics
Figure 5A	Peak Day Availability by Delivery Source
Figure 5B	Annual Requirements by Delivery Source
Figure 5C	Comparisons of Gas Costs Among Major Pennsylvania Utilities
Figure 6	Peak Day Demand vs. Availability
Figure 7	Peak Hour Demand vs. Availability
Figure 8	Proposed Capital Improvement Program by Year, 1999-2005
Figure 9	Proposed Capital Budget by Category, 1999-2005
Figure 10	Proposed Capital Budget by Category, 1999

#### LIST OF TABLES\*

Table 1	Historical Number of Customers
Table 2	Historical Gas Sales
Table 3	Projected Gas Sales
Table 4	Projected Gas Customer Billings
Table 5	Contracts for Transportation, Storage and Supply Services
Table 6	Supply/Demand Balance (normal year 1999-2005)
Table 7	Supply/Demand Balance (design year 1999-2005)
Table 8	Peak Design Day and Peak Design Hour Capacity
Table 9	Proposed Capital Improvement Program
Table 10	Major Capital Budget Items
Table 11	Benchmark for Returned Check Charges
Table 12	Benchmark for Field Service Call Charges
Table 13	Benchmark for Field Collection Charges
Table 14	PGW LIHEAP Participation
Table 15A	Coverage of Debt Service From Operations-1999 Refunding; 1999 New Issue
Table 15B	Coverage of Debt Service From Operations-No Refunding; 1999 New Issue
Table 15C	Coverage of Debt Service From Operations-1999 Refunding; 2000 New Issue
Table 16	Sources and Uses of Cash for Capital Improvement Expenditures
Table 17	Accounts Receivable - Historical
Table 18	Accounts Receivable - Forecast

#### LIST OF EXHIBITS\*

Exhibit I	Selected Operating Statistics
Exhibit II	Forecast Statement of Income
Exhibit III	Forecast Other Operation and Maintenance Expenses
Exhibit IV	Capital Expenditures
Exhibit V	Analysis of Internally Generated Funds
Exhibit VI	Analysis of Cash and Annual Cash Balances

#### APPENDIX

A Note on Sales/Supply/Demand Units  
Introducing Stone & Webster Management Consultants, Inc.

Notes \* Figures, Tables and Exhibits are based on data supplied by PGW.

\*\* Figures 3 and 4 are based on data supplied by the Delaware Valley Regional Planning Commission and the PA Department of Labor & Industry, respectively.

## INTRODUCTION

The Philadelphia Gas Works ("PGW"), a city owned gas distribution utility in the City of Philadelphia (City), retained Stone & Webster Management Consultants, Inc. ("Stone & Webster") to prepare this report in connection with the issuance of up to \$115,000,000 Gas Works Revenue Bonds (1998 General Ordinance), Second Series (the "Second Series Bonds") and up to \$80,000,000 Gas Works Revenue Bonds (1975 General Ordinance), Sixteenth Series (the "Sixteenth Series Bonds"). Stone & Webster was asked to investigate, evaluate and state conclusions regarding:

- The adequacy of PGW gas supplies and their transport capacity on feeder pipelines;
- The adequacy of current and future PGW revenues to meet operation and maintenance expenses, reserve fund deposits, debt service on the Bonds, lease payments on certain leased assets, and the rate covenant requirements of the General Ordinances rate covenants; and,
- The appropriateness of the capital improvements (being financed with the proceeds of the Bonds as well as through leases and internally generated funds) to maintain the PGW system in good operating condition.

The findings and conclusions regarding these issues are contained in this report. Historical and forecast statistics and related figures are displayed in Figures 1-10, Tables 1-18 and Exhibits I-VI which are an integral part of this report. This report also contains Stone & Webster's independent assessment of PGW's organization, management, and overall strategic plan.

During the second quarter of 1999, a review and evaluation, based upon on-site inspections, was made of production, storage, distribution and general plant facilities. The adequacy of gas supply and transport resources to meet forecast requirements was determined. The capital improvements program was evaluated as to the appropriateness of quantities and estimates of material and labor prices, and justification of improvements and benefits to the gas physical system. An evaluation was also conducted of the five major computer mainframe systems being purchased and customized during the early years of the forecast, since they also represent a major portion of the capital program. Finally, Stone & Webster assessed the regulatory and rate setting environment which was factored into a series of pro-forma financial forecasts for purposes of analysis. This analysis permitted us to estimate PGW's ability to meet the current and future costs of operations, maintenance and debt service coverage requirements and other bond covenants set forth in the statutes which govern debt financing.

Fiscal year 1999 is turning out to be warmer than most years. PGW's most recent estimate (based on six months of actual results through February and six months of projections based upon currently available information) is that the year will produce 3,925 degree days, a decrease of 14.7% from average weather. On this basis a "Current Estimate" of operations and financial results was compiled and is shown together with expectations for the budget and forecast years in most tables and exhibits at the end of this report.

Major factors and key assumptions relative to the forecast are listed below and are discussed in more detail in the report:

- Based on our financial analyses, continuing GCR (gas cost recovery) adjustments will be required in order for PGW to meet the financial forecasts included herein and the terms of its bond covenants.

- The forecast envisions an increase in the amount of \$20 million in 2002 from either a general rate increase or from savings in operating expenses or from a combination of both.
- Capital Improvement Program - An additional revenue bond issue will be required to fund the capital program in the year 2003. The revenue bond issue is assumed to be tax exempt and have no greater than a 6.5% interest rate.
- Legislation - No change in current legislation has been factored into these forecasts, since various Commonwealth of Pennsylvania proposals concerning open access on distribution systems are still unresolved and since there is no clear indication regarding which, if any, portions of such legislation might apply to a municipal utility such as PGW.
- Accounts Receivable - The decline in Accounts Receivable observed over the five year period from 1994 through 1998 as a result of continuing and increasing emphasis on collections is assumed to continue during the current year 1999 and the budget year 2000 before turning up slightly as revenues increase in forecast years over the forecast period.
- Information Technology - The aggressive effort to convert all five major business applications during the past year is expected to lead to their implementation prior to the end of calendar 1999. One of the five applications (Accounting and Finance) has been implemented. Should any of the remaining applications not continue on schedule for implementation prior to the end of calendar 1999, contingency plans are in place to continue use of the prior application(s) and modify them to assure operability through and beyond Year 2000.

## GENERAL

### THE PHILADELPHIA GAS WORKS

The Philadelphia Gas Works consists of real and personal property, whether tangible or intangible, owned by the City of Philadelphia, plus the organization and personnel necessary for the acquisition, transport, delivery and sale of natural gas within the City.

In March 1835 a City Ordinance was passed authorizing private ownership and operation of a public gas utility under trustee management. This Ordinance also contained an option clause permitting the City to take ownership of PGW by issuing City bonds to the private stockholders. This option initiating City ownership of PGW was exercised March 1, 1841, and has since been continuously in effect. Manufactured gas production commenced February 8, 1836 and service was inaugurated February 10, 1836 to 46 gas lamps along Second Street. PGW thus has completed 163 years of service to the citizens of Philadelphia.

During its 163 years of existence, the operation and management of PGW has evolved to its present configuration through a variety of arrangements. Initially it was managed by the private owners. In 1841, a Board of Trustees assumed management of PGW in accordance with an enabling City Ordinance. This arrangement continued through April, 1887 when management and operation of PGW was assumed by the City under the Director of Public Works. Serious financial and operating problems led to replacement of this arrangement on November 12, 1897. At that time, the City, unable to sell PGW, contracted with the United Gas Improvement Company (UGI), now UGI Corporation, for the operation and management of PGW under authority granted by the City Charter. Operation and management by UGI continued through December 31, 1972.

On January 1, 1973 the Philadelphia Facilities Management Corporation ("PFMC"), a not-for-profit Pennsylvania corporation, was incorporated by the City for the specific purpose of operating PGW. PFMC currently manages PGW in accordance with the original Agreement with the City dated December 29, 1972 as subsequently amended (the "Agreement").

<u>Organization</u>	<u>Function</u>
City of Philadelphia	Owens PGW property and establishes legislation for PGW functioning.
The Gas Commission	Established under the Philadelphia Home Rule Charter, and is responsible for overseeing operation of PGW by the PFMC and is charged with regulating rates.
PFMC	Provides executive management and operates PGW facilities.
PGW	Manages construction, operation and maintenance of the gas system on a day-to-day basis.

The Agreement states that for the operation of PGW the PFMC shall provide:

- A Chief Executive Officer,
- A Chief Operating Officer,
- A Chief Financial Officer, and
- Other personnel as deemed appropriate by PFMC.

All PFMC personnel are subject to the approval of the Philadelphia Gas Commission (the "Commission"). The Commission consists of five members: the City Controller (or his designee), two Mayoral appointees, and two City Council appointees. The Commission has the general responsibility to oversee operation of PGW by PFMC and retains all powers not specifically granted to PFMC. In addition, the Agreement specifies certain functions of the Commission, mainly:

- Approval of PFMC personnel.
- Review and make recommendations regarding gas supply contracts for City Council approval.
- Approval of PGW's annual operating budget.
- Review and make recommendations regarding PGW capital budgets for City Council approval.
- Approval of short-term loans,
- Power to establish procurement standards and to fix and regulate rates and charges for supplying gas to customers other than the City and the Board of Education, which will annually produce revenues sufficient to:
  - pay all operating and maintenance expenses of PGW and the interest and amortization expense of its debt.
  - pay \$18,000,000 to the City each year and.
  - provide such other funds as may be approved by the Gas Commission or City Council.
- Review and approval of all PGW real estate acquisitions, sales, or leases for submittal to City Council for approval by ordinance.

## ORGANIZATION AND ADMINISTRATION

The current PGW organization, a typical line organization, is shown in Figure 1. In preparing this study interviews were conducted with a Board Member of PFMC and all of PGW's officers: Interim President, Executive Vice President, Senior Vice President, and six of the eight Vice Presidents. We also interviewed PGW's Controller, and a number of its Managers and Directors. The interviews were supplemented by review of PGW policies, practices, procedures and field observation of numerous employees at various facilities performing their functions. Based on these interviews, reviews and observations, it is our opinion that PGW is suitably organized, managed, and operated by qualified personnel.

Total PGW employment as of March 31, 1999 was 1,903. The Gas Works Employees' Union of Philadelphia, Local #686, 'Service Employees' International Unit (an AFL-CIO affiliated union) represents 1,521 employees. The Amalgamated Plant Guard Workers of America union contract expired August 31, 1998 and was not renewed. These figures represent a substantial decrease from personnel levels a decade ago in accordance with the Gas Commission's order of October, 1988, directed at reduction of expenses, and recommendations contained in the revitalization plan of 1995 by a turnaround consulting/management firm.

On August 6, 1993 there was a work stoppage by the Gas Works Employees' Union over a number of issues, including salary issues, in the proposed contract. This work stoppage lasted 85 days until it was settled in October, 1993 with a five-year agreement. It was the third work stoppage in the history of PGW. The first two which occurred in 1971 and 1989 were of shorter duration. The May 15, 1998 contract expires May 15, 2001.

During 1998 PGW experienced a number of changes in its management. In the Fall of 1998, at the expiration of employment contracts for previous management<sup>1</sup>, PFMC assigned Mr. Benjamin Hayllar as Interim President and Chief Executive Officer of PGW. Dr. Hayllar was selected based on his strong financial background and previous experience as Director of Finance for the City of Philadelphia. The following brief resumes provide pertinent information on the major management qualifications of the current PFMC/PGW Senior Officers:

#### PGW Officers

##### Ben Hayllar – Interim President and Chief Executive Officer

Dr. Hayllar is currently Interim President and Chief Executive Officer of PGW. He also serves on the Philadelphia Facilities Management Corporation's Board of Directors, the governing board for PGW, having been appointed to the Board on December 19, 1994.

Dr. Hayllar also serves as the Director of Finance, City of Philadelphia, appointed by Mayor Edward G. Rendell on October 4, 1993. As a member of the Mayor's Cabinet and the Chief Financial Officer of the City, he is responsible for financial and fiscal policy development and directly oversees all City financial activities, including Budget, Accounting, Revenue Collection, Treasury, Procurement, Minority Business Enterprise Council, Risk Management and Bureau of Administrative Adjudication.

Prior to joining the City of Philadelphia, Dr. Hayllar was the Director of Finance for the City of Pittsburgh (1989-1993) responsible for tax revenue collection and investment, employee benefits and payroll, long range fiscal planning and municipal debt management, and was Trustee for maintenance and disposition of properties acquired through tax. From 1985-1989, he was Vice President/Division manager, Metropolitan Banking, at Equibank.

Dr. Hayllar received his Ph.D. in communications from the University of Pittsburgh. His M.A. and B.A. are also from the University of Pittsburgh.

##### Gregory D. Martin, Executive Vice President and Chief Operating Officer

Mr. Martin is Executive Vice President and Chief Operating Officer of the PGW. In this capacity, Mr. Martin manages the gas operations, customer service and systems technology activities.

---

<sup>1</sup> An investigation is ongoing into expense spending and certain other actions on the part of certain outgoing previous senior personnel.

Prior to his appointment to PGW, Mr. Martin was Vice President, Gas Management at Equitable Gas Company in Pittsburgh, Pennsylvania. There, he directed and managed the gas supply purchasing, planning, off-system marketing and sales, federal regulatory, retail transportation and gas measurement functions. He also held the position of Vice President, Consumer Products at Equitable Gas - Energy, a non-regulated marketing affiliate of Equitable Gas Company. Mr. Martin has also held positions as Gas Procurement Administrator, with the Charlottesville Gas Utility Division in Charlottesville, Virginia, Special Assistant to Commissioner Wesley Long at the District of Columbia Public Service Commission and Special Assistant to Commissioner Matthew Holder at the Federal Energy Regulatory Commission.

Mr. Martin holds an M.A. and B.A. in Political Science from the University of Wisconsin and University of New Orleans, respectively.

Abby L. Pozefsky, Sr. Vice President and General Counsel

Ms. Pozefsky was appointed Senior Vice President and General Counsel of PGW in July 1998. She serves as General Counsel, managing all legal work, and is also responsible for oversight of the Human Resources Department.

Ms. Pozefsky previously held the position of Chief Deputy City Solicitor of Regulatory Affairs for the City of Philadelphia Law Department. In her twelve years with the City Law Department she served in various capacities, including General Counsel to the Water Department, the Philadelphia Airport and the City Municipal Energy Office.

Ms. Pozefsky received a B.A. degree from the University of Pennsylvania and a Juris Doctor degree from New York University Law School.

Thomas M. Smyth, Vice President, Controller and Chief Accounting Officer

Mr. Smyth was appointed the Vice President, Controller and Chief Accounting Officer, in February 1999. He is responsible for all financial reporting, accounts payables, fixed assets and related duties. He previously held the position of Executive Director-Internal Auditing since starting with PGW in July 1997.

Before joining PGW, Mr. Smyth held various positions with the Bell Atlantic Corporation and a major transportation company.

Mr. Smyth received his B.S. degree from Delaware Valley College and an M.B.A. from LaSalle University. He is a member of the American Institute of Certified Public Accountants and the Pennsylvania Institute of Certified Public Accountants.

PFMC Board of Directors

J. Gregory Driscoll serves as Chairman of the Board of PFMC. Other members of the Board, most of whom have been appointed since 1995 include Andre L. Dennis, Esq., Ben Hayllar, William J. Marrazzo, Rev. William B. Moore, Dennis Arouca, Esq. and Jamie Sheller, Esq.

## SERVICE AREA

Philadelphia Gas Works is the largest municipally-owned gas utility in the nation. PGW purchases, sells, and distributes natural and supplemental gas within the limits of the City of Philadelphia (see Figure 2). The City's borders envelop a predominately urbanized area of 129 square miles in southeastern Pennsylvania along the Delaware River. Within these boundaries PGW maintains a distribution system with approximately 6,000 miles of gas mains and service pipes with customer billings of approximately 514,000 customers.

The City is the largest incorporated area in the Delaware Valley region. The 1990 U.S. census, as reported by the Delaware Valley Regional Planning Commission (DVRPC) in April, 1991, counted 1,585,577 inhabitants in the City, a decrease of 6.1% since 1980. The latest Census population estimate (for 1998) reflects a population of 1,436,000, a decrease of 9.4% since 1990 (see Figure 3). The average annual reduction in population in the city since 1996 is estimated at 1.4%. The region is comprised of Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania, and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. Seven of these nine counties (all except Philadelphia and Delaware) are estimated to have increased their population in 1998 over their 1990 census figures.

Philadelphia's economic orientation has been shifting steadily towards service-related activities. Whereas Government and most private sectors are estimated to have declined in employment statistics, service sector jobs within the City are estimated to have increased to nearly 300,000 in 1997 (see Figure 4). This increase is on top of an increase of 8.5% from 1986 through 1992. The main service industries in the City of Philadelphia are law, health, hospitality and education. The relatively low costs of living and office space compared to cities of similar size, along with a prime location at the heart of the Washington-New York-Boston corridor, and the presence of major research universities helps assure Philadelphia a continuing capacity to attract and retain a dynamic private sector.

The City of Philadelphia has formulated a number of aggressive plans to counteract recent trends of jobs and residents transferring from the City to the Suburbs. Plans include continuing to reduce city resident taxes, reduce crime and focus on capital improvements. The City expects to spend \$800 million between 2000 and 2005 directed at infrastructure renewal to continue revitalization of the community. The revitalization of Philadelphia's central neighborhoods has included the construction of new office buildings, hotels, and the renovation of existing structures. Many of the City's older sections continue to be rejuvenated through the restoration of existing buildings for residential use.

The City has also focused on the tourism and hospitality industry. PGW has already secured the Convention Center as a heating and air-conditioning customer, and it has become one of PGW's largest customers. In addition, private business is investing in the development of up to 3,000 new hotel rooms by 2001, an increase of over 30% of current hotel space in the city.

While PGW will indisputably benefit from the growth in commercial market and office space in the City, the residential outlook is mixed. The return of urban professionals and so-called "empty nesters" to the City, attracted by a shorter commute and the advantages of urban life, will be somewhat counter-balanced by continuing out-migration by other City residents and the concentration of residential growth outside the City limits. Only slight declines have occurred in customer counts, since increases in commercial and industrial customers have partially offset residential losses. (See Table 1.)

Table 2 shows the historical pattern of PGW's sales. In fiscal year 1998, PGW sold 53.6 billion cubic feet (Bcf) to firm customers. Firm sales volumes have varied due to changes in the number of heating

degree days and the number of firm customers. Total PGW interruptible sales have varied up and down between 9.5 Bcf and 12.5 Bcf over recent years, with 1998 sales at 9.6 Bcf. Gas transportation, a new service provided to PGW's largest commercial and industrial customers whereby the customer arranges his own gas supply and PGW only delivers it, has grown from zero in 1990 to 8.3 Bcf in 1998. Current estimates for 2000 transportation services show a further increase to 15.2 Bcf due to the addition of a very large cogeneration customer.

An explanation of abbreviations used throughout this report for gas volume and energy units as well as for heating units is provided in the Appendix at the end of this report.

## **SALES AND TRANSPORT FORECAST**

### **Gas Sales Volume**

PGW's anticipated sales for fiscal 1999-2005 are shown in Table 3. This current budget estimate contains six months of actual known data (September 1998 through February 1999) and six months of best projections based upon currently available information. The 2000 Budget year and all five forecast years are based on the expectation of 4,600 degree days of cold weather.

The sales forecast excluding Load Balancing Service (LBS) sales is based on an analysis of historical usage patterns and utilizes a normal (average) weather pattern containing 4,600 degree days. Factors considered in the forecast include the historical growth or decline in number of customers, PGW marketing programs (e.g. oil heat conversions), changes in rates of consumption by customers in each rate classification, the existing and anticipated price advantage of natural gas over alternative fuels, the availability of natural gas, and the likelihood of PGW's participation in new construction and rehabilitation projects. The forecast for LBS sales is based upon the availability of gas for sale at a competitive price after the demand for gas by all other classes of customers has been satisfied.

Total firm sales are forecast to increase by 1.0 Bcf from fiscal years 2000 through 2005. Although the residential market, which is the largest, is expected to decrease slightly over the timeframe, increases in the commercial and industrial are projected to result in greater aggregate firm sales.

Interruptible sales are expected to increase to 12.0 Bcf in 2005 as shown on Table 3. This represents an increase of 38% over current 1999 budget estimates. Much of this increase is expected from PGW's Boiler and Power Services and Load Balancing Services.

PGW's sales forecasting assumptions result in some differences in comparison to past forecasting efforts. These differences are evident when looking at some of the individual sectors. Most notably, the 2000 budget and all forecast years show a sizable increase in industrial sales, which had been forecast to decrease in prior forecasts. The current forecast is designed around a revised marketing assumption which minimizes the shift of gas loads from industrial sales to transportation customers (which had been forecast in prior years). PGW's Marketing Department has noted eligible customers who could shift to transportation gas have been reluctant to make the change due to gas balancing requirements and gas pricing which has closely tracked alternative fuel prices (#2 and #6 fuel oil). In addition, uncertainty over retail competition in the gas market in Pennsylvania and specifically PGW's customers, has reduced erosion from industrial to transportation customers.

Another area of differences in the forecast versus prior years is evident in the residential sales. The 1999 budget forecast reflects sales considerably lower for residential sales than estimates developed in the 1998 forecast. These differences are in the order of nearly 2 Bcf. According to PGW staff, these differences and the resulting shift to a lower sales forecast value for the residential sector are based on

the application of actual metered customer data as an input into the development of customer use factors. The customer use factors are an important input into the development of a regression analysis used to characterize segment consumption. Prior years included data reflecting estimated readings used to develop use factors, however the saturation of automatic meter reading capabilities has improved the actual recording of customer use and resulted in lower use factors for customers. This reflects a significant and permanent difference in the residential consumption forecast for PGW.

### Transport Volume

Currently PGW has a small number of very large customers taking advantage of the company's gas transportation services. This translates to an estimated 15.2 Bcf of gas by year 2000 and there is no projected change in volume over the planning horizon. Any customer shift to transport gas would impact the sales forecast estimates. PGW continues to closely monitor the price differentials between gas and alternative fuels as a possible signal of customer movement to gas transportation.

### Other Sales

Another significant shift in marketing is PGW's decision to exit its "point-of-sale" marketing programs. The early results of these initiatives were marginal and a business decision was made to focus upon more profitable marketing efforts. For example, PGW will be advancing its Parts and Labor Plan activities to increase revenues through value-added services. In addition, PGW has targeted those Center City customers with accessibility to the city's steam loop. Efforts are in place to try to switch customers from steam to gas equipment while addressing customer concerns over initial equipment costs.

### Competition

PGW faces retail competition from a number of sources, all of which impact sales. PGW's market share of the residential heating market within its service territory is approximately 80 percent, with oil holding approximately 18 percent of the market and the remaining 2 percent utilizing other energy sources. PGW's potential for residential customer, end-use growth within its service territory is estimated as follows: 150,000 space heating customers; 50,000 water heating customers, and 400,000 clothes drying customers. Within the residential market share held by PGW end-use saturations are as follows:

Space heating:	90%
Water Heating:	80%
Cooking:	76%
Clothes Drying:	47%

It is estimated that PGW's market share of the light commercial market (businesses with less than 50 employees) is 46 percent.

### Customer Counts

Table 4 presents PGW's budgeted average number of customers for 2000 and a five-year customer forecast on the same average billings basis. Between 2000 and 2005, the total number of customers is forecast to decrease by approximately 945 customers or less than one percent. The number of residential customers are forecast to decrease by 3,400 customers. Increases in customer billings are expected for the other major customer categories. Commercial customers are expected to increase by

1,866 customers, or 0 percent. Minor increases also occur in the other five customer categories as shown on Table 4.

In general, it is our opinion that PGW's sales forecast is a reasonable projection of sales in light of existing economic conditions within its service territory. It is critical to note that the forecast is dependent on a number of factors. It is highly dependent on winter weather conditions which have not been as cold as normal in the last three years and have impacted sales. The forecast is also dependent on the assumption that the erosion of customers to gas transportation status will be negligible during the planning horizon and the assumption that no open access/customer choice will occur in PGW's service territory. Changes in gas retail competition in the state and/or continued changes in the price of oil may result in changes to customer behavior and impact forecast sales.

## FACILITIES

### PROCESSING FACILITIES

The principal PGW peaking or supplemental facilities include nine City Gate stations and two major gas production plants, Richmond and Passyunk. Located at the plants are two liquefied natural gas (LNG) facilities, a gas control center, a de-activated propane/air plant, and two gas holders (one of which has been removed from service).

a) **City Gate Stations**

Natural gas is received through nine city gate stations from two pipeline transmission companies - Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO). The two pipelines also own facilities and land at the nine gate stations. PGW's facilities at each of the city gate stations perform two basic functions - to meter the flow of gas and to control the pressure delivered to PGW's distribution system.

b) **Gas Control Center**

The gas control dispatchers, located at the Richmond Plant, monitor and control gas flow and pressure from the nine city gate stations to the high pressure distribution system. The gas control dispatchers also provide direction to the production plant operators concerning startup, shutdown and gas flow output from the supplemental facilities. Operations are facilitated through the use of a computer system which includes a backup unit and an auxiliary power supply.

c) **Liquefied Natural Gas Facilities**

There are two LNG facilities - one at the Passyunk Plant and one at the Richmond Plant.

The smaller LNG storage and vaporization facility at the Passyunk Plant receives its liquefied gas supply from the larger Richmond Plant via cryogenic trailer trucks. The Passyunk LNG facility consists of one LNG storage tank of 3,066,000 gallons gross capacity (i.e., the equivalent of 253,300 Mcf (thousand cubic feet) of natural gas) and three LNG vaporizers, each having a capacity of 45,000 Mcf per day - 90,000 Mcf per day planned capacity and 45,000 Mcf per day reserve.

The Richmond LNG plant is one of the largest facilities in the U.S. for liquefaction in addition to storage and vaporization. During the non-heating season, PGW uses the Richmond LNG Plant to liquefy and store natural gas from the pipelines. The plant has the capacity to liquefy and store approximately 23,500 Mcf per day and the two storage tanks have a combined gross capacity of 48,970,000 gallons of LNG (4,045,800 Mcf). Regasification of the liquid is accomplished with six vaporizers having a total output of 450,000 Mcf per day with none in reserve.

d) **Propane/Air Facilities**

The Passyunk propane/air plant has the air compression and propane vaporization capacity to produce 60,000 Dth (Dekatherms) of propane/air mix per day (45,000 Dth per day planning basis) and has a liquid propane storage capacity of approximately 662,250 gallons. This facility has been idle since 1994 and its use is not anticipated in the current five-year gas supply forecast.

e) **Gas Holder Storage Facilities**

The Richmond plant has a low pressure gas holder. The Passyunk holder has been removed from service. The Richmond holder has an operating capacity of 1,000 Mcf. It was installed in the manufacturer's gas era and is in good working order. It is used to enhance operational flexibility at the LNG plant.

## **DISTRIBUTION FACILITIES**

The principal gas distribution facilities consist of approximately 3,006 miles of main, 511,453 services, 205 regulator stations, 599,189 total meters (of which 520,811 are active), miscellaneous valves, instruments and other appurtenances. There are five different operating pressure systems, each system is connected to the other by control regulators. The high pressure systems operate at approximately 110, 60, and 35 psig; the intermediate pressure system operates at 5 psig; the low pressure system operates between 6 and 9 inches of water column (approximately 0.25 pounds per square inch). The majority of customers are served from the low pressure system.

Approximately 58 percent of the gas mains are cast iron pipe, 34 percent are steel pipe, 5 percent are ductile iron pipe and 3 percent are plastic pipe. Approximately 53 percent of the service lines are steel and 47 percent plastic.

## **OTHER FACILITIES**

PGW has its executive and operating offices located at 800 W. Montgomery Avenue, which is a 150,000 square foot office building constructed in 1988. The adjacent former general office building now houses distribution and customer service dispatch centers, a customer information center, operating stations, and warehousing, as well as management information systems, a meter shop, and a metal fabrication shop. Additional facilities include eight district offices and three operating stations for field service and distribution crews. There are also a warehousing facility and an automotive maintenance and repair facility. The automotive maintenance and repair facility is responsible for the upkeep of PGW's fleet of approximately 1,000 vehicles and related equipment. PGW also maintains minor automotive repair facilities at its operating stations.

## **CONDITION OF FACILITIES**

In April, 1999 Stone & Webster conducted site inspections of certain PGW facilities as deemed appropriate. During the inspections Stone & Webster emphasized three evaluation criteria:

- 1) Were facilities in place and fully operational in order to provide dependable service to PGW customers.
- 2) Were the facilities in good condition and operated by trained personnel, and
- 3) Were any conditions evident that might indicate that the facilities were not designed, constructed, operated or maintained in accordance with either current regulatory standards or generally accepted industry practices.

In the course of these inspections the following facilities were visited:

800 W. Montgomery

- General Offices

1800 N. 9th Street (former general office building)

- General Warehouse
- Distribution and Field Service Dispatch Centers
- Distribution and Field Service work stations
- Information Systems
- Customer Service call center

1849 North 9th Street

- Vehicle maintenance facilities
- Vehicle refueling station
- General offices

5138 Belfield (Distribution Satellite Operations Center)

- Distribution and Field Services Facilities

Tioga Satellite Service Center

- Distribution and Field Services Facilities
- LNG Facilities
- Propane/Air Facilities (idle)
- Gas Holder (idle)

Richmond Plant

- LNG Plant
- Gas Control Center
- Gas Holder

City Gate Stations

- Richmond (TRANSCO)

District Regulator

- Underground regulator pit – Mascher St. & Olney Avenue

Large Volume Meters

- First Union Center sports complex

On site observations of PGW's operating procedures were made at the following locations:

Chestnut Street from 6<sup>th</sup> Street to Broad Street

- Replacement of a 6" O.D. (outside diameter) cast iron main with a 6" O.D. polyethylene main.

6<sup>th</sup> Street south of Race Street

- Installation of a 6" O.D. polyethylene main and 2" O.D. polyethylene service for television station and studios of WHY?

Martins Mill Road and Montour Street

- Excavation to determine the location of a short circuit in the cathodic protection system for a 12" O.D. steel main.

1700 block on Cayuga Street

- 12" O.D. cast iron joint encapsulation to stop leaking gas.

155 E. Chelton Avenue

- 16" O.D. cast iron joint leak repair.

Parrish Street from 10<sup>th</sup> Street to 11<sup>th</sup> Street

- Installation of new 6" O.D. polyethylene main to replace an existing cast iron main due to housing renovation.

Walnut Lane and McCallum Street

- Prudent main and service replacement project. Existing 3" O.D. cast iron main replaced by 3" O.D. polyethylene main and 1¼" and 2" O.D. services replaced by like size polyethylene.

5400 Germantown Avenue

- Repair of leaking 16" O.D. cast iron bell joint.

4199 Stout Road south of City Line Avenue

- Tie-in and purging of a 3" O.D. polyethylene main and 2" O.D. polyethylene service line extension.

1500 Belmont Avenue

- Repair of leaking 12" O.D. cast iron bell joint.

On the above job sites visited, all observed facilities, vehicles, equipment and warehouse stock were maintained in good working condition and operated and maintained in accordance with generally accepted gas industry practices. Employees appeared to be knowledgeable of their job requirements and well trained.

In addition to the site inspections, Stone & Webster interviewed the Interim President and Chief Executive Officer, the Executive Vice President and Chief Operating Officer, the Senior Vice President and General Counsel, the Vice Presidents of Marketing, Human Resources, Operations, Gas Management, Information Technology, and Public Policy; and the directors or managers of the Gas Processing, Transportation, Collection, Customer Service, Application Services, Field Services, Engineering and Building Services, Distribution, Technical Administration, Budget and Financial Forecasting, Residential Sales, Commercial and Industrial Sales, and Business and Economic Development Departments. On this or on previous inspections we have reviewed construction, maintenance and operating practices, system design criteria, inventory levels, material and construction standards, safety, regulatory compliance and maps and records.

PGW's highest operating priority is response to emergencies and the maintenance of a safe gas distribution system. PGW maintains maps and other records of the distribution system in good order, and has comprehensive written construction, operating and maintenance standards and procedures. Its personnel are well trained in the operation and maintenance of the gas distribution system. PGW is actively involved in entering their records (Corrosion, Service and Leak Records) into computer databases, thus facilitating and improving the accuracy of accessing information. Reasonable security measures are provided at the major facilities visited such as the two production facilities, the city gate stations and the headquarters building.

Based on the inspections and interviews conducted, it is our opinion that PGW operates and maintains its system prudently and in accordance with current regulatory standards and generally accepted industry practices.

## GAS MANAGEMENT

On April 15, 1999 the PGW Search Committee met and decided to request proposals for supply management services. Earlier in 1999 a request for qualifications had generated interest from a number of parties. The RFP seeks performance guarantees and/or savings guarantees.

### SUPPLY SERVICES

PGW is directly connected with two major interstate pipeline companies: Texas Eastern Transmission Corporation (TETCO) and Transcontinental Gas Pipe Line Corporation (TRANSCO), and has pipeline contracts with both. These two pipeline companies are expected to deliver virtually all of PGW's supplies over the forecast period. The pipeline contracts provide for the transportation of gas purchased by PGW. In order to utilize these contracts in an economic manner, PGW has contracted for a variety of storage services which PGW uses to store gas during low-demand summer periods. In addition PGW owns and operates two LNG (liquefied natural gas) plants which also serve a storage role. These storage gas options permit the matching of supplies to winter-period peak demands.

As shown in Table 5, PGW has two existing transportation contracts on the TRANSCO system and another two transportation contracts on the TETCO system for direct service. These firm transportation agreements are used to move gas to the Philadelphia city gates either directly from producers or from storage facilities. The FT, FT-1 and CDS contracts are for 365 days per year, whereas the smaller PSFT contract is a winter peaking service available for 90 days per year. Additional transportation contracts are in place to move storage gas; these contracts work in conjunction with storage services as described below.

On the TETCO system, PGW employs four storage contracts (SS-1, CNG-GSS-TE, ANR and Equitrans). The SS-1 storage service is directly connected to TETCO. ANR, Equitrans and CNG-GSS-TE are off-system storage facilities. PGW has adequate transportation contracts in place to deliver gas withdrawn from these facilities to PGW. PGW's total daily deliverability from these four storage contracts amounts to 103,856 DTh.

On the TRANSCO system, PGW has four storage contracts (GSS, S-2, WSS, and ESS), with a total daily deliverability from storage of 114,452 DTh. Detailed information for PGW contracts is provided as Table 5.1.

PGW also owns supplemental LNG facilities at Richmond and Passyunk to meet contingent winter demand in excess of pipeline and storage supplies. LNG is produced from pipeline gas during the summer and stored in PGW's two large facilities and one satellite tank within the City. PGW has evaluated upgrades to its LNG capabilities. One upgrade is to add an additional liquefaction unit which would enable it to liquefy gas during the winter. Another is to add an LNG barge capability to the Richmond facility. Both upgrades could provide PGW with significant additional commercial opportunities, as well as potentially reducing the need for off-system storage and peaking services.

A Propane-air (LPG) plant also exists at Passyunk, but has been mothballed. Its usage is not contemplated over the forecast period or beyond.

Figure 5.A pictorially depicts the peak day gas supply delivery sources available to PGW.

## SUPPLY/DEMAND BALANCE

Table 6 presents PGW's forecast of supply and demand under normal weather conditions (4,600 HDD (Heating Degree Days) ) for fiscal years 2000-2005. Over this fiscal period it is expected that daily pipeline deliveries (including storage deliveries) will account for about 95% of PGW's requirements on a current receipt basis, with the balance supplied from inventories of LNG.

Table 7 restates PGW's forecast of supply and demand under design weather (5,280 degree days) conditions for fiscal years 2000-2005. Daily pipeline deliveries through Texas Eastern and Transco from gas producers/marketers account for approximately 78 percent of total requirements; and storage gas accounts for approximately 16 to 17 percent of demand throughout the forecast period. Remaining demand is met with LNG.

Figure 5B pictorially depicts normal and design year annual gas requirements for 1999-00 by delivery sources to PGW.

As shown in Table 5, the pipeline transportation contracts provide PGW with up to 109.7 million Dth annually. To the extent practicable and most prudent, PGW intends to maintain flexibility on both pipelines by continuing to contract gas supplies from both marketers and producers.

Table 8 restates PGW's forecast of supply and demand under peak day and peak hour conditions. Sendout requirements are based upon the assumptions of a peak winter week day with an average daily temperature of zero degrees Fahrenheit (F) (equivalent to 65 Heating Degree Days) and an hourly peak temperature of minus five degrees Fahrenheit. Under these conditions interruptible sales are planned to be suspended in accordance with provisions in the contracts for such rates. Under peak day conditions, projected firm demand could be met throughout the forecast period by pipeline deliveries and the use of PGW's LNG capacity. Figures 6 and 7 compare peak day and peak hour demand to PGW's maximum availability (sendout capability) for each of the forecast years. Figure 7 shows a small sendout safety factor exists for peak hour demand, even in fiscal year 2005.

The maximum daily sendout during recent winters has been characterized as follows:

	Average Temp. <u>deg. F.</u>	Total Sendout <u>MMCF</u>	Pipeline Supply <u>MMCF</u>	LNG <u>MMCF</u>	<u>Date</u>
<u>Winter</u> 08-09	23	541.9	448.7	93.2	5 Jan'99
07-98	28	464.5	407.5	57.0	11 Mar'98
06-97	12	661.7	434.2	227.5	18 Jan'97

The system Historical Peak Day occurred on 19 January 1994 with a sendout of 752.7 MMCF at an average temperature of 2 degrees F.

In addition to having adequate provisions for the supply and delivery of gas to its customers, PGW has also maintained aggressive cost management of its supply portfolio. Figure 5C displays an objective gas cost comparison of major Pennsylvania utilities. The analysis displayed removes gross receipts tax from the investor owned utilities and removes the social costs assigned to PGW's gross fuel cost in order to provide an objective comparison. PGW is among the lowest cost gas providers in the state.

PGW management has also designed a gas supply financial hedging program which is currently before the Philadelphia Gas Commission for review. A cost-benefit study has been conducted with the current fiscal

year as a basis which has demonstrated that further savings in gas costs may be achieved through the use of an appropriate hedging program.

In summary, based upon our review of PGW's gas supply acquisition policies, proposed budget, and the analyses described herein, it is our opinion that transportation, storage and supplies of natural gas under contract, along with LNG normally available to PGW, are adequate to meet PGW's forecast of peak hour, peak day and peak year demand through the 2005 fiscal year in a prudent and commercially competitive manner.

## CAPITAL IMPROVEMENT PROGRAM

### BUDGET PROCESS

PGW's capital budget and five-year forecast are the result of a formal process starting when a list of budgeting and operating assumptions is developed to provide overall direction and is circulated to all departments. Individual departments use these assumptions as well as certain specified economic parameters to prepare the capital requirement estimates that form the basis for departmental budgets. These budget requirements and forecasts are based on meeting PGW's design hour and design day forecasts that are prepared by the Gas Management Department. The major operating departments determine their capital requirements by identifying the capital improvements necessary to safely and reliably meet the system-wide conditions calculated for a design day of zero degrees Fahrenheit average temperature, a minus five degrees Fahrenheit design hour, and a normal annual weather pattern producing 4,600 annual degree days. Additional facilities for serving new customers and systems (primarily information technology) to improve customer service are also proposed as part of the budgeting process.

All capital projects and requests are assigned a priority: the highest priorities (priorities 1 and 2) are reserved for expenditures required to maintain the integrity (safety and reliability, respectively) of PGW's system. The next priority (priority 3) signifies expenditures for enforced facility relocations which are based on city, state, or federal mandated projects. The fourth priority relates to expenditures for revenue production from load growth, and the lowest priority category (priority 5) covers expenditures for improved operating efficiencies and/or discretionary items.

PGW's capital budget and forecasts incorporate several changes from earlier forecast periods which reflect improvements to internal policies, procedures and the level of detail information. The most significant changes include:

- Approved capital budget work orders have a defined life span and adjustments must be approved by the Chief Financial Officer.
- Multi-year capital projects are submitted for initial project approval and subsequently submitted for the budget years when funds will be required.
- Approved projects not adequately progressing are reviewed as to whether they are still necessary.
- Capital project priorities and needs are presented within a matrix format which highlights the relationship between priorities and project needs (e.g. Table 10 for budget year 2000).

### CAPITAL BUDGET AND FORECAST

Proposed capital expenditures for both the fiscal 2000 capital budget and the five-year capital forecast (fiscal 2001 through fiscal 2005) total \$317.2 million on a net basis (after reimbursements, contributions, and salvage). The Capital Improvement Programs for fiscal years 2000 - 2005 is summarized in Table 9 and shown graphically in Figures 8, 9 and 10. The projected expenditures against these authorizations are summarized in Exhibit IV.

The fiscal 2000 capital budget totals \$60.9 million on a gross basis (\$59.6 million net), an increase of \$11.1 million (22.2%) from the previous year 1999 Capital Budget of \$49.8 million. The 2000 budget is comprised of \$45.6 million (75.0%) of replacements and \$15.2 million (25.0%) of additions. As shown on Table 9 and pictured in Figure 10, the largest portion of the 2000 budget is allocated as usual to the Distribution Department, which will receive \$26.2 million, 43.1% of the budget. The second largest portion (\$14.5 million or 23.9% of the budget) is represented by the Gas Processing Department which is primarily for Phase 1 of the Richmond LNG Plant Liquefaction Plant Replacement/Enhancement. Unlike the Distribution budget which recurs in similar amounts annually, the Gas Processing budget is more of a *one-time* expenditure to replace and upgrade the near 30-year old liquefaction equipment and does not recur throughout the forecast. Phase 2 is forecast to occur in 2003 and 2004.

Table 10 lists twenty four of the largest items in the fiscal 2000 capital budget. Together these twenty four major projects account for \$48.2 million or 79.1% of the total gross budget. These same twenty four project categories (many of which are annually recurring items) also accounted for \$43.2 million of last year's budget. This indicates that both the largest projects and the majority of PGW's 2000 budget are accounted for by annually recurring activities.

This year's five-year (2001-2005) capital forecast totals \$264.9 million gross, an increase of \$14.4 million (5.8%) over last year's five-year forecast of \$250.5 million. This year's five-year forecast is comprised of \$216.0 million of replacements (81.7%) and \$48.9 million of additions (18.3%). The Distribution Department accounts for \$160.8 million or 60.7% of this year's five-year capital forecast.

## GAS PROCESSING

Proposed investments for additions and replacements to PGW's gas processing plant total \$14.5 million for the 2000 budget period. The 2000 Gas Processing Budget is \$12.1 million more than the budget filed in 1999.

The expenditure breakdown in the 2000 gas processing budget includes \$41,000 for Natural Gas Measurement and Control Facilities, \$175,000 for miscellaneous Supplemental Gas Facilities, and \$138,000 for Building and Grounds. A large capital expenditure of \$14,185,000 has been included in this year's budget for Phase 1 of a Replacement/Enhancement of the Richmond LNG Plant liquefaction plant

## DISTRIBUTION

The proposed expenditures for capital improvements to PGW's distribution system in the fiscal 2000 budget period total \$26.2 million before credits of \$0.8 million for salvage and reimbursement to yield a net total of \$25.4 million. Distribution replacements amounting to \$20.7 million and additions of \$5.5 million account for 79.0 percent and 21.0 percent respectively of the total gross capital expenditures.

The largest capital expenditures for the distribution system are scheduled for the replacement of small diameter (1.25 inches or less) services which account for \$9.6 million of the FY 2000 proposed capital budget. These expenditures are scheduled for the renewal of services based on customer complaints, leak surveys, and city and state work.

Prudent main replacements for intermediate and low pressure mains of small diameter (8 inches or less) amount to \$3.2 million of the FY 2000 budget. In addition to the prudent replacements, replacement of

these same diameter and pressure level mains due to anticipated city and state construction activities involve \$3.7 million of proposed expenditures for the FY 2000 budget.

## FIELD SERVICE

PGW's planned field service related investments total \$7.1 million net in the FY 2000 budget after consideration of \$0.1 million for contributions and salvage. The bulk of the field service budget represents meter purchases and a continuation of PGW's aggressive program for installation of electronic transmitting devices on customer meters. These devices are used to read gas usage, following measurement by the existing gas meter, and transmit it to PGW for billing purposes without the need to send meter readers to a customer's premise. This multi-year installation program is nearing completion with nearly 500,000 of the devices installed. The remainder of PGW's customers - mostly commercial - are forecasted to be converted over to this automated meter reading system commencing in 2000. Benefits to date continue to include a marked decrease in the number of manual meter readings required and a consequent reduction in personnel in this area.

## TRANSPORTATION

Capital expenditures budgeted for transportation by PGW total \$4.1 million net including \$0.3 million salvage during the 2000 budget year. Vehicle replacements/additions will account for 78.6 percent of the gross total with the remainder budgeted for replacement of mobile equipment as well as replacement and addition of shop equipment and purchase of a maintenance tracking system.

## OTHER DEPARTMENTS

Budgets for PGW's departments other than the four departments specifically mentioned above have historically been grouped together under the miscellaneous category "Other Departments" since they are typically too small to warrant a separate category. For the 2000 budget however a number of Information Technology (IT) items which fall into this category have been budgeted simultaneously. These systems, related hardware and facility modifications total \$5.6 million (66.1%) of the total \$8.5 million Other budget. They consist of a number of smaller items ranging from \$22,000 to \$600,000 and a material management system at \$1,269,000. The balance, \$2.9 million (33.9%), is constituted by miscellaneous items in the Other departments such as building modifications and repairs, office furniture and file cabinets and a variety of equipment. In our opinion the IT expenditures for the year 2000 budget are appropriate.

PGW has five major mainframe computer systems:

- Customer Service
- Accounting and Finance
- Gas Management
- Field Services
- Human Resources

These systems are being revamped or replaced with systems having capabilities and flexibilities to expand in areas such as additional customers, and more immediate productivity and cost information. The new Accounting and Finance system has been implemented. An aggressive effort is expected to lead to implementation of the remaining systems during the 1999 calendar year.

PGW embarked on a Year 2000 compliance program in the 4<sup>th</sup> quarter of 1997. This is a formal program with a formal project structure. This approach is expected to provide strategic coverage needed in critical areas of PGW including all information technology assets, embedded systems, and Business System Applications on the mainframe computer.

## CONCLUSIONS

Based on discussions with PGW's management and our review and evaluation of PGW's proposed fiscal 2000 capital budget and ~~forecast~~ capital expenditures for fiscal 2001 through 2005, it is our opinion that the budget is consistent with PGW's corporate objectives and is appropriate for maintaining a safe natural gas distribution system for Philadelphia. PGW's objectives for the proposed capital budget are to provide and maintain the necessary facilities and records to ensure PGW has the capability to deliver safe, reliable service that is cost effective for existing and future customers.

## RATES AND REGULATION

### REGULATORY ENVIRONMENT

The Philadelphia Home Rule Charter contains provisions for the establishment of the Philadelphia Gas Commission (Commission) to regulate the activities of PGW. Under the Management Agreement the Commission's powers and duties include: establishing PGW's rates and related charges, approval of certain management personnel selections by PFMC, approval of operating budgets, review of the capital budget and gas supply contracts prior to approval by City Council, review of PGW's books, records and accounts, setting standards for the procurement and disposal of material, supplies and services, and approval of any changes in gas quality standards. The Commission's five members include: the City Controller, two Mayoral appointees, and two City Council appointees, or their respective designees. The Commissioners provide such service to the City on a part-time, or as-needed basis. However, a permanent staff provides day-to-day administrative and oversight functions.

Request for rate and tariff changes are initiated by PGW based upon anticipated revenues, expenses, capital expenditures and debt service coverage. The Commission holds public hearings on proposed changes to base rates at which PGW and other interested parties are permitted to present evidence supporting their positions regarding the proposed rate change. Community Legal Services, Inc. has been appointed to be the Public Advocate in rate hearings to represent residential customers. The Commission issues orders based on its findings from the evidence and information available. Subsequent to the issuance of orders, an appeals process is available that includes a petition for reconsideration and rights of appeal through the courts. The Commission, through its regulatory review and orders, seeks to obtain a balance between the interests of PGW, the City and its customers.

#### Base Tariff Proceedings

PGW's last Base Rate Case was concluded in 1992. However, PGW initiated a Tariff Revision Proceeding in 1995 which provided language amending the PGW Gas Service Tariff in order to improve customer service and accountability while clarifying the obligations of customers, to facilitate more effective management of accounts receivable and collections, and to provide consistency and conformity within the Tariff. Significant improvements were made within the Tariff which were authorized in 1996 and 1997 and made effective in 1996 and 1998. In general, these improvements reduce the potential for customer fraud, strengthen collection procedures and move customer service charges and fees to more accurately reflect costs incurred as well as widespread industry practices.

In the past PGW has experienced problems with the customer application for service process which have led to delinquent accounts due to fraud. This process has been revised so as to significantly reduce the potential for deception. Additional quantitative changes have been made in recent years which include the following. Returned check charges were increased from \$5.00 to a progressive scale of from \$8.00 to \$34.00 for repeat returns so as to reflect industry standards. Customer service call charges were increased from \$30.00/hour to a schedule of charges which reflect actual costs. And, field collection charges were instituted. Tables 11, 12, and 13 display PGW's previous and current industry benchmark positions. Additionally, service turn-on charges were established and finance charges for past due balances in excess of \$300.00 were increased from a 15% to an 18% annual rate.

On April 27, 1999, the Philadelphia Gas Works received interim approval (final approval must be obtained by May 2000) from the Philadelphia Gas Commission to adjust the two components of its general gas rate to 494,000 residential customers. The charge on the volume of gas used has been reduced while the

monthly fixed customer charge has been increased. The \$3.94 per Mcf of natural gas that is charged to residential customers has been reduced by \$.51 to \$3.43 per Mcf. The \$4.00 per month fixed charge has been increased by \$4.00. During a normal winter, when heating bills are their highest, this change will result in lower gas costs. In the summer months, when heating costs are at their lowest, the customer would have a higher bill due to the \$4.00 increase in the gas charge. Over an entire year, in a normal winter, the customer will pay the same under the new rate structure as under the old. However, in a colder than normal winter, unit gas costs would be lowered because customers would be paying less on the amount of gas used to heat the home.

The change in the two rate components will increase cash flow to PGW during the warm months, and will reduce the seasonal increase in gas bills during the winter months. This is expected to have a positive effect on previously experienced wintertime slow payments and delinquencies. The net result of this change will be an increase in PGW revenue of approximately \$4 million in the first Fiscal Year 1998-1999, since this fiscal year has the benefit of a summer period under the revised rate.

The Gas Works' monthly charge of \$4.00 had been the lowest of area gas utilities, while \$8.00 per month is approximately average for the cost of surrounding utilities.

PGW management does not foresee the need for a base rate case prior to fiscal year 2002, at which time a \$20 million increase in revenue (or equivalent decrease in expenses, or a combination of both) is assumed in the current financial forecast.

#### Gas Cost Recovery Proceedings

In addition to base rates, PGW has a gas cost recovery ("GCR") adjustment designed to permit PGW to adjust its charge on firm, fixed-rate rate schedules on a quarterly basis in order to recover its actual cost of purchased gas. The GCR mechanism also recovers costs which are in support of PGW's low-income weatherization and payment programs. The projected cost of purchased gas is calculated and recovered from customers on a levelized basis in part from a component included in the base rates and in part from the GCR adjustment. GCR collections, which may be positive or negative, together with the cost of gas included in base rates, are matched against actual costs for the year. Any differences are then charged or credited to applicable expenses in the next annual forecast period.

The Commission performs an annual review of the GCR procedure. These reviews, which may be technically comprehensive, can include an investigation into fuel planning and gas purchasing practices of PGW. The Commission has concluded in the past that PGW's gas procurement has fulfilled applicable regulatory requirements by utilizing least-cost gas supplies while maintaining overall system reliability.

PGW management designed and proposed in 1997 a Purchased Gas Adjustment (PGA) to the GCR. The proposed PGA would have adjusted the GCR gas cost component on a monthly basis. This would have allowed more accurate market pricing signals for customers and would have significantly reduced the annual gas cost over/under collections which have varied between ten and twenty million dollars in recent years. This proposal was rejected by the Commission.

#### Regulatory Jurisdiction

Under current regulations all rate regulation authority is held by the City of Philadelphia which has delegated this authority to the Philadelphia Gas Commission. This report assumes rate regulation will continue to be administered as provided in the ordinances.

### State Legislative Issues

House Bill 1068 and Senate Bill 943 which were introduced in the Pennsylvania Legislature during its previous session, did not apply to municipally owned gas distribution utilities. The proposed Bills intended that investor-owned gas distribution utilities in Pennsylvania fully open their systems to access by third-party gas merchants and that such utilities no longer participate (or possibly reduce their participation) in the gas merchant function. Considerable activity and attention surrounded these bills and PGW actively participated in the proceedings. However, a consensus was not constructed among the many interested parties and the bills expired with the legislative session.

A modified version of these bills has again been introduced during the current legislative session: House Bill 937 and Senate Bill 601. These two bills are substantially the same. As currently drafted, they do not apply to PGW if PGW operates exclusively within the City boundaries. However, certain members of the legislature have suggested that they will propose amendments which could affect municipal utilities. The salient features of the bills are:

- Permit gas utilities to propose to increase the frequency of the adjustment of their gas costs in rates from the current frequency of annually to as often as monthly.
- Mandate the unbundling of gas supply services and the implementation of "open access"/ "customer choice" on gas distribution systems.
- Mandate PUC licensure/regulation of natural gas suppliers.
- Repeal of the Pennsylvania gross receipts tax on natural gas utilities (in SB601).

Enactment of legislation in the form described above which applies to municipal gas utilities such as PGW could affect PGW's revenues and expenses. Enactment of legislation which would cause municipal gas utilities to become subject to PUC jurisdiction could affect PGW's operations, revenues and expenses. At the date of this report no specific amendments which would apply to PGW have been proposed in the State legislature. Accordingly, these forecasts are based on legislation currently in effect.

### **ENERGY ASSISTANCE PROGRAMS**

High accounts receivable balances and a larger than normal number of delinquent accounts have occurred at PGW for a number of years. In response PGW has taken a pro-active position in assisting customers in meeting energy costs. PGW works closely with community and legislative groups at the city, state and federal levels to increase funding for energy assistance programs.

#### LIHEAP Program

The Federally-funded Low Income Home Energy Assistance Program (LIHEAP) provides payments to households in order to ensure continued utility service. Philadelphia's residential gas consumers make application through PGW's eight neighborhood offices, Department of Public Welfare or at one of many community sites with the funds obtained going directly to PGW for crediting to the customer's account. LIHEAP is PGW's single most important source of low income assistance funding.

Table 14 details PGW's LIHEAP participation in recent years and provides a forecast for fiscal year 1999. In recent years, PGW has increased its share of LIHEAP funds allocated to the Commonwealth of Pennsylvania from approximately 15 to 20 percent through a vigorous educational and outreach program among its low income residential population.

In 1996 the Commonwealth of Pennsylvania changed the customer eligibility criteria for LIHEAP participation from 150% of the federal poverty level to 110% of the federal poverty level. Consequently, the number of PGW customers which are eligible for LIHEAP has been reduced. Additionally, the Commonwealth of Pennsylvania has not extended the eligibility period in FY'99 for applications for one form of LIHEAP funds, the Crisis Grants. Consequently, PGW's FY'99 forecast projects an approximately \$2,000,000 reduction in Crisis funding.

#### **Vendor Payment Program**

PGW continues to support a Vendor Payment Program for a group of customers known as Scattered Site Tenants of the Philadelphia Housing Authority (PHA). These customers occupy dwellings, usually single family homes, owned by the PHA and whose rental is subsidized by the Federal government. Under agreement with the PHA and the Scattered Site Tenants, the Federal government's Department of Housing and Urban Development provides a utility allowance to PHA, on behalf of the tenant, which is then assigned to PGW.

#### **Utility Emergency Services Fund**

PGW also continues to participate in the Utility Emergency Services Fund (UESF) which is a private fuel fund set up with the assistance of the City of Philadelphia Water Department, PECO Energy and Philadelphia Gas Works. Under this program, customers at or below 150 percent of the poverty level may make application for an energy assistance grant (LIHEAP) which together with their own payment, a grant from UESF, and a matching contribution from the utility involved, will enable the customers to zero-out any arrearages they may have. The maximum allowance that a customer may receive is \$500: \$250 from UESF and a matching grant of \$250 from the utility.

#### **Dollar Plus Program**

PGW also continues to support a program called "Dollar Plus" wherein PGW's customers were asked to add \$1.00 or more to their gas bill payments as a donation to the Utility Emergency Services Fund.

#### **Payment Plans**

PGW maintains a number of residential customer payment plans which are tailored to the customer's ability to pay in order to allow the customer the opportunity to pay down past arrearages and budget future usage and payments.

#### **Customer Responsibility Program**

In 1994 the Philadelphia Gas Commission approved a new low income customer assistance program which was termed the "Customer Responsibility Program" (CRP). This is a low income payment plan that is designed to increase cash flow to PGW and decrease accounts receivable, the related appropriation for uncollectible reserve and the accumulated provision for uncollectible accounts. Existing EAP participants were automatically transferred to the CRP. The CRP is open to any customer who is at or below 150% of the Federal poverty level. Participants are asked to pay the greater of \$30 or 7.35% of their income towards their gas bills, and are required to apply for the LIHEAP Grant program and assign that grant to PGW if eligible. The LIHEAP Cash Grants offset the customer's Earned Discount, and the LIHEAP Crisis Grants offset the customer's pre-program debt. For CRP participants who have excess consumption (defined as consumption in excess of 90% of average consumption for their type of household) the payment cap is increased to 12% of the customer's income. New customers are asked to pay 5% of their arrearage as a down payment, although exceptions are provided if warranted. CRP customers are also required to accept conservation measures if they are offered to them. CRP customers are required to recertify for the program each year and are considered in default when they are two full payments past due. A formula is developed to forgive past arrearages after successful completion of five years on the program. Provisions are made in the regulations to allow exceptions to rules if customers show that they are making a good-faith effort to

meet program responsibilities. Approximately 45,500 customers, or about 9 percent of PGW's total residential customer base are enrolled in the CRP. This level of participation is approximately a 25% reduction from recent years, and is primarily due to PGW's improved eligibility verification and default processing initiatives.

An evaluation of the Customer Responsibility Program was completed in late 1997 by an outside firm. The results of that evaluation were mixed and inconclusive, but did outline adjustments for various areas of the program which should provide for improved customer performance and program cost effectiveness. Many of those recommendations have since been implemented. In general, it is believed that meaningful improvements in the financial performance of the CRP can be obtained through adjustments in PGW's internal procedures and a redefinition of customer eligibility requirements.

Improvements to date include:

- Establishment of closer coordination with state welfare agencies to verify eligibility,
- Improved intake process which now incorporates one-on-one program and energy conservation education,
- Automated collection default notification and processing, and
- Improvements in excess usage charges and LIHEAP makeup charges processing and collection.

Additional improvements are anticipated with the completion of the upgrading of PGW's Customer Information System which is currently in progress. However, significant progress has already been achieved as is evidenced by the improvement in the participant active/default ratio which has grown from 60%/40% to 70%/30%.

The CRP revenue shortfall spread across other customers in fiscal year 97-98 was \$11.9 million, which is a 33% reduction over the previous year. The gas cost rate for fiscal year 98-99 has been approved by the Commission at a level sufficient to provide for this year's revenue shortfall which is expected to be approximately \$9.5 million. The reduction in revenue shortfall is primarily attributed to reduced participation level and warmer than normal weather.

#### Conservation Works Program

PGW has also been active in promoting the Conservation Works Program (CWP) which was the weatherization energy conservation segment of CRP. This program provides energy conservation education and customer workshops and selected weatherization measures for eligible CRP customers, both in single and multi-family homes.

An evaluation of the Conservation Works Program was completed in 1996 in which a number of areas for improvement were identified. The overall cost effectiveness of the program during the previous five years was indicated as marginal. A significant deficiency noted was excessive overhead cost. This deficiency has been corrected by permitting multiple program administrators into the program through a competitive bid process. Currently, the program is operating with about one-half of the level of administrative cost as was experienced prior to the evaluation. Further improvements in the program are underway as well as further evaluation efforts. Current improvement activities are focused on stressing the most cost effective conservation measures, which have been identified as education, air sealing, and set-back thermostats. The program was reevaluated in 1997 and found to be solidly cost-effective. Currently, about 4,000 PGW customers are receiving conservation related installations each year, which is approximately a 30% increase over the previous year's activities. The current level of annual CWP funding is \$2.2 million, which is funded through the GCR.

### **Senior Citizen Discount Program**

PGW offers a senior citizen discount program to residential customers age 65 or older. The discount is approximately 20 percent of the total gas bill. Approximately 92,000 PGW customers are taking advantage of this program.

### **Educational Programs**

PGW also has many programs which it utilizes to inform the community about energy assistance programs that are available to them. PGW works with the Emergency Fuel Group, which is a coalition of approximately 300 community organizations around the City and the region, to get word out about energy assistance programs. Its other activities include monthly consumer round-tables, speakers bureaus in different Philadelphia communities and individual telephone calls. PGW has an extensive telephone and field visit outreach program which is conducted in both English and Spanish.

Low income energy assistance and uncollectibles are a significant issue at PGW. Management of this issue is a top priority of both PGW management and the Commission. Meaningful progress has been made in this area in recent years and further progress is anticipated.

## **RATE SCHEDULES AND DEVELOPMENTS**

PGW offers a range of rate schedules which are offered on a non-discriminatory basis. Rate offerings are based on suitable and reasonable classifications which appear to meet the needs of customers and are competitive with alternative energy sources.

PGW's tariff offers both firm and interruptible sales and transportation services. Firm sales service provides gas under rate schedules for which PGW does not anticipate any interruptions. Interruptible sales service is offered to large volume customers under contracts that permit service interruptions, usually on short notice during peak load conditions or when specified low temperatures are reached. During fiscal year 1998, 84.0 percent of PGW's gas sales volumes were provided as firm service to residential, commercial and industrial customers, including municipal and housing authority customers. Interruptible sales accounted for 16.0 percent of total sales.

### **Firm Sales Tariffs**

Most firm sales customers are served under the General Service (GS) rate which has a flat rate for all consumption and a separate monthly charge for each customer group. Municipal and Philadelphia Housing Authority sales are served under separate firm sales rate schedules (MS and PHA) and represented 4.0 percent of PGW's total sales for the fiscal year 1998.

### **Interruptible Sales Tariffs**

Interruptible sales customers are served under various rate schedules including: Boiler and Power Plant Service - Rate BPS ("BPS"), Load Balancing Services (small, large and extra-large) (LBS-S, LBS-L, LBS-XL), and Cogeneration Service ("CG"). BPS is a flex rate which is set monthly in relationship to the posted price of No. 2 (home-heating) fuel oil. Customers on this rate are generally only interrupted when temperatures reach 18 degrees Fahrenheit. The LBS series of rate schedules are also flex rates which are set monthly in reference to the posted price of No. 6 (industrial) fuel oil. LBS customers have the lowest priority of service. In recent years PGW has made significant progress in developing the sophistication of its alternative fuel based, flex-rate monthly price offering procedures such that their procedures are considered to be above average for the industry. This progress has facilitated the retention of the interruptible sales market and has strengthened associated margins. CG service gas is priced at a rate which

is a fixed margin above PGW's average cost of gas and which may be a negotiated margin for very large customers that will utilize more than one million Mcf of gas per year.

#### **Air Conditioning Provision**

PGW also has an Air-Conditioning special provision included within rate schedules GS, MS, PHA, and BPS which provides for gas service to separately metered gas powered cooling equipment at a discount throughout the billing months of May through September. This provision, which is applicable to equipment installed after 1 September 1990 with a minimum cooling capacity of 15 R-tons, provides a benefit to PGW by increasing the system load factor, thereby lowering overall costs to all firm sales customers.

#### **Economic Development Discount**

PGW continues to offer an Economic Development Discount of up to 15% for qualifying rate BPS customers for up to three years. It is available to new or expanding large commercial or industrial customers who, through significant investments in gas burning equipment, can increase their gas consumption by more than 1,500 Mcf per month.

#### **Natural Gas Vehicle Tariffs**

An additional set of sales rate schedules offered by PGW are for Natural Gas Vehicle ("NGV") service. PGW offers uncompressed gas for firm service via a multi-part demand-commodity rate and interruptible service via a rate which is adjusted monthly in relation to the published "PAD 1 Report" price for regular unleaded gasoline. The NGV market is relatively new to PGW. PGW has added a significant number of NGV vehicles to its own fleet and has developed two new NGV refueling stations in the City. The market potential for NGVs in the greater Philadelphia area could be significant and PGW's ownership by the City may facilitate PGW's efforts in pursuit of that market. However, the recent period of low oil prices has reduced market interest. An eventual return to normalcy for oil prices is also expected to reverse that trend.

#### **Gas Transportation Tariff**

PGW also offers a Gas Transportation Service ("GTS") rate, both as firm and interruptible service. It provides for transportation of customer-owned gas under flexible rates with a cap equal to the margin of the customer's equivalent sales rate. The GTS rate was designed to provide a revenue-neutral approach for PGW for existing interruptible customers that are seeking either interruptible or firm transportation services for their gas supplies. Standby services and balancing provisions are also provided within the rate schedules.

## FINANCIAL CONSIDERATIONS

### REVENUE BOND FINANCING

#### Rate Covenants

All outstanding revenue bonds issued prior to 1998 were issued under the 1975 General Ordinance. The rate covenant in the 1975 General Ordinance requires that the City, at a minimum, impose, charge and collect in each Fiscal Year, such gas rates and charges as shall, together with all other Project Revenues (as defined in the Act) 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) 150% of the amount needed to satisfy sinking fund requirements of principal and interest which will become due and payable during such Fiscal Year for all bonds issued and outstanding under the 1975 General Ordinance; and
- (iii) The amount, if any, required to be paid into the sinking fund reserve under the 1975 General Ordinance during such Fiscal Year; or

#### B. The sum of:

- (i) All Net Operating Expenses payable during such Fiscal Year; and
- (ii) All Sinking Fund deposits required during such Fiscal Year with respect to all outstanding bonds issued under the 1975 General Ordinance and 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 under the 1975 General Ordinance.

The rate covenant in the 1998 General Ordinance requires the City, at a minimum, to 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:

#### I. 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 General Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 General 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 (as defined in the 1998 General Ordinance) and 100% of the amounts payable in respect of the Prior Obligations (as defined in the 1998 General Ordinance) 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 (as defined in the 1998 General Ordinance) 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 under the 1998 General Ordinance during such Fiscal Year,
- (vi) the Rebate Amount required to be paid to the 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 (as such terms are defined in the 1998 General Ordinance) during such Fiscal Year, or

2. 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 General Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 General 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 issued under the 1998 General Ordinance 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 under the 1998 General Ordinance,
- (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.

The Gas Commission is authorized and directed by the 1975 and 1998 General Ordinances to impose, charge and collect, or cause to be collected, all rents, rates and charges which shall be sufficient in each Fiscal Year to comply with the foregoing Rate Covenants.

**Bond Ratings**

In February, 1999, Moody's Investors Service announced the downgrade of the underlying long-term ratings of the Revenue Bonds of the Philadelphia Gas Works ("PGW"). A copy of the Moody's rating change was forwarded to the Municipal Securities Rulemaking Board on March 17, 1999, pursuant to Securities and Exchange Commission rules.

**Bond Proceeds**

We have been informed by PGW that the proceeds from the sale of the Bonds will be used to:

- Finance PGW's current and future capital programs as approved by City Council.
- Refund all or a portion of the City's outstanding Gas Works Revenue Bonds, Eleventh C Series and Fourteenth Series which were issued under the 1975 General Ordinance.
- Pay any other Project Costs (as defined in the Act.)

It is understood that the bonds will be secured solely by the revenues of PGW received from all Gas System users.

The \$100.0 million of the Second Series Bonds (net after sinking fund reserve and issuance expenses) to be issued in 1999, and the projected \$75.0 million of the Third Series Bonds to be issued in 2003, will be used as shown on Table 16. The application of proceeds from these issues can be summarized as follows:

	<u>Amount</u> (000's)
Capital Improvement Fund Balance (08/31/98)	\$65,213
Total Revenue Bonds Issued for Capital Improvements	
- Second Series Bonds (up to)	100,000
- Third Series Bonds issued in 2003	75,000
Less Deposits for Sinking Fund Reserve and Issue Expenses (associated with Third Series Bonds to be issued in 2003)	<u>8,440</u>
Balance Available to PGW as Applied (08/31/05)	<u>\$231,773</u>
Capital Improvement Fund Drawdown	\$231,773
Capital Improvement Fund Balance (08/31/05)	<u>0</u>
Balance Accounted for (08/31/05)	<u>\$231,773</u>

## CURRENT ESTIMATE OF 1999 RESULTS

### Weather Results to Date

Fiscal year 1999 is turning out to be warmer than most years. This will have a major effect on planned 1999 income. PGW's current estimate of financial results is based on fiscal year 1999 containing 3,925 degree days, which is 675 degree days (14.7%) fewer degree days than the average weather which was assumed for budget purposes. The current estimate for fiscal year 1999 is based on six months of actual results (September, 1998 through February, 1999), and projections based upon other currently available information for the remaining six months.

We consider the weather results for the winter of 1998-1999 to be significantly atypical. We believe that average weather is the correct basis for PGW to use for budget and forecast plans.

### Impact on PGW

The 14.7% decrease in degree days in the current estimate for fiscal 1999 has affected PGW's sales and consequently affected its estimated financial results (Exhibit II). PGW projects a drop in firm sales, compared to original 1999 budgeted amounts, of 6,790 MMcf, amounting to a decrease of 11.2%. Firm sales, which primarily consist of heating load, tend to be most directly affected by changes in weather. Residential and Commercial categories of firm sales are estimated to fall 9.2% and 14.7% respectively.

Sales to interruptible customers are estimated to drop by (9.1%) to 8,740 MMcf. The reduction in interruptible sales is primarily due to the warmer than normal weather which had a significant effect on the Boiler & Power Service and LBS direct sales categories. Transportation service volumes are down slightly (4.2%) from budget also primarily due to the effects of warmer than normal weather.

Total Billed Revenues, due to the effects cited above, are estimated to decline from the budgeted level of \$546.2 million to about \$485 million, a drop of \$61 million (11%), as shown on Exhibit II.

In order to offset that decline and ultimately meet the rate covenant under the 1975 and 1998 General Ordinances, PGW initiated a series of expense reductions, as budgeted, and other initiatives. Total reductions and savings from initiatives are projected to be approximately \$18.5 million. At April 1, 1999, nearly \$15.0 million of such reductions had been realized. The remaining \$3.5 million of reductions and initiatives are anticipated to be realized by August 31, 1999. The reductions and expense initiatives consist of (1) a decrease in the reserve for bad debt (savings of \$3.5 million); (2) a decrease in labor costs for overtime associated with normal winter and routine operations, personnel reductions achieved through a hiring freeze and the capitalization of applicable labor costs to capital projects (savings of \$5.0 million); (3) restricted operating and maintenance spending (savings of \$4.3 million); (4) reduction in pension actuarial expense as a result of the overfunded status (\$5.1 million); (5) other income primarily interest earnings on restricted funds are expected to produce \$.6 million in interest income. In addition, the refunding of certain outstanding Gas Works revenue bonds will result in \$2.1 million in debt service savings.

We believe the responses of PGW's management are appropriate.

## STATEMENT OF INCOME

We have reviewed Philadelphia Gas Works' budget and forecast of revenues, operating expenses, and annual amounts of internally generated funds needed to satisfy its capital improvement program, its debt service, payments to the City of Philadelphia, and working capital requirements. (Reference Tables 15 through 18 and Exhibits I through VI at the back of this report.) Recognizing current regulatory and economic conditions under which PGW operates, we believe that PGW has developed a reasonable financial plan for the budgeted fiscal year 2000 and the forecasted fiscal years 2001-2005 assuming normal weather conditions for the forecasted years. The 1999 Current Estimate is also shown in these Tables and Exhibits and we consider this estimate to be atypical due to a warmer than normal winter.

### Financial Plan

PGW's projections for gas revenues and expenses are based upon historical data and assumptions which we consider reasonable. Other components of PGW's projected revenues and expenses have less of a historical basis, but are also based on assumptions which we consider reasonable.

The budget and forecast contemplate increased revenues in the amount of \$20.0 million in 2002.

### Debt Service Coverage

As detailed previously, PGW's rate covenant in the 1975 General Ordinance requires the debt service coverage ratio to be at least 1.50. PGW's applicable rate covenant in the 1998 General Ordinance requires a debt service coverage ratio of (i) 1.00 for debt service on all outstanding Bonds issued under the 1975 General Ordinance, (ii) 1.50 for debt service on all outstanding Senior Bonds issued under the 1998 General Ordinance, and 1.00 for debt service on outstanding obligations to the Philadelphia Municipal Authority existing on the date of adoption of the 1998 Ordinance, and (iii) 1.00 for debt service on (a) all outstanding Subordinate Bonds issued under the 1998 General Ordinance and (b) all other obligations on a

parity with such Subordinate Bonds. In PGW's rate proceeding before the Commission in 1988 all parties agreed that there should be some cushion above the 1.50 level to allow PGW to retain its bond rating. PGW's current projection (6 months actual plus 6 months estimated) results in sufficient coverage ratios under the 1975 General Ordinance and sufficient funds above requirements under the 1998 General Ordinance.

Bond coverage under both the 1975 General Ordinance and the 1998 General Ordinance has been calculated as shown in Table 15A, assuming both the Sixteenth Series Bonds and the Second Series Bonds are issued during fiscal 1999. Coverages of debt service from operations in this case are as follows:

	<u>Fiscal Year Ended August 31,</u>						
	<u>Current Estimate 1999</u>	<u>Budget 2000</u>	<u>Forecast</u>				
			<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
Bonds							
1975 Ordinance	1.64	1.95	2.30	2.48	3.01	2.88	3.33
Senior Bonds							
1998 Ordinance	1.92	2.23	2.02	3.19	3.07	3.07	2.93
Subordinate Bonds							
1998 Ordinance	6.75	13.46	14.94	26.24	31.02	30.58	33.37

This table indicates that sufficient funds are estimated to exist in each year of the forecast to provide the required coverage for each type of debt service as specified under the terms of both the 1975 General Ordinance and the 1998 General Ordinance. All of our tests made under the 1975 General Ordinance and the 1998 General Ordinance show that sufficient funds to provide the required coverage can reasonably be expected to be available during the forecast period.

Table 15B represents an alternate scenario in which only the Second Series Bonds are issued in fiscal 1999. No Sixteenth Series Refunding is included.

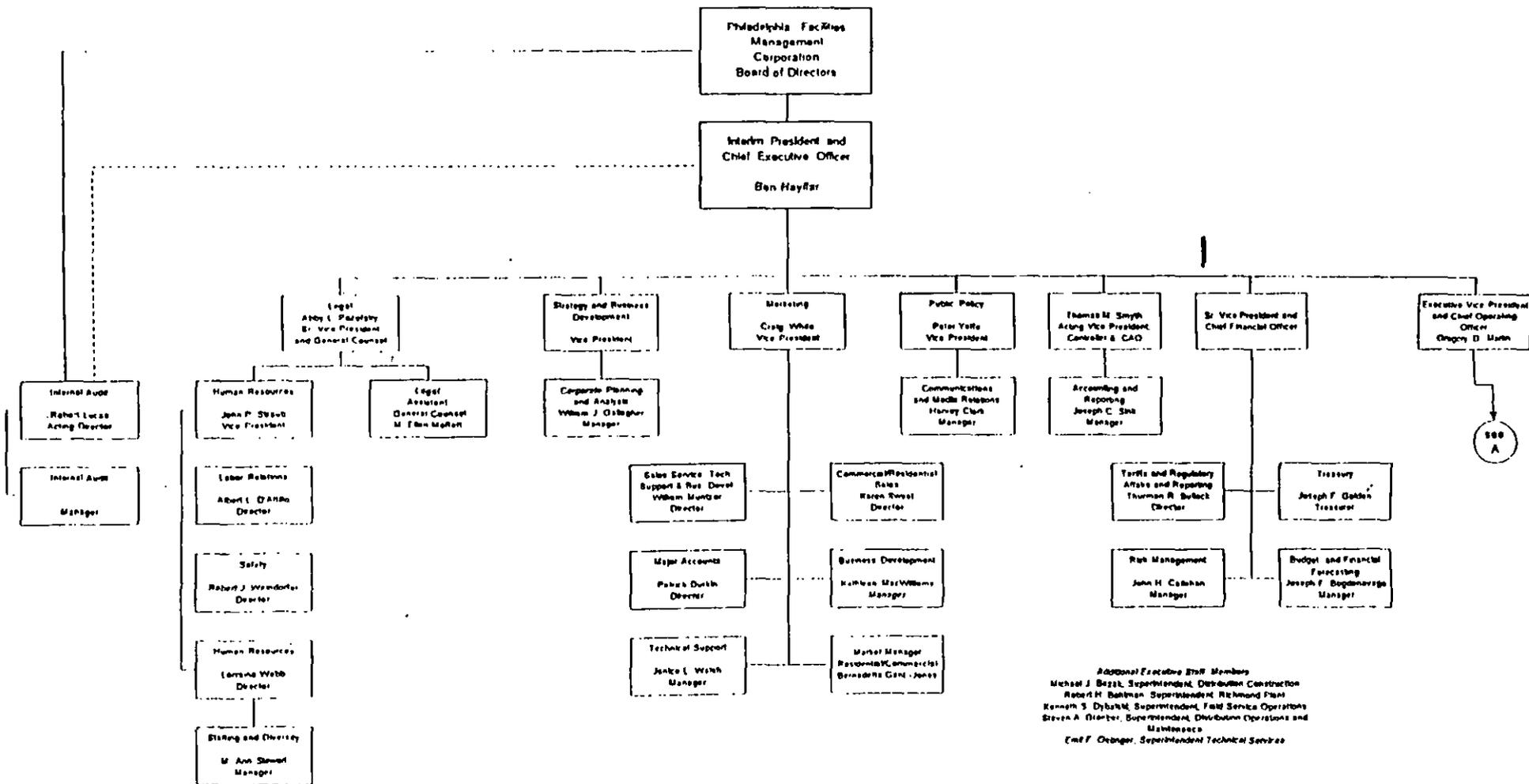
A third scenario is presented in Table 15C in which only the Sixteenth Series Bonds are issued in fiscal 1999. This table assumes that revenue bonds to finance revenue projects are issued in fiscal 2000.

Tables 15B and 15C indicate that sufficient funds are estimated to exist in each year of the forecast to provide the required coverage under terms of both the 1975 General Ordinance and the 1998 General Ordinance under either of these alternate scenarios.

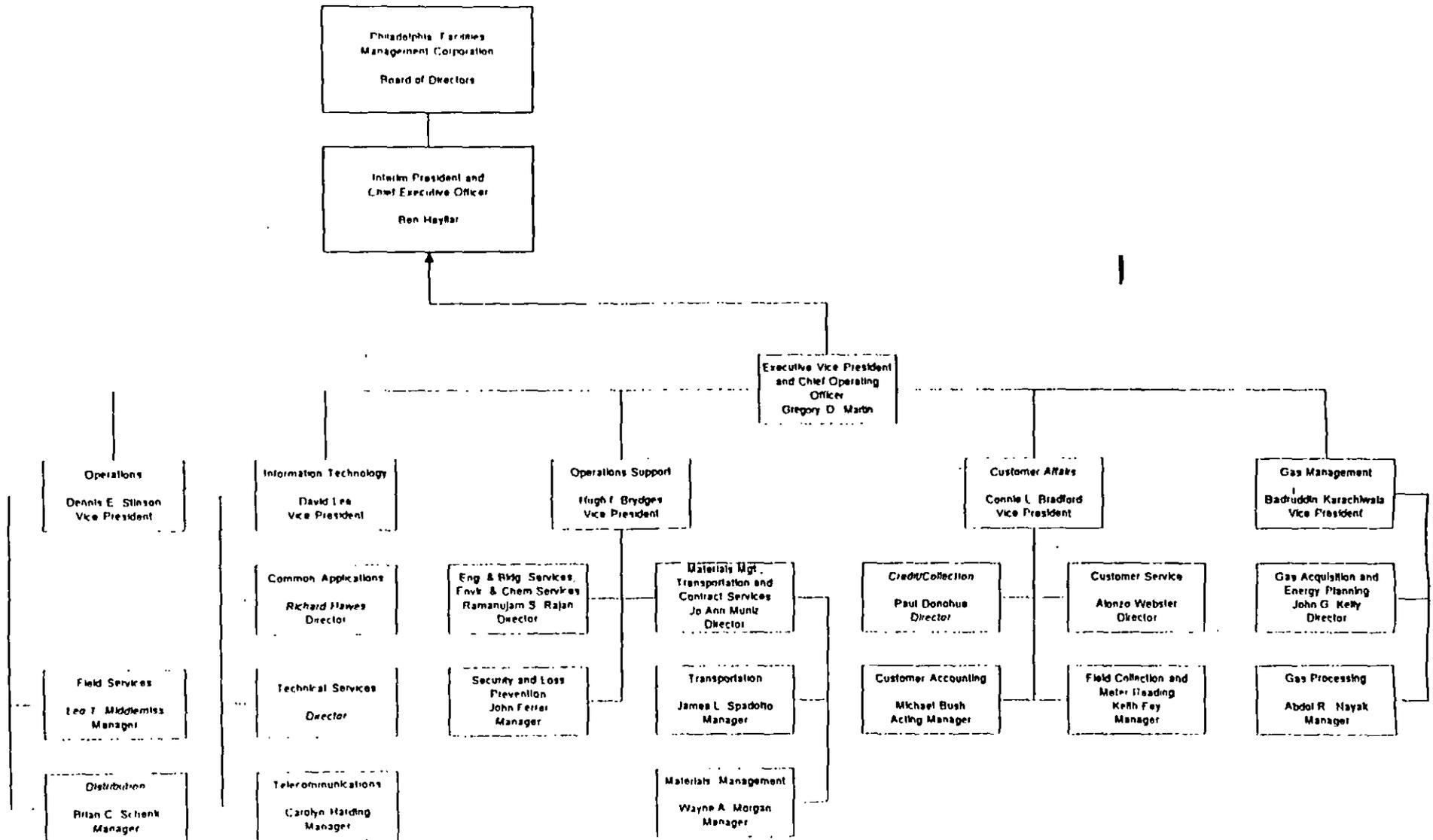
To the extent that the City of Philadelphia refunds a portion of the Fourteenth Series Bonds (as well as Eleventh Series C Bonds), we believe this would not adversely affect the debt service coverages shown in Table 15A, Table 15B, or Table 15C.

Figure 1  
Page 1 of 2

PHILADELPHIA GAS WORKS  
ORGANIZATION  
May 4, 1999

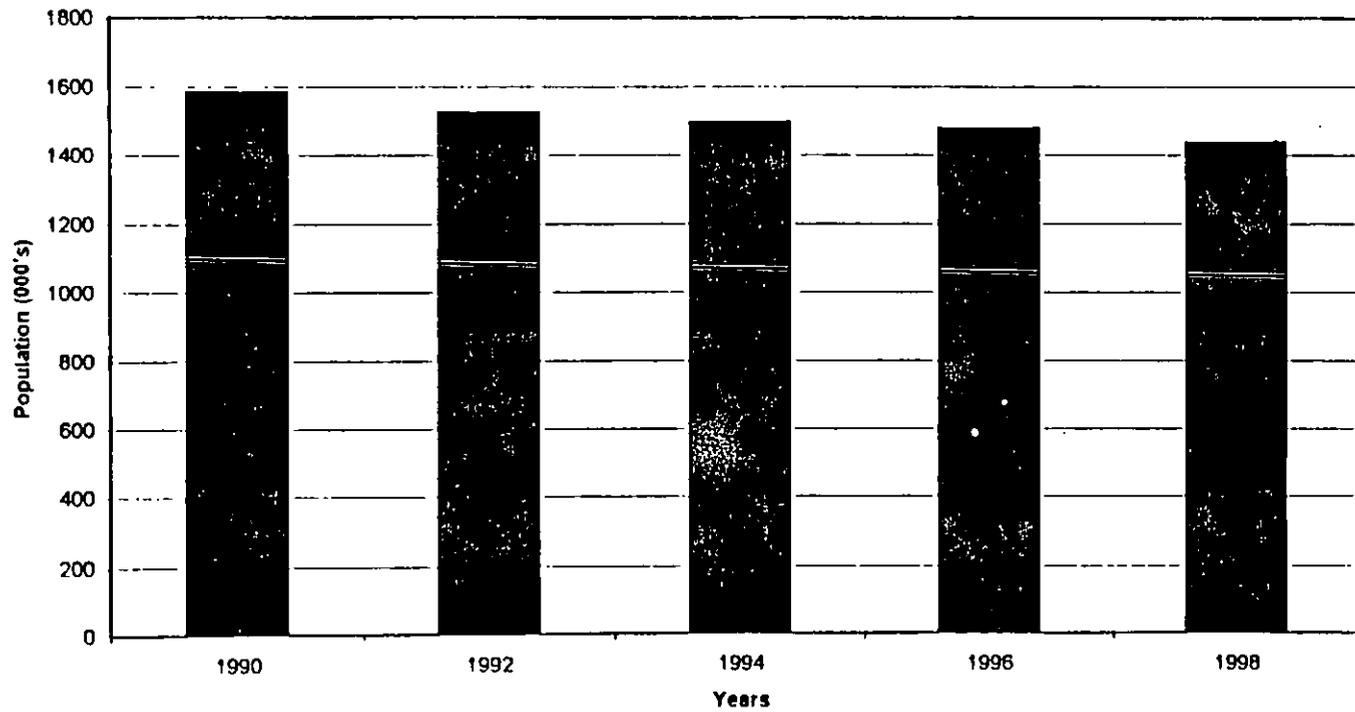


PHILADELPHIA GAS WORKS  
ORGANIZATION -ADDENDUM A  
May 4, 1999





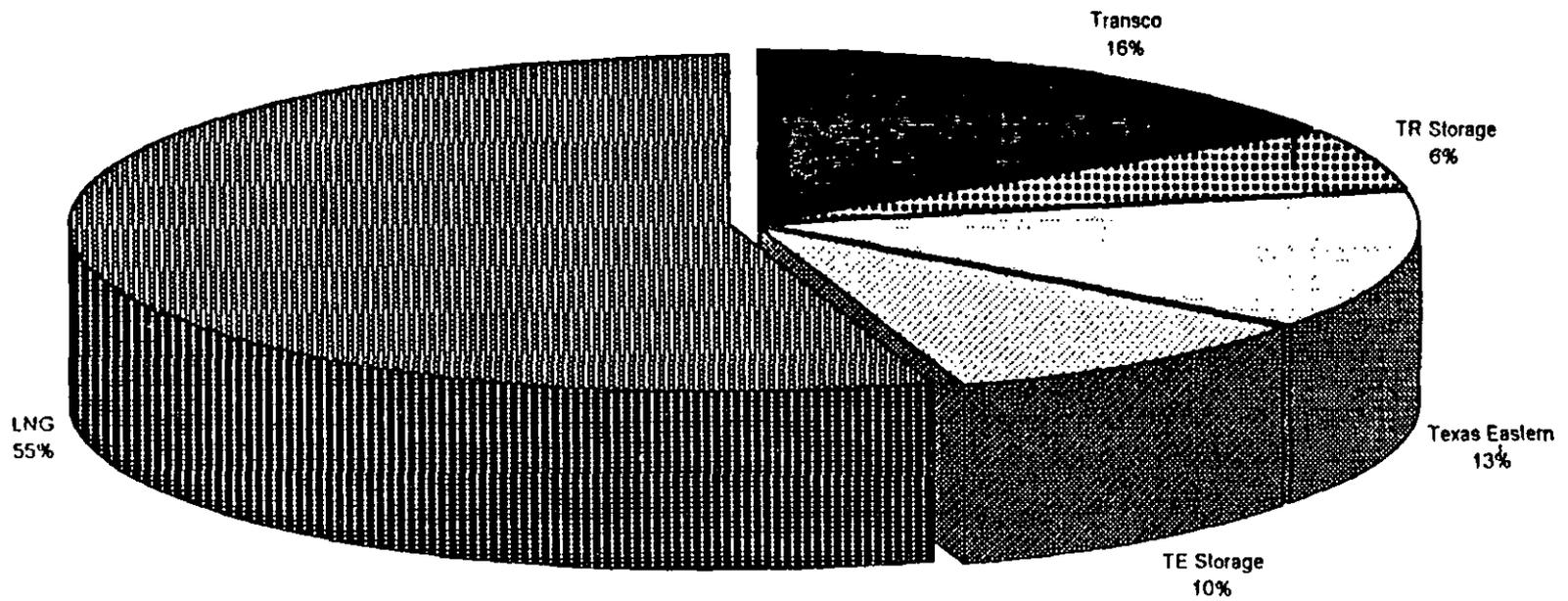
### PHILADELPHIA POPULATION ESTIMATES

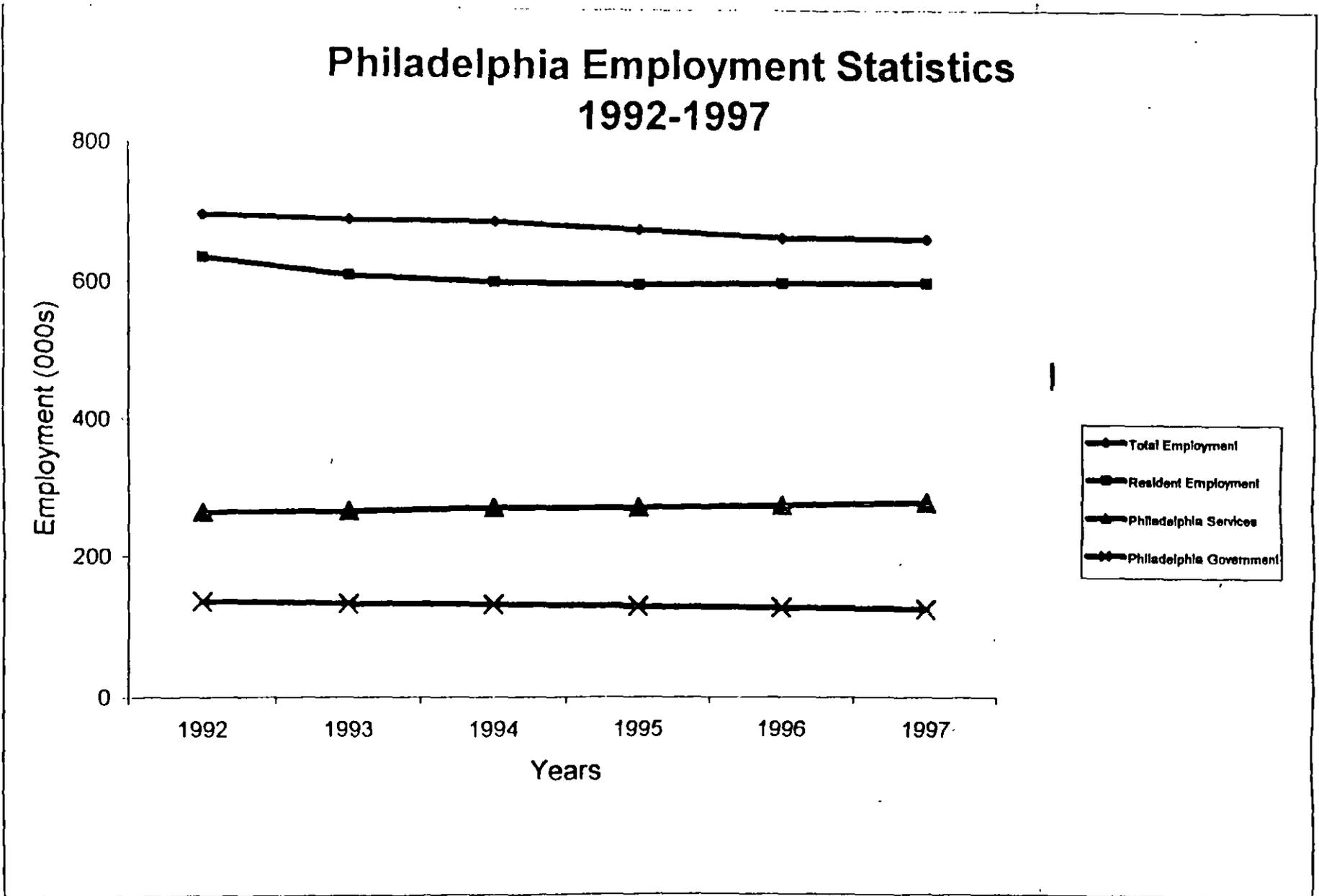


Source: Delaware Valley Regional Planning Commission.

Figure 5A

Philadelphia Gas Works  
1999-00 Peak Day Availability  
By Delivery Source





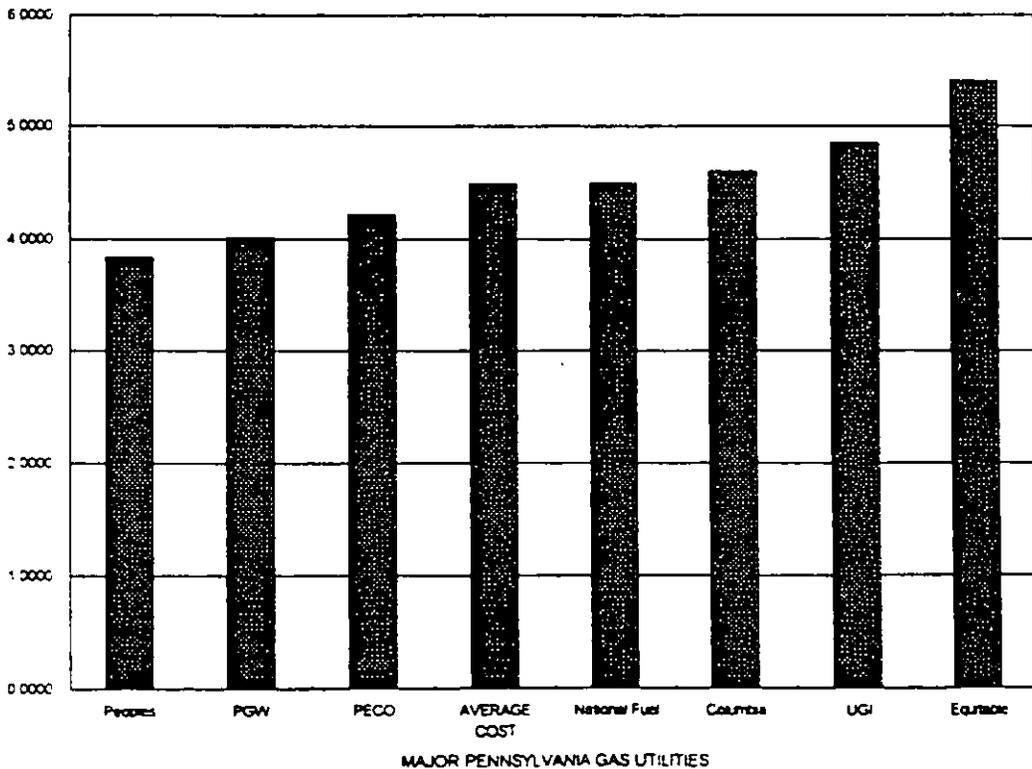
Source: PA Dept. of Labor Industry, Bureau of Research Statistics

COMPARISON OF GAS COSTS ( \$/MCF ) AMONG MAJOR PENNSYLVANIA UTILITIES

	(A)	(B)	(C)	(D)	(E)	(F)
		( 0.05 x A )	( A - B )		( C - D )	
	GROSS FUEL COST	PA GROSS RECEIPTS TAX @ 5%	NET FUEL COST	SOCIAL COSTS	OBJECTIVE FUEL COST	COMPARISON OF "E" TO AVERAGE
PGW	4.4340	0.0000	4.4340	0.4152	4.0188	89.45%
PECO	4.4458	0.2223	4.2235	0.0000	4.2235	94.01%
UGI	5.1100	0.2555	4.8545	0.0000	4.8545	108.06%
Equitable	5.6900	0.2845	5.4055	0.0000	5.4055	120.32%
Peoples	4.0422	0.2021	3.8401	0.0000	3.8401	85.48%
Columbia	4.8500	0.2425	4.6075	0.0000	4.6075	102.56%
National Fuel	4.7348	0.2367	4.4981	0.0000	4.4981	100.12%
				Average:	4.4926	

Source: August 1998 PGW GCR filing

Objective Fuel Cost  
\$/MCF



MAJOR PENNSYLVANIA GAS UTILITIES

Figure 5B

PHILADELPHIA GAS WORKS  
 1999-00 Budget Year  
 Annual Requirements by Delivery Source

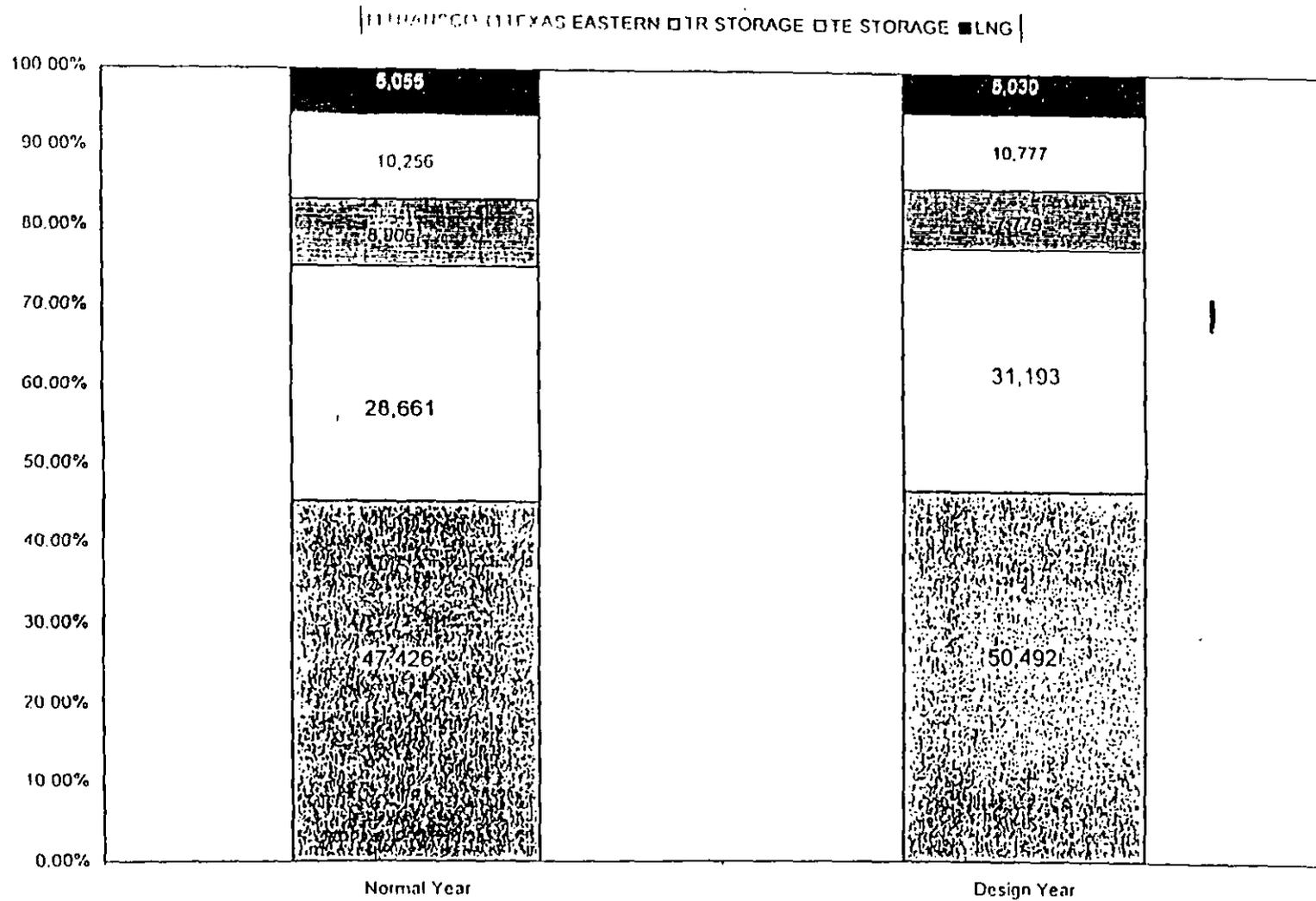


Figure 7

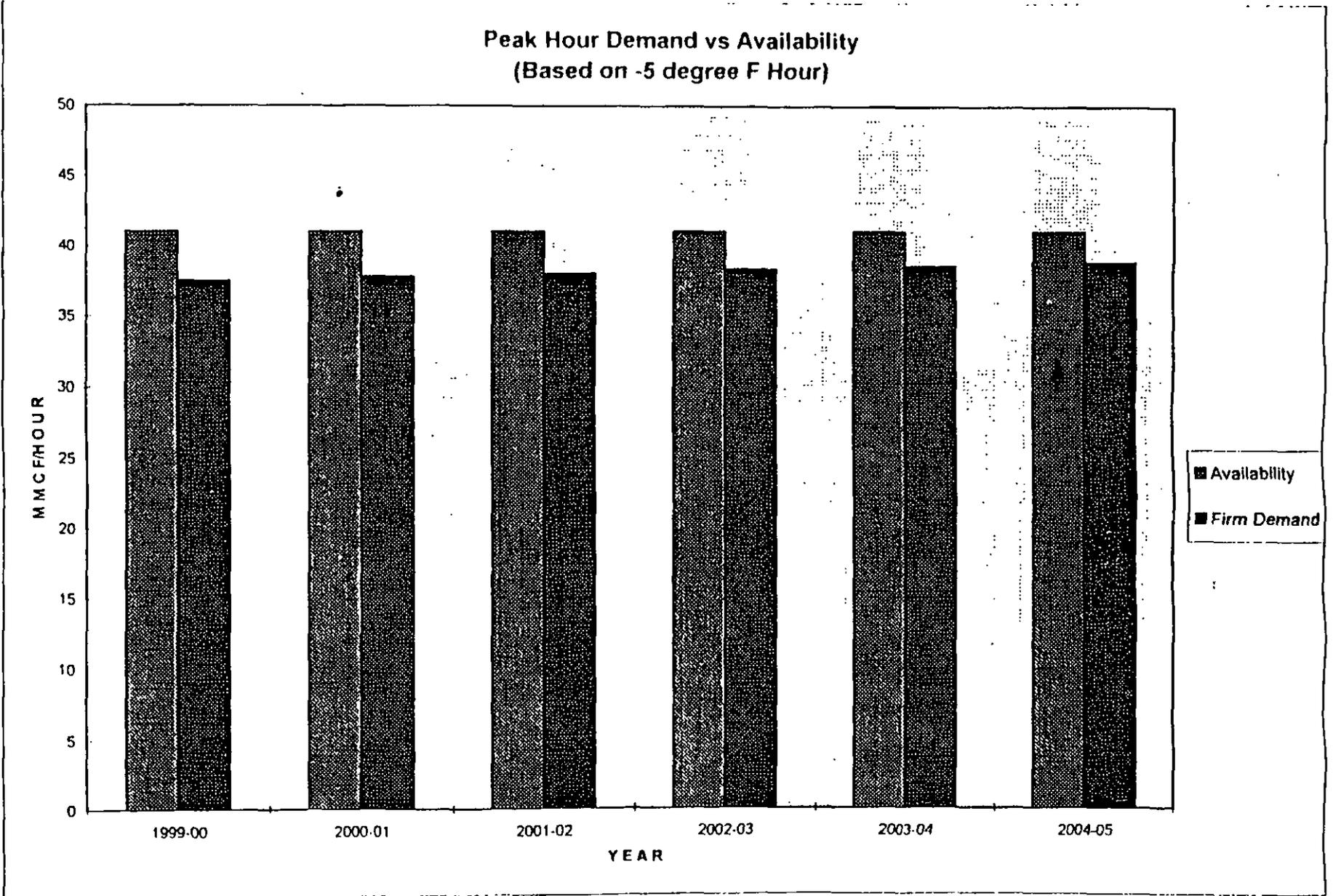


Figure 6

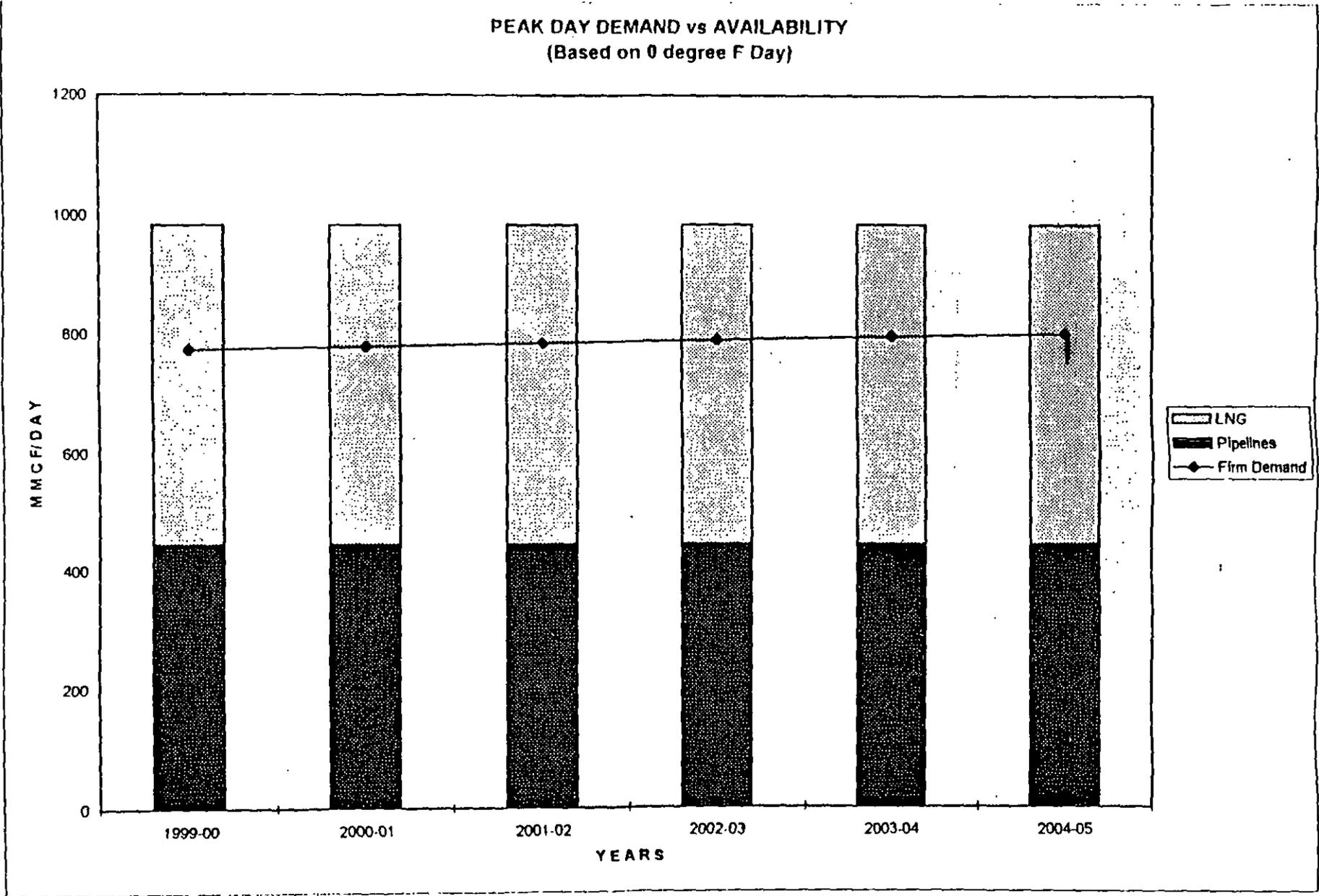
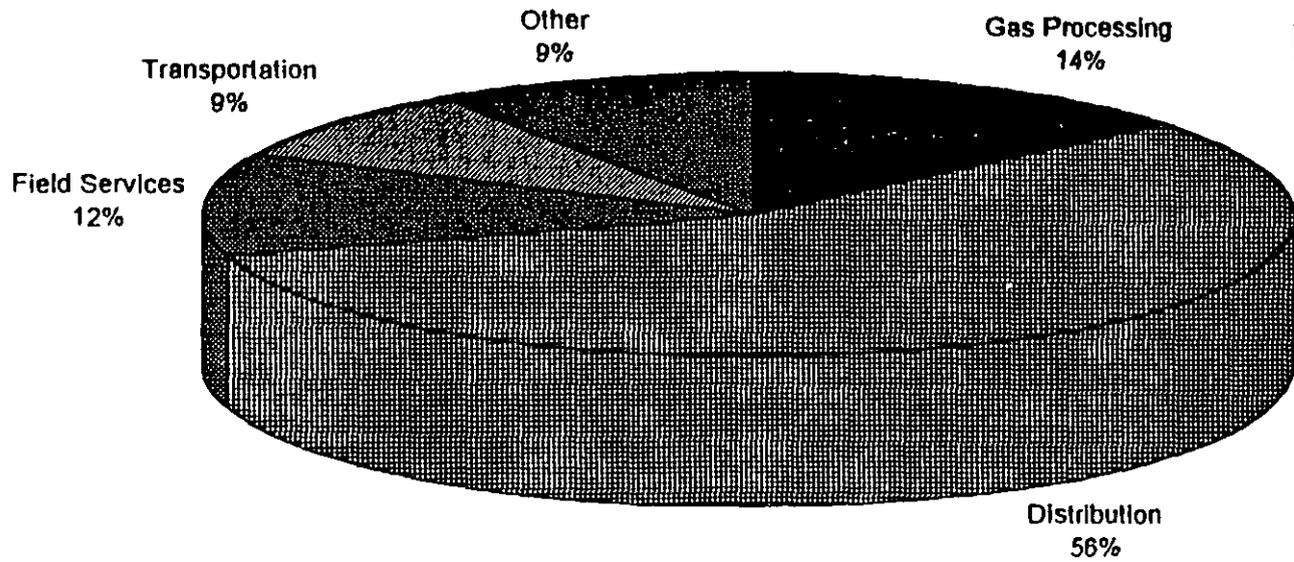


Figure 9

**PGW PROPOSED CAPITAL BUDGET**  
TOTAL FOR FY 1999 AND FORECAST YRS 2000-2005



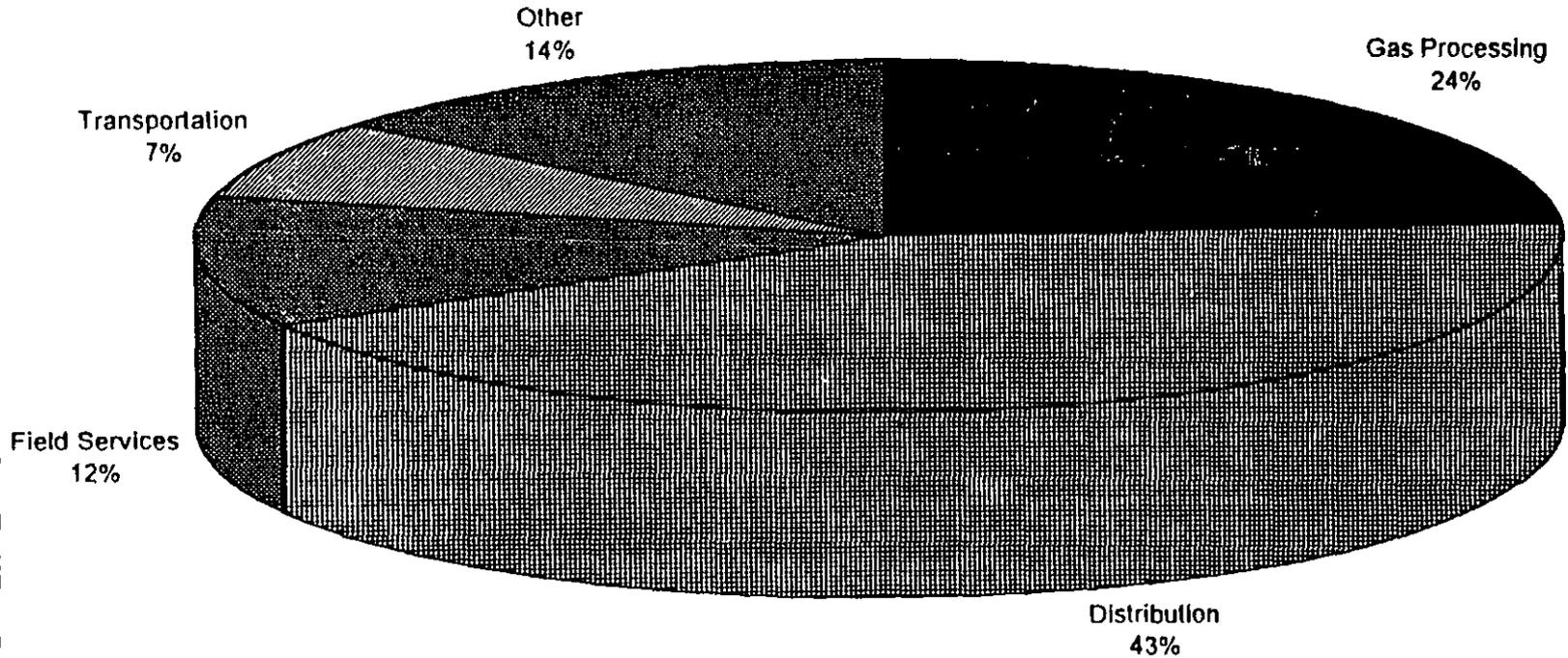


**TABLE 1**  
**PHILADELPHIA GAS WORKS**  
**HISTORICAL NUMBER OF CUSTOMERS**

	<u>Fiscal Years Ending August 31</u>										<u>Fiscal Year</u> <u>Ended</u> <u>June 30,</u> <u>1980</u>
	<u>1998</u>	<u>1997</u>	<u>1996</u>	<u>1995</u>	<u>1994</u>	<u>1993</u>	<u>1992</u>	<u>1991</u>	<u>1990</u>	<u>1985</u>	<u>1980</u>
Residential	487,876	486,716	490,614	492,601	493,606	499,189	495,176	497,696	494,253	500,378	516,683
Commercial/Industrial											
Firm:	23,961	24,165	23,909	24,066	23,930	23,898	24,236	24,788	24,614	18,482	20,328
Interruptible:	450	454	441	423	413	416	410	348	337	135	81
Municipal/Housing Authority	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
<b>TOTAL</b>	<b>512,289</b>	<b>511,337</b>	<b>514,966</b>	<b>517,092</b>	<b>517,951</b>	<b>523,505</b>	<b>519,824</b>	<b>522,834</b>	<b>519,206</b>	<b>518,997</b>	<b>537,094</b>

Figure 10

**PGW PROPOSED CAPITAL BUDGET**  
TOTAL FOR FY 2000 ONLY



**TABLE 3**  
**PROJECTED GAS SALES**  
**FISCAL YEARS 1999 THROUGH 2005**  
**(MMcf)**

	<u>Fiscal Years Ended August 31,</u>						
	<u>Current</u>	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
	<u>Estimate(a)</u>						
	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
<b>Firm:</b>							
Residential	42,383	45,763	45,662	45,572	45,506	45,465	45,442
Commercial	7,890	8,966	9,109	9,238	9,374	9,514	9,659
Industrial	1,326	1,424	1,521	1,652	1,785	1,918	2,052
Municipal	1,200	1,376	1,374	1,372	1,374	1,377	1,380
Housing Authority	1,188	1,317	1,312	1,309	1,308	1,309	1,310
<b>Total Firm</b>	<u>53,987</u>	<u>58,846</u>	<u>58,978</u>	<u>59,143</u>	<u>59,347</u>	<u>59,583</u>	<u>59,843</u>
<b>Interruptible:</b>							
Boller & Power Service	3,586	4,302	4,509	4,724	5,098	5,470	5,839
Load Balancing Service	3,911	4,238	4,294	4,360	4,485	4,609	4,732
BPS - A/C	220	319	345	371	397	423	449
Grays Ferry	105	165	165	165	165	165	165
LNG Direct	5	-	-	-	-	-	-
Co-Generation	205	233	228	228	228	228	228
Natural Gas Vehicle Serv.	3	3	3	3	3	3	3
Gas Transportation- Retail	705	638	620	620	620	620	620
<b>Total Interruptible</b>	<u>8,740</u>	<u>9,898</u>	<u>10,164</u>	<u>10,471</u>	<u>10,996</u>	<u>11,518</u>	<u>12,036</u>
<b>Total Sales</b>	62,727	68,744	69,142	69,614	70,343	71,101	71,879
<b>Gas Transportation Service</b>	12,490	15,229	15,229	15,229	15,229	15,229	15,229
<b>Total Sales &amp; Transport.*</b>	<u>75,217</u>	<u>83,973</u>	<u>84,371</u>	<u>84,843</u>	<u>85,572</u>	<u>86,330</u>	<u>87,108</u>
<b>Degree Days</b>	3,925	4,600	4,600	4,600	4,600	4,600	4,600

**Note:**

(a) Current Estimate is based on six months actual data and six months projections based upon currently available information.

\* Totals may vary due to rounding.

**TABLE 2**  
**PHILADELPHIA GAS WORKS**  
**HISTORICAL GAS SALES**  
**(MMcfd)**

	Fiscal Years Ending August 31										Fiscal Year Ended June 30,
	1998	1997	1996	1995	1994	1993	1992	1991	1990	1985	1980
<b>Firm:</b>											
Residential	41,621	46,809	51,330	43,748	51,188	49,210	47,432	43,325	47,898	46,104	51,520
Commercial	7,949	8,872	9,234	7,913	8,862	8,412	8,226	7,710	7,792	6,419	6,510
Industrial	1,305	1,516	1,743	1,696	2,114	1,971	2,096	2,046	2,384	2,524	3,809
Municipal	1,269	1,348	1,516	1,310	1,441	1,443	1,554	1,270	1,394	1,355	1,641
Housing Authority	1,258	1,468	1,648	1,581	1,717	1,994	1,832	1,829	1,971	1,993	2,816
Sales for Resale	<u>253</u>	<u>250</u>	<u>201</u>	<u>-</u>	<u>19</u>	<u>-</u>	<u>168</u>	<u>49</u>	<u>96</u>	<u>19</u>	<u>0</u>
<b>Total Firm</b>	<b>53,655</b>	<b>60,063</b>	<b>65,672</b>	<b>56,248</b>	<b>65,341</b>	<b>63,030</b>	<b>61,308</b>	<b>56,229</b>	<b>61,485</b>	<b>58,414</b>	<b>66,296</b>
<b>Interruptible:</b>											
Boiler and Power Services	3,994	3,943	3,548	3,220	2,477	3,319	2,898	3,282	3,251	1,681	10,085
Load Balancing Service	4,443	4,378	4,807	6,104	5,639	7,028	6,174	6,934	6,987	9,756	10,945
Co-Generation	177	279	392	452	343	433	335	162	-	-	-
Natural Gas Vehicle (NGV)	3	6	8	6	-	-	-	-	-	-	-
Gas Transportation-Retail	<u>1,008</u>	<u>1,210</u>	<u>1,398</u>	<u>1,781</u>	<u>1,060</u>	<u>1,546</u>	<u>1,128</u>	<u>110</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total Interruptible</b>	<b>9,625</b>	<b>9,816</b>	<b>10,153</b>	<b>11,563</b>	<b>9,519</b>	<b>12,324</b>	<b>10,535</b>	<b>12,488</b>	<b>10,238</b>	<b>11,437</b>	<b>21,030</b>
<b>Total Sales</b>	<b>63,280</b>	<b>69,879</b>	<b>75,825</b>	<b>67,811</b>	<b>74,860</b>	<b>75,354</b>	<b>71,843</b>	<b>68,717</b>	<b>71,723</b>	<b>69,851</b>	<b>87,326</b>
Gas Transportation Service	<u>8,266</u>	<u>2,310</u>	<u>4,484</u>	<u>6,408</u>	<u>2,575</u>	<u>2,848</u>	<u>3,928</u>	<u>632</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total Sales w/ Transport</b>	<b><u>71,546</u></b>	<b><u>72,189</u></b>	<b><u>80,309</u></b>	<b><u>74,219</u></b>	<b><u>77,435</u></b>	<b><u>78,202</u></b>	<b><u>75,771</u></b>	<b><u>69,349</u></b>	<b><u>71,723</u></b>	<b><u>69,851</u></b>	<b><u>87,326</u></b>
Degree Days	3,998	4,622	5,159	4,200	4,998	4,731	4,542	3,900	4,431	4,428	4,692

TABLE 5  
PHILADELPHIA GAS WORKS  
CONTRACTS FOR TRANSPORTATION  
STORAGE AND SUPPLY SERVICES

	Contract Name	Contract Quantity (Dth)		Expiration Date
		Annual	Daily	
<b>Transportation Contracts</b>				
Direct Service				
Transco	ET	60,302,380	165,212	March 31, 2005
	PSFT	177,030	1,967	July 31, 2011
Texas Eastern	CDS	27,375,000	75,000	October 31, 2001
	FT-1	21,835,030	59,822	October 31, 2001
Storage Related				
Transco	GSS (a)		61,567	March 31, 2013
	S-2 (a) (b)		5,193	April 15, 2001
Texas Eastern	SS-1 (a)		64,965	April 30, 2012
	FTS-2		5,394	March 31, 2002
	FTS-7		7,788	March 31, 2006
	FTS-8		25,709	March 31, 2006
<b>Storage Contracts</b>				
Direct Service				
Transco	GSS (a)	4,123,733	61,567	March 31, 2013
	S-2 (a) (b)	466,554	5,193	April 15, 2001
	WSS (b)	3,335,909	39,246	March 31, 1998
	ESS	84,971	8,446	Contract Pending
Texas Eastern	SS-1 (a)	5,109,200	64,965	April 30, 2012
Off-System Storage				
Delivery via Texas Eastern	ANR	1,897,724	13,266	March 31, 2013
	Equitrans	522,500	4,998	April 1, 2002
	CNG-GSS-TE	3,918,971	34,047	March 31, 2006
<b>Supply Contracts</b>				
Firm Long Term				
Transco	Pipeline	FS (b) (d)	18,183,364	March 31, 2001
		Multiple (a)	5,180,000	Various
	3rd Party	Multiple (a)	5,193,449	Various
Texas Eastern	3rd Party	Multiple (a)	5,193,449	Various
		Multiple (a)	5,193,449	Various
Storage				
Transco			8,906,171	
Texas Eastern			10,256,036	
Spot				
Transco			24,062,707	
Texas Eastern			23,467,004	

Notes

- (a) Sunkied storage and transportation service
- (b) Extended on a year to year basis
- (c) Volume leased to outside company for peaking service
- (d) Based on the 1999-00 10&2 Budget: Run Normal Year

**TABLE 4**  
**PHILADELPHIA GAS WORKS**  
**CUSTOMER BILLINGS (a)**  
**FISCAL YEARS 2000-2005**

	Budget 2000	Forecast 2001	Forecast 2002	Forecast 2003	Forecast 2004	Forecast 2005
Residential	483,673	482,621	481,654	480,973	480,529	480,280
Commercial	24,123	24,508	24,858	25,221	25,599	25,989
Industrial	1,122	1,197	1,300	1,405	1,510	1,615
Interruptible	507	521	538	563	590	618
Transportation	10	10	10	10	10	10
Municipal	908	905	904	905	907	909
Housing Authority	4,587	4,551	4,539	4,538	4,541	4,544
<b>TOTAL</b>	<b>514,908</b>	<b>514,313</b>	<b>513,799</b>	<b>513,615</b>	<b>513,886</b>	<b>513,963</b>

Note:

(a) average number of customer billings

(b) Total may vary due to rounding

PHILADELPHIA GAS WORKS  
SUPPLY / DEMAND BALANCE  
FISCAL YEARS 2000 - 2005  
DESIGN YEAR - 5280 HDD  
(1000 Dth)

Table 7

	2000	2001	2002	2003	2004	2005
<b>Demand (a)</b>						
Firm	70,378	70,536	70,733	70,977	71,259	71,570
Boiler and Power Service	4,401	4,519	4,656	4,889	5,121	5,352
Load Balancing Service	3,097	3,180	3,276	3,441	3,604	3,766
Cogeneration	136	140	144	151	158	165
GTS	487	487	487	487	487	487
Natural Gas Vehicles	2	2	2	2	2	2
Trigen	30	30	30	30	30	30
Grays Ferry	84	84	84	84	84	84
<i>Sub-Totals Sales</i>	78,615	78,978	79,412	80,061	80,746	81,456
Plant Use	1,916	1,999	2,044	2,041	2,054	2,041
Storage Injection	19,103	19,103	19,103	19,103	19,103	19,103
Liquefaction	5,036	5,036	5,036	5,036	5,036	5,036
<b><i>Total Demand (b)</i></b>	<b>104,670</b>	<b>105,117</b>	<b>105,595</b>	<b>106,241</b>	<b>106,938</b>	<b>107,636</b>
<b>Supplies</b>						
Transco (c)	50,492	50,765	51,060	51,460	51,891	52,322
Texas Eastern (c)	31,193	31,366	31,549	31,795	32,061	32,328
Storage Withdrawal	17,956	17,956	17,956	17,956	17,956	17,956
LNG	5,030	5,030	5,030	5,030	5,030	5,030
<b><i>Total Supplies (b)</i></b>	<b>104,671</b>	<b>105,117</b>	<b>105,595</b>	<b>106,241</b>	<b>106,938</b>	<b>107,636</b>

Notes

- (a) Includes Unaccounted - for Gas
- (b) Totals may vary due to rounding
- (c) Gas Delivered to City Gate

**PHILADELPHIA GAS WORKS**  
**SUPPLY / DEMAND BALANCE**  
FISCAL YEARS 2000 - 2005  
NORMAL YEAR - 4600 HDD  
(1000 Dth)

Table 6

	2000	2001	2002	2003	2004	2005
<b>Demand (a)</b>						
Firm	63,468	63,610	63,788	64,008	64,263	64,543
Boiler and Power Service	4,913	5,045	5,198	5,458	5,717	5,974
Load Balancing Service	4,517	4,639	4,779	5,018	5,256	5,493
Cogeneration	180	185	190	200	209	219
GTS	685	685	685	685	685	685
Natural Gas Vehicles	3	3	3	3	3	3
Trigen	67	67	67	67	67	67
Grays Ferry	171	171	171	171	171	171
<i>Sub-Totals Sales</i>	74,004	74,405	74,880	75,610	76,372	77,154
Plant Use	1,962	2,048	2,093	2,102	2,114	2,075
Storage Injection	19,242	19,242	19,242	19,242	19,242	19,242
Liquefaction	5,094	5,094	5,094	5,094	5,094	5,094
<b>Total Demand (b)</b>	100,302	100,789	101,309	102,048	102,822	103,565
<b>Supplies</b>						
Transco (c)	47,426	47,727	48,051	48,512	48,899	49,457
Texas Eastern (c)	28,661	28,845	29,041	29,319	29,552	29,891
Storage Withdrawal	19,162	19,162	19,162	19,162	19,162	19,162
LNG	5,055	5,055	5,055	5,055	5,055	5,055
<b>Total Supplies (b)</b>	100,304	100,789	101,309	102,048	102,668	103,565

Notes

- (a) Includes Unaccounted - for Gas
- (b) Totals may vary due to rounding
- (c) Gas Delivered to City Gate

TABLE 9  
**PROPOSED CAPITAL IMPROVEMENT PROGRAM**  
(\$000)

Category	1999(4)	2000	2001	2002	2003	2004	2005	Total \$	Total %
Gas Processing	\$2,435	\$14,539	\$2,814	\$3,550	\$9,214	\$17,330	\$1,054	\$50,936	13.6%
Distribution	25,717	26,237	30,953	31,536	32,141	32,751	33,374	\$212,709	56.6%
Field Services	8,240	7,242	5,071	5,066	4,593	4,684	9,322	\$44,218	11.8%
Transportation	2,316	4,372	4,811	4,993	5,137	5,286	5,437	\$32,352	8.6%
Other	11,105	8,466	4,965	4,180	3,460	1,669	1,479	\$35,324	9.4%
	\$49,813	\$60,856	\$48,614	\$49,325	\$54,545	\$61,720	\$50,666	\$375,539	100%
Less:									
Reimbursements(1)	(4,057)	(802)	(817)	(833)	(849)	(865)	(881)	(9,104)	-2.5%
Contributions(2)	(119)	(121)	(121)	(124)	(127)	(130)	(133)	(875)	-0.2%
Salvage(3)	(39)	(313)	(452)	(465)	(478)	(491)	(504)	(2,742)	-0.8%
	(\$4,215)	(\$1,236)	(\$1,390)	(\$1,422)	(\$1,454)	(\$1,486)	(\$1,518)	(\$12,721)	-3.5%
<b>Total:</b>	<b>\$45,598</b>	<b>\$59,620</b>	<b>\$47,224</b>	<b>\$47,903</b>	<b>\$53,091</b>	<b>\$60,234</b>	<b>\$49,148</b>	<b>\$362,818</b>	

**Notes:**

- (1) Funds available from government agencies
- (2) Customer contributions in aid of construction.
- (3) Funds received from sale of scrap metals, used vehicles, equipment, etc.
- (4) 1999 Program Year reflects Recommended Decision by Gas Commission Hearing Examiner.

**TABLE 8**  
**PHILADELPHIA GAS WORKS**  
**Peak Day and Peak Hour Capacity (Mmcf)**  
**Fiscal Years 2000-2005**

(Design Peak Day Weather = 0 degrees F)  
(Design Peak Hour Weather = -5 degrees F)

(Mmcf @ 1.030 Btu/cf)

Source of Supply(a)	2000	2001	2002	2003	2004	2005
<b>Transco</b>						
FT (1)	89.3	103.8	157.4	157.4	157.4	157.4
FS	68.1	53.6	0	0	0	0
PSFT	1.9	1.9	1.9	1.9	1.9	1.9
S-2 (2)	4.4	4.4	4.4	4.4	4.4	4.4
GSS (2)	52.3	52.3	52.3	52.3	52.3	52.3
WSS (3)	19.4	19.4	19.4	19.4	19.4	19.4
ESS (3)	10.2	10.2	10.2	10.2	10.2	10.2
<b>Total Transco</b>	<b>216</b>	<b>216</b>	<b>216</b>	<b>216</b>	<b>216</b>	<b>216</b>
<b>Texas Eastern</b>						
CDS	72.8	72.8	72.8	72.8	72.8	72.8
FT-1	58.1	58.1	58.1	58.1	58.1	58.1
SS-1	63.1	63.1	63.1	63.1	63.1	63.1
CNG/FTS-7 (2)	6.6	6.6	6.6	6.6	6.6	6.6
CNG/FTS-8 (2)	21.8	21.8	21.8	21.8	21.8	21.8
Equitable/FTS-2 (4)	4.9	4.9	4.9	4.9	4.9	4.9
ANR (3)	12.9	12.9	12.9	12.9	12.9	12.9
<b>Total Texas Eastern</b>	<b>227.3</b>	<b>227.3</b>	<b>227.3</b>	<b>227.3</b>	<b>227.3</b>	<b>227.3</b>
<b>Sub-Total Pipelines</b>	<b>443.3</b>	<b>443.3</b>	<b>443.3</b>	<b>443.3</b>	<b>443.3</b>	<b>443.3</b>
<b>Supplemental Gas LNG</b>	<b>540.0</b>	<b>540.0</b>	<b>540.0</b>	<b>540.0</b>	<b>540.0</b>	<b>540.0</b>
<b>Total Peak Day Supply</b>	<b>983.3</b>	<b>983.3</b>	<b>983.3</b>	<b>983.3</b>	<b>983.3</b>	<b>983.3</b>
<b>Total Peak Hour Supply</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>	<b>41.0</b>

Notes

Firm Peak Day Demand	773.0	778.7	783.9	789.1	794.3	799.4
Firm Peak Hour Demand	37.5	37.8	38.0	38.3	38.5	38.8

Footnotes

- (1) Reflects 3,000dt of Transco capacity released in lieu of South Jersey Deal  
(2) Reflects 87.5 % contract limitation on maximum monthly storage withdrawal -  
(3) These services do not contain transport components and are therefore not included in totals.  
(4) Equitable storage MDWQ = 4,998dtm Telco FTS-2 has MDQ = 5,394dtm

**TABLE 11**

**PHILADELPHIA GAS WORKS BENCHMARK FOR  
RETURNED CHECK CHARGES MAINTAINED BY GAS DISTRIBUTION UTILITIES  
(SURVEY OF 1995)**

	COMPANY	PRIMARY CITY	CHARGE		
			3	<==	PGW'96(3)
1	National Fuel Gas	Buffalo/Erie	\$20.00		
2	Atlanta Gas Light	Atlanta	\$20.00		
			2	<==	PGW'96(2)
3	Public Service Electric & Gas	Newark	\$15.00		
4	Baltimore Gas & Electric	Baltimore	\$15.00		
5	Delmarva	Wilmington	\$15.00		
6	Boston Gas	Boston	\$15.00		
7	Washington Gas - VA	Washington	\$15.00		
8	Elizabethtown Gas	Union	\$15.00		
9	Dayton Power & Light	Dayton	\$15.00		
10	Cincinnati Gas & Electric	Cincinnati	\$13.50		
11	Peoples Gas Light & Coke	Chicago	\$10.00		
12	Wisconsin Gas	Milwaukee	\$10.00		
13	Washington Gas - DC	Washington	\$8.50		
14	Brooklyn Union	New York	\$8.50		
15	Connecticut Natural Gas	Hartford	\$8.00		
16	Washington Gas - MD	Washington	\$8.00		
17	Minnegasco	Minneapolis	\$8.00	<==	PGW'96(1)
18	Southern Connecticut Gas	New Haven/Bridgeport	\$8.00		
19	Rochester Gas & Electric	Rochester	\$7.50		
20	Southern California Gas	Los Angeles	\$7.50		
21	Pacific Gas & Electric	San Francisco	\$5.00		
22	MichCon	Detroit	\$5.00	<==	PGW'95

OF 22 COMPANIES WHICH HAVE SUCH A CHARGE

HIGHEST:		\$20.00
MODE. ( 7 occurrences )	Most Frequent:	\$15.00
MEAN:	Simple Average:	\$11.48
MEDIAN:	Middle of List:	\$10.00
LOWEST:		\$5.00

Philadelphia Gas Works: re. 1995 align="right">\$5.00

Philadelphia Gas Works: re. 1996	\$8.00 first	(1)
( for occurrences within a 24 month period )	\$18.00 second	(2)
	\$34.00 third	(3)

TABLE 10  
**PHILADELPHIA GAS WORKS**  
**MAJOR CAPITAL BUDGET ITEMS**

CODE	DESCRIPTION	PRIORITY	DEPT.	2000 AMOUNT	% OF BUDGET	1999 AMOUNT	% OF BUDGET	AMOUNT DIFFERENCE	PERCENT DIFFERENCE
53-02-2-01	Phase I- LNG Liquefaction Plant	2	Gas Processing	14,185	23.3%	1,886	3.8%	12,299	852.1%
	<b>SUBTOTAL GAS PROCESSING</b>			<b>14,185</b>	<b>23.3%</b>	<b>1,886</b>	<b>3.8%</b>	<b>12,299</b>	<b>852.1%</b>
52-21-1-01	Low/Inter Pressure 8" Smaller Additions	4	Distribution	1,252	2.1%	1,152	2.3%	100	8.7%
52-21-2-01	Low/Inter Pressure 8" Enforced	3	Distribution	3,729	6.1%	3,729	7.5%	-	0.0%
52-21-2-01	Prudent Replacement	1	Distribution	3,235	5.3%	1,741	3.5%	1,494	85.8%
52-22-2-02	Market-Frankford Construction Project	3	Distribution	-	0.0%	3,718	7.5%	(3,716)	-100.0%
52-24-1-01	New 1-1/4" and Smaller Services	4	Distribution	2,185	3.6%	2,187	4.4%	(2)	-0.1%
52-24-1-02	New 2" and Larger Services	4	Distribution	1,400	2.3%	1,100	2.2%	300	27.3%
52-24-2-01	Renewal of 1-1/4" and Smaller Services	1	Distribution	9,623	15.8%	9,046	18.2%	577	6.4%
	<b>SUBTOTAL DISTRIBUTION</b>			<b>21,424</b>	<b>35.2%</b>	<b>22,671</b>	<b>45.5%</b>	<b>(1,247)</b>	<b>-5.5%</b>
50-30-1-01	Purchase and Installation of Meter - additions	4	Field Services	1,842	3.0%	542	1.1%	1,300	239.9%
50-30-2-01	Meter Purchases to support AMR	1	Field Services	1,255	2.1%	890	1.8%	365	41.0%
50-36-1-01	Purchase/Installation of ERT for AMR	5	Field Services	1,836	3.0%	6,164	12.4%	(4,328)	-70.2%
50-36-2-01	Replace AMR Units	5	Field Services	827	1.4%	360	0.7%	467	129.7%
	<b>SUBTOTAL FIELD SERVICES</b>			<b>5,760</b>	<b>9.5%</b>	<b>7,956</b>	<b>16.0%</b>	<b>(2,196)</b>	<b>-27.6%</b>
73-01-2-02	Vehicle Replacement	2	Transportation	3,436	5.6%	1,841	3.7%	1,595	86.6%
	<b>SUBTOTAL TRANSPORTATION</b>			<b>3,436</b>	<b>5.6%</b>	<b>1,841</b>	<b>3.7%</b>	<b>1,595</b>	<b>86.6%</b>
47-01-1-06	Y2K Contingency	5	Info Tech	-	0.0%	1,016	2.0%	(1,016)	-100.0%
47-01-2-01	System Services	5	Info Tech	-	0.0%	1,948	3.9%	(1,948)	-100.0%
47-01-2-02	Replace PBX	2	Info Tech	-	0.0%	2,760	5.5%	(2,760)	-100.0%
47-01-2-04	Network Services	5	Info Tech	-	0.0%	1,249	2.5%	(1,249)	-100.0%
09-01-2-01	Replace SCADA	5	Gas Control	-	0.0%	999	2.0%	(999)	-100.0%
40-01-1-01	Enhance Financial System	5	Finance	-	0.0%	900	1.8%	(900)	-100.0%
71-01-2-01	Replace Material and Purchasing System	2	Material Mgt	1,269	2.1%	-	0.0%	1,269	#DIV/0!
10-01-1-02	Implement Customer Contact Tracking System	5	Customer Serv	600	1.0%	-	0.0%	600	#DIV/0!
71-01-2-01	Enhance Customer Information System	5	Customer Serv	402	0.7%	-	0.0%	402	#DIV/0!
72-01-1-04	Construct CNG Refueling Station	5	Build Serv	550	0.9%	-	0.0%	550	#DIV/0!
72-01-2-09	Upgrade CS Centers	5	Customer Serv	525	0.9%	-	0.0%	525	#DIV/0!
	<b>SUBTOTAL OTHER DEPARTMENTS</b>			<b>3,348</b>	<b>5.5%</b>	<b>8,872</b>	<b>17.8%</b>	<b>(5,526)</b>	<b>-62.3%</b>
	<b>TOTAL MAJOR PROJECTS</b>			<b>48,161</b>	<b>79.1%</b>	<b>43,226</b>	<b>86.8%</b>	<b>4,926</b>	<b>11.4%</b>
	<b>ALL BUDGETED PROJECTS</b>			<b>60,866</b>	<b>100.0%</b>	<b>49,813</b>	<b>100.0%</b>	<b>11,043</b>	<b>22.2%</b>

Note: All values are prior to reimbursements, contributions, and salvage.

TABLE 13

PHILADELPHIA GAS WORKS BENCHMARK FOR  
FIELD COLLECTION CHARGES MAINTAINED BY GAS DISTRIBUTION UTILITIES  
( Residential, Weekday, Normal Hours )  
( SURVEY OF 1995 )

	COMPANY	PRIMARY CITY	CHARGE	
1	Delmarva	Wilmington	\$15.00	
2	Baltimore Gas & Electric	Baltimore	\$15.00	
3	Elizabethtown Gas	Union	\$15.00	
4	Consolidated Edison	New York	\$11.00	
5	Pacific Gas & Electric	San Francisco	\$10.00	<== PGW'96 (2)
6	Washington Gas - MD	Washington	\$8.50	
7	Washington Gas - DC	Washington	\$7.00	
			N.C.	<== PGW'95 (1)

OF 7 COMPANIES WHICH CHARGE FOR FIELD COLLECTION

HIGHEST:		\$15.00
MODE: ( 3 occurrences )	Most Frequent	\$15.00
MEAN:	Simple Average:	\$11.64
MEDIAN:	Middle of List:	\$11.00
LOWEST:		\$7.00

Philadelphia Gas Works:	re. 1995	No Charge	(1)
Philadelphia Gas Works:	re. 1996	\$10.00	(2)

TABLE 12

PHILADELPHIA GAS WORKS BENCHMARK FOR  
CUSTOMER SERVICE CALL CHARGES MAINTAINED BY GAS DISTRIBUTION UTILITIES  
(Weekday, Normal Hours, Hourly Average Charge, not including parts)  
( SURVEY OF 1995 )

	COMPANY	PRIMARY CITY	CHARGE	
1	Atlanta Gas Light	Atlanta	\$100.00	
2	Minnegasco	Minneapolis	\$90.00	
3	MichCon	Detroit	\$88.00	<== PGW'96
4	Wisconsin Gas	Milwaukee	\$82.00	commercial (3)
5	Peoples Natural Gas	Pittsburgh	\$80.50	
6	Elizabethtown Gas	Union	\$80.00	
7	Delmarva	Wilmington	\$78.00	
8	Baltimore Gas & Electric	Baltimore	\$78.00	
9	Consolidated Edison	New York	\$72.00	
10	Providence Gas	Providence	\$70.00	
11	Rochester Gas & Electric	Rochester	\$67.00	
12	Boston Gas	Boston	\$63.00	
13	Southern Connecticut Gas	New Haven/Bridgeport	\$54.00	<== PGW'96
14	Peoples Gas Light & Coke	Chicago	\$53.00	residential (2)
15	Connecticut Natural Gas	Hartford	\$53.00	
16	Washington Natural Gas	Seattle	\$53.00	
17	National Fuel Gas	Buffalo/Erie	\$41.00	
			\$30.00	<== PGW'95 (1)

OF 17 COMPANIES WHICH PROVIDE SERVICE AND CHARGE CUSTOMER

HIGHEST:		\$100.00
MEDIAN:	Middle of List:	\$72.00
MEAN:	Simple Average:	\$70.74
MODE: ( 3 occurrences )	Most Frequent:	\$53.00
LOWEST:		\$41.00

Philadelphia Gas Works:	re. 1995	\$30.00	(1)
Philadelphia Gas Works:	re. 1996	\$53.33 - \$66.67 Residential	(2)
		\$80.00 - \$110.0 Commercial	(3)

**TABLE 15 A****PHILADELPHIA GAS WORKS  
COVERAGE OF DEBT SERVICE FROM OPERATIONS**

Sixteenth Series Bonds and Second Series Bonds Issued

	<u>Fiscal Years Ended August 31,</u>						
	<u>Current (a)</u>	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
	<u>Estimate</u> <u>1998-99</u>	<u>1999-2000</u>	<u>2000-01</u>	<u>2001-02</u>	<u>2002-03 (b)</u>	<u>2003-04</u>	<u>2004-05</u>
<b>Funds Available For Debt Service Calculation (Exhibit V)</b>	\$94,573	\$115,742	\$118,351	\$137,182	\$142,907	\$144,248	\$146,779
<b><u>1975 Ordinance Bonds</u></b>							
Debt Service Bonds	\$57,741	\$59,330	\$51,402	\$55,312	\$47,442	\$50,056	\$44,052
Debt Service Coverage	1.64	1.95	2.30	2.48	3.01	2.88	3.33
<b>Net Available After Prior Debt Service</b>	\$36,832	\$56,412	\$66,949	\$81,870	\$95,465	\$94,192	\$102,727
<b><u>Capital Lease for Building</u></b>							
Other Capital Leases	7,882	7,991	7,977	5,953	3,997	3,998	1,999
Total	\$7,882	\$7,991	\$7,977	\$5,953	\$3,997	\$3,998	\$1,999
<b>Net Available After Capital Leases</b>	\$28,950	\$48,421	\$58,972	\$75,917	\$91,468	\$90,194	\$100,728
<b><u>1998 Ordinance Senior Bonds</u></b>							
Debt Service Existing	\$15,097	14,128	\$22,047	\$16,711	\$22,646	\$17,371	\$21,495
Debt Service Proposed	0	7,565	7,181	7,123	7,121	11,998	12,934
Total	\$15,097	\$21,693	\$29,228	\$23,834	\$29,767	\$29,369	\$34,429
Debt Service Coverage	1.92	2.23	2.02	3.19	3.07	3.07	2.93
<b>Net Available after Debt Service on Sr. Bonds</b>	\$13,853	\$26,728	\$29,744	\$52,083	\$61,701	\$60,825	\$66,299
<b><u>1998 Ordinance Subordinate Bonds</u></b>							
Debt Service	\$2,053	\$1,986	\$1,991	\$1,985	\$1,989	\$1,989	\$1,987
Debt Service Coverage	6.75	13.46	14.94	26.24	31.02	30.58	33.37

(a) Current Estimate is based on six months actual data and six months projections based upon currently available information.  
(b) Assumes tax-exempt interest rate of 6.5% for Senior new money issue under the 1998 Gen'l. Ordinance in 2003 (\$75.0 million).

TABLE 14

PHILADELPHIA GAS WORKS  
PGW LIHEAP PARTICIPATION

	Fiscal 96 * Actual		Fiscal 97 Actual		Fiscal 98 Actual		Fiscal 99 Forecast	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<b>Initial Money Available For Grants</b>	\$51,267,542		\$63,183,961		\$ 62,698,318		\$59,100,000	
Cash	\$34,094,179	66.5%	\$50,344,451	79.7%	\$ 49,116,706	78.3%	\$53,786,350	91.0%
Cnrs	\$17,173,363	33.5%	\$12,839,510	20.3%	\$ 13,581,612	21.7%	\$ 5,313,650	9.0%
<b>Number Of Grants</b>								
<u>State of PA</u>								
Cash	244,461		234,521	78.7%	231,694	78.2%	225,259	91.4%
Cnrs	70,703		63,310	21.3%	64,674	21.8%	21,255	8.6%
Total State of PA	315,164		297,831	100.0%	296,368	100.0%	246,514	100.0%
<u>PGW</u>								
PGW-Cash	48,606	19.1%	47,986	20.5%	49,105	21.2%	45,062	20.0%
PGW-Cnrs	6,361	3.0%	7,600	12.0%	12,140	18.8%	3,990	18.8%
Total PGW	52,967	16.8%	55,586	18.7%	61,245	20.7%	49,042	19.9%
<u>CRP vs. Non-CRP</u>								
Cash - CRP	27,184	58.3%	28,780	60.0%	28,934	58.9%	23,677	53.0%
Cash - Non-CRP	19,422	41.7%	19,186	40.0%	20,171	41.1%	21,174	47.0%
Cnrs - CRP	3,356	52.8%	4,010	52.8%	6,545	53.9%	2,151	53.9%
Cnrs - Non-CRP	3,005	47.2%	3,590	47.2%	5,595	46.1%	1,839	46.1%
<b>Value Of Grants</b>								
<u>State of PA</u>								
Cash	\$ 140		\$ 215		\$ 201		\$ 213	
Cnrs	\$ 243		\$ 278		\$ 250		\$ 250	
<u>PGW</u>								
PGW-Cash	\$ 121	86.7%	\$ 209	97.0%	\$ 199	95.1%	\$ 213	100.0%
PGW-Cnrs	\$ 302	124.3%	\$ 260	89.8%	\$ 249	99.8%	\$ 243	90.0%
<b>Total Funding - Final</b>								
<u>State of PA</u>								
Cash	\$34,124,311		\$50,422,015		\$ 46,570,454		\$47,960,167	
Cnrs	\$17,173,052		\$17,629,303		\$ 16,168,500		\$ 5,313,650	
Total State of PA	\$51,267,363		\$68,051,316		\$ 62,738,954		\$53,293,817	
<u>PGW</u>								
PGW-Cash	\$ 5,639,326	16.5%	\$10,000,911	19.8%	\$ 9,778,573	21.0%	\$ 9,598,032	20.0%
PGW-Cnrs	\$ 1,921,022	11.2%	\$ 1,900,000	10.8%	\$ 3,027,837	18.7%	\$ 993,439	16.7%
Total	\$ 7,560,348	14.7%	\$11,900,911	17.5%	\$ 12,806,411	20.4%	\$10,593,472	19.9%

Does not include Supplemental Benefit of \$6.5 million

**TABLE 15 C**

**PHILADELPHIA GAS WORKS**  
**COVERAGE OF DEBT SERVICE FROM OPERATIONS**

Only Sixteenth Series Bonds Issued  
(Assumed issuance of bonds to finance capital  
projects in FY 2000)

	<u>Fiscal Years Ended August 31,</u>						
	<u>Current (a)</u>						
	<u>Estimate</u> <u>1998-99</u>	<u>Budget</u> <u>1999-2000</u>	<u>Forecast</u> <u>2000-01</u>	<u>Forecast</u> <u>2001-02</u>	<u>Forecast</u> <u>2002-03 (b)</u>	<u>Forecast</u> <u>2003-04</u>	<u>Forecast</u> <u>2004-05</u>
<b>Funds Available For Debt</b>							
<b>Service Calculation (Exhibit V)</b>	\$93,643	\$111,391	\$118,357	\$137,187	\$142,907	\$144,248	\$146,779
<b><u>1975 Ordinance Bonds</u></b>							
<b>Debt Service Bonds</b>	\$57,741	\$59,330	\$51,402	\$55,312	\$47,442	\$50,056	\$44,052
<b>Debt Service Coverage</b>	1.62	1.88	2.30	2.48	3.01	2.88	3.33
<b>Net Available After Prior Debt Service</b>	\$35,902	\$52,061	\$66,955	\$81,875	\$95,465	\$94,192	\$102,727
<b>Capital Lease for Building</b>							
<b>Other Capital Leases</b>	7,882	7,991	7,977	5,953	3,997	3,998	1,999
<b>Total</b>	\$7,882	\$7,991	\$7,977	\$5,953	\$3,997	\$3,998	\$1,999
<b>Net Available After Capital Leases</b>	\$28,020	\$44,070	\$58,978	\$75,922	\$91,468	\$90,194	\$100,728
<b><u>1998 Ordinance Senior Bonds</u></b>							
<b>Debt Service Existing</b>	\$15,097	14,128	\$29,612	\$23,832	\$29,769	\$24,492	\$28,818
<b>Debt Service Proposed</b>	0	0	0	0	0	4,875	5,815
<b>Total</b>	\$15,097	\$14,128	\$29,612	\$23,832	\$29,769	\$29,367	\$34,433
<b>Debt Service Coverage</b>	1.86	3.12	1.99	3.19	3.07	3.07	2.93
<b>Net Available after Debt Service on Sr. Bonds</b>	\$12,923	\$29,942	\$29,366	\$52,090	\$61,699	\$60,827	\$66,295
<b><u>1998 Ordinance Subordinate Bonds</u></b>							
<b>Debt Service</b>	\$2,053	\$1,986	\$1,991	\$1,985	\$1,989	\$1,989	\$1,987
<b>Debt Service Coverage</b>	6.29	15.08	14.75	26.24	31.02	30.58	33.36

(a) Current Estimate is based on six months actual data and six months projections based upon currently available information.

(b) Assumes tax-exempt interest rate of 6.5% for Senior new money issue under the 1998 Gen'l. Ordinance in 2003 (\$75.0 million).

**TABLE 15 B**

**PHILADELPHIA GAS WORKS  
COVERAGE OF DEBT SERVICE FROM OPERATIONS**

Only Second Series Bonds Issued

	<u>Fiscal Years Ended August 31,</u>						
	<u>Current (a)</u>	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
	<u>Estimate</u> <u>1998-99</u>	<u>1999-2000</u>	<u>2000-01</u>	<u>2001-02</u>	<u>2002-03 (b)</u>	<u>2003-04</u>	<u>2004-05</u>
<b>Funds Available For Debt Service Calculation (Exhibit V)</b>	\$94,573	\$115,742	\$118,351	\$137,182	\$142,907	\$144,248	\$146,779
<b><u>1975 Ordinance Bonds</u></b>							
Debt Service Bonds	\$59,847	\$59,849	\$51,918	\$55,830	\$47,961	\$50,570	\$44,569
Debt Service Coverage	1.58	1.93	2.28	2.46	2.98	2.85	3.29
<b>Net Available After Prior Debt Service</b>	\$34,726	\$55,893	\$66,433	\$81,352	\$94,946	\$93,678	\$102,210
<b>Capital Lease for Building</b>							
Other Capital Leases	7,882	7,991	7,977	5,953	3,997	3,998	1,999
<b>Total</b>	\$7,882	\$7,991	\$7,977	\$5,953	\$3,997	\$3,998	\$1,999
<b>Net Available After Capital Leases</b>	\$26,844	\$47,902	\$58,456	\$75,399	\$90,949	\$89,680	\$100,211
<b><u>1998 Ordinance Senior Bonds</u></b>							
Debt Service Existing	\$15,097	14,128	\$22,047	\$16,711	\$22,646	\$17,371	\$21,495
Debt Service Proposed	0	7,565	7,181	7,123	7,121	11,998	12,934
<b>Total</b>	\$15,097	\$21,693	\$29,228	\$23,834	\$29,767	\$29,369	\$34,429
Debt Service Coverage	1.78	2.21	2.00	3.16	3.06	3.05	2.91
<b>Net Available after Debt Service on Sr. Bonds</b>	\$11,747	\$26,209	\$29,228	\$51,565	\$61,182	\$60,311	\$65,782
<b><u>1998 Ordinance Subordinate Bonds</u></b>							
Debt Service	\$2,053	\$1,986	\$1,991	\$1,985	\$1,989	\$1,989	\$1,987
Debt Service Coverage	5.72	13.20	14.68	25.98	30.78	30.32	33.11

(a) Current Estimate is based on six months actual data and six months projections based upon currently available information.

(b) Assumes tax-exempt interest rate of 6.5% for Senior new money issue under the 1998 Gen'l. Ordinance in 2003 (\$75.0 million).

**TABLE 17**  
**PHILADELPHIA GAS WORKS**  
**ACCOUNTS RECEIVABLE, RESERVE FOR BAD DEBT,**  
**WRITE-OFF EXPENSES, DELINQUENT CUSTOMERS,**  
**AND REVENUE STATISTICS**  
**(\$000)**

	<b>Fiscal Years Ended August 31,</b>					
	<b><u>Actual</u></b> <b><u>1993</u></b>	<b><u>Actual</u></b> <b><u>1994</u></b>	<b><u>Actual</u></b> <b><u>1995</u></b>	<b><u>Actual</u></b> <b><u>1996</u></b>	<b><u>Actual</u></b> <b><u>1997</u></b>	<b><u>Actual</u></b> <b><u>1998</u></b>
<b>Billed Gas Revenues</b>	\$526,723	\$554,212	\$477,601	\$539,119	\$548,455	\$497,985
<b>Accounts Receivable</b>	132,574	171,730	140,002	143,303	132,560	110,790
<b>Reserve for Bad Debt</b>	54,565	73,772	79,195	83,214	77,100	64,724
<b>Reserve as a Percentage of Accounts Receivable</b>	41.2%	43.0%	56.6%	58.1%	58.2%	58.4%
<b>Write-Off Expenses</b>	28,355	23,927	37,518	33,975	39,149	45,973
<b>Receivables as a Percentage of Sales Revenues</b>	25.2%	31.0%	29.3%	26.6%	24.2%	22.2%
<b>Delinquent Customers ( Annual Average )</b>	145,092	143,613	112,712	119,806	120,901	117,394

**TABLE 18**  
**PHILADELPHIA GAS WORKS**  
**SOURCES AND USES OF CASH FOR**  
**CAPITAL IMPROVEMENT EXPENDITURES**  
**FISCAL YEARS 1994 THROUGH 2005**

(000's)

	A C T U A L					Current		F O R E C A S T					
	1994	1995	1996	1997	1998	Budget 1999	Estimate 1999	Budget 2000	2001	2002	2003	2004	2005
<b>SOURCES:</b>													
Bond Proceeds @ Par	\$183,800	\$0	\$0	\$0	\$103,550	\$0	\$109,170	\$0	\$0	\$0	\$75,000	\$0	\$0
Proceeds From Capital Leasing	0		20,100	23,000									
PGW Internally Generated Funds	27	9,568	24,306	47,081	21,483	25,701	28,277	12,026	6,527	22,929	27,572	33,520	34,697
<b>Total Sources</b>	<b>\$183,907</b>	<b>\$9,568</b>	<b>\$44,406</b>	<b>\$70,081</b>	<b>\$125,033</b>	<b>\$25,701</b>	<b>\$135,447</b>	<b>\$12,026</b>	<b>\$6,527</b>	<b>\$22,929</b>	<b>\$102,572</b>	<b>\$33,520</b>	<b>\$34,697</b>
<b>USES:</b>													
Changes in Capital Improvement Fund	\$18,303	(\$43,061)	(\$905)	\$17,410	\$43,576	(\$47,500)	\$50,000	(\$45,307)	(\$45,000)	(\$24,906)	\$41,560	(\$26,000)	(\$15,560)
Discount & Issuance Exp	7,553		202	169	5,795		2,049				2,625		
Deposit to Sinking Fund	(28)				5,165		7,121				5,815		
Funds Deposited in Escrow	105,512												
Capital Expenditures	52,567	57,629	45,109	52,502	70,497	73,201	78,277	57,333	51,527	47,835	52,572	59,520	50,257
<b>Total Uses</b>	<b>\$183,907</b>	<b>\$9,568</b>	<b>\$44,406</b>	<b>\$70,081</b>	<b>\$125,033</b>	<b>\$25,701</b>	<b>\$135,447</b>	<b>\$12,026</b>	<b>\$6,527</b>	<b>\$22,929</b>	<b>\$102,572</b>	<b>\$33,520</b>	<b>\$34,697</b>
<b>Capital Improvement Fund</b>													
Deposit	\$70,843	\$0	\$19,898	\$22,831	\$92,590	\$0	\$100,000	\$0	\$0	\$0	\$66,560	\$0	\$0
Drawdown	(\$2,540)	(\$43,061)	(\$20,003)	(\$5,421)	(\$49,014)	(\$47,500)	(\$50,000)	(\$45,307)	(\$45,000)	(\$24,906)	(25,000)	(\$26,000)	(\$15,560)
Changes in Fund	\$18,303	(\$43,061)	(\$905)	\$17,410	\$43,576	(\$47,500)	\$50,000	(\$45,307)	(\$45,000)	(\$24,906)	\$41,560	(\$26,000)	(\$15,560)
<b>Balance End of Period</b>	<b>\$48,193</b>	<b>\$5,132</b>	<b>\$4,227</b>	<b>\$21,637</b>	<b>\$65,213</b>	<b>\$17,713</b>	<b>\$115,213</b>	<b>\$69,906</b>	<b>\$24,906</b>	<b>\$0</b>	<b>\$41,560</b>	<b>\$15,560</b>	<b>\$0</b>

**EXHIBIT I**  
**PHILADELPHIA GAS WORKS**  
**SELECTED OPERATING STATISTICS**

Fiscal Data	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Number of Customers	518,143	519,208	522,834	519,824	523,505	517,951	517,092	514,968	511,337	512,289
Miles of Distribution Mains	3,031	3,014	3,008	3,014	3,021	3,017	3,015	3,023	3,021	3,022
Utility Plant (\$000) (1)	840,248	892,970	840,267	887,437	1,031,592	1,077,975	1,124,757	1,156,201	1,203,720	1,271,131
Total Gas Sales (MMcf) (2)	72,533	71,723	89,349	75,771	78,202	77,435	74,217	80,309	72,191	71,548
<b>Operating Revenues (\$000)</b>										
Heating	\$378,873	\$378,008	\$358,150	\$393,338	\$422,998	\$472,328	\$385,545	\$475,958	\$450,240	\$408,828
Non-Heating	87,607	90,245	98,347	88,494	95,418	88,895	85,878	91,148	90,451	81,513
Gas Transportation	0	0	480	2,354	821	380	1,307	1,108	1,441	2,258
Other Operating Revenues	5,428	5,921	8,815	8,030	7,942	12,318	6,420	7,838	8,838	7,098
Total Operating Revenues	\$472,708	\$472,172	\$461,572	\$490,214	\$528,977	\$573,919	\$478,950	\$578,048	\$550,970	\$497,695
Other Income	12,858	11,880	12,838	10,238	11,203	8,989	29,293	7,667	7,514	5,370
<b>Operating Expenses (\$000)</b>										
Natural Gas & Raw Material	237,932	231,399	208,825	211,825	243,274	274,103	213,845	276,858	271,831	248,699
Gas Processing	24,565	24,353	21,939	21,494	21,458	21,822	18,845	14,848	14,238	13,582
Field Services	20,382	19,229	17,835	21,387	20,100	23,038	17,448	18,482	18,883	18,032
Distribution	16,244	20,588	18,519	19,422	20,874	25,003	19,561	22,817	20,454	18,500
Collection & Meter Reading (3)	32,383	37,241	42,983	41,498	44,613	58,718	60,315	54,549	48,778	48,922
Administrative & General	27,185	26,989	28,887	35,357	39,960	38,783	44,593	40,282	40,485	43,379
Other Operating Expenses (4)	60,812	58,678	58,115	59,262	60,665	88,208	53,018	70,833	70,815	68,520
Total Operating Expenses	\$419,303	\$416,475	\$398,883	\$410,045	\$450,744	\$505,881	\$427,223	\$498,075	\$483,084	\$451,834
Interest Expense	47,738	49,007	52,871	55,555	53,987	55,516	55,748	53,738	51,429	50,458
Net Income	\$18,525	\$18,570	\$24,454	\$34,852	\$33,469	\$19,711	\$25,274	\$31,304	\$23,971	\$975

(1) Gross Utility Plant at Original Cost

(2) Includes Gas Transportation in years 1991 through 1997

(3) Includes Appropriation for Bad Debt Expense

(4) Includes Customer Service, Customer Accounting, Marketing, Pensions, Taxes & Net Depreciation and Amortization.

**TABLE 18**  
**PHILADELPHIA GAS WORKS**  
**FORECAST OF ACCOUNTS RECEIVABLE, RESERVE**  
**FOR BAD DEBT, WRITE-OFF EXPENSES,**  
**AND REVENUE STATISTICS**  
**(\$000)**

	<u>Current</u>	<u>Budget</u>	<u>Forecast</u>	<u>Fiscal Years Ended August 31,</u>			<u>Forecast</u>	<u>Forecast</u>
	<u>Estimate</u>			<u>2002*</u>	<u>Forecast</u>	<u>Forecast</u>		
	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002*</u>	<u>2003*</u>	<u>2004*</u>	<u>2005*</u>	
Billed Gas Revenues	\$484,372	\$501,453	\$514,146	\$544,560	\$555,256	\$567,861	\$552,921	
Accounts Receivable	76,816	75,390	76,812	80,171	83,664	87,390	90,261	
Reserve for Bad Debt	57,830	50,830	46,250	43,413	41,869	41,703	42,600	
Reserve as a Percentage of Accounts Receivable	75.3%	67.4%	60.2%	54.2%	50.0%	47.7%	47.2%	
Write-Off Expenses	36,769	35,000	33,000	32,500	32,500	32,500	32,500	
Receivables as a Percentage of Sales Revenues	15.9%	15.0%	14.9%	14.7%	15.1%	15.4%	16.3%	

\* The forecast envisions an increase in the amount of \$20 million of revenue enhancement in 2002 from either a general rate increase or from equivalent savings in operating expenses or from a combination of both.

**EXHIBIT III**

**PHILADELPHIA GAS WORKS  
FORECAST OTHER OPERATING AND MAINTENANCE EXPENSES  
FISCAL YEARS 1998 THROUGH 2005  
(\$000)**

	<u>Fiscal Years Ended August 31,</u>							
	<u>Actual</u>	<u>Current</u>	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	
	<u>1998</u>	<u>Estimate</u> <u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>Forecast</u> <u>2005</u>
Other Operating & Maintenance Expenses								
Administrative & General	\$43,379	\$47,625	\$53,683	\$52,665	\$54,282	\$56,028	\$57,833	\$57,798
Appropriation to Reserve for Bad Debt	34,130	30,000	28,000	28,420	29,663	30,956	32,334	33,397
Field Services	28,010	29,007	29,620	30,013	30,390	30,770	31,355	32,001
Distribution	16,500	15,569	14,757	14,950	15,191	15,437	15,687	16,012
Collection	9,630	7,010	7,372	7,557	7,716	7,879	8,046	8,216
Meter Reading	3,627	5,543	4,889	4,961	5,063	5,167	5,273	5,380
Customer Service	12,826	11,452	12,363	12,690	12,951	13,217	13,489	13,767
Customer Accounting	6,577	7,767	8,737	8,935	9,120	9,309	9,502	9,699
Marketing & Point-of Sale Expenses	6,698	7,236	7,277	7,479	7,665	7,856	8,051	8,252
Pensions	3,334	782	1,060	1,331	1,597	1,868	2,137	2,412
Taxes	6,235	6,232	6,318	6,372	6,431	6,528	6,625	6,722
Amortization	(1,111)	5,603	5,603	5,603	4,715	3,750	3,750	-
Labor Cost Savings	-	-	-	(2,394)	(3,479)	(4,032)	(4,597)	(5,172)
Non-Labor Cost Savings	-	-	-	(1,632)	(2,008)	(2,403)	(2,464)	(2,527)
<b>Total Other Operating &amp; Maint. Expense</b>	<b>\$169,835</b>	<b>\$173,826</b>	<b>\$179,679</b>	<b>\$176,950</b>	<b>\$179,297</b>	<b>\$182,326</b>	<b>\$186,821</b>	<b>\$185,957</b>

## EXHIBIT II

**PHILADELPHIA GAS WORKS**  
**FORECAST STATEMENT OF INCOME**  
**FISCAL YEARS 1998 THROUGH 2005**  
(\$000)

With Customer Charge of \$8.00  
Effective 8/1/99 Impacting FY 1999 Only.

	Fiscal Years Ended August 31,							
	Actual	Current	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
	1998	1999	2000	2001	2002	2003	2004	2005
<b>Operating Revenues</b>								
Sales (Current Rates & Changes to GCR)	\$488,768	\$482,553	\$512,033	\$514,198	\$524,810	\$555,308	\$587,811	\$572,971
Projected Rate Increase - Current		3,988			20,000			
Appliance Repair & Other Revenues	14,111	14,009	13,924	13,724	14,138	14,560	14,997	15,447
Other Operating Revenues	8,927	8,484	8,550	8,484	8,888	9,163	9,371	9,454
<b>Total Operating Revenues</b>	<b>\$511,806</b>	<b>\$489,012</b>	<b>\$534,507</b>	<b>\$536,404</b>	<b>\$578,732</b>	<b>\$579,029</b>	<b>\$592,279</b>	<b>\$597,872</b>
<b>Operating Expenses</b>								
Natural Gas & Raw Material	\$248,699	\$224,104	\$245,440	\$245,285	\$253,103	\$259,839	\$288,323	\$287,598
Gas Processing	13,582	13,371	13,388	13,722	13,880	14,175	14,462	14,810
Other Operating & Maintenance (Exhibit III)	189,835	173,828	179,679	178,950	179,297	182,328	188,821	185,957
Operating Expenses Excl. Depreciation	\$430,116	\$411,301	\$438,487	\$435,937	\$448,280	\$456,340	\$489,608	\$488,383
Depreciation	35,391	29,838	30,498	31,394	32,285	33,104	34,084	38,848
<b>Total Operating Expenses</b>	<b>\$465,507</b>	<b>\$441,139</b>	<b>\$468,985</b>	<b>\$467,331</b>	<b>\$478,545</b>	<b>\$489,444</b>	<b>\$503,690</b>	<b>\$507,209</b>
<b>Net Operating Income</b>	<b>\$46,299</b>	<b>\$47,873</b>	<b>\$65,522</b>	<b>\$69,073</b>	<b>\$69,187</b>	<b>\$89,585</b>	<b>\$88,589</b>	<b>\$90,663</b>
Other Income	5,132	8,001	9,542	7,401	5,100	9,250	10,253	8,800
<b>Net Income Before Interest</b>	<b>\$51,431</b>	<b>\$55,874</b>	<b>\$75,064</b>	<b>\$76,474</b>	<b>\$84,287</b>	<b>\$98,835</b>	<b>\$98,842</b>	<b>\$99,463</b>
<b>Interest Expense</b>								
<b>Long-Term Debt Interest:</b>								
Revenue Bonds	\$39,730	\$41,781	\$46,898	\$44,554	\$42,535	\$43,125	\$43,178	\$41,847
PMA Bonds & Subordinate Debt	1,315	1,023	968	928	880	834	784	732
Capital Leases	1,982	1,655	1,298	913	559	384	170	8
Discount & Expenses	1,875	1,448	1,401	1,319	1,235	1,227	1,224	1,222
<b>Total Long-Term Interest</b>	<b>\$44,702</b>	<b>\$45,885</b>	<b>\$50,563</b>	<b>\$47,712</b>	<b>\$45,209</b>	<b>\$45,550</b>	<b>\$45,356</b>	<b>\$43,809</b>
<b>Other Interest</b>								
Short-Term Debt	\$2,992	\$2,477	\$3,209	\$3,294	\$3,379	\$2,985	\$3,050	\$3,135
Loss From Extinguishment of Debt	3,103	3,210	3,393	3,249	3,090	2,822	2,781	2,754
Interest on Customer Deposits	78	70	72	74	78	78	78	78
Miscellaneous	12	221	18	2				
Total Other Interest	\$8,185	\$5,978	\$6,690	\$6,819	\$6,545	\$5,963	\$5,887	\$5,965
AFUDC	(431)	(500)	(499)	(424)	(274)	(275)	(288)	(171)
<b>Total Interest Expense</b>	<b>\$50,458</b>	<b>\$51,383</b>	<b>\$56,754</b>	<b>\$53,907</b>	<b>\$51,480</b>	<b>\$51,238</b>	<b>\$50,957</b>	<b>\$49,603</b>
<b>Net Income</b>	<b>\$975</b>	<b>\$4,511</b>	<b>\$18,310</b>	<b>\$22,567</b>	<b>\$42,807</b>	<b>\$47,597</b>	<b>\$47,885</b>	<b>\$49,860</b>
Payment To City of Philadelphia	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
<b>Net Earnings / ( Loss ) Transferred to Retained Earnings</b>	<b>(\$17,025)</b>	<b>(\$13,489)</b>	<b>\$310</b>	<b>\$4,567</b>	<b>\$24,807</b>	<b>\$29,597</b>	<b>\$29,885</b>	<b>\$31,860</b>

Note: (a) Current estimate is based on six months actual data and six months projections based upon currently available information.

EXHIBIT V

PHILADELPHIA GAS WORKS  
ANALYSIS OF INTERNALLY GENERATED FUNDS  
AVAILABLE TO COVER DEBT SERVICE  
FISCAL YEARS 1998 THROUGH 2005

(\$000)

	Fiscal Years Ended August 31,							
	Actual	Current	Budget	Forecast	Forecast	Forecast	Forecast	Forecast
	1998	1999	2000	2001	2002	2003	2004	2005
<b>Funds Provided:</b>								
Operating Revenues ( Exhibit II )	\$511,806	\$489,012	\$534,507	\$538,404	\$567,732	\$579,029	\$592,279	\$597,872
Other Income	5,408	8,270	9,542	7,401	5,100	9,250	10,253	8,800
AFUDC ( Interest )	432	500	499	424	274	275	288	171
Total Funds Provided	\$517,644	\$497,782	\$544,548	\$544,229	\$573,106	\$588,554	\$602,818	\$606,843
<b>Funds Applied To Operations:</b>								
Operating Expenses Excluding Depreciation ( Exhibit II )	\$430,118	\$411,301	\$438,487	\$435,937	\$448,280	\$458,340	\$469,608	\$488,363
Less: Expenses Not Requiring Expenditure of Funds	8,384	8,092	9,681	10,059	10,358	10,693	11,038	8,299
Total Funds Applied	\$423,752	\$403,209	\$428,806	\$425,878	\$435,924	\$445,647	\$458,570	\$460,064
<b>Internally Generated Funds Available To Cover Revenue Bond Debt Service</b>	\$93,892	\$94,573	\$115,742	\$118,351	\$137,182	\$142,907	\$144,248	\$146,779
<b>Funds Applied To Debt Service:</b>								
Revenue Bonds - Issued Under 1975 Ordinance	\$81,923	\$57,741	\$59,330	\$51,402	\$55,312	\$47,442	\$50,058	\$44,052
Revenue Bonds - Issued Under 1998 Ordinance								
Senior Bonds	-	15,097	14,128	22,047	18,711	22,648	17,371	21,495
Additional Senior Bonds	-	-	7,565	7,181	7,123	7,121	11,998	12,834
Subordinate Bonds	-	2,053	1,986	1,991	1,985	1,989	1,989	1,987
Total Revenue Bonds	\$81,923	\$74,891	\$83,009	\$82,621	\$81,131	\$78,198	\$81,414	\$80,468
Capital Lease for Building	2,242	-	-	-	-	-	-	-
Other Capital Leases	5,971	7,882	7,991	7,977	5,953	3,997	3,998	1,999
Temporary Financing	2,775	2,477	3,209	3,294	3,379	3,484	3,549	3,654
Total Funds Applied To Debt Service	\$72,911	\$85,250	\$94,209	\$93,692	\$90,463	\$88,659	\$88,961	\$86,121
<b>Internally Generated Funds Available For City Payment</b>	\$20,981	\$9,323	\$21,533	\$24,459	\$48,719	\$58,248	\$55,287	\$60,658
City Payment	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
<b>Internally Generated Funds Available</b>	\$2,981	(\$8,677)	\$3,533	\$6,459	\$28,719	\$38,248	\$37,287	\$42,658
<b>Debt Service Coverage</b>								
Bonds Issued under 1975 Ordinance	1.52	1.64	1.95	2.30	2.48	3.01	2.88	3.33
Senior Bonds Issued under 1998 Ordinance	-	1.92	2.23	2.02	3.19	3.07	3.07	2.93
Subordinate Bonds Issued under 1998 Ordinance	-	8.75	13.46	14.94	28.24	31.02	30.68	33.37

EXHIBIT IV

**PHILADELPHIA GAS WORKS**  
**CAPITAL EXPENDITURES**  
**FISCAL YEARS 1998 THROUGH 2005**  
(\$000)

	<u>Fiscal Years Ended August 31,</u>							
	<u>Actual</u>	<u>Current</u>	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
	<u>1998</u>	<u>Estimate(a)</u> <u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
<b>Additions &amp; Replacements</b>								
Supply Plant	\$710	\$1,619	\$6,389	\$12,025	\$3,440	\$8,566	\$16,398	\$2,649
Distribution Plant	32,243	26,917	29,782	29,048	31,473	32,071	32,650	33,297
Field Services Plant	12,215	12,018	7,170	4,543	5,036	4,613	4,649	8,831
Other Plant	24,938	35,327	16,176	8,421	8,779	8,195	6,651	6,442
Sub-Total	\$70,106	\$75,881	\$59,517	\$54,037	\$48,728	\$53,445	\$60,348	\$51,219
Less: Contributions in Aid of Construction	(340)	(299)	(2,533)	(2,639)	(955)	(974)	(993)	(1,012)
Net Additions & Replacements	\$69,766	\$75,582	\$56,984	\$51,398	\$47,773	\$52,471	\$59,355	\$50,207
<b>Allowance for Funds Used During Construction</b>								
Supply Plant	\$42	52	76	79	36	81	120	33
Distribution	510	612	507	454	460	469	512	498
Field Services and Other Plant	64	99	48	34	30	28	23	22
Sub-Total	\$616	\$763	\$631	\$567	\$526	\$578	\$655	\$553
<b>Removal Costs ( Net )</b>								
Removal Costs	\$274	60	\$0	\$0	\$0	\$0	\$0	\$0
Salvage	(159)	(128)	(282)	(438)	(464)	(477)	(490)	(503)
Sub-Total	\$115	(\$68)	(\$282)	(\$438)	(\$464)	(\$477)	(\$490)	(\$503)
<b>Total</b>	<b>\$70,497</b>	<b>\$76,277</b>	<b>\$57,333</b>	<b>\$51,527</b>	<b>\$47,835</b>	<b>\$52,572</b>	<b>\$59,520</b>	<b>\$50,257</b>

## APPENDIX

### A NOTE ON SALES/SUPPLY/DEMAND UNITS

Sales/supply/demand in this report are reported in volume or energy units. PGW purchases gas in energy units but, usually sells them in volume units because that is what gas meters measure. There is a fundamental relationship between the energy and volume units used for reporting purposes... - one cubic foot of gas (volume) equals approximately 1,030 Btu (energy). More complex measures evolve from this relationship as follows:

#### Energy Units

- Btu - British thermal unit - the amount of energy required to raise the temperature of one pound of water by one degree Fahrenheit.
- Therm - 100,000 Btu
- Dekatherm - 10 Therms (1,000,000 Btu)

#### Volume Units

- Scf - Standard cubic foot - the amount of gas contained in one cubic foot at 60 F and standard pressure of 14.73 pounds per square inch absolute (normal atmospheric pressure)
- Mcf - Thousand cubic feet, 1,000 Scf
- MMcf - Million cubic feet, 1,000 Mcf (1,000,000 Scf)
- Bcf - Billion cubic feet, 1,000 MMcf (1,000,000,000 Scf)

For the reader's ease in reading/understanding the report the following approximations may be useful:

- One Dekatherm equals one Mcf.
- One thousand Dekatherms equals one MMcf.

#### Heating Units

- HDD - Heating Degree Days
- HDH - Heating Degree Hours

EXHIBIT VI

**PHILADELPHIA GAS WORKS**  
**ANALYSIS OF CASH AND ANNUAL CASH BALANCES**  
**FISCAL YEARS 1998 THROUGH 2005**

(\$000)

	Fiscal Years Ended August 31,							
	Actual 1998	Estimate 1999	Budget 2000	Forecast 2001	Forecast 2002	Forecast 2003	Forecast 2004	Forecast 2005
<b>Beginning Cash Balance</b>	<u>\$1,284</u>	<u>\$9,883</u>	<u>\$8,151</u>	<u>\$7,445</u>	<u>\$5,605</u>	<u>\$8,832</u>	<u>\$13,321</u>	<u>\$13,538</u>
<b>Sources of Funds:</b>								
<b>Internally Generated:</b>								
Net Income ( Exhibit II )	\$975	\$4,511	\$18,310	\$22,567	\$42,807	\$47,597	\$47,885	\$49,860
Items in Net Income Not Requiring Funds	37,984	33,962	36,603	37,900	39,079	40,271	41,611	42,920
Interest Expenses Included in Net Income ( Exhibit II )	<u>50,456</u>	<u>51,363</u>	<u>56,754</u>	<u>53,907</u>	<u>51,480</u>	<u>51,238</u>	<u>50,957</u>	<u>49,603</u>
<b>Total Internal Funds</b>	<u>\$89,415</u>	<u>\$89,838</u>	<u>111,667</u>	<u>114,374</u>	<u>133,366</u>	<u>139,107</u>	<u>140,453</u>	<u>142,383</u>
<b>Externally Generated:</b>								
Revenue Bond Proceeds	\$92,590	\$100,000	-	-	-	\$66,560	-	-
Capital Improvement Fund Drawdown	49,014	50,000	45,307	45,000	24,906	25,000	26,000	15,560
Capital Lease Proceeds	-	-	-	-	-	-	-	-
Temporary Borrowings	<u>26,000</u>	<u>9,000</u>	<u>20,000</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
<b>Total External Funds</b>	<u>\$167,604</u>	<u>\$159,000</u>	<u>\$65,307</u>	<u>\$45,000</u>	<u>24,906</u>	<u>91,560</u>	<u>26,000</u>	<u>15,560</u>
<b>Total Sources of Funds</b>	<u>\$257,019</u>	<u>\$248,838</u>	<u>\$176,974</u>	<u>\$159,374</u>	<u>\$158,272</u>	<u>\$230,667</u>	<u>\$166,453</u>	<u>\$157,943</u>
<b>Uses of Funds:</b>								
Debt Service Coverage ( Exhibit V )	\$61,923	\$72,838	\$81,023	\$60,630	\$79,146	\$77,209	\$79,425	\$78,481
PMA Bond Debt Service ( Exhibit V )	2,242	-	-	-	-	-	-	-
Capital Lease Debt Service	5,971	7,882	7,991	7,997	5,953	3,997	3,998	1,999
Subordinate Bonds ( Exhibit V )	-	2,053	1,986	1,991	1,985	1,989	1,989	1,987
Working Capital Increases	<u>(2,803)</u>	<u>(26,482)</u>	<u>11,347</u>	<u>34,069</u>	<u>4,126</u>	<u>3,851</u>	<u>8,304</u>	<u>4,219</u>
Construction Requirements	70,497	76,277	57,333	51,527	47,835	52,572	59,520	50,257
Payment to City of Philadelphia ( Exhibit II )	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Deposit of Capital Improvement Fund ( Table 1 )	92,590	100,000	-	-	-	66,560	-	-
Repayment of Temporary Borrowings	-	-	-	-	-	-	-	-
<b>Total Uses of Funds</b>	<u>\$248,420</u>	<u>\$250,568</u>	<u>\$177,680</u>	<u>\$161,214</u>	<u>\$157,045</u>	<u>\$224,178</u>	<u>\$166,236</u>	<u>\$154,943</u>
<b>Ending Cash Balance</b>	<u>\$9,883</u>	<u>\$8,151</u>	<u>\$7,445</u>	<u>\$5,605</u>	<u>\$6,832</u>	<u>\$13,321</u>	<u>\$13,538</u>	<u>\$16,538</u>

## Service

Our services take many forms: verbal consultation, research or analysis, review or verification of work performed by others, expert testimony, and complete studies with written reports. A Stone & Webster report provides clear guides for management action and is often used as a communication and implementation tool. We provide a check of decisions, procedures, and programs that is independent and objective. Our testimony and reports provide the credible evidence necessary to confirm the prudence of decisions before regulators, stockholders, and boards of directors.

## Quality and Integrity

Stone & Webster's tradition of professional consultation reaches back to the nineteenth century and draws on state-of-the-art, comprehensive utility experience and resources. Year after year a significant portion of our assignments comes from repeat clients – clients who return to Stone & Webster because they have had first-hand experience with our record of unbiased work performed to the client's specifications, on time, within budget. We believe that the most convincing evidence of the quality, integrity, and value of our services is the confidence and loyalty of our repeat clients.

### General practice areas:

*General Management Consulting*

*Strategic Planning*

*Integrated Resource Planning*

*IRP Workstation*

*Models (EGEAS, RISKMIN, BENCHMARK)*

*Staffing Optimization & Organization Analysis*

*Second-Generation Benchmarking*

*Re-engineering*

*Management Audits & Pre-audit Planning*

*System and Capacity Planning*

*Electric Utility Operations*

*Gas Utility Operations*

*Gas Supply Planning*

*Rate & Regulatory Services*

*Financial, Accounting, Tax, & Depreciation Service*

*Forecasting Services*

*Financial and Economic Feasibility Evaluations*

*Appraisal and Valuation*

*Risk Management*

*Management Information Systems*

*Profit & Loss Systems*

*Human Resource Management*

*Advisory Services*

*Utility Management Development Program*

*Productivity and Performance Improvement*

*Materials Management*

*Marketing*

*Cogeneration*

*Mergers and Acquisitions*

*Project Review Services*

*Process Mapping*

*Quality Management Programs*



Stone & Webster  
Management Consultants, Inc.

*The Utility Experts*

(212) 290-7190

Fax: 212-290-7033

New York • Boston • Atlanta • Houston • Denver

**Stone & Webster  
Management Consultants, Inc.**

**S**tone & Webster Management Consultants, Inc. provides practical responses to the challenges of today's volatile market and regulatory environment and changing operating conditions. We furnish management with tools, knowledge and skills to respond effectively to problems in every facet of utility operations. For industrial clients and public and institutional entities, we provide a wide range of management consulting services.

*A Management Resource*

Few other firms can equal Stone & Webster's breadth and depth of expertise. Our consulting staff comes from proven backgrounds in operating and management positions with utilities, oil companies, regulatory agencies, manufacturing concerns, banks, law firms, insurance companies, and public entities. They are proficient in planning, gas and electric utility operations, rates and regulation, marketing, information systems, human resource management, appraisal, accounting and finance, tax, and risk management. Stone & Webster's professional staff can provide the specialized knowledge needed for any utility assignment large or small.

Stone & Webster integrates experts and their services into a comprehensive management resource: a full spectrum of skills, industry experience, and knowledge that can be focused on discrete projects or problems, all-embracing studies, or continuing as-needed services. We believe in close involvement of key members of the client's management team to develop their sense of ownership and understanding of the project. Our services are tailored to each client's special requirements and in many cases Stone & Webster's own staff can take a project from feasibility studies through implementation.

1987	\$44,052
1988	\$41,002
1989	\$55,316
1990	\$41,402
1991	\$55,316
1992	\$41,402
1993	\$55,316
1994	\$41,402
1995	\$55,316
1996	\$41,402
1997	\$55,316
1998	\$41,402
1999	\$55,316
2000	\$41,402
2001	\$55,316
2002	\$41,402
2003	\$55,316
2004	\$41,402
2005	\$55,316
2006	\$41,402
2007	\$55,316
2008	\$41,402
2009	\$55,316
2010	\$41,402
2011	\$55,316
2012	\$41,402
2013	\$55,316
2014	\$41,402
2015	\$55,316
2016	\$41,402
2017	\$55,316
2018	\$41,402
2019	\$55,316
2020	\$41,402
2021	\$55,316
2022	\$41,402
2023	\$55,316
2024	\$41,402
2025	\$55,316
2026	\$41,402
2027	\$55,316
2028	\$41,402
2029	\$55,316
2030	\$41,402

1987  
 1988  
 1989  
 1990  
 1991  
 1992  
 1993  
 1994  
 1995  
 1996  
 1997  
 1998  
 1999  
 2000  
 2001  
 2002  
 2003  
 2004  
 2005  
 2006  
 2007  
 2008  
 2009  
 2010  
 2011  
 2012  
 2013  
 2014  
 2015  
 2016  
 2017  
 2018  
 2019  
 2020  
 2021  
 2022  
 2023  
 2024  
 2025  
 2026  
 2027  
 2028  
 2029  
 2030

Midwest Energy Corp.  
Midwestern Gas Transmission Company  
Mississippi Valley Gas Company  
Missouri Utilities Company  
Mobile Gas Service Corporation  
Montana-Dakota Utilities Company  
Montana Power Company  
Mountain Fuel Supply Company  
Mustang Fuel Corporation

Nantucket Gas & Electric Company  
Nashville Gas Company  
National Fuel Gas Company  
National Fuel Gas Supply Corp.  
National Fuel Gas Distribution Corp.  
National Gas & Oil Corporation  
National Utilities & Industries Corp.  
Natural Gas Pipeline Co. of America  
New Bedford Gas & Edison Light Co.  
New Britain Gas Light Company  
New England Gas Association  
New Haven Gas Company  
New Jersey Natural Gas Company  
New York Gas Group  
New York State Electric & Gas Corp.  
New York State Natural Gas Corp.  
New Zealand Gas Association  
North Carolina Natural Gas Corp.  
North Shore Gas Company  
Northeast Utilities Service Company  
Northern and Central Gas Corp., Ltd.  
Northern Illinois Gas Company  
Northern Indiana Public Service Co.  
Northern Minnesota Utilities  
Northern Natural Gas Company  
Northern States Power Company  
Northern Utilities Inc.  
Northwest Pipeline SGS Customer Group  
Northwestern Public Service Company  
Northwestern Utilities, Ltd.  
Northwest Natural Gas Company

Ohio Fuel Gas Corporation  
Ohio Gas Company  
Ohio Public Utility Commission  
Okaloosa County Gas District  
Oklahoma Gas & Electric Company

Oklahoma Natural Gas Company  
Orange and Rockland Utilities, Inc.

Pacific Lighting Service & Supply Co.  
Pacific Power & Light Company  
Panhandle Eastern Pipe Line Company  
Pecos Valley Gas Company  
Penn Fuel Gas Co.  
Pennsylvania Gas Company  
Pennsylvania Gas & Water Company  
Pennsylvania Gas Association  
Pennzoil United, Inc.  
Peoples Gas Light & Coke Company  
Peoples Gas System  
Peoples Natural Gas Company  
Peoples Natural Gas Company of South Carolina  
Permian Basin Pipeline Company  
Philadelphia Gas Commission  
Philadelphia Gas Works  
Piedmont Natural Gas Company  
Pioneer Natural Gas Company  
Plains-Western Gas, Ltd.  
Polar Gas / McKenzie Delta  
Producers Gas Company  
Providence Gas Company  
Public Service Company of North Carolina, Inc.  
Public Service Electric & Gas Company  
Puerto Rico Gas Co., Inc.

Quebec Natural Gas Corporation

Richmond Gas Corporation  
Roanoke Gas Company  
Rochester Gas & Electric Corporation

St. Lawrence Gas Company, Inc.  
San Diego Gas & Electric Co.  
San Juan Gas Company  
Shreveport Intrastate Gas Transmission, Ltd.  
Sierra Pacific Power Company  
Societe Gazifere de Hull, Inc.  
South Australia Gas Company  
South Brisbane Gas & Light Company, Ltd.  
South Carolina Electric & Gas Company  
South County Gas Company  
South Eastern Gas Board  
South Jersey Gas Company  
Southeastern Michigan Gas Company

---

Southeastern Public Service Company	Union Gas Limited
Southern California Gas Company	United Cities Gas Company
Southern Connecticut Gas Company	United Fuel Gas Company
Southern Indiana Gas & Electric Co.	United Gas Corporation
Southern Natural Gas Company	United Gas Pipe Line Company
Southern Union Gas Company	United Natural Gas Company
Southwest Gas Corporation	United Suburban Gas Company, Ltd.
Southwestern Energy Co.	United Texas Transmission Co.
Springfield Gas Light Company	Valero Energy Company
Stadtwerke Dusseldorf	Valley Gas Company
Stadtwerke Wiesbaden Ag.	Vermont Gas Systems, Inc.
Suffolk Gas Company	Virginia Electric & Power Company
Sugar Bowl Gas Company, Inc.	Volunteer Natural Gas Company
Sultanate of Oman	Wales Gas Board
Syracuse Suburban Gas Company, Inc.	Washington Gas Light Company
Technischen Werke der Stadt Stuttgart	Washington Natural Gas Company
Tenneco Inc.	West Ohio Gas Company
Tennessee Gas Transmission Company	West Virginia Power Gas Service
Texas Gas Transmission Corporation	Westfield Gas & Electric Light Company
Town of Citronelle, Alabama	Western Kentucky Gas Company
TransCanada Pipeline Ltd.	Western Resources, Inc.
Transco Companies, Ltd.	Williston Basin Interstate Pipeline Co.
Transok Pipeline Company	Wilmot Gas & Oil Company
Transcontinental Gas Pipe Line Corp.	Wisconsin Distributor Corp.
Trans Quebec & Maritimes Pipelines, Inc.	Wisconsin Gas Company
Tropical Gas Company	Wisconsin Public Service Corp.
Tucson Gas & Electric Company	Wisconsin Southern Gas & Appliance Corp.
T. W. Phillips Gas & Oil Company	World Bank (IBRD)
Union Gas of Canada	Wyoming Gas Company
Union Gas & Electric Power Company	York County Gas Company

Stone & Webster Management Consultants, Inc.

One Penn Plaza  
New York, New York 10119  
(212) 290-7190  
FAX (212) 290-7033

New York • Boston • Denver • Houston • Atlanta

# Clients

---

## GAS INDUSTRY

Alabama Gas Corporation  
Alabama-Tennessee Natural Gas Company  
Alberta Gas Trunk Line Co., Ltd.  
Alberta Natural Gas Co.  
ALGAS, S.A.  
Algonquin Gas Transmission Co.  
Allied New Hampshire Gas Company  
American Gas Association  
Arkansas-Louisiana Gas Company  
Arkansas-Missouri Power Company  
Arkansas Western Gas Company  
Association Gas District of Florida, Inc.  
Atlanta Gas Light Company  
Australian Gas Light Company

B. C. Gas Company  
Baltimore Gas and Electric Company  
Battle Creek Gas Company  
Bay State Gas Company  
Berkshire Gas Company (The)  
BHP Petroleum (Americas) Inc.  
BHP Petroleum (New Ventures) Inc.  
Boston Gas Company  
Brazos River Gas Company  
Bridgeport Gas Company  
Brisbane Gas Company, Ltd.  
British Gas PLC  
Brockton-Taunton Gas Company  
Brooklyn Union Gas Company  
Buzzards Bay Gas Company

CP National Corp.  
Carmody & Torrance  
Canadian Western Natural Gas Co., Ltd.  
Cape Cod Gas Company  
Cascade Natural Gas Corporation  
Catalana de Gas y Electricidad S. A.  
Centra Gas Alberta, Inc.  
Centra Gas Manitoba, Inc.  
Central Hudson Gas & Electric Corp.  
Central Illinois Electric & Gas Co.  
Central Illinois Light Company  
Central Illinois Public Service Co.  
Central Indiana Gas Company  
Central Telephone & Utilities Corp.

Champlain Pipeline Project  
Chesapeake Utilities  
Chinese Petroleum Corporation  
Cincinnati Gas & Electric Company  
Cities Service Gas Company  
Citizens Gas Fuel Company  
Citizens Gas & Coke Utility  
Citizens Utilities Company  
City of Danville, Virginia  
City of Hamilton, Ohio  
City of Holyoke, Massachusetts Gas and Electric  
City of Mesa, Arizona  
City of Norwich, Connecticut  
    Department of Public Utilities  
City of Pensacola, Florida  
City of Petersburg, Virginia  
City of St. Petersburg, Florida  
City of Westfield, Massachusetts  
City of Winfield  
Coastal States Gas Corporation  
Cody Gas Company  
Colonial Gas Association, Ltd.  
Colonial Gas Company  
Colonial Gas Holdings, Ltd.  
Colorado Interstate Gas Co.  
Colorado Springs Gas Department  
Columbia Gas of Kentucky, Inc.  
Columbia Gas of Maryland, Inc.  
Columbia Gas of New York, Inc.  
Columbia Gas of West Virginia, Inc.  
Columbia Gas System, Inc.  
Commonwealth Gas Company  
Commonwealth Gas Distribution Corp.  
Commonwealth Natural Gas Corp.  
Community Public Service Company  
Companhia Municipal  
    de Gas de Sao Paulo  
Concord Natural Gas Corporation  
Connecticut Light & Power Company  
Connecticut Natural Gas Corporation  
Conoco Pipeline Co.  
Consolidated Edison Company of New York, Inc.  
Consolidated Natural Gas Company  
Consumers' Gas Company

Coming Natural Gas Corporation  
Cumberland Gas Company

Dayton Power & Light Company  
Delaware Power & Light Company  
Delta Natural Gas Company  
Distrigas Corporation  
Dome Petroleum Limited

Eastern Shore Natural Gas Co.  
Eastern Utilities Associates  
East Midland Gas Board  
East Ohio Gas Company  
Elizabeth City, North Carolina  
Elizabethtown Gas Company  
El Paso Natural Gas Company  
Empressa Nacional del Petroleo (Chile)  
EnergyNorth Inc.  
Energy Services of Pensacola  
Equitable Gas Company  
Essex County Gas Company

Falcon Seaboard Oil Co.  
Fall River Gas Company  
Fitchburg Gas and Electric Co.  
Flo-Gas Corporation  
Florida Gas Company  
Florida Public Utilities Company  
Fremantle Gas and Coke Company

Gainesville Gas Company  
Gas and Fuel Corporation of Victoria  
Gas Company of New Mexico  
Gas del Estado (Argentina)  
Gas Light Company of Columbus  
Gas Natural, S.A. (Chile)  
Gas Service Company  
Gas Service Inc.  
Gas Inter-Cite Quebec  
Gas Metropolitan, Inc.  
Geelong Gas Company  
Granite State Gas Transmission, Inc.  
Greater Winnipeg Gas Company  
Great Falls Gas Company  
Great Northern Gas Utilities, Ltd.  
Greenwich Gas Company  
Gulf Coast Natural Gas Company  
Gulf States Utilities Company

Hartford Electric Light Company  
Hastings Utilities  
Hindustan Petroleum Corporation  
Hobbs Gas Company

Honolulu Gas Company  
Hope Natural Gas Corporation  
Houston Natural Gas Corporation  
Houston Industrial Gas System

ICG Canadian Propane  
Idaho Natural Gas Company  
Industrial Gas Supply Corporation  
Inland Natural Gas Company, Ltd.  
Inter-City Gas Corp., Inc.  
Intermountain Gas Company  
Interprovincial Pipe Line Limited  
Interstate Power Company  
Iowa Electric Light & Power Company  
Iowa-Illinois Gas & Electric Company  
Iowa Public Service Company  
Iroquois Gas Corporation

Kansas Power & Light Co. (The)  
KPL-Gas Service  
KN Energy, Inc.

Laclede Gas Company  
Lake Shore Gas Company  
Lea County Gas Company  
Lone Star Gas Company  
Long Island Lighting Company  
Louisiana Gas Interstate, Inc.  
Louisville Gas & Electric Co.  
Lowell Gas Company

Madison Gas & Electric Company  
Main Gas Werke (Germany)  
Manchester Gas Company  
Manila Gas Corporation  
Memphis Light, Gas & Water Division  
Metropolitan Utilities District of Omaha  
Michigan Consolidated Gas Company  
Michigan Gas & Electric Company  
Michigan Gas Utilities Company  
Michigan-Wisconsin Pipe Line Company  
Mid-American Pipeline Company  
Midland Cogeneration Venture

---

## **Appendix C**

---

Summaries of Legislation Authorizing the  
Issuance of the Bonds

---

[This Page Intentionally Left Blank]

The following are summaries of certain provisions of The First Class City Revenue Bond Act (the "Act"), the General Gas Works Revenue Bond Ordinance of 1975, as amended (the "1975 General Ordinance"), which authorizes the issuance of Gas Works Revenue Bonds (1975 General Ordinance) generally, and the Sixteenth Supplemental Ordinance thereto (the "Sixteenth Supplemental Ordinance"), which authorizes the issuance of the Gas Works Revenue Bonds (1975 General Ordinance), Sixteenth Series (the "Sixteenth Series Bonds"), and the General Gas Works Revenue Bond Ordinance of 1998 (the "1998 General Ordinance"), which authorizes the issuance of Gas Works Revenue Bonds (1998 General Ordinance) generally, and the Second Supplemental Ordinance thereto (the "Second Supplemental Ordinance"), which authorizes the issuance of the Gas Works Revenue Bonds (1998 General Ordinance), Second Series (the "Second Series Bonds"). The summaries are not, and should not be regarded as, complete statements of the provisions of this legislation or of the portions thereof summarized. Reference is made to the Act, the 1975 General Ordinance, the Sixteenth Supplemental Ordinance, the 1998 General Ordinance and the Second Supplemental Ordinance, copies of which are available from the Office of the Director of Finance, 1300 Municipal Services Building, 1401 J.F.K. Boulevard, Philadelphia, Pennsylvania 19102, for the complete terms and provisions thereof. Certain terms used in this summary are defined below. Other terms used herein are defined in the Act, the 1975 General Ordinance, the Sixteenth Supplemental Ordinance, the 1998 General Ordinance and the Second Supplemental Ordinance, and, unless otherwise stated, shall have the meanings set forth therein.

## THE FIRST CLASS CITY REVENUE BOND ACT

(Act 234 of the General Assembly of the Commonwealth  
approved October 18, 1972, P.L. 955; 53 P.S. §§ 15901-24)

### General Authorization; Definitions; Bonds to be Special Obligations

The Act is intended to provide a comprehensive authorization to The City of Philadelphia, Pennsylvania (the "City") and any other Pennsylvania city of the first class to issue revenue bonds ("Bonds") to finance various types of projects or to refund previously issued Bonds and certain other bonds, as more fully described herein under "Refunding."

"Project" is defined to include, *inter alia*, any building, structure, facility or improvement of a public nature, the related land and rights or leasehold estates therein and the related furnishings, machinery, apparatus or equipment of a capital nature, which the City is authorized to own, construct, acquire, improve, lease, operate, maintain or support; any item of construction, acquisition or extraordinary maintenance or repair thereof; the City's share of the cost of any of the foregoing undertaken jointly with others; and any combination of the foregoing or any undivided portion of the cost of any of the foregoing as may be designated a "project" by the City for financing purposes and in respect of which the City may reasonably be expected to receive Project Revenues.

"Project Revenues" mean, in respect of a Project, all rents, rates, tolls or charges imposed or charged for the use or product of or services generated from the Project to the ultimate users or customers thereof, all payments under bulk contracts with municipalities, government instrumentalities or other bulk users, all subsidies or payments payable by federal, state or local governments or governmental agencies on account of the cost of operation of the Project, or the

payment of the principal of or interest on moneys borrowed to finance the cost of the Project, and may include reasonable estimates of all interest on and profits from investment of moneys derived from the foregoing.

Bonds issued under the Act are required to be payable solely from Project Revenues and to be secured solely by such revenues and by any reserve funds which may be created or funded in connection with the Bonds. The Bonds are not permitted to pledge the credit or taxing power of the City, to create a debt or charge against the tax or general revenues of the City, or to create a lien against any City property other than the Project Revenues pledged therefor and against the reserve funds established in respect of the Bonds. The obligations represented by the Bonds do not constitute a debt of the City, and are excluded from the calculation of the City's debt-incurring capacity under the Pennsylvania Constitution.

### **Estimate of Future Revenues**

In order to establish that Project Revenues will be sufficient to amortize all Bonds outstanding, the Act requires a finding to be made in the ordinance authorizing the issuance of the Bonds that the pledged Project Revenues will be sufficient to pay any prior parity charges on such pledged Project Revenues and the principal of and interest on the Bonds. This finding is to be based on a report of the chief fiscal officer of the City filed with the City Council and supported by appropriate schedules and summaries. The report of the chief fiscal officer of the City may be based on the final report of the head of the department or agency of the City having jurisdiction over the project involved or on a certificate of registered engineers engaged by the City to compile relevant data.

For the purpose of calculating projected annual Project Revenues for each year, the Act provides that: (i) only those rents, rates, tolls or charges to the general public shall be included which, under existing authorizations, are or will be in effect and will be reasonably collectible in such year under the schedule or rate of rents, rates, tolls or charges which are or will be in effect during such year, or which may be imposed by administrative action without further legislation; (ii) only those bulk payments shall be included which may be imposed under existing legislation or which are provided under existing agreements or are the subject of an expression of intent by the prospective obligor deemed reliable by the chief fiscal officer of the City; and (iii) only those governmental subsidies or payments shall be included which, under existing legislation, are subject to reasonably precise calculation and, unless stated in such legislation or authorization to be of an annual or more frequently recurring nature, are payable in such year.

### **Details of Bonds and City Covenants**

The Act provides that the ordinance authorizing the issuance of the Bonds shall fix the aggregate amount of Bonds to be issued from time to time and determine, or designate officers of the City to determine, the form and details of the Bonds. Subject to applicable constitutional provisions, the City may include in its bond ordinance various covenants with bondholders, including covenants governing the segregation, custody, investment and disbursement of construction funds, the imposition, collection and disbursement of Project Revenues, the operation and maintenance of the Project, the establishment, segregation, maintenance, custody, investment

and disbursement of sinking funds and reserves, the issuance of additional priority or parity Bonds, the redemption of Bonds, the rights and remedies of bondholders upon default, and such other provisions as the City deems necessary or desirable in the interest of or for the protection of the City or of such bondholders. Under the Act, such covenants, terms and provisions of the bond ordinance constitute contractual obligations of the City subject to modification, with such limitations as may be specified in the bond ordinance, by agreement with a majority in interest of the bondholders or such larger portion thereof as may be provided in the bond ordinance.

### **Sinking Fund**

The Act requires that the bond ordinance shall provide for the establishment and maintenance of a sinking fund or shall designate a previously established sinking fund for the payment of the principal of and interest on the Bonds when due and payable or upon redemption and for the payment of State taxes, if any, assumed by the City to be paid on the Bonds. Payment into such sinking fund shall be made in annual or more frequent installments and shall be sufficient to pay or accumulate for payment all principal of and interest on the Bonds for which the sinking fund is established and all State taxes, if any, assumed by the City to be paid on such Bonds, as and when the same shall become due and payable. The sinking fund and any other funds or accounts established by the bond ordinance shall be managed by the chief fiscal officer of the City and moneys therein, to the extent not currently required, shall be invested, subject to limitations established by the bond ordinance and the Act. Interest and profits from investment of moneys in the sinking fund and other funds shall be added to such fund and may be applied in reduction of or to complete required deposits to the sinking fund. Excess moneys in the sinking fund shall be repaid to the City for its general purposes or as otherwise provided in the bond ordinance. All moneys deposited in the sinking fund are subject to a perfected security interest for the Bonds for which the sinking fund is established until properly disbursed.

### **Refunding**

Bonds outstanding under the Act or other bonds issued for purposes for which Bonds are issuable under the Act, whether issued before or after the effective date of the Act, may be refunded by Bonds issued under the Act and such refunding Bonds are subject to the same protections and provisions required for the issuance of an original issue of Bonds, provided that the maturity date of the refunding Bonds is not later than ten years after the last stated maturity date of the bonds to be refunded. The principal of and interest to payment or redemption date and redemption premium payable, if any, in respect of bonds to be refunded will no longer be deemed to be outstanding obligations of the City when the City shall have deposited with a bank, bank and trust company or trust company funds represented by demand deposits, interest-bearing time accounts, savings deposits, certificates of deposit or specified obligations of the United States or of the Commonwealth of Pennsylvania (which, in each case, 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), the principal and interest of which are sufficient to effect, and are irrevocably pledged to, the redemption or payment of such bonds and, in the case of redemption, notice of such redemption or irrevocable instructions to give such notice shall have been duly given.

## **Validity of Proceedings; Suits and Limitations Thereon**

Prior to the delivery of Bonds, the City must file with the Court of Common Pleas of Philadelphia County (the "Court") a transcript of the proceedings authorizing the issuance of such Bonds. If no action asserting the invalidity of such proceedings is brought on or before the twentieth day following the date of recording of the transcript, the validity of the proceedings, the City's right to issue such Bonds, the lawful nature of the purpose for which such Bonds are issued, and the validity and enforceability of such Bonds in accordance with their terms may not thereafter be inquired into judicially, in equity, at law, or by civil or criminal proceedings, or otherwise, either directly or collaterally, except where a constitutional question is involved.

## **Negotiable Instruments**

The Act provides that Bonds issued thereunder shall have all the qualities and incidents of securities under Article 8 of the Uniform Commercial Code of the Commonwealth of Pennsylvania and shall be negotiable instruments.

## **Exemption from State Taxation**

The Commonwealth pledges with the holders from time to time of Bonds issued under the Act that such Bonds, their transfer and the income therefrom shall at all times be free from taxation within and by the Commonwealth of Pennsylvania, but this exemption does not extend to any gains made on the sale of obligations issued on or after February 1, 1994, to underwriting profits or to gift, succession or inheritance taxes or any other taxes not levied directly on the Bonds, the receipt of income therefrom or the realization of gains on the sale thereof.

## **Defaults and Remedies**

If the City should fail to pay or cause to be paid the principal of or interest on any Bond as the same shall become due, the remedy provisions of the Act permit the holder of any such Bond, subject to the limitations described below, to recover the amount due in an action in the Court. However, a judgment rendered in favor of the bondholder in such an action is collectible only from the assessments, revenues, rates, rents, tolls and charges from the Project which are pledged for the payment of such Bond. The holders of 25% in aggregate principal amount of any series of Bonds then outstanding which are in default, whether because of failure of timely payment which is not cured within 30 days or failure of the City to comply with any other provisions of the Bonds or any bond ordinance, may appoint a trustee to represent the holders of all such Bonds, and such representation shall be exclusive for the purposes provided in the Act. Such trustee may and, upon written request of the holders of 25% in aggregate principal amount of such Bonds then outstanding, and on being furnished with indemnity satisfactory to it, shall take one or more of the following actions which, if taken, shall preclude similar action, whether previously or subsequently initiated, by individual holders of Bonds: (1) enforce, by proceedings at law or in equity, all rights of the holders of the Bonds; (2) bring suit on the Bonds, including the right to require the City to impose and collect pledged rents, rates, tolls and charges or to require the City to carry out any other agreements with the holders of such Bonds; (3) bring suit on the Bonds with the same effect as a suit by any holder of the Bonds; (4) bring suit in equity to require the City to make an accounting for all

pledged Project Revenues received and/or to enjoin any acts or things which may be unlawful or in violation of the rights of the holders of any Bonds; and, (5) after 30 days' written notice to the City and subject to any limitations in the bond ordinance, declare the unpaid principal of all Bonds to be immediately due and payable, together with interest thereon at the rates stated in the Bonds until final payment, and, upon the curing of all defaults, to annul such declaration and its consequences. The Court, in cases of extreme hardship, may provide for the payment of sums levied in five or less annual installments with interest at a rate sufficient to cover the interest accruing on the Bonds. In any suit, action or proceeding by or on behalf of holders of defaulted Bonds, the fees and expenses of a trustee, including operating costs of a Project and reasonable counsel fees, which are allowed by the Court, shall be deemed ~~additional~~ principal due on the Bonds and shall be paid in full from any recovery prior to any distribution to the holders of the Bonds. (The 1998 General Ordinance limits any such recovery to Project Revenues.) The trustee shall make distribution of any sums so collected in accordance with the Act.

### **Refunding With General Obligation Bonds**

Upon certification by the City's chief fiscal officer that Project Revenues for the payment of Bonds have become insufficient to meet the requirements of the ordinance or ordinances under which the Bonds were issued, the City Council is empowered, but not required, subject to applicable Pennsylvania constitutional debt limitations, to authorize the issuance and sale of general obligation refunding bonds of the City without limitation as to rate of interest and in such principal amount as may be required, together with other available funds, to pay and redeem such Bonds, including principal, interest to the date fixed for redemption or payment and redemption premium, if any.

### **THE 1975 GENERAL ORDINANCE**

**(Ordinance of City Council approved May 30, 1975 - Bill No. 1871, as amended by Ordinance of City Council approved July 26, 1979 - Bill No. 2068, Ordinance of City Council approved July 31, 1980 - Bill No. 274, Ordinance of City Council approved September 22, 1982 - Bill No. 1316, Ordinance of City Council approved May 17, 1985 - Bill No. 534 and Ordinance of City Council approved January 28, 1993 - Bill No. 379 (the "1975 General Ordinance"))**

Pursuant to the authorization contained in the Act, the City has adopted the 1975 General Ordinance. The City has made a pledge of, and has granted a security interest in, all Project Revenues and all accounts, contract rights and general intangibles representing Project Revenues for the security and payment of all Bonds issued under the 1975 General Ordinance.

### **Definitions**

*City Charges* means the proportionate charges 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 agreement

between the City and the manager of the Gas Works and all other payments made to the City from Project Revenues.

***Fiscal Year*** means the fiscal year for the Gas Works provided in any ordinance of the City from time to time enacted and, if no other Fiscal Year is established by ordinance, it shall mean the fiscal year of the City.

***Net Operating Expenses*** means Operating Expenses exclusive of City Charges.

***1975 Ordinance Bond or 1975 Ordinance Bonds*** means any Gas Works revenue bond or note of the City issued and outstanding pursuant to the Act under the 1975 General Ordinance and any supplemental ordinance thereto.

***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, including, without limitation, the manager's fee, salaries and wages, purchases of services 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 acceptable municipal accounting principles consistently applied, but shall exclude depreciation and interest and sinking fund charges.

***Project Revenues*** means 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, including all accounts, contract rights and general intangibles representing the Project Revenues and all proceeds of any of the foregoing.

#### **Additional Bonds**

1975 Ordinance Bonds may be issued in one or more series as the City may from time to time determine by supplemental ordinance (a "Supplemental Ordinance"). The 1975 General Ordinance provides for the method of setting the details and terms of the 1975 Ordinance Bonds authorized by such Supplemental Ordinance. The 1975 General Ordinance sets forth the general form and content of 1975 Ordinance Bonds, the manner of making payment of principal, interest and premium, the requirements governing such payment, the rules regarding registration, transfer and exchange of 1975 Ordinance Bonds, and, general provisions governing redemption and the effect thereof. The 1975 General Ordinance authorizes the issuance of definitive and temporary 1975 Ordinance Bonds, provides for the execution of the 1975 Ordinance Bonds and provides for the issuance of 1975 Ordinance Bonds to replace mutilated, destroyed, lost or stolen 1975 Ordinance Bonds. The 1975 General Ordinance authorizes the issuance of 1975 Ordinance Bonds in book-entry form and the sale of Option Rights (the right to call 1975 Ordinance Bonds of a series for mandatory tender for purchase).

## **Purposes For Which 1975 Ordinance Bonds May Be Issued, Conditions of Issuance, Engineering Report**

1975 Ordinance Bonds may be issued to (1) pay the cost of projects related to the Gas Works, (2) reimburse any City fund from which such costs shall have been paid or advanced, (3) fund any such cost for which the City shall have outstanding bond anticipation notes or other obligations, (4) refund any Bonds of the City issued for the foregoing purposes under the Act, or (5) refund any general obligation bonds of the City issued for the foregoing purposes. However, the City covenants that it will not issue 1975 Ordinance Bonds to provide funds to refund general obligation bonds or notes issued prior to January 1, 1974. The 1998 General Ordinance provides that the City shall not issue any 1975 Ordinance Bonds except to refund 1975 Ordinance Bonds or to replace 1975 Ordinance Bonds 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.

The City covenants that so long as any 1975 Ordinance Bonds shall remain outstanding, no 1975 Ordinance Bonds will be issued unless the financial report of the City's chief fiscal officer, required by the Act to be filed with the City Council in connection with such issuance, shall be accompanied by 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 report must set forth the qualifications of the engineers and must contain a statement that the engineers have made an investigation of the physical properties and of the books and records of the Gas Works, as they deemed necessary. On the basis of such investigation, the engineering report must contain the same matters, statements and opinions as are required to be contained in the report of the chief fiscal officer to the City Council, namely: (1) a brief description of the project or projects for which the 1975 Ordinance Bonds are to be issued; (2) a statement identifying the sources from which the pledged Project Revenues are to be derived; (3) a statement that, on the basis of actual and estimated future annual financial operations of the Project from which the pledged Project Revenues are to be derived, the Project will, in the opinion of the engineers, yield pledged Project Revenues over the amortization period of such 1975 Ordinance Bonds sufficient to meet the payment or deposit requirements of operating expenses, reserve requirements, debt service of all 1975 Ordinance Bonds outstanding for which Project Revenues are pledged and surplus requirements fixed by the 1975 General Ordinance or the Supplemental Ordinance authorizing the issuance of any series of 1975 Ordinance Bonds, and (4) that the revenues upon which the preceding statements are based comply with the definition of "Project Revenues" contained in the Act. The 1975 General Ordinance also requires that the engineering report state that the pledged Project Revenues are currently and will be sufficient to comply with the Rate Covenant in the 1975 General Ordinance and that the Gas Works are in good operating condition or that adequate steps are being taken to make them so.

Prior to the issuance of the 1975 Ordinance Bonds a transcript of the proceedings authorizing the issuance of the 1975 Ordinance Bonds, including the engineering report, shall be filed with the Fiscal Agent.

## **Security**

The 1975 Ordinance Bonds are and will be equally and ratably secured by a pledge of and a security interest in all Project Revenues and the Sinking Fund under the 1975 General Ordinance, including the Sinking Fund Reserve therein.

## **Priority in Application of Project Revenues**

Prior to default, the 1975 General Ordinance establishes the following priorities in the application of Project Revenues during each Fiscal Year:

First: to Net Operating Expenses:

Second: to required payments into the Sinking Fund to pay the principal of and interest on all 1975 Ordinance Bonds and to accumulate, or to restore any deficiency in, the Sinking Fund Reserve under the 1975 General Ordinance:

Third: to the payment of general obligation bonds which have been adjudged to be self-liquidating on the basis of expected revenues from the Gas Works:

Fourth: to the payment of interest and sinking fund charges of other general obligation debt incurred for the Gas Works: and

Fifth: to the payment of City Charges including the Base Payment (currently \$18,000,000).

The 1998 General Ordinance and the 1998 Note Ordinance establish a priority in application of Gas Works Revenues that modifies the application after item Second above (see the priority in application under the summary of the 1998 General Ordinance that follows).

The balance of the Project Revenues in any Fiscal Year may, upon the approval of the Gas Commission, be paid to the City, provided that in a given Fiscal Year the balance so paid does not exceed the amount of earnings on the Sinking Fund Reserve transferred and paid to the Gas Works' operating funds during the same Fiscal Year.

The 1975 General Ordinance does not require the segregation of revenues upon their collection prior to default.

## **Rate Covenant**

The City covenants that it has authorized the imposition of rates and charges by the Gas Commission sufficient to comply with the Rate Covenant in the 1975 General Ordinance, and that it will not repeal or materially adversely dilute such authorization.

The Rate Covenant requires the City, at a minimum, to impose, charge and collect in each Fiscal Year such gas rates and charges as shall, together with all other Project 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) 150% of the amount required to pay Sinking Fund requirements for the principal of and interest on all 1975 Ordinance Bonds which will become due and payable during such Fiscal Year; and
- (iii) the amount, if any, required to be paid into the Sinking Fund Reserve under the 1975 General Ordinance during such Fiscal Year; or

B. The sum of:

- (i) all Net Operating Expenses payable during such Fiscal Year; and
- (ii) all Sinking Fund deposits required during such Fiscal Year in respect of all outstanding 1975 Ordinance Bonds and in respect of all outstanding 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 under the 1975 General Ordinance.

#### **Additional Covenants**

The City further covenants (1) that it will pay or cause to be paid from the Project Revenues the principal of, premium, if any, and interest on all 1975 Ordinance Bonds as the same shall become due and payable; (2) that it will continuously maintain in good condition and operate the Gas Works; and (3) that it will not, in any Fiscal Year, pay from Project Revenues any City Charges or deposit from the Project Revenues in the general sinking fund of the City any sinking fund charges in respect of general obligation bonds of the City unless, prior to or concurrently with such payment, it shall satisfy all Sinking Fund requirements on outstanding 1975 Ordinance Bonds for such Fiscal Year.

#### **Report Requirements**

The City shall file with the Fiscal Agent not later than 120 days after the close of each Fiscal Year a report of the operation of the Gas Works, including specified financial data, showing compliance with the Rate Covenant under the 1975 General Ordinance and accompanied by a certificate of the manager of the Gas Works that the Gas Works are in good operating condition and a certificate of the Director of Finance that, as of the date of such report, the City has complied with all covenants and requirements of the 1975 General Ordinance and Supplemental Ordinances. Copies of such report will be available to Bondholders and may be inspected and copied at all reasonable times by Bondholders or their representatives.

## **General Obligation Bonds - Junior Lien Revenue Bonds**

The City reserves the right to finance Gas Works Projects by issuing (1) general obligation bonds or (2) under authorization other than the 1975 General Ordinance and Supplemental Ordinances, revenue bonds for the payment of which Project Revenues may be pledged, provided that such pledge is subject and subordinate to the prior payments in each Fiscal Year of all principal, premium, interest and Sinking Fund requirements of all 1975 Ordinance Bonds.

### **Sinking Fund and Sinking Fund Reserve**

A Sinking Fund is established under the 1975 General Ordinance for the benefit of all 1975 Ordinance Bonds which shall be held in an account separate and apart from all other accounts of the City. On or before each interest and principal payment date for the 1975 Ordinance Bonds, the Director of Finance shall deposit in the Sinking Fund from Project Revenues the amount sufficient, together with interest and profits on investments held therein, to pay the principal of and interest on the 1975 Ordinance Bonds due and payable on such interest or principal payment date. The 1975 General Ordinance authorizes the appointment, in accordance with legal procedures, of one or more banks to act as Fiscal Agent and/or paying agent for all 1975 Ordinance Bonds or for any series of 1975 Ordinance Bonds issued thereunder and reserves to the City the right to appoint other or additional banks from time to time. The Fiscal Agent for any particular series will act as registrar and Sinking Fund Depository for that series. The moneys in the Sinking Fund are required to be secured, and invested and reinvested under management of the Director of Finance.

The Sinking Fund Reserve is established as a separate account in the Sinking Fund and is to be held by the Sinking Fund Depository. The Sinking Fund Reserve shall be funded from either (i) the proceeds of each series of 1975 Ordinance Bonds in an amount equal to the maximum amount required in any Fiscal Year to pay the debt service on the 1975 Ordinance Bonds of such series becoming due and payable in such Fiscal Year or (ii) the accumulation of Project Revenues over a period of not more than six Fiscal Years.

The moneys and investments (valued at market) in the Sinking Fund Reserve shall be maintained in an amount equal at all times to the maximum principal and interest requirements in any subsequent Fiscal Year of all 1975 Ordinance Bonds issued and outstanding under the 1975 General Ordinance; provided, however, that the Supplemental Ordinance authorizing the issuance of any such series may provide for the funding of such amount from Project Revenues over a period of not more than six Fiscal Years after the issuance and delivery of such 1975 Ordinance Bonds. If at any time the moneys in the Sinking Fund, other than in the Sinking Fund Reserve, are insufficient to pay when due the principal of (and premium, if any) or interest on any Bond or Bonds, the Sinking Fund Depository shall withdraw from the Sinking Fund Reserve and pay to the Fiscal Agent the amount of such deficiency. If, by reason of such withdrawal or for any other reason, there shall be a deficiency in the Sinking Fund Reserve, the City covenants to restore such deficiency by daily deposits of at least 50% of Project Revenues.

## **Transfer of Income on Sinking Fund Reserve**

The 1975 General Ordinance provides that all interest and income earned on moneys held in the Sinking Fund Reserve may, to the extent not required to comply with the requirements of the 1975 General Ordinance relating to the Sinking Fund Reserve, be transferred to the operating funds of the Gas Works to be applied as Project Revenues in accordance with the terms of the General Ordinance. To the extent that in any Fiscal Year a balance remains in the Project Revenues, such balance, upon approval of the Gas Commission, may be paid to the City, provided that in a given Fiscal Year such balance does not exceed the amount of Sinking Fund Reserve earnings transferred to the operating funds during the same Fiscal Year.

## **Remedies; Limitations on Liabilities of City**

In addition to the remedies provided by the Act, if the City shall fail or neglect to make deposits into the Sinking Fund under the 1975 General Ordinance, including the Sinking Fund Reserve therein, in the amounts and at the times required by the 1975 General Ordinance or if, for any reason, moneys in the Sinking Fund shall be insufficient to pay debt service on any 1975 Ordinance Bonds, the City shall, immediately and without notice, deposit on a daily basis 50% of all Project Revenues, or such greater percentage thereof as the Director of Finance shall determine, in the Sinking Fund, so long as the default or deficiency shall continue. The 1975 General Ordinance provides that all remedies are enforceable only against pledged Project Revenues and investments thereof and that no decree or judgment against the City on an action brought under the provisions of the 1975 General Ordinance shall order, or be construed to permit, the occupation, attachment, seizure or sale upon execution of any other property of the City.

## **Amendments**

The 1975 General Ordinance and any Supplemental Ordinance may be amended without the consent of any Bondholders (1) to cure ambiguities, formal defects or omissions, (2) to grant to Bondholders or any trustee therefor additional rights, remedies, powers or security, or (3) to comply with mandatory provisions of state or federal law or with permissive provisions of such law which do not substantially impair the security or right to payment of Bondholders. The 1975 General Ordinance and any Supplemental Ordinance may be amended in such other respects as may be authorized by 67 % in principal amount of the holders of 1975 Ordinance Bonds outstanding and affected, but no alteration of the amount, rate or time of payment, respectively, of the principal thereof or the interest thereon or of the redemption provisions thereof may be made without the consent the holders of all 1975 Ordinance Bonds outstanding and affected.

## **Amendments Not Affecting Outstanding 1975 Ordinance Bonds**

The 1975 General Ordinance or any part thereof may be amended and the foregoing covenants (including the Rate Covenant) may be rescinded, amended or supplemented by further covenants and agreements, from time to time by Supplemental Ordinance, but no such amendments or further provisions, terms, covenants or agreements contained in a Supplemental Ordinance, other than those permitted by and adopted pursuant to 8.01 of the 1975 General Ordinance governing amendments generally, which shall be inconsistent with, or would impair a prior covenant in, the

1975 General Ordinance as at the time amended or supplemented, shall become effective until all 1975 Ordinance Bonds, the holders of which are entitled to the protection of, or to force compliance with, such prior provisions or covenants, shall cease to be outstanding.

## THE SIXTEENTH SUPPLEMENTAL ORDINANCE

(Ordinance of City Council Approved May 31, 1999 - Bill No. 990285  
(the "Sixteenth Supplemental Ordinance"))

The Sixteenth Supplemental Ordinance authorizes the Mayor, City Controller and City Solicitor (the "Bond Committee"), or a majority of them, to sell, in one or more series, Gas Works Revenue Bonds (1975 General Ordinance), Sixteenth Series (the "Sixteenth Series Bonds") in the maximum aggregate principal amount of \$80,000,000 provided that such aggregate principal amount may be increased to reflect sales of such Sixteenth Series Bonds at discounts which are in lieu of periodic interest, so long as the aggregate gross proceeds to the City from the sale of such Sixteenth Series Bonds do not exceed \$80,000,000 plus accrued interest, and authorizes a majority of the Bond Committee to establish the terms and provisions of such Sixteenth Series Bonds.

The Sixteenth Supplemental Ordinance states that the Sixteenth Series Bonds are to be issued for any or all of the following purposes: (i) refunding of all or a portion of certain series of the City's outstanding 1975 Ordinance Bonds, as designated by the City's Director of Finance; (ii) paying the costs of issuing the Sixteenth Series Bonds, and making any required deposit to the Sinking Fund Reserve; and (iii) paying any other Project Costs (as defined in the Act) related to the refunding of such 1975 Ordinance Bonds or the issuance of the Sixteenth Series Bonds, which may include, without limitation, the repayment to any fund of the City, or to accounts of the Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

Based on the report of the Director of Finance filed with City Council pursuant to the Act, the Sixteenth Supplemental Ordinance determines that the pledged Project Revenues (as defined in the 1975 General Ordinance) will be sufficient to comply with the Rate Covenant contained in the 1975 General Ordinance and also to pay all costs, expenses and payments required to be paid therefrom in their order of priority as set forth in the 1975 General Ordinance.

The City covenants in the Sixteenth Supplemental Ordinance that the proceeds of the Sixteenth Series Bonds applicable to the refunding of the 1975 Ordinance Bonds will be deposited in one or more escrow or similar accounts with the Fiscal Agent (as defined in the 1975 General Ordinance), separate and apart from all other accounts of the City or Gas Works.

The City covenants in the Sixteenth Supplemental Ordinance that, so long as any Sixteenth Series Bonds issued thereunder remain unpaid, it shall make payments or cause payments to be made out of the Sinking Fund created under the 1975 General Ordinance at such times and in such amounts as shall be sufficient to pay interest on and principal of any Sixteenth Series Bonds when due.

The Sixteenth Supplemental Ordinance authorizes the Director of Finance and any member of the Bond Committee to make such covenants as may be necessary or advisable to insure that the interest on the Sixteenth Series Bonds shall be excludible from gross income for purposes of federal income taxation.

**THE 1998 GENERAL ORDINANCE**  
**(Ordinance of City Council approved May 8, 1998 – Bill No. 980232**  
**(the “1998 General Ordinance”))**

Pursuant to the authorization contained in the Act, the City has adopted the 1998 General Ordinance. The City has made a pledge of, and has granted a security interest in, all Gas Works Revenues and all accounts, contract rights and general intangibles representing Gas Works Revenues for the security and payment of all Bonds issued under the 1998 General Ordinance.

**Definitions**

*Accreted Value* means, with respect to Capital Appreciation Bonds, the amount to which, as of any specified time, the Original Value of any such Bond has been increased by accretion, 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 the 1998 General Ordinance.

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

*Bondholder or Holder* means the registered owner of any 1998 Ordinance Bond.

*Bond Register* means the list of the names and addresses of Bondholders and the principal amounts and numbers of the 1998 Ordinance Bonds held by them maintained by the Fiscal Agent on behalf of the City.

*Bond Year* for any Series of 1998 Ordinance 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 1998 Ordinance Bonds or the date that is five (5) years after the issue date, the Bond Year with respect to such Series of 1998 Ordinance 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 1998 Ordinance Bonds issued under the 1998 General Ordinance 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.

**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 to the Credit Facility Issuer shall be read to mean the issuer of the Credit Facility applicable to a particular Series of 1998 Ordinance Bonds or each issuer of a Credit Facility, as 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 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance 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) of the 1998 General Ordinance; and (iii) Debt Service Requirements with respect to Variable Rate Bonds shall be subject to adjustments as permitted by Section 4.03(b) of the 1998 General Ordinance.

**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 1998 Ordinance Bonds, to the extent from time to time permitted by applicable law, any interest exchange agreement, 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 counterpart.

**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 the 1998 General 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.

**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 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 1998 General Ordinance. Gas Works Revenues may be divided into separate components in one or more Supplemental Ordinances and any Series of 1998 Ordinance 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 1998 Ordinance Bonds.

***Government Obligations*** means any of the following which 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 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 1998 Ordinance Bonds or other long term indebtedness under the 1998 General 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 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 the 1998 General Ordinance, such categories shall be irrespective of gradations.

**Net Operating Expenses** means Operating Expenses exclusive of City Charges.

**1998 Ordinance Bond** or **1998 Ordinance Bonds** means any Gas Works revenue bond or note of the City issued and outstanding pursuant to the Act under the 1998 General Ordinance and any Supplemental Ordinance.

**1998 Ordinance Rate Covenant** means the rate covenant contained in subsection (b) of Section 4.03 of the 1998 General Ordinance.

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

**1998 Ordinance Sinking Fund Reserve** means the 1998 Ordinance Sinking Fund Reserve established by Section 6.04 of the 1998 General Ordinance.

**1998 Ordinance Sinking Fund Reserve Requirement** means, with respect to all 1998 Ordinance Bonds secured by the 1998 Ordinance 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 Variable Rate Bonds may be based upon the fixed rate of interest as set forth in the Supplemental Ordinance for such 1998 Ordinance Bonds), determined as of any particular date.

**1975 General 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 1998 Ordinance Bond which by its terms may be tendered by and at the option of the Holder thereof for payment 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.

**Original Value**, with respect to a Series of 1998 Ordinance 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 1998 Ordinance Bonds, means, as of any particular date, all 1998 Ordinance Bonds which have been authenticated and delivered under the 1998 General Ordinance, except:

(a) 1998 Ordinance Bonds canceled after purchase in the open market or because of payment or redemption prior to maturity;

(b) 1998 Ordinance 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 1998 Ordinance Bonds), provided that, if such 1998 Ordinance 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) 1998 Ordinance Bonds in lieu of which or in substitution for which others have been authenticated and delivered under Section 3.04 of the 1998 General Ordinance.

1998 Ordinance Bonds paid with the proceeds of any Credit Facility shall be Outstanding until the issuer of such Credit Facility has been reimbursed for the amount of the payment or has presented the 1998 Ordinance 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 §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 the 1998 General 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 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 1998 Ordinance 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 1998 Ordinance Bonds of such Series, 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 as such 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance Bonds of such Series 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 1998 Ordinance Bonds at 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 rate on the 1998 Ordinance 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 1998 Ordinance Bonds.

**Qualified Swap Provider** means, with respect to a Series of 1998 Ordinance 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.

**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 1998 Ordinance 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 1998 Ordinance Bonds.

**Rebate Amount** means the amount with respect to a Series of 1998 Ordinance 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 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 the 1998 General Ordinance, such categories shall be irrespective of gradations within a category.

**Senior Bonds** means 1998 Ordinance Bonds which shall be first in right of payment and as to which the coverage requirement under the 1998 Ordinance Rate Covenant shall be 150%.

**Series** when applied to 1998 Ordinance Bonds, means collectively all of the 1998 Ordinance Bonds of a given issue authorized by Supplemental Ordinance as provided in Article IV of the 1998 General Ordinance 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 1998 Ordinance Bonds

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

***Subordinate Bonds*** means those 1998 Ordinance Bonds which shall be subordinate in right of payment to Senior Bonds and as to which the coverage requirement under the 1998 Ordinance Rate Covenant shall be 100%.

***Supplemental Ordinance*** means an ordinance supplemental to the 1998 General Ordinance enacted pursuant to the Act and the 1998 General Ordinance by the Council of the City authorizing the issuance of a Series of 1998 Ordinance Bonds.

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

***Variable Rate Bond*** means any 1998 Ordinance Bond, the rate of interest on which is subject to change prior to maturity and cannot be determined in advance of such change.

### **Concerning the 1998 Ordinance Bonds**

1998 Ordinance Bonds may be issued in one or more series as the City may from time to time determine by supplemental ordinance (each a "Supplemental Ordinance"). The 1998 General Ordinance provides for the method of setting the details and terms of the 1998 Ordinance Bonds authorized by such Supplemental Ordinance. The 1998 General Ordinance sets forth the general form and content of 1998 Ordinance Bonds, the manner of making payment of principal, interest and premium, the requirements governing such payments, the rules regarding registration, transfer and exchange of 1998 Ordinance Bonds, and general provisions governing redemption and the effect thereof. The 1998 General Ordinance authorizes the issuance of definitive and temporary 1998 Ordinance Bonds, provides for the execution of the 1998 Ordinance Bonds and provides for the issuance of 1998 Ordinance Bonds to replace mutilated, destroyed, lost or stolen 1998 Ordinance Bonds. The 1998 General Ordinance authorizes the issuance of 1998 Ordinance Bonds in book-entry form.

### **Purposes For Which 1998 Ordinance Bonds May Be Issued, Conditions of Issuance, Engineering Report**

1998 Ordinance Bonds may be issued to (1) pay the cost of projects related to the Gas Works, (2) reimburse any City fund from which such costs shall have been paid or advanced, (3) fund any such cost for which the City shall have outstanding bond anticipation notes or other obligations, (4) refund any bonds of the City issued for the foregoing purposes under the Act, (5) refund any general obligation bonds of the City issued for the foregoing purposes, or (6) finance anything else relating to the Gas Works permitted under the Act.

The City covenants that so long as any 1998 Ordinance Bonds shall remain outstanding, no 1998 Ordinance Bonds will be issued unless the financial report of the City's chief fiscal officer, required by the Act, is filed with the City Council in connection with such issuance. Such report may be given in reliance of 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 report must set forth the

qualifications of the engineers and must contain a statement that the engineers have made an investigation of the physical properties and of the books and records of the Gas Works, as they deemed necessary. On the basis of such investigation, the engineering report must contain the same matters, statements and opinions as are required to be contained in the report of the chief fiscal officer to the City Council supported by appropriate schedules and summaries, namely: (1) a brief description of the project or projects for which the 1998 Ordinance Bonds are to be issued; (2) a statement identifying the sources from which the pledged revenues are to be derived; (3) a statement that, on the basis of actual, if appropriate, and estimated future annual financial operations of the project or projects from which the pledged project revenues are derived, the project or projects will, in the opinion of the engineers, yield pledged project revenues over the amortization period of such 1998 Ordinance Bonds sufficient to meet the payment or deposit requirements of operating expenses, reserve requirements, debt service of all 1998 Ordinance Bonds outstanding for which project revenues are pledged, any State taxes assumed by the City to be paid on such 1998 Ordinance Bonds and surplus requirements fixed by the 1998 General Ordinance or the Supplemental Ordinance authorizing the issuance of any Series of 1998 Ordinance Bonds, and (4) that the project revenues upon which the preceding statements are based comply with the definition of "Project Revenues" contained in the Act. The 1998 General Ordinance also requires that the engineering report state that the Gas Works rents, rates and charges on the basis of which the foregoing statements are made are currently and will be sufficient to comply with the 1998 Ordinance Rate Covenant and that the Gas Works are in good operating condition or that adequate steps are being taken to make them so.

Prior to the issuance of the 1998 Ordinance Bonds, a transcript of the proceedings authorizing the issuance of the 1998 Ordinance Bonds, including the engineering report, if any, shall be filed with the Fiscal Agent.

### **Security**

The 1998 Ordinance Bonds are and will be equally and ratably secured by a pledge of and a security interest in all Gas Works Revenues and the 1998 Ordinance Sinking Fund, including the 1998 Ordinance Sinking Fund Reserve (except as limited for a Series of 1998 Ordinance Bonds in the Supplemental Ordinance authorizing the issuance of such Series of 1998 Ordinance 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 in the 1998 General Ordinance or in a Supplemental Ordinance, over any other Senior Bonds or Subordinate Bonds, respectively.

### **Priority in Application of Gas Works Revenues**

The 1998 General Ordinance provides that all Gas Works Revenues as and when collected in each Fiscal Year shall be applied in order of priority, to the extent then payable:

First: to Net Operating Expenses then payable:

Second: to debt service on bonds issued under the 1975 General Ordinance and amounts required to be paid into the sinking fund reserve under the 1975 General Ordinance;

Third: to 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 1998 General Ordinance;

Fourth: to payments due to issuers of Credit Facilities related to Senior Bonds;

Fifth: to 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;

Sixth: to payments due to issuers of Credit Facilities related to Subordinate Bonds;

Seventh: to required payments of the Rebate Amount to the United States;

Eighth: to replenishment of any deficiency in the 1998 Ordinance Sinking Fund Reserve;

Ninth: to payment of general obligation bonds of the City adjudged to be self-liquidating from Gas Works revenues;

Tenth: to debt service on other general obligation bonds issued for the Gas Works;  
and

Eleventh: to the payment of 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 1998 General Ordinance does not require the segregation of revenues upon their collection

#### **1998 Ordinance Rate Covenant**

The 1998 Ordinance Rate Covenant requires the City, at a minimum, to 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 General Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 General Ordinance during such Fiscal Year;

(iii) 150% of the amount required to pay 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve during such Fiscal Year;

(vi) the Rebate Amount required to be paid to the 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 General Ordinance payable during such Fiscal Year and amounts required to be paid into the sinking fund reserve under the 1975 General Ordinance during each Fiscal Year;

(iii) all 1998 Ordinance Sinking Fund deposits required during such Fiscal Year in respect of all Outstanding 1998 Ordinance Bonds and all amounts payable in respect of obligations of the Gas Works which are on a parity with any of the 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance 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 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 1998 Ordinance Bonds Outstanding under the 1998 General 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 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 1998 Ordinance Rate Covenant.

Notwithstanding the requirements of Section 4.03(b) of the 1998 General Ordinance and the pledge under Section 4.02 thereof, the City may, at such time as there are no bonds outstanding under the 1975 General 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 1998 Ordinance Rate Covenant set forth in Section 4.03(b) of the 1998 General Ordinance applied as if the percentage in subsection A(iii) thereof were 175% rather than 150% and (2) an opinion of Bond Counsel that such securitization and sale will not adversely affect the exclusion from gross income for Federal income tax purposes of interest on any Outstanding 1998 Ordinance 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 1998 Ordinance Rate Covenant and, notwithstanding any provision of the 1998 General Ordinance to the contrary, may be used to redeem or refund obligations issued to finance the related assets designated as non-performing.

### **Additional Covenants**

The City further covenants that (1) 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 1998 Ordinance Sinking Fund the principal of, and premium, if any, and interest on, all 1998 Ordinance Bonds as the same shall become due and payable; (2) it will continuously maintain in good condition and continuously operate the Gas Works; and (3) 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 1998 Ordinance Bonds shall have been deposited in the 1998 Ordinance Sinking Fund, all amounts then payable in respect of obligations of the Gas Works which are on a parity with 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve shall have been made.

## **Report Requirements**

The City shall file with the Fiscal Agent not later than 120 days after the close of each Fiscal Year a report of the operation of the Gas Works, including specified financial data, showing compliance with the 1998 Ordinance Rate Covenant and accompanied by a certificate of the Manager of the Gas Works that the Gas Works are in good operating condition and a certificate of the Director of Finance that, as of the date of such report, the City has complied with all covenant and requirements of the 1998 General Ordinance and all Supplemental Ordinances. Copies of such report will be available to Bondholders and may be inspected and copied at all reasonable times by Bondholders or their representatives.

## **General Obligation Bonds - Junior Lien Revenue Bonds**

The City reserves the right to finance improvements to the Gas Works by issuing (1) its general obligation bonds or (2) under authorization other than the 1998 General Ordinance and Supplemental Ordinances, 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 the 1998 General Ordinance.

## **1998 Ordinance Sinking Fund and 1998 Ordinance Sinking Fund Reserve**

The 1998 Ordinance Sinking Fund is established for the benefit and security of all 1998 Ordinance Bonds issued under the 1998 General Ordinance. The 1998 Ordinance Sinking Fund shall be held in an account or accounts separate and apart from all other accounts of the City. The City covenants to deposit in the 1998 Ordinance Sinking Fund from Gas Works Revenues in each Fiscal Year such amounts as will, together with interest and profits on investments held therein, be sufficient to accumulate therein (exclusive of amounts in the 1998 Ordinance Sinking Fund Reserve), on or before each interest and principal payment date of the 1998 Ordinance Bonds, the amounts required to pay the principal of and interest on the 1998 Ordinance Bonds then becoming due and payable. The 1998 General Ordinance authorizes the appointment, in accordance with legal procedures, of one or more banks to act as Fiscal Agent and/or paying agent for all 1998 Ordinance Bonds or for any Series of 1998 Ordinance Bonds issued thereunder and reserves to the City the right to appoint other or additional banks from time to time. The Fiscal Agent for any particular series will act as registrar and Sinking Fund Depository for that Series of 1998 Ordinance Bonds. The moneys in the 1998 Ordinance Sinking Fund are required to be secured, and invested and reinvested under management of the Director of Finance.

The Sinking Fund Depository 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 1998 Ordinance Sinking Fund 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, 1998 Ordinance Bonds. Any excess moneys in the 1998 Ordinance Sinking Fund, including any excess amount in the 1998 Ordinance Sinking Fund Reserve, shall be transferred to the operating accounts of the Gas Works.

The 1998 Ordinance Sinking Fund Reserve is established as a separate account in the 1998 Ordinance Sinking Fund and is to be held by the Sinking Fund Depository. Unless otherwise provided in the applicable Supplemental Ordinance, the City shall, under direction of the Director of Finance, deposit in the 1998 Ordinance Sinking Fund Reserve from the proceeds of sale of each Series of 1998 Ordinance Bonds issued thereunder and/or Gas Works Revenues an amount which, together with other amounts in the 1998 Ordinance Sinking Fund Reserve, will cause the amount in the 1998 Ordinance Sinking Fund Reserve to equal the 1998 Ordinance Sinking Fund Reserve Requirement. The money and investments (valued at market) in the 1998 Ordinance Sinking Fund Reserve and amounts which can be drawn under Credit Facilities held for the 1998 Ordinance Sinking Fund Reserve shall be held and maintained in an amount equal to the 1998 Ordinance Sinking Fund Reserve Requirement.

In lieu of a deposit to the 1998 Ordinance Sinking Fund Reserve or in substitution for amounts in the 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve, an opinion of Bond Counsel is delivered to the Fiscal Agent that such substitution will not adversely affect the exclusion from gross income for Federal income tax purposes of interest on the 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve is needed to cover a shortfall in the 1998 Ordinance Sinking Fund and other moneys in the 1998 Ordinance Sinking Fund Reserve are insufficient and (3) each such Credit Facility provides that a draw will be made thereon to replenish the 1998 Ordinance Sinking Fund Reserve on the expiration thereof unless the City has otherwise made such deposit to the 1998 Ordinance Sinking Fund Reserve or has obtained another Credit Facility meeting the above requirements.

If, at any time and for any reason, the moneys in the 1998 Ordinance Sinking Fund, other than in the 1998 Ordinance Sinking Fund Reserve, shall be insufficient to pay as and when due, the principal of, and premium, if any, and interest on, any 1998 Ordinance Bond or 1998 Ordinance Bonds secured by the 1998 Ordinance Sinking Fund Reserve, the Sinking Fund Depository is hereby authorized and directed to withdraw from the 1998 Ordinance Sinking Fund Reserve and to draw on Credit Facilities held for the 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve Requirement) or for any other reason there shall be a deficiency in the 1998 Ordinance 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 1998 Ordinance Sinking Fund Reserve shall be valued by the Sinking Fund Depository promptly after any withdrawal from the 1998 Ordinance Sinking Fund Reserve or any other event indicating a possible deficiency in the 1998 Ordinance Sinking Fund Reserve and on August 31 of each Fiscal Year.

## **Remedies; Limitations on Liabilities of City**

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 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance Bonds or with any covenant of the City contained in the 1998 General Ordinance or an applicable Supplemental Ordinance, then, under and subject to the terms and conditions stated in the Act, the Holder or Holders of any 1998 Ordinance Bond or 1998 Ordinance 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 1998 Ordinance Bonds. Any decree or judgment for the payment of money against the City by reason of default under the 1998 General Ordinance 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 investments thereof and no decree or judgment against the City upon an action brought under the 1998 General Ordinance shall order or be construed to permit the occupation, attachment, seizure, or sale upon execution of any other property of the City.

## **Amendments**

The 1998 General Ordinance and any Supplemental Ordinance may be further supplemented, modified or amended: (a) to cure any ambiguity, formal defect or omission therein; (b) to make such provisions in regard to matters or questions arising thereunder which shall not be inconsistent with the provisions 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 1998 Ordinance 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 1998 Ordinance Bonds, but no amendment or modification shall be made with respect to any Outstanding 1998 Ordinance 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 1998 Ordinance 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 1998 Ordinance Bonds Outstanding and affected. The written authorization of Bondholders of any supplement to or modification or amendment of the 1998 General Ordinance or any Supplemental Ordinance need not approve the particular form of any proposed supplement, modification or amendment but only the substance thereof.

## **Closure of the 1975 General Ordinance**

The 1998 General Ordinance provides that the City shall not issue any bonds under the 1975 General Ordinance except to refund bonds issued under the 1975 General 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.

### **THE SECOND SUPPLEMENTAL ORDINANCE**

**(Second Supplemental Ordinance of City Council approved  
May 31, 1999 - Bill No. 990286 (the "Second Supplemental Ordinance"))**

The Second Supplemental Ordinance authorizes the Mayor, City Controller and City Solicitor (the "Bond Committee"), or a majority of them, to sell, in one or more series, Gas Works Revenue Bonds (1998 General Ordinance), Second Series (the "Second Series Bonds") in the maximum aggregate principal amount of \$115,000,000 provided that such aggregate principal amount may be increased to reflect sales of such Second Series Bonds at discounts which are in lieu of periodic interest, so long as the aggregate gross proceeds to the City from the sale of such Second Series Bonds do not exceed \$115,000,000 plus accrued interest, and authorizes a majority of the Bond Committee to establish the terms and provisions of such Second Series Bonds.

The Second Supplemental Ordinance states that the Second Series Bonds are to be issued for any or all of the following purposes: (i) acquiring and constructing the capital improvements included in the capital program of PGW as from time to time included in the capital budgets of PGW, as approved by City Council; (ii) paying the costs of issuing the Second Series Bonds, and making any required deposit to the 1998 Ordinance Sinking Fund Reserve; and (iii) paying any other Project Costs (as defined in the Act), which may include, without limitation, the repayment to any fund of the City, or to accounts of the Gas Works of amounts advanced for Project Costs, and the funding or refunding of outstanding bond anticipation notes or other obligations of the City issued in respect of Project Costs.

Based on the report of the Director of Finance filed with City Council pursuant to the Act, the Second Supplemental Ordinance determines that the pledged Gas Works Revenues (as defined in the 1998 General Ordinance) will be sufficient to comply with the 1998 Ordinance Rate Covenant contained in the 1998 General Ordinance and also to pay all costs, expenses and payments required to be paid therefrom in their order of priority as set forth in the 1998 General Ordinance.

The City covenants in the Second Supplemental Ordinance that the proceeds of the sale of the Second Series Bonds which remain available for payment of costs of capital improvements shall be deposited in, held in and disbursed from one or more unsegregated accounts of PGW which shall be separate and apart 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.

The City covenants in the Second Supplemental Ordinance that, so long as any Second Series Bonds issued thereunder remain unpaid, it shall make payments or cause payments to be made out of the 1998 Ordinance Sinking Fund created under the 1998 General Ordinance at such times and in such amounts as shall be sufficient to pay interest on and principal of any Second Series Bonds when due.

The Second Supplemental Ordinance authorizes the Director of Finance and any member of the Bond Committee to make such covenants as may be necessary or advisable to insure that interest on the Second Series Bonds shall be excludible from gross income for purposes of federal income taxation.

---

## **Appendix D**

---

Certain Information Concerning the City of Philadelphia

---

[This Page Intentionally Left Blank]

**APPENDIX D**  
**DESCRIPTIVE, FINANCIAL, DEMOGRAPHIC AND**  
**ECONOMIC INFORMATION REGARDING**  
**THE CITY OF PHILADELPHIA**

**APPENDIX D**  
**TABLE OF CONTENTS**

	Page		Page
THE GOVERNMENT OF PHILADELPHIA.....	1	Revenues from City-Owned Systems .....	18
General .....	1	Assessment and Collection of Real and Personal	
Elected and Appointed Officials.....	1	Property Taxes .....	18
Government Services.....	5	EXPENDITURES OF THE CITY .....	24
Local Government Agencies.....	6	Personal Services (Personnel).....	24
PENNSYLVANIA INTERGOVERNMENTAL		Labor Agreements.....	25
COOPERATION AUTHORITY.....	6	Employee Benefits.....	26
General .....	6	Municipal Pension Fund (Related to All Funds).....	27
Source of Payment of PICA Bonds.....	7	Purchase of Services .....	30
Five Year Plans of the City.....	8	City Payments to SEPTA .....	30
CITY FINANCIAL PROCEDURES.....	8	DEBT OF THE CITY.....	30
Independent Audit and Opinion of the City		Short-Term Debt .....	31
Controller .....	9	Long-Term Debt .....	31
Fund Structure .....	9	Other Long -Term Debt Related Obligations.....	31
Principal Operating Funds .....	9	CITY CAPITAL IMPROVEMENT PROGRAM .....	37
Basis of Accounting.....	9	LITIGATION .....	38
Budget Procedure .....	10	CITY SOCIOECONOMIC INFORMATION .....	38
Certificate of Conformance in Financial		Introduction.....	38
Reporting .....	10	Quality of Life.....	38
Year 2000 Compliance Issue .....	10	Demographics .....	39
CITY CASH MANAGEMENT AND INVESTMENT		The Economy.....	40
PROBLEMS .....	11	Employment.....	40
City-Related Cash .....	11	Income .....	46
Investment Practices .....	12	Retail Sales .....	48
General Fund Cash Flow .....	12	Effective Buying Income and Household	
DISCUSSION OF FINANCIAL OPERATIONS.....	13	Income.....	48
Fiscal Year 1998 General Fund Results.....	13	Transportation.....	49
Fiscal Year 1999 Budget .....	13	Water and Wastewater Systems .....	50
Fiscal Year 1999 Third Quarter Results .....	13	Municipal Solid Waste Disposal.....	50
Fiscal Year 2000 Budget .....	13	Housing.....	50
Quarterly Reporting to PICA .....	15	Economic Development .....	53
REVENUES OF THE CITY .....	16		
General .....	16		
Major Revenue Sources of Principal Operating			
Funds (Debt Related) .....	16		

[This Page Intentionally Left Blank]

# THE GOVERNMENT OF PHILADELPHIA

## General

The City of Philadelphia (the "City") was founded in 1682 and merged with the County of Philadelphia in 1854. There are two principal governmental entities in Philadelphia: (1) the City, which performs ordinary municipal functions as well as traditional county functions; and (2) the School District, which has boundaries coterminous with the City and has responsibility for all public primary and secondary education. The court system in Philadelphia, consisting of Common Pleas, Municipal, and Traffic Courts, is part of the Commonwealth of Pennsylvania (the "Commonwealth") Judicial System. Although judges are paid by the Commonwealth, all other court costs are paid by the City, with partial reimbursement from the Commonwealth.

The City is governed primarily under the Home Rule Charter, which provides for the election, organization, powers, and duties of the legislative branch (the "City Council"); the powers and duties of the executive and administrative branches; and the City's fiscal and budgetary matters, contracts, procurement, property, and records.

The School District is governed primarily under the 1965 Educational Supplement to the Home Rule Charter. It has no independent taxing powers and may levy only the taxes authorized on its behalf by the City and the Commonwealth. The School District is managed by a nine-member Board of Education appointed by the Mayor from a list supplied by an Educational Nominating Panel that is chosen by the Mayor. In some matters, including the incurrence of short-term and long-term debt, both the City and the School District are governed primarily by the laws of the Commonwealth. The School District is a separate political subdivision of the Commonwealth and the City has no property interest in or claim on any revenues or property of the School District.

## Elected and Appointed Officials

The Mayor is elected for a term of four years and is eligible to succeed himself for one term. Each of the seventeen members of the City Council is also elected for a four-year term which runs concurrently with that of the Mayor. There is no limitation on the number of terms that may be served by members of the City Council. Of the members of the City Council, ten are elected from districts and seven are elected at-large, with a minimum of two of the seven representing other than the majority party. The District Attorney and the City Controller are elected at the mid-point of the terms of the Mayor and City Council.

Among his primary responsibilities, the City Controller audits and reports upon the combined financial statements of the City. In the performance of the City Controller's Home Rule Charter mandated pre-audit functions, the City Controller, who has a staff of approximately 150 employees, reviews each transaction involving a disbursement of funds of the City. This review is limited by the Home Rule Charter to a verification of the certification by the Director of Finance that the proposed disbursement is made for the purpose contemplated by the appropriation upon which it is drawn and is in the correct amount. The City Controller has investigatory authority to carry out this responsibility.

The principal officers of the City's government appointed by the Mayor are the Managing Director of the City (the "Managing Director"), the Director of Finance of the City (the "Director of Finance"), who is the chief financial and budget officer and is selected from three names submitted to the Mayor by a Finance Panel, the City Solicitor (the "City Solicitor"), who is head of the Law Department, the Director of Housing (the "Director of Housing"), and the City Representative and Director of Commerce (the "City Representative and Director of Commerce"). These officials form the Mayor's Cabinet, which, together with the Mayor, constitute the major policy-making group in the City's government.

The Managing Director is responsible for supervising the departments and agencies of the City that render the City's various municipal services. The City Solicitor acts as legal advisor to the Mayor, the City Council, and all of the agencies of the City government. The City Solicitor is also responsible for all of the City's contracts and bonds, for assisting City Council, the Mayor, and City agencies in the preparation of ordinances for introduction to City Council, and for the conduct of litigation involving the City. The City Representative and Director of Commerce is charged with the responsibility of going

wide publicity to any items reflecting the activities and accomplishments of the City, its inhabitants, and commerce and industry, and is charged with the responsibility of promoting and developing commerce and industry.

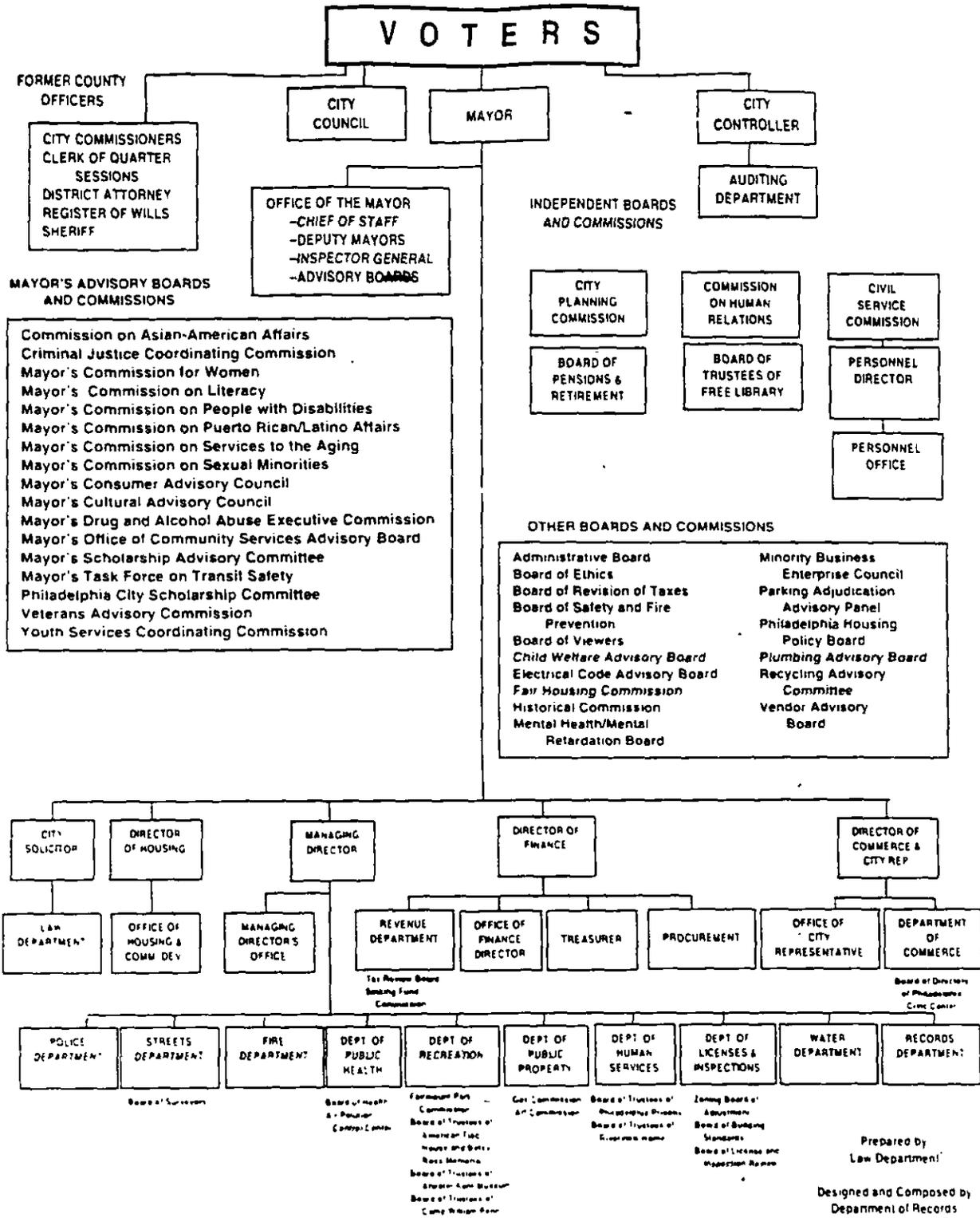
The Director of Finance is responsible for the financial functions of the City, including development of the annual operating budget, the capital budget, and capital program; the City's program for temporary and long-term borrowing; supervision of the operating budget's execution, the collection of revenues through the Department of Revenue, purchasing, and some aspects of property management through the Procurement Department; oversight of pension administration as Chairperson of the Board of Pensions and Retirement; and the appointment and supervision of the City Treasurer.

The Director of Housing is responsible for the coordination of City housing policy and programs and serves informally as a member of the Mayor's Cabinet.

The Board of Revision of Taxes, which administers the assessment of real and personal property taxes, is appointed by the Board of Judges of the Court of Common Pleas.

The chart on the following page summarizes the organization of the City's government.

# ORGANIZATION OF PHILADELPHIA'S CITY GOVERNMENT



[THIS PAGE INTENTIONALLY LEFT BLANK.]