



# **Pennsylvania Natural Gas Trends and Developments**

**May 2012**

Pennsylvania Public Utility Commission



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**May 2012**

**Technical Utility Services**  
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# I. Executive Summary

## Introduction

Section 59.48 of the Public Utility Code (Code) requires natural gas distribution companies (NGDCs) to file annual financial reports with the Pennsylvania Public Utility Commission (PUC). These Gas Annual Reports detail such items as financial and accounting data, including revenues and expenses. Section 59.81 of the Code requires the filing of annual resource planning reports (ARPR) for major gas utilities with the PUC. NGDCs with sales of 8 billion cubic feet (Bcf) per year or more must file these reports, which include the past year's historical data, program changes and the next three-year forecast of demand requirements. This report has been prepared using information filed by the NGDCs, the U.S. Energy Information Agency (EIA) and other sources. Wherever possible, the most recent data is reported. EIA production and reserves data has a one year lag for reporting. With the uncertainty of the unconventional gas supplies, EIA has not presented proven reserves information since 2009.

## Overview

The Bureau of Technical Utility Services has prepared the Pennsylvania Natural Gas Report: Trends and Developments to summarize the 2010 financial and supply data for the Pennsylvania NGDCs and to present several topics of interest with regard to the Pennsylvania natural gas industry.

There are approximately 3 million natural gas customers in Pennsylvania.<sup>1</sup> There are 36 regulated natural gas utility companies in Pennsylvania; 10 of these are major

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<sup>1</sup> US EIA, Natural Gas Annual 2010, Table 66.

distribution companies with sales greater than 8 Bcf/yr. Pennsylvania gas infrastructure also includes intrastate pipelines, interstate pipelines, landfill gas pipeline projects, propane facilities and liquefied natural gas (LNG) facilities. Infrastructure needs are being met by expansion and replacement of existing pipelines, with new pipelines and compressor stations being constructed.

National storage inventory totaled 3.8 trillion cubic feet at the end of October 2011, which is a new record level for the end of the injection season. Natural gas production throughout the United States increased by 4 percent in 2011 to 61.8 Bcf per day. Consumption increased to 66.0 Bcf per day with large increases from additional natural gas fired power generation. Henry Hub prices rose to \$4.52 per thousand cubic feet (Mcf) in 2010, from \$4.06 in 2009. EIA predicts the Henry Hub annual average spot price to average \$3.53 per million BTU (MMBtu) for 2012, and average \$4.14 per MMBtu in 2013.<sup>2</sup>

As of Jan. 6, 2012, more than 9,618 Marcellus Shale drilling permits have been issued by the Pennsylvania Department of Environmental Protection. Of those permits issued, 4,436 wells have been drilled.<sup>3</sup> As of January 24, 2012, there are over 115 rotary rigs active in Pennsylvania. The rotary rig count is an indicator of how many rigs are in service and the demand for drilling equipment.<sup>4</sup> EIA estimates the total number of producing shale and conventional gas wells in Pennsylvania as 44,500 in 2010.<sup>5</sup>

Financial statistics taken from the Gas Annual Reports of the NGDCs are presented in time series fashion from 2004 through 2010. Broad category financial data

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<sup>2</sup> EIA Natural Gas Year in Review, released Dec. 9, 2011. And EIA Short Term Energy Outlook, January 2012 release.

<sup>3</sup> PA DEP Weekly Well Permit Workload Report for 1/17/2011-1/21/2011

<sup>4</sup> Baker Hughes Rotary Rig Count, [http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm), Retrieved Jan. 24, 2012.

<sup>5</sup> EIA Natural Gas Annual 2010. Table 66 Summary Statistics for Pennsylvania.

is presented for several categories, such as Revenue, Expenses, Plant in Service, Depreciation, Maintenance, Gas Costs, etc.

Data on the number of customers, reserves, wellhead prices, Pennsylvania production and average consumption figures are provided. The sources of this information are the ARPRs, the Gas Annual Reports and EIA.

To summarize the relevant statistics in this report, natural gas delivery to Pennsylvania utility customers has increased from 664.8 Bcf/year in 1997 to over 809 Bcf/yr in 2010. Pennsylvania gas production reached 568.3 Bcf/year in 2010 (the most recent data available). Gas deliveries for Pennsylvania electric generation have increased markedly from 4 percent of total deliveries in 2001 to 29 percent in 2010.<sup>6</sup>

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<sup>6</sup> EIA, Natural Gas Consumption by End Use, [www.eia.gov](http://www.eia.gov), retrieved Jan. 23, 2012.

## II. Pennsylvania Natural Gas Infrastructure

### Pipelines

Twenty interstate natural gas pipelines exist in the Northeast Region (Connecticut, Delaware, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia and West Virginia). These interstate pipelines deliver to several intrastate pipelines and more than 50 local distribution companies (LDCs). They also deliver to natural gas fired electric generating facilities and large industrial concerns. The pipelines in Pennsylvania have access to flows from the South and Midwest, from the Rockies via the Rockies Express pipeline, and from Canada.<sup>7</sup>

Marcellus shale production has risen from 2.7 Bcfd in October 2010 to 4.7 Bcfd in October 2011. There are over 6 Bcfd of planned pipeline projects to help move Marcellus Shale gas to market as shown in Table 1. The Tennessee Pipeline 300 project has gone into service in Northeastern Pennsylvania with 127 miles added to the pipeline. Also added were two new compressor stations and upgrades to seven others. The Empire Tioga Line connects PA Marcellus gas in Tioga County to the Empire Connector Pipeline in Corning, New York. TEMAX/TIME III includes 30 miles of new 30 inch and 36 inch diameter pipelines and an increase of horsepower at an existing compressor in southern Pennsylvania. The North and South Project added compressors and capacity between Millennium Pipeline and Tennessee Gas Pipeline. The Dominion Appalachian gateway will help move gas from PA and West Virginia to eastern markets. Additional pipeline helps remove constraints and stabilize prices.<sup>8</sup>

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<sup>7</sup> Natural Gas Pipelines in the Northeast Region, EIA About U.S. Natural Gas Pipelines, retrieved Oct. 7, 2009.

<sup>8</sup> FERC Winter 2011-2012 Energy Market Assessment.

*Table 1 Proposed Pipeline Infrastructure for Marcellus Gas Production<sup>9</sup>*

<b>Company/Project Name</b>	<b>Capacity (Mmcf/d)</b>	<b>Projected In-service Date</b>
<b>Central NY Oil &amp; Gas Mark 1</b>	550	Summer 2012
<b>Dominion Appalachian</b>	484	Fall 2012
<b>Tennessee 300 Line Expansion</b>	350	In Service Fall 2011
<b>Empire Tioga Line Expansion</b>	350	In Service Fall 2011
<b>National Fuels Gas Northern Access</b>	320	Fall 2012
<b>Equitrans Sunrise Project</b>	314	Summer 2012
<b>TEMAX/TIME III</b>	455	In Service August 2011
<b>North and South Expansion Project</b>	325	In Service Fall 2011

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<sup>9</sup> FERC Winter 2011-2012 Energy Market Assessment and EIA Today in Energy, New Northeast Natural Gas Pipeline Capacity Comes On-line, Jan. 27, 2012.

## Electric Generation

By the end of 2010, Pennsylvania had 9,384 megawatts (MWs) of natural gas fired electric generation. These facilities constitute 25 percent of Pennsylvania's generating capacity.<sup>10</sup> Table 2 summarizes the PJM queues as of January 2012 which include 7,867 MWs of proposed new natural gas fired capacity for Pennsylvania. Typically about 25 percent of the queue actually gets built.<sup>11</sup>

*Table 2 PJM Active Interconnection Requests as of Jan. 25, 2012*

Project Name	MWC*	In Service Date	Transmission Owner	County
<b>Yukon-Browns Run 500kV</b>	900	2014 Q3	APS	Westmoreland
<b>Peach Bottom-Rock Springs 500kV</b>	650	2012 Q4	PECO	Lancaster
<b>North Temple 230kV</b>	650	2014 Q2	ME	Berks
<b>N. Lebanon 230kV</b>	1110	2015 Q2	ME	Lebanon
<b>Bangor</b>	33	2012 Q4	PPL	Northampton
<b>E. Towanda 230kV</b>	765	2015 Q1	PENELEC	Bradford
<b>Clinton 230kV</b>	770	2015 Q1	PPL	Lycoming
<b>Sunbury 230kV</b>	416	2015 Q4	PPL	Snyder
<b>North Temple 230kV</b>	110	2014 Q2	ME	Berks
<b>Graceton 230kV</b>	678	2015 Q2	BGE	York
<b>Harrisburg 12kV</b>	3	2014 Q3	PPL	Dauphin
<b>Sunbury 230kV</b>	227	2015 Q4	PSEG	Snyder
<b>Peach Bottom-TMI #1 500kV I</b>	760	2016 Q2	PPL	York
<b>Peach Bottom-TMI #2 500kV II</b>	760	2016 Q2	PPL	York
<b>Linwood 230kV</b>	35	2016 Q4	PECO	Delaware
<b>Total:</b>	<b>7,867</b>			

\*MWC – MWs of interconnection request for summer. Smaller MW requests may be uprate requests for existing units. Larger MW requests are likely combined cycle turbines.

<sup>10</sup> PJM 2010 Regional Transmission Expansion Plan, released 2011.

<sup>11</sup> PJM Construction Queue data, retrieved Jan. 25, 2012.

By the end of 2010, PJM's total capacity was 166,512 MW. The PJM capacity and generation supply mix for the entire PJM area, which includes Pennsylvania, is summarized as follows<sup>12</sup>:

*Table 3 PJM Capacity and Generation Mix in %*

	2010 Capacity MW	2010 Capacity Percent	2010 Generation GWh	2010 Generation Percent
<b>Coal</b>	68,000	41.0%	362,075	49.3%
<b>Nuclear</b>	30,552	18.3%	254,534	34.6%
<b>Gas</b>	48,514	29.1%	86,266	11.7%
<b>Hydro</b>	7,955	4.8%	14,384	2.0%
<b>Oil</b>	10,194	6.1%	3,243	0.4%
<b>Solid Waste</b>	680	0.4%	5,357	0.7%
<b>Wind</b>	611	0.4%	8,813	1.2%
<b>Total:</b>	166,512		734,678	

Although natural gas provided only 11.7 percent of the 2010 generation in PJM, the marginal price or Locational Marginal Price (LMP) was set by natural gas generators 26 percent of the time in 2010. The marginal unit is the generator that can supply the next available MW of power. A summary of fuel type and marginal unit is presented below.<sup>13</sup>

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<sup>12</sup> 2010 State of the Market Report for PJM, 2010 Monitoring Analytics LLC.

<sup>13</sup> 2010 State of the Market Report.

*Table 4 Fuel Type and Marginal Unit as % of Total Generation*

<b>Fuel Type</b>	<b>2010 Percentage of Marginal Resources</b>
<b>Coal</b>	68%
<b>Gas</b>	26%
<b>Oil</b>	4%
<b>Nuclear</b>	0%
<b>Wind</b>	2%
<b>Municipal Waste</b>	1%

When the natural gas facility sets the LMP, the other generators, including lower cost coal and nuclear plants, are paid the higher price.

Figure 1 details the monthly natural gas deliveries to Pennsylvania electric power generators. We can see the cyclical nature of the deliveries as natural gas is used for summer peak generation and the overall increase in deliveries since 2001. Figure 2 illustrates the annual increases in gas delivered for electric generation.

As we can see from Figures 1 and 2, natural gas usage for electric generation is steadily increasing. Reasons for this increase include more supply of natural gas, lower cost for gas, more gas-fired generation and potential retirements of older coal-fired plants. As the composition of the generating fleet changes to more gas-fired units, pressures on the natural gas industry will increase. A recent North American Reliability Corporation (NERC) study was done to consider the implications of more natural gas generation on the reliability of the electric power industry. The NERC study provided recommendations for both industries to address potential issues, which include:

- Natural gas storage must be able to address the demand swings caused by electric generation.

- Increased transparency and better communication between gas and electric system operators must occur.
- Cooperation is needed to resolve the differing contracting and demand day incompatibilities. Firm contracting for gas and day-to-day delivery for electric generation must be reconciled.
- Both industries must identify vulnerabilities and plan mitigation strategies. Gas pipelines could use electric forecasts in planning and identify critical equipment such as electric powered compressor stations. Electric generators susceptible to pipeline supply problems should develop alternate supplies.<sup>14</sup>

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<sup>14</sup> NERC, 2011 Special Reliability Assessment: A Primer of the Natural Gas and Electric Power Interdependency in the United States, December 2011.

Figure 1 Natural Gas Deliveries to Pennsylvania Electric Power Generators

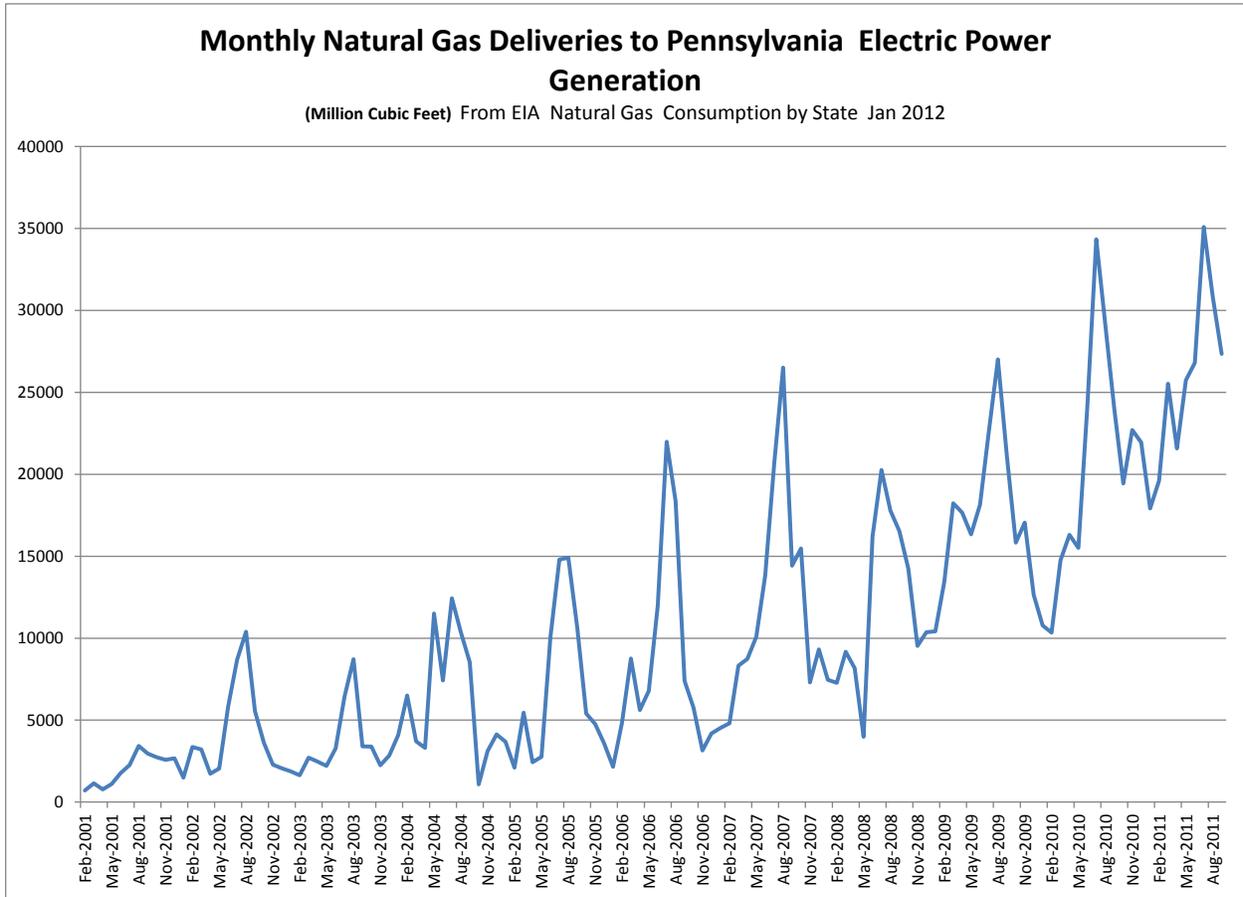
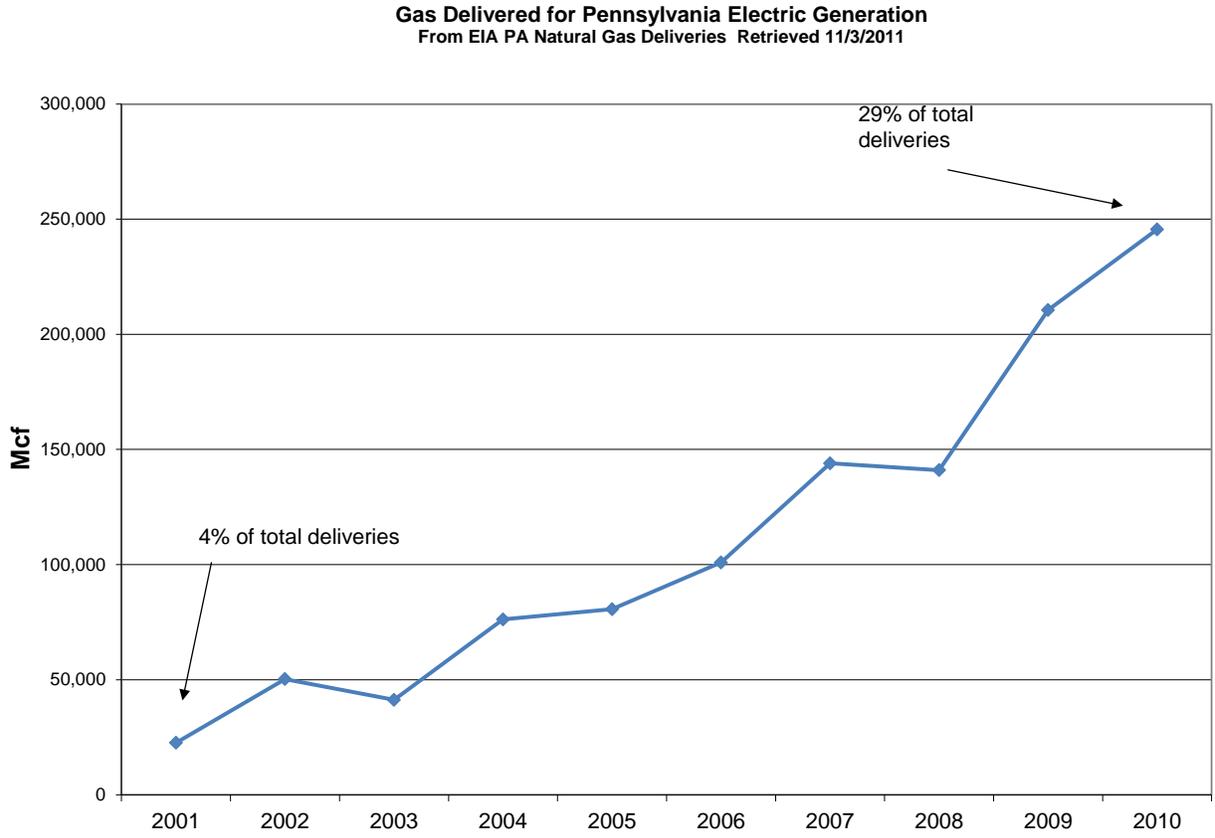


Figure 2 Pennsylvania Gas Delivered for Electric Generation - ANNUAL



### III. U.S. Natural Gas Production, Reserves and Prices

The following table shows United States natural gas production, reserves and prices for the period 1977 through 2010.

EIA predicts that average wellhead prices for natural gas will remain below \$5 per thousand cubic feet through 2023. Drilling will remain strong in areas where natural gas drilling also yields liquid products and crude oil. EIA has provided their estimate of unproved reserves from the Marcellus Shale at 141 trillion cubic feet. EIA projects that the United States will become a net exporter of pipeline natural gas by 2025.<sup>15</sup>

National storage inventory totaled 3.8 trillion cubic feet at the end of October 2011, which is a new record level for the end of the injection season. Natural gas production throughout the United States increased by 4 percent in 2011 to 61.8 Bcf per day. Decreases in Gulf of Mexico production were offset by growth in onshore production. Consumption increased to 66.0 Bcf per day with large increases from additional natural gas fired power generation. The difference between consumption and production is likely made up by the use of storage and imports. Petroleum liquids remain at an attractive selling price so that more drilling in shale formations with a higher liquid proportion is favored. There is a lack of local market for the liquids in the Marcellus shale area and a limited local processing capacity. El Paso Corporation is proposing the Marcellus Ethane Pipeline System with an in-service date of April 1, 2013, to transport ethane from fractionation plants to Louisiana. Henry Hub prices rose to \$4.52 per thousand cubic feet (Mcf) in 2010, from \$4.06 in 2009. EIA predicts the Henry Hub annual average spot price to average \$3.53 per million BTU (MMBtu) for 2012, and average \$4.14 per MMBtu in 2013.<sup>16</sup>

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<sup>15</sup> EIA, Annual Energy Outlook 2012 Early Release Overview.

<sup>16</sup> EIA Natural Gas Year in Review, released Dec. 9, 2011. And EIA Short Term Energy Outlook, January 2012 release.

*Table 5 Historical U.S. Natural Gas Production, Reserves and Prices*

<b>U.S. Natural Gas Production, Reserves and Prices: 1977 – 2010</b>			
<b>from EIA Natural Gas Navigator</b>			
<b>Year</b>	<b>Dry Production (BCF)</b>	<b>Wellhead Price (\$/MCF)</b>	<b>Dry Proved Reserves (BCF)</b>
1977	19,163	\$0.79	207,413
1978	19,122	\$0.91	208,033
1979	19,663	\$1.18	200,997
1980	19,403	\$1.59	199,021
1981	19,181	\$1.98	201,730
1982	17,820	\$2.46	201,512
1983	16,094	\$2.59	200,247
1984	17,466	\$2.66	197,463
1985	16,454	\$2.51	193,369
1986	16,059	\$1.94	191,586
1987	16,621	\$1.67	187,211
1988	17,103	\$1.69	168,024
1989	17,311	\$1.69	167,116
1990	17,810	\$1.71	169,346
1991	17,698	\$1.64	167,062
1992	17,840	\$1.74	165,015
1993	18,095	\$2.04	162,415
1994	18,821	\$1.85	163,837
1995	18,599	\$1.55	165,146
1996	18,854	\$2.17	166,474
1997	18,902	\$2.32	167,223
1998	19,024	\$1.96	164,041
1999	18,832	\$2.19	167,406
2000	19,182	\$3.68	177,427
2001	19,616	\$4.00	183,460
2002	18,928	\$2.95	186,946
2003	19,099	\$4.88	189,044
2004	18,591	\$5.46	192,513
2005	18,051	\$7.33	204,385
2006	18,504	\$6.39	211,085
2007	19,266	\$6.25	237,726
2008	20,159	\$7.97	244,656
2009	20,580	\$3.67	272,509
2010	21,577	\$4.16	*

\*Not available from EIA as of 3/19/2012.

## IV. Pennsylvania Deliveries, Gas Transported for Competitive Suppliers and PA Production of Natural Gas

This section presents Pennsylvania specific data. The data includes sales by NGDCs, deliveries by NGDCs for competitive suppliers and Pennsylvania production of natural gas. Proven Pennsylvania reserves as of Dec. 31, 2009, were 6,985 BCF. Total Pennsylvania storage capacity for 2010 was 776 BCF.<sup>17</sup>

*Table 6 2010 Pennsylvania Natural Gas Production, Transmission and Consumption*

(Million Cubic Feet)

Supply		Demand	
Marketed Production	572,902	Consumption	859,939
Imports	296,250	Extraction Loss	4,578
Withdrawal From Storage in excess of additions	27,135		
Supplemental Supply	4		
<b>Totals</b>	<b>896,291</b>	<b>Total</b>	<b>864,517</b>
<b>Balancing Item*</b>	<b>31,774</b>		

\*Balancing item - reflects the difference between total disposition and total supply. Lost and unaccounted (L&U) for natural gas is the difference between the total gas available from all sources and the total gas accounted for from sales, net interchange and company use. Releases occur through leaks from compressor and pump seals, old leaking pipes, and vented emissions from operation practices or accidental breaks. May also include metering error/accuracy issues.

Pennsylvania had 44,500 producing gas wells at the end of 2010.<sup>18</sup> As of Jan. 6, 2012, more than 9,618 Marcellus Shale drilling permits have been issued by the Pennsylvania Department of Environmental Protection. Of those permits issued, 4,436 wells have been drilled.<sup>19</sup> As of Jan. 24, 2012, there are more than 115 rotary drilling

<sup>17</sup> EIA Natural Gas Summary for Pennsylvania, retrieved 1/25/2012.

<sup>18</sup> EIA Natural Gas Summary.

<sup>19</sup> PA DEP Weekly Well Permit Workload Report for 1/17/2011-1/21/2011.

rigs active in Pennsylvania. The rotary rig count is an indicator of how many rigs are in service and the demand for drilling equipment.<sup>20</sup>

*Table 7 Historical Pennsylvania Deliveries, Transportation and Production*

Pennsylvania Deliveries, Transportation, and Production Volume (BCF)			
From EIA Natural Gas Navigator			
Year	Gas Delivered to Consumers	Delivered for the Account of Others (Transport)	PA Gas Dry Production
1989		191.3	191.5
1990		207.6	177.3
1991		212.8	152.1
1992		216.4	138.1
1993		214.3	131.6
1994		224.5	120.0
1995		255.1	110.4
1996		244.6	134.4
1997	664.8	261.2	79.3
1998	609.8	273.4	129.6
1999	648.2	293.5	173.8
2000	659.0	292.0	149.4
2001	595.6	254.2	130.2
2002	632.0	270.6	157.2
2003	651.6	264.3	159.2
2004	661.9	258.2	196.6
2005	655.7	246.8	167.8
2006	625.6	247.3	175.2
2007	711.6	259.1	181.4
2008	705.0	260.6	197.3
2009	755.7	253.9	272.6
2010	809.9	263.8	568.3

Figure 3 shows production of natural gas within Pennsylvania in conjunction with the U.S. average wellhead price of natural gas. As production has increased, the

<sup>20</sup> Baker Hughes Rotary Rig Count, [http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm), Retrieved Jan. 24, 2012.

wellhead price has fallen dramatically. Figure 4 shows Pennsylvania deliveries of natural gas for competitive suppliers, often called transportation gas. In 2010, 33% of the natural gas delivered to customers was transport gas.

*Figure 3 Pennsylvania Production vs. U.S. Wellhead Price*

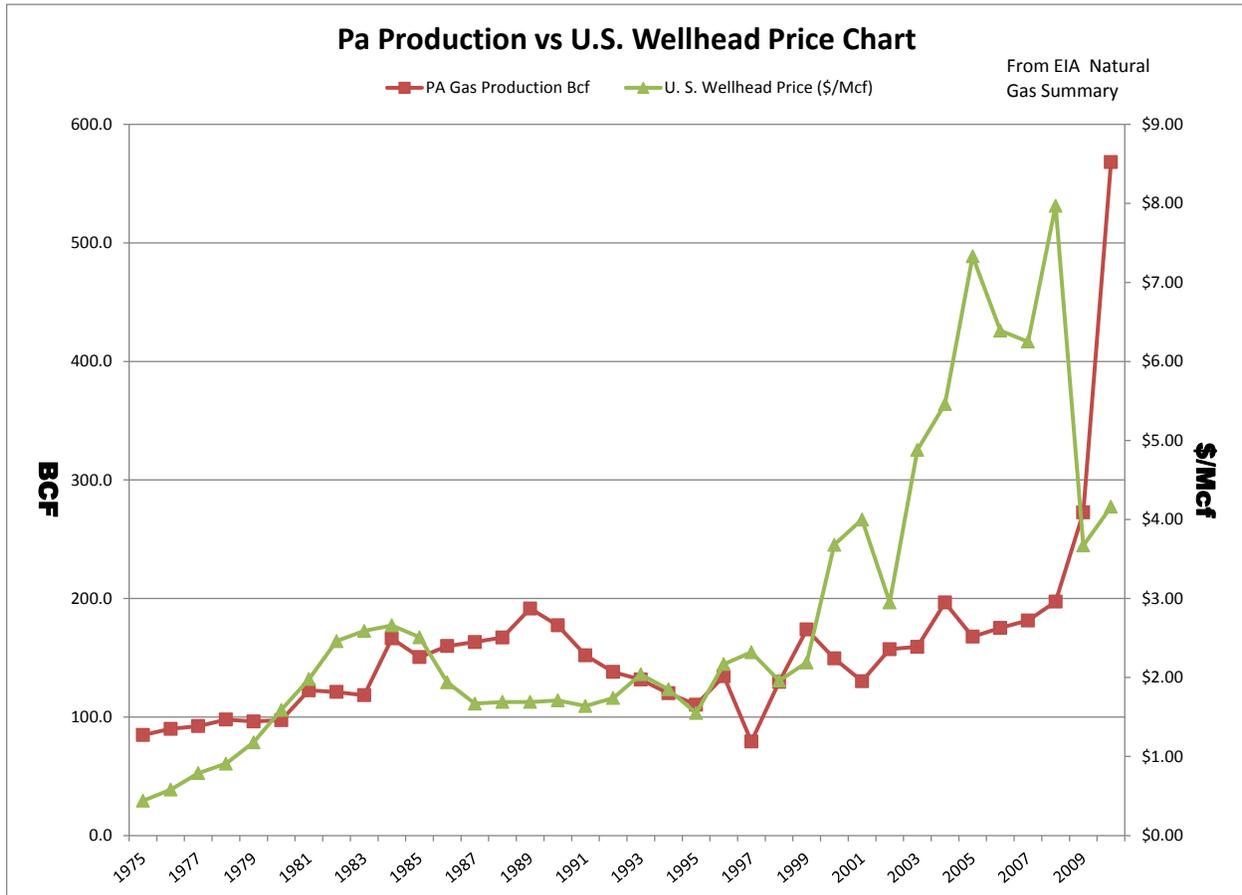
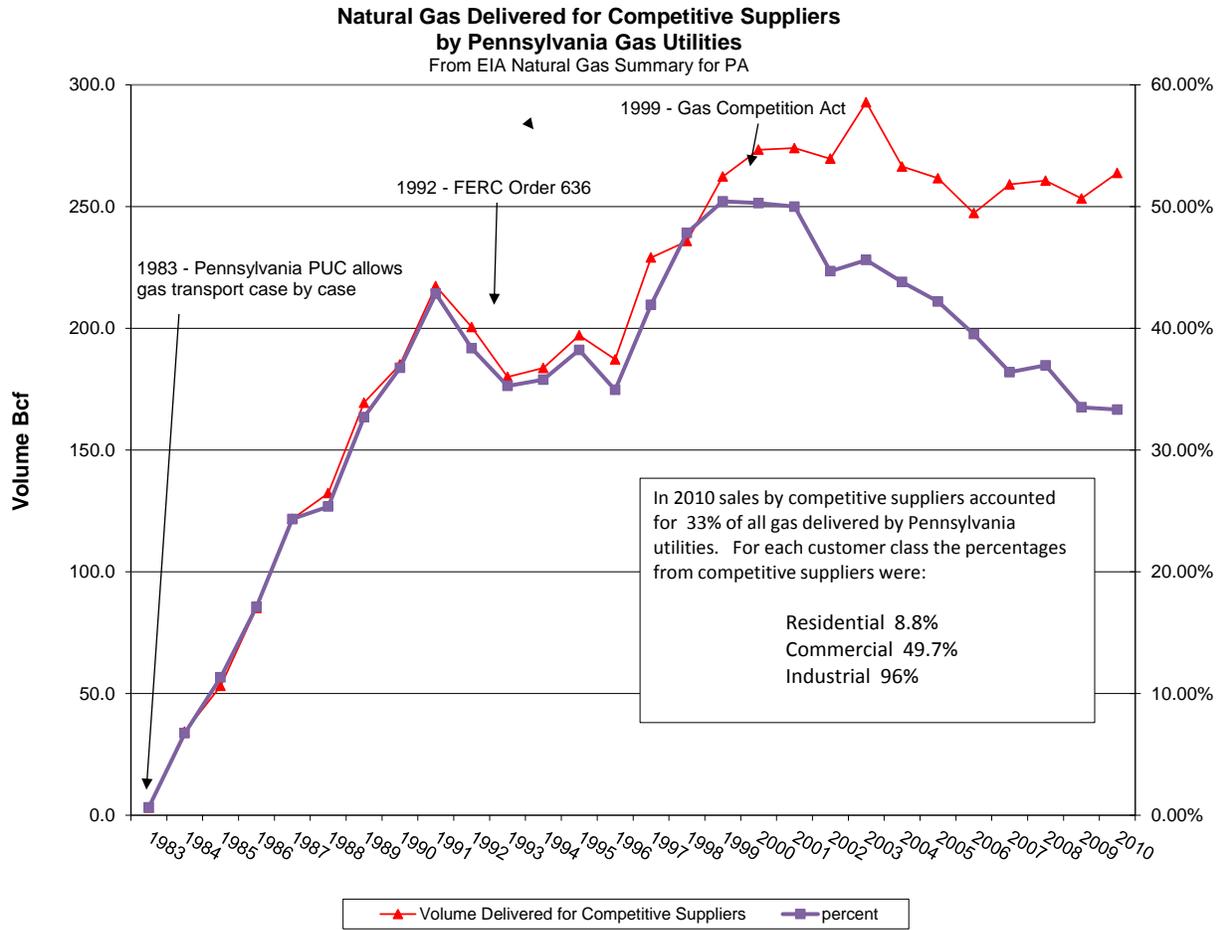


Figure 4 Deliveries by Pennsylvania Gas Utilities



## V. Natural Gas Distribution Company (NGDC) Statistical Data

### Customer Data

The following information is derived from data contained in the Gas Annual Reports and the Annual Resource Planning Reports for major gas utilities with greater than 8 BCF of annual sales.

*Table 8 2010 Customer Statistical Data*

2010 CUSTOMER STATISTICAL DATA								
Company	Number of Residential Customers	Average Use Per Customer (mcf)	Number of Commercial Customers	Average Use Per Customer (mcf)	Number of Industrial Customers	Average Use Per Customer (mcf)	Transport Customers	Average Use Transport (mcf)
Columbia	307,994	86	31,057	347	287	4,114	77,575	Not Available
UGI Central Penn	66,223	85	8,774	324	153	1,872	1,357	10,284
Equitable	226,696	89	14,193	273	41	1,058	19,307	1,260
NFG	188,866	94	12,501	279	236	877	11,440	1,627
PECO	448,391	84	41,241	455	443	54,850	836	30,908
UGI Penn Natural	144,262	99	12,510	405	73	2,166	3,992	5,745
PGW	480,994	75	26,177	346	2,350	10,414	0	0
Dominion Peoples	241,942	91	20,607	275	36	4,341	95,854	400
T.W. Phillips	56,051	90	4,361	528	10	10,331	85	184,237
UGI	295,425	69	25,432	343	684	1,084	19,774	3,331
Total	2,456,844		196,853		4,313		230,220	

## **VI. Pennsylvania NGDC Gas Supply and Demand Balance**

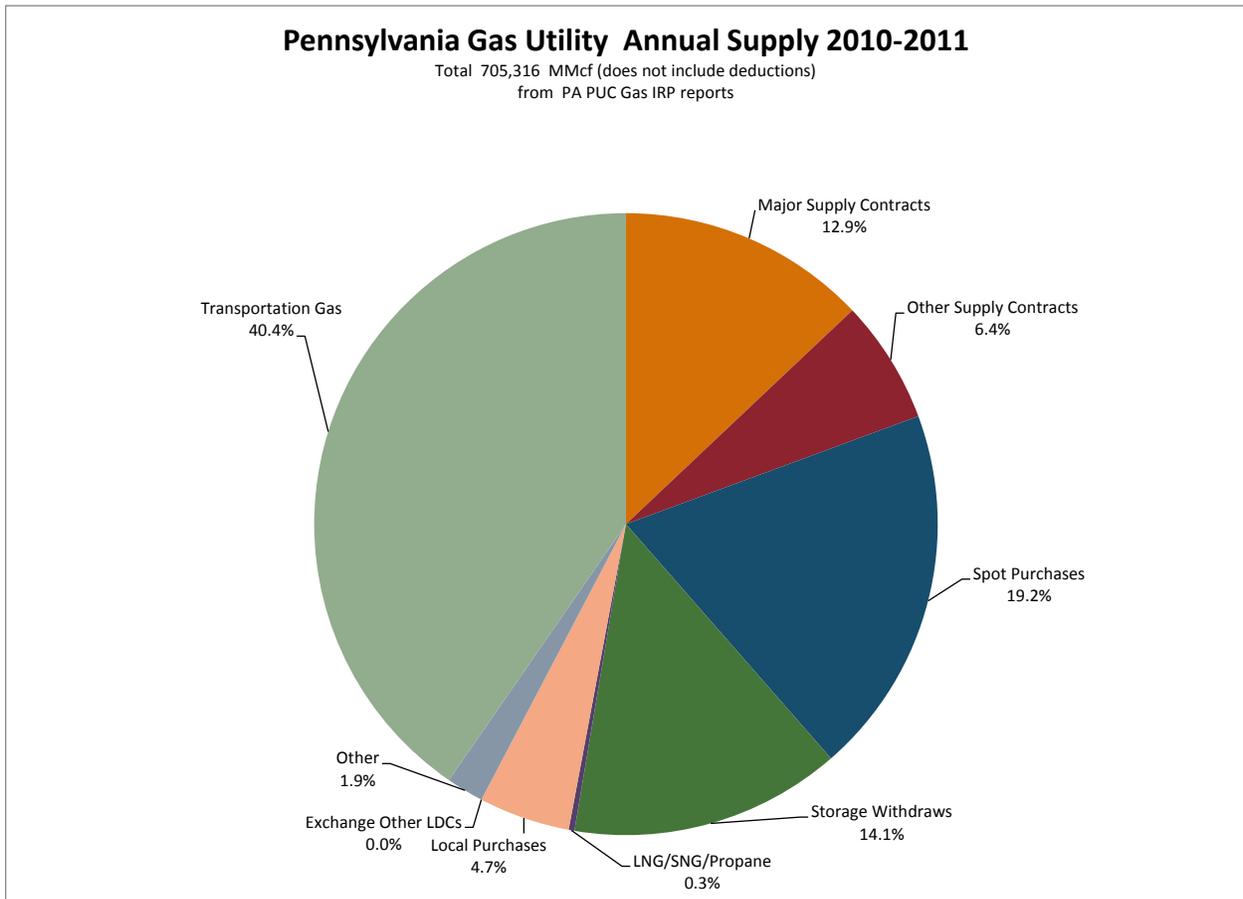
The following section provides natural gas supply and demand data for Pennsylvania's Natural Gas Distribution Companies. The NGDCs provided the supply and demand data as the forecast for the 2010-2011 delivery year. The data is presented for 2010-2011 for annual and peak day. Peak day is non-coincident data such that demand for a specific customer class is not necessarily at the same time as the system peak. Data is derived from PUC Annual Resource Planning Reports.

*Note: Some large users bypass the local distribution companies, buy gas at the wellhead or from suppliers, and receive the gas directly from the pipelines. Gas-fired electric generation stations are usually bypass customers, and their gas consumption is not included in the PUC reports. The NGDCs provide a multi-year forecast with each annual report. The most recent reports contain a forecast extending out to 2013-2014. The data for 2013-2014 showing the forecast for annual supply and demand for 2013-2014 and peak day supply forecast for 2013-2014 are provided.*

**Table 9 2010-2011 Annual Gas Supply and Demand for Major Gas Utilities**

<b>2010-2011 Annual Gas Supply and Demand Balance</b>											
<i>(from Annual Resource Planning Reports. MMcf)</i>											
<b>Demand</b>	<b>Columbia</b>	<b>Dominion Peoples</b>	<b>Equitable</b>	<b>NFG</b>	<b>PECO</b>	<b>PGW</b>	<b>TW Phillips</b>	<b>UGI CPG</b>	<b>UGI Penn Natural</b>	<b>UGI</b>	<b>Total</b>
<i>Firm</i>											
Retail Residential	24,282	21,652	22,088	18,320	38,807	40,359	5,078	5336	14,713	20,341	210,976
Retail Commercial	9,150	5,767	3,895	3,668	18,956	9,434	2,230	2,503	4,753	7,156	67,512
Retail Industrial	238	147	72	248	23	598	806	281	254	510	3,177
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Unaccounted for Gas	611	4,094	2,578	103	2,455	1,847	893	715	315	333	13,944
Company Use	39	1,572	63	7	170	620	168	48	63	137	2,887
Other	0	0	0	0	1	0	0	0	0	0	1
<b>Subtotal – Firm</b>	<b>34,320</b>	<b>33,232</b>	<b>28,696</b>	<b>22,346</b>	<b>60,412</b>	<b>52,858</b>	<b>9,175</b>	<b>8,883</b>	<b>20,098</b>	<b>28,477</b>	<b>298,497</b>
<i>Interruptible</i>											
Retail	0	0	0	0	583	787	0	0	0	0	1,370
Electric Power	0	0	0	0	0	12	0	0	0	0	12
Company's Own Plant	0	0	0	0	0	90	0	0	0	0	90
Unaccounted for Gas	0	0	0	0	0	43	0	0	0	0	43
<b>Subtotal - Interr'p</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>583</b>	<b>933</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,586</b>
<b>Firm &amp; Interruptible</b>	<b>34,320</b>	<b>33,232</b>	<b>28,696</b>	<b>22,346</b>	<b>60,995</b>	<b>53,790</b>	<b>9,175</b>	<b>8,883</b>	<b>20,098</b>	<b>28,477</b>	<b>300,012</b>
<i>Transportation</i>											
Firm Residential	5,761	7,941	3,468	553	7,331	5	0	0	83	1,063	26,205
Firm Commercial	953	10,638	3,648	5,750	0	2,323	813	3,475	6,180	11,343	45,123
Firm Industrial	0	18,659	606	13,059	0	274	12,869	9,805	17,290	15,052	87,614
Interruptible Residential	0	0	0	0	0	0	0	0	0	0	0
Interruptible Commercial	8,137	0	8,668	0	0	6,411	0	0	70	4,946	28,232
Interruptible Industrial	19,252	0	10,686	0	17,531	6,041	0	0	1,075	24,837	79,422
Electric Power	448	0	0	0	4,461	9,771	365	0	666	0	15,711
<b>Subtotal - Trans.</b>	<b>34,551</b>	<b>37,238</b>	<b>27,076</b>	<b>19,362</b>	<b>29,323</b>	<b>24,825</b>	<b>14,047</b>	<b>13,280</b>	<b>25,364</b>	<b>57,241</b>	<b>282,307</b>
<b>Total Requirements</b>	<b>68,871</b>	<b>70,470</b>	<b>55,772</b>	<b>41,708</b>	<b>90,318</b>	<b>78,615</b>	<b>23,222</b>	<b>22,163</b>	<b>45,462</b>	<b>85,718</b>	<b>582,319</b>
<b>Supply for sales</b>											
Major Supply Contracts	12,943	0	0	9,400	30,877	0	0	4,610	11,752	21,625	91,207
Other Supply contracts	0	15,132	0	0	0	0	0	4,192	11,230	14,756	45,310
Spot Purchases	24,173	0	18,531	0	26,781	60,049	5,975	0	0	0	135,509
Storage Withdraws	18,267	7,468	10,022	7,206	18,242	11,749	2,630	3,920	10,174	9,504	99,182
LNG/SNG/Propane	0	0	0	0	616	1,414	0	0	10	90	2,130
Company Production	0	0	0	0	0	0	0	0	0	0	0
Local Purchases	239	13,811	10,165	3,040	0	0	5,999	70	0	0	33,324
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	3,772	9,906	0	0	0	0	0	0	13,678
<b>Subtotal</b>	<b>55,622</b>	<b>36,411</b>	<b>42,490</b>	<b>29,552</b>	<b>76,516</b>	<b>73,212</b>	<b>14,604</b>	<b>12,792</b>	<b>33,166</b>	<b>45,975</b>	<b>420,340</b>
<i>Transportation Gas</i>											
Delivered to City Gate	34,551	39,956	27,075	19,362	29,322	24,598	14,047	13,280	25,364	57,241	284,796
<b>Total sales and trans.</b>	<b>90,173</b>	<b>76,367</b>	<b>69,565</b>	<b>48,914</b>	<b>105,838</b>	<b>97,810</b>	<b>28,651</b>	<b>26,072</b>	<b>58,530</b>	<b>103,216</b>	<b>705,136</b>
<i>Deductions</i>											
Curtailments	0	0	0	0	0	0	0	0	0	0	0
Storage Injections	21,302	-5,897	10,022	7,206	15,024	17,259	2,630	2,809	10,077	9,185	89,617
LNG Liquefactions	0	0	0	0	496	1,938	0	0	0	0	2,434
Sales to Other LDCs	0	0	0	0	0	0	33	0	0	0	33
Off-System Sales	0	0	3,772	0	0	0	0	1,101	2,992	8,312	16,177
<b>Total Deductions</b>	<b>21,302</b>	<b>-5,897</b>	<b>13,794</b>	<b>7,206</b>	<b>15,520</b>	<b>19,197</b>	<b>2,663</b>	<b>3,910</b>	<b>13,069</b>	<b>17,497</b>	<b>108,261</b>
<b>Net Supply</b>	<b>68,871</b>	<b>70,470</b>	<b>55,771</b>	<b>41,708</b>	<b>90,318</b>	<b>78,614</b>	<b>25,988</b>	<b>22,164</b>	<b>45,461</b>	<b>85,719</b>	<b>585,084</b>

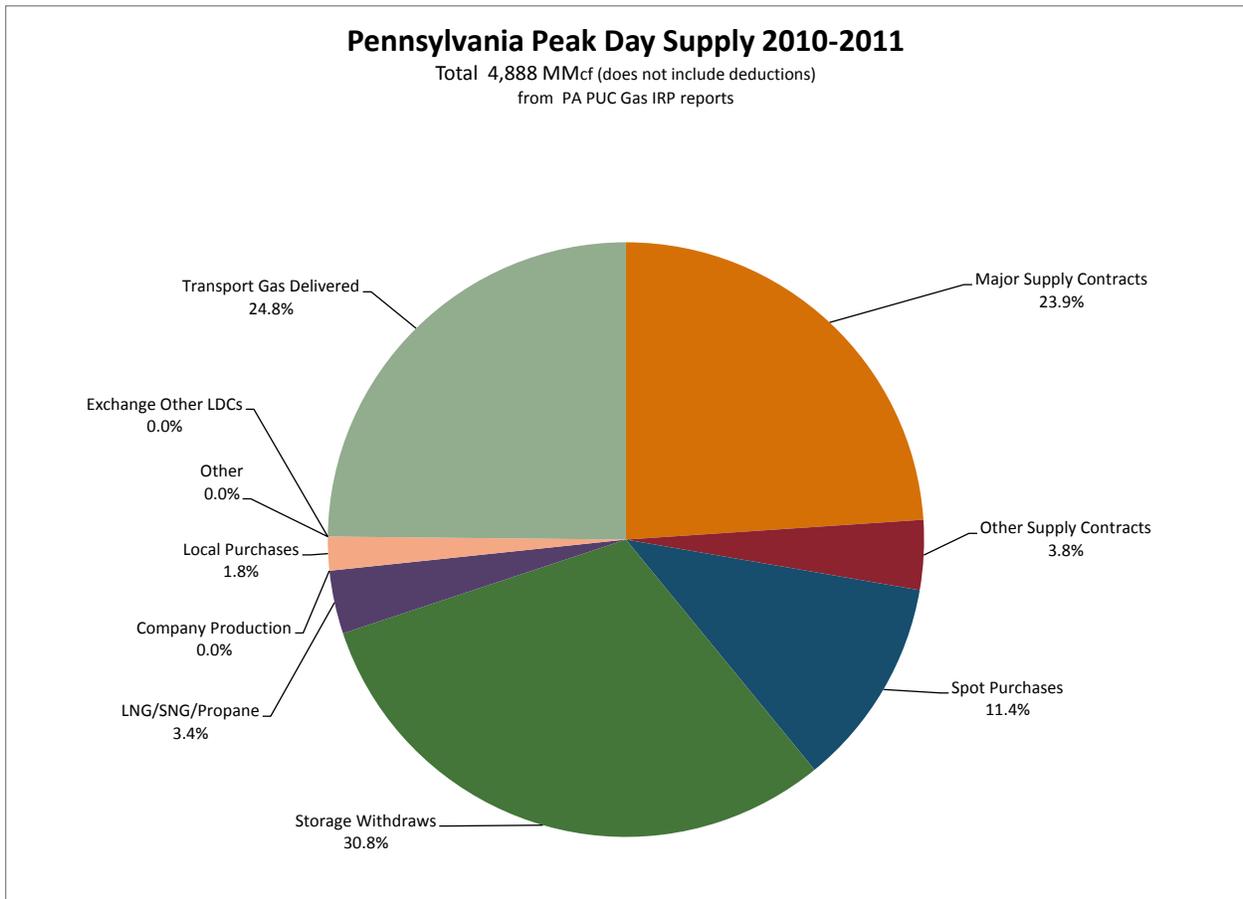
Figure 5 Pennsylvania Gas Utility Annual Supply 2010-2011



**Table 10 2010-2011 Peak Day Gas Supply and Demand Balance for Major Gas Utilities**

<b>2010-2011 Peak Day Gas Supply and Demand Balance</b>											
<i>(from Annual Resource Planning Reports. MMcf)</i>											
<b>Demand</b>	<b>Columbia</b>	<b>Dominion Peoples</b>	<b>Equitable</b>	<b>NFG</b>	<b>PECO</b>	<b>PGW</b>	<b>TW Phillips</b>	<b>UGI CPG</b>	<b>UGI Penn Natural</b>	<b>UGI</b>	<b>Total</b>
<i>Firm</i>											
Retail Residential	352	262	217	208	516	451	62	49	132	183	2,432
Retail Commercial	134	64	37	39	252	105	27	24	41	71	794
Retail Industrial	1	1	0	1	1	7	1	3	0	5	20
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Unaccounted for Gas	2	40	26	1	22	21	7	0	0	0	119
Company Use	0	16	2	0	1	7	1	0	0	1	28
Other	0	0	0	0	3	0	0	0	0	0	3
<b>Subtotal – Firm</b>	<b>489</b>	<b>383</b>	<b>282</b>	<b>249</b>	<b>795</b>	<b>590</b>	<b>98</b>	<b>76</b>	<b>173</b>	<b>260</b>	<b>3,395</b>
<i>Interruptible</i>											
Retail	0	0	0	0	0	9	0	0	0	0	9
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Company's Own Plant	0	0	0	0	0	1	0	0	0	0	1
<b>Subtotal - Interr'p</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Firm &amp; Interruptible</b>	<b>489</b>	<b>383</b>	<b>282</b>	<b>249</b>	<b>795</b>	<b>600</b>	<b>98</b>	<b>76</b>	<b>173</b>	<b>260</b>	<b>3,405</b>
<i>Transportation</i>											
Firm Residential	71	96		6		0	0	0	0	8	181
Firm Commercial	13	112		62		24	2	24	39	77	353
Firm Industrial	0	80	23	59	41	2	43	49	72	73	442
Interruptible Residential	0	0		0		0	0	0	0	0	0
Interruptible Commercial	78	0		0		0	0	0	0	22	100
Interruptible Industrial	79	0	90	0	0	0	0	0	4	61	234
Electric Power	3	0	0	0	0	0	0	0	0	0	3
<b>Subtotal - Trans.</b>	<b>244</b>	<b>288</b>	<b>113</b>	<b>127</b>	<b>41</b>	<b>26</b>	<b>45</b>	<b>73</b>	<b>111</b>	<b>241</b>	<b>1,309</b>
<b>Total Requirements</b>	<b>733</b>	<b>671</b>	<b>395</b>	<b>376</b>	<b>836</b>	<b>626</b>	<b>143</b>	<b>149</b>	<b>284</b>	<b>501</b>	<b>4,714</b>
<b>Supply for sales</b>											
Major Supply Contracts	125	0	0	74	792	0	0	10	52	117	1,170
Other Supply contracts	0	78	8	0	0	0	0	1	53	45	185
Spot Purchases	0	0	90	0	2	287	11	45	38	83	556
Storage Withdraws	364	261	127	166	0	183	110	38	120	136	1,505
LNG/SNG/Propane	0	0	0	0	0	167	0	0	1	0	168
Company Production	0	0	0	0	0	0	0	0	0	0	0
Local Purchases	1	32	28	10	0	0	19	0	0	0	90
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0
<b>Subtotal</b>	<b>490</b>	<b>371</b>	<b>283</b>	<b>250</b>	<b>794</b>	<b>637</b>	<b>140</b>	<b>94</b>	<b>264</b>	<b>381</b>	<b>3,704</b>
<i>Transportation Gas</i>											
Delivered to City Gate	243	306	113	127	41	11	45	59	58	211	1,214
<b>Total sales and trans.</b>	<b>733</b>	<b>677</b>	<b>396</b>	<b>377</b>	<b>835</b>	<b>648</b>	<b>185</b>	<b>153</b>	<b>322</b>	<b>592</b>	<b>4,918</b>
<i>Deductions</i>											
Curtailments	0	0	0	0	0	18	0	0	0	0	18
Storage Injections	0	0	0	0	0	3	0	0	0	0	3
LNG Liquifications	0	0	0	0	0	1	0	0	0	0	1
Sales to Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Off-System Sales	0	0	0	0	0	0	0	5	35	88	128
<b>Total Deductions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>5</b>	<b>35</b>	<b>88</b>	<b>150</b>
<b>Net Supply</b>	<b>733</b>	<b>677</b>	<b>396</b>	<b>377</b>	<b>835</b>	<b>626</b>	<b>185</b>	<b>149</b>	<b>287</b>	<b>502</b>	<b>4,767</b>

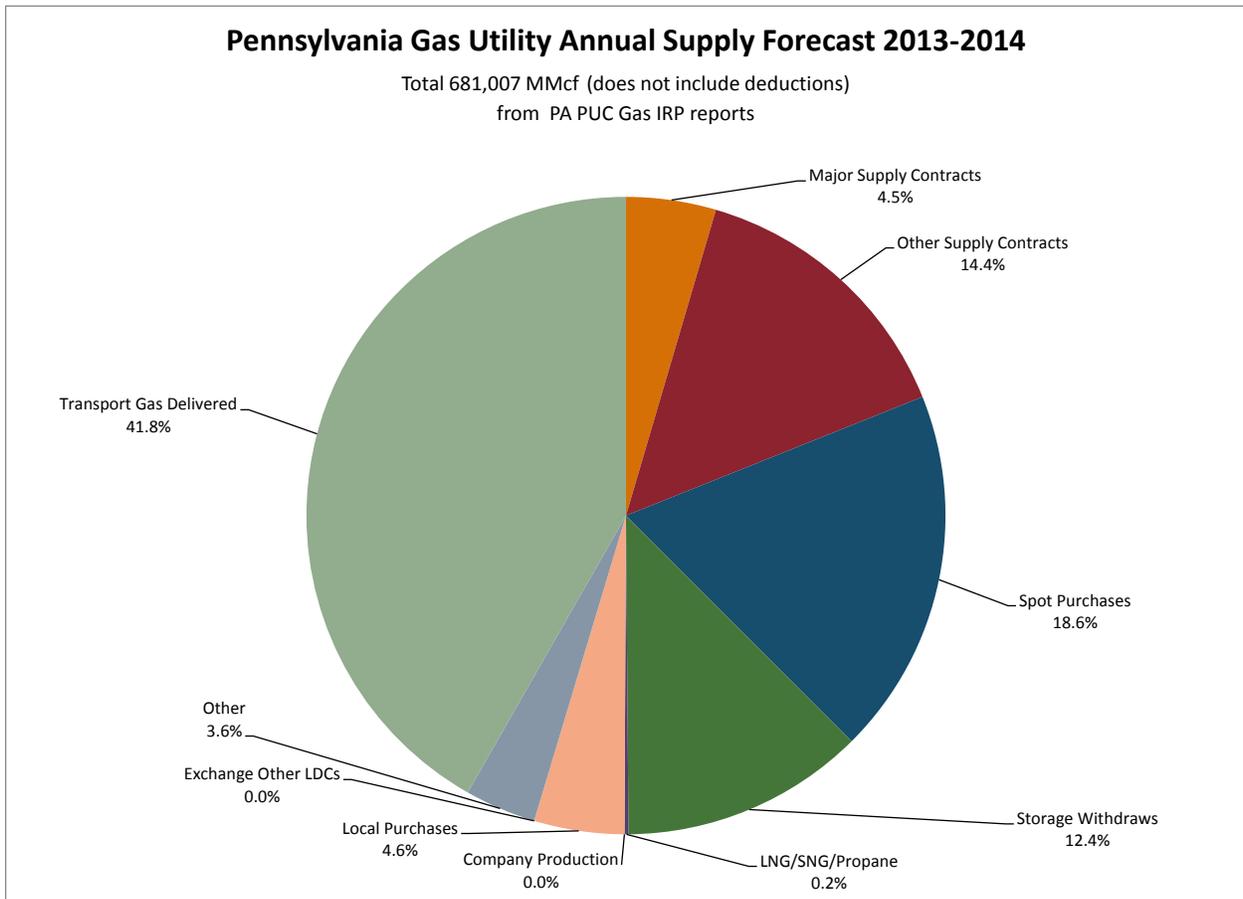
Figure 6 Pennsylvania Peak Day Supply 2010-2011



**Table 11 2013-2104 Forecast Annual Gas Supply and Demand Balance**

<b>2013-2014 Forecast Annual Gas Supply and Demand Balance</b>											
<i>(from Annual Resource Planning Reports. MMcf)</i>											
<b>Demand</b>	<b>Columbia</b>	<b>Dominion Peoples</b>	<b>Equitable</b>	<b>NFG</b>	<b>PECO</b>	<b>PGW</b>	<b>TW Phillips</b>	<b>UGI CPG</b>	<b>UGI Penn Natural</b>	<b>UGI</b>	<b>Total</b>
<i>Firm</i>											
Retail Residential	24,098	21,831	22,088	17,158	38,104	39,023	5,078	5,075	14,096	21,173	207,724
Retail Commercial	8,718	5,736	3,895	3,455	18,945	9,247	2,230	2,206	4,441	7,378	66,251
Retail Industrial	256	149	72	235	23	565	806	271	239	488	3,104
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Unaccounted for Gas	645	4,112	2,578	96	2,471	1,999	893	695	310	335	14,134
Company Use	39	1,579	63	8	170	718	168	48	63	137	2,993
Other	0	0	0	0	1	0	0	0	0	0	1
<b>Subtotal – Firm</b>	<b>33,756</b>	<b>33,407</b>	<b>28,696</b>	<b>20,952</b>	<b>59,714</b>	<b>51,552</b>	<b>9,175</b>	<b>8,295</b>	<b>19,149</b>	<b>29,511</b>	<b>294,207</b>
<i>Interruptible</i>											
Retail	0	0	0	0	537	705	0	0	0	0	1,242
Electric Power	0	0	0	0	0	9	0	0	0	0	9
Company's Own Plant	0	0	0	0	0	44	0	0	0	0	44
Unaccounted for Gas	0	0	0	0	0	28	0	0	0	0	28
<b>Subtotal - Interr'p</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>537</b>	<b>785</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,322</b>
<b>Firm &amp; Interruptible</b>	<b>33,756</b>	<b>33,407</b>	<b>28,696</b>	<b>20,952</b>	<b>60,251</b>	<b>52,338</b>	<b>9,175</b>	<b>8,295</b>	<b>19,149</b>	<b>29,511</b>	<b>295,530</b>
<i>Transportation</i>											
Firm Residential	2,724	7,978	3,468	612		15	0	0	81	1,048	15,926
Firm Commercial	948	10,700	3,648	5,858		3,234	813	3,460	6,273	11,132	46,066
Firm Industrial	0	18,716	606	13,195	7,660	321	12,869	9,816	16,964	15,147	95,294
Interruptible Residential	0	0	0	0		0	0	0	0	0	0
Interruptible Commercial	8,446	0	8,668	0		6,616	0	0	70	4,947	28,747
Interruptible Industrial	19,454	0	10,598	0	22,981	6,528	0	0	1,072	24,682	85,315
Electric Power	448	0	0	0	0	9,260	365	0	666	0	10,739
<b>Subtotal - Trans.</b>	<b>32,020</b>	<b>37,394</b>	<b>26,988</b>	<b>19,665</b>	<b>30,641</b>	<b>25,974</b>	<b>14,047</b>	<b>13,276</b>	<b>25,126</b>	<b>56,956</b>	<b>282,087</b>
<b>Total Requirements</b>	<b>65,776</b>	<b>70,801</b>	<b>55,684</b>	<b>40,617</b>	<b>90,892</b>	<b>78,312</b>	<b>23,222</b>	<b>21,571</b>	<b>44,275</b>	<b>86,467</b>	<b>577,617</b>
<i>Supply for sales</i>											
Major Supply Contracts	0	0	0	0	30,951	0	0	0	0	0	30,951
Other Supply contracts	0	16,705	0	0	25,962	0	0	7,114	19,052	29,101	97,934
Spot Purchases	34,046	0	18,531	0	18,242	55,310	508	0	0	0	126,637
Storage Withdraws	19,302	6,120	10,022	7,063	616	15,347	2,047	3,920	10,174	9,504	84,115
LNG/SNG/Propane	0	0	0	0	0	1,274	0	0	0	90	1,364
Company Production	0	0	0	0	0	0	0	0	0	0	0
Local Purchases	239	14,468	10,165	167	0	0	5,999	70	0	0	31,108
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	3,772	20,785	0	0	0	0	0	0	24,557
<b>Subtotal</b>	<b>53,587</b>	<b>37,293</b>	<b>42,490</b>	<b>28,015</b>	<b>75,771</b>	<b>71,931</b>	<b>8,554</b>	<b>11,104</b>	<b>29,226</b>	<b>38,695</b>	<b>396,666</b>
<i>Transportation Gas</i>											
Delivered to City Gate	32,020	39,976	27,075	19,665	30,641	25,558	14,047	13,276	25,126	56,957	284,341
<b>Total sales and trans.</b>	<b>85,607</b>	<b>77,269</b>	<b>69,565</b>	<b>47,680</b>	<b>106,412</b>	<b>97,489</b>	<b>22,601</b>	<b>24,380</b>	<b>54,352</b>	<b>95,652</b>	<b>681,007</b>
<i>Deductions</i>											
Curtailments	0	0	0	0	0	0	0	0	0	0	0
Storage Injections	19,831	6,468	10,022	7,063	15,024	14,949	2,047	2,809	10,077	9,185	97,475
LNG Liquefactions	0	0	0	0	496	1,235	0	0	0	0	1,731
Sales to Other LDCs	0	0	0	0	0	0	33	0	0	0	33
Off-System Sales	0	0	3,772	0	0	2,994	0	0	0	0	6,766
<b>Total Deductions</b>	<b>19,831</b>	<b>6,468</b>	<b>13,794</b>	<b>7,063</b>	<b>15,520</b>	<b>19,178</b>	<b>2,080</b>	<b>2,809</b>	<b>10,077</b>	<b>9,185</b>	<b>106,005</b>
<b>Net Supply</b>	<b>65,776</b>	<b>70,801</b>	<b>55,771</b>	<b>40,617</b>	<b>90,892</b>	<b>78,311</b>	<b>20,521</b>	<b>21,571</b>	<b>44,275</b>	<b>86,467</b>	<b>575,002</b>

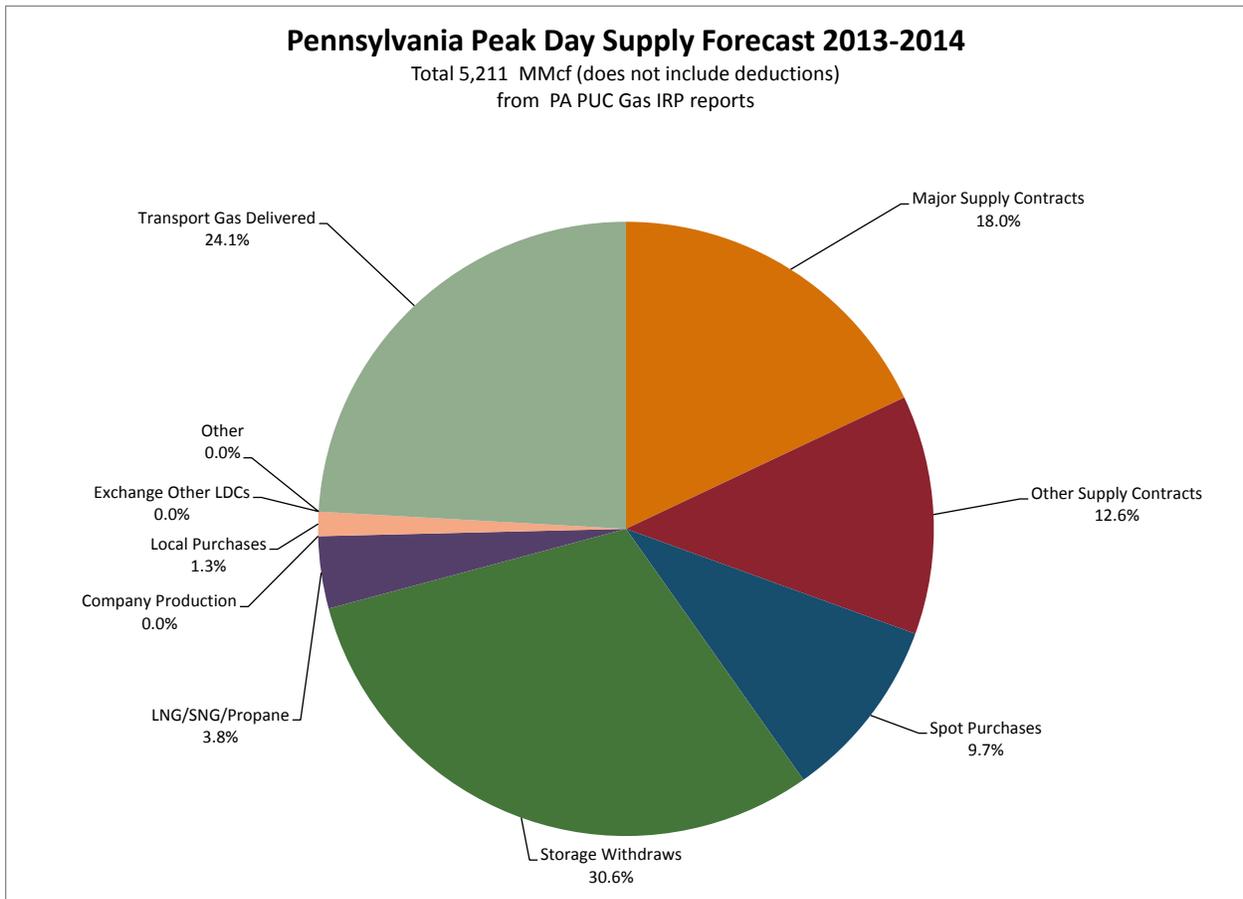
Figure 7 Pennsylvania Gas Utility Annual Supply Forecast 2013-2014



**Table 12 2013-2014 Forecast Peak Gas Supply and Demand Balance**

<b>2013-2014 Forecast Peak Day Gas Supply and Demand Balance</b>											
<i>(from Annual Resource Planning Reports. MMcf)</i>											
<b>Demand</b>	<b>Columbia</b>	<b>Dominion Peoples</b>	<b>Equitable</b>	<b>NFG</b>	<b>PECO</b>	<b>PGW</b>	<b>TW Phillips</b>	<b>UGI CPG</b>	<b>UGI Penn Natural</b>	<b>UGI</b>	<b>Total</b>
<i>Firm</i>											
Retail Residential	366	264	355	196	513	461	82	59	178	216	2,690
Retail Commercial	136	63	61	37	251	109	37	29	55	85	863
Retail Industrial	1	1	0	1	1	7	9	3	0	6	28
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Exchange Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Unaccounted for Gas	2	40	26	1	22	24	9	0	0	0	124
Company Use	0	16	2	0	1	8	1	0	0	1	29
Other	0	0	0	0	3	0	0	0	0	0	3
<b>Subtotal – Firm</b>	<b>505</b>	<b>384</b>	<b>444</b>	<b>235</b>	<b>791</b>	<b>609</b>	<b>138</b>	<b>91</b>	<b>233</b>	<b>308</b>	<b>3,738</b>
<i>Interruptible</i>											
Retail	0	0	0	0	0	9	0	0	0	0	9
Electric Power	0	0	0	0	0	0	0	0	0	0	0
Company's Own Plant	0	0	0	0	0	0	0	0	0	0	0
Unaccounted for Gas	0	0	0	0	0	0	0	0	0	0	0
<b>Subtotal - Interr'p</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>
<b>Firm &amp; Interruptible</b>	<b>505</b>	<b>384</b>	<b>444</b>	<b>235</b>	<b>791</b>	<b>618</b>	<b>138</b>	<b>91</b>	<b>233</b>	<b>308</b>	<b>3,747</b>
<i>Transportation</i>											
Firm Residential	71	95		7		0	0	0	0	9	182
Firm Commercial	12	113		64		34	2	29	53	91	398
Firm Industrial	0	79	34	60	41	3	43	59	95	87	501
Interruptible Residential	0	0		0		0	0	0	0	0	0
Interruptible Commercial	76	0		0		0	0	0	0	26	102
Interruptible Industrial	80	0	131	0		0	0	0	5	73	289
Electric Power	3	0	0	0	0	0	0	0	0	0	3
<b>Subtotal - Trans.</b>	<b>242</b>	<b>287</b>	<b>165</b>	<b>131</b>	<b>41</b>	<b>37</b>	<b>45</b>	<b>88</b>	<b>152</b>	<b>286</b>	<b>1,474</b>
<b>Total Requirements</b>	<b>747</b>	<b>671</b>	<b>609</b>	<b>366</b>	<b>832</b>	<b>655</b>	<b>183</b>	<b>179</b>	<b>385</b>	<b>594</b>	<b>5,221</b>
<i>Supply for sales</i>											
Major Supply Contracts	145	0	0	0	791	0	0		0	0	936
Other Supply contracts	0	78	25	74	0	0	0	62	161	256	656
Spot Purchases	0	0	219	0	0	282	3	0	0	0	504
Storage Withdraws	360	261	188	161	0	182	75	61	112	195	1,595
LNG/SNG/Propane	0	0	0	0	0	198	0	0	0	0	198
Company Production	0	0	0	0	0	0	0	0	0	0	0
Local Purchases	1	32	14	1	0	0	19	0	0	0	67
Exchange Other LDCs	0	0		0	0	0	0	0	0	0	0
Other	0	0		0	0	0	0	0	0	0	0
<b>Subtotal</b>	<b>506</b>	<b>371</b>	<b>446</b>	<b>236</b>	<b>791</b>	<b>662</b>	<b>97</b>	<b>123</b>	<b>273</b>	<b>451</b>	<b>3,955</b>
<i>Transportation Gas</i>											
Delivered to City Gate	242	306	164	131	41	15	45	56	113	143	1,256
<b>Total sales and trans.</b>	<b>748</b>	<b>677</b>	<b>610</b>	<b>367</b>	<b>832</b>	<b>677</b>	<b>142</b>	<b>179</b>	<b>386</b>	<b>594</b>	<b>5,211</b>
<i>Deductions</i>											
Curtailments	0	0	0	0	0	0	0	0	0	0	0
Storage Injections	0	0	0	0	0	3	0	0	0	0	3
LNG Liquefactions	0	0	0	0	0	1	0	0	0	0	1
Sales to Other LDCs	0	0	0	0	0	0	0	0	0	0	0
Off-System Sales	0	0	0	0	0	17	0	0	0	0	17
<b>Total Deductions</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>
<b>Net Supply</b>	<b>748</b>	<b>677</b>	<b>610</b>	<b>367</b>	<b>832</b>	<b>656</b>	<b>142</b>	<b>179</b>	<b>386</b>	<b>594</b>	<b>5,191</b>

Figure 8 Pennsylvania Peak Day Supply Forecast 2013-2014



## VII. NGDC Financial Statistics

This section presents selected NGDC financial data taken from the Gas Annual Report of the major NGDCs for a seven-year period from 2004 through 2010.

The data includes operating revenues and expenses, net operating income, gross plant in service, administrative and general expense, maintenance expense, depreciation expense and total gas cost, and average cost of gas purchased by the NGDC.

*Note: UGI Central Penn was purchased from PPL Gas Utilities in 2007. North Penn Gas Company and PFG Gas Inc. were merged into PPL Gas Utilities effective Dec. 31, 2004. UGI Penn Natural was purchased from PG Energy in 2006.*

*Table 13 Operating Revenue, Operating Expense and Net Operating Income*

OPERATING REVENUE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	551.4	652.1	575.4	650.5	781.9	544.9	559.2
Equitable	420.5	471.2	445.3	458.9	628.9	507.5	367.0
NFG	333.2	376.3	363.7	351.8	388.8	325.1	255.5
PECO	747.7	816.8	795.5	838.8	821.7	759.6	686.8
Dominion	462.5	551.5	505.3	469.9	534.8	432.3	369.1
UGI Penn Natural	262.5	312.7	302.6	326.6	348.4	337.0	328.5
PGW	812.1	907.2	845.8	871.9	886.0	823.1	749.2
UGI Central Penn	156.8	163.5	189.4	187.0	193.0	169.0	156.2
T.W. Phillips	109.3	135.5	133.9	134.6	151.9	109.2	100.2
UGI	500.5	586.7	580.6	618.4	626.3	556.1	573.3
Total	4,357	4,974	4,738	4,908	5,362	4,564	4,145
OPERATING EXPENSE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	506.4	613.5	546.0	619.0	741.7	492.8	495.7
Equitable	357.0	407.6	421.7	448.5	595.3	412.8	324.0
NFG	NA	360.1	347.4	324.4	359.8	294.5	220.4
PECO	692.7	700.8	614.9	782.2	779.5	671.6	599.8
Dominion	396.5	485.0	462.0	407.0	478.1	385.7	320.5
UGI Penn Natural	214.5	273.9	274.7	299.1	327.8	312.9	297.5
PGW	714.0	868.7	777.0	823.5	824.2	748.6	655.3
UGI Central Penn	146.7	149.7	183.0	175.6	178.3	154.3	135.8
T.W. Phillips	99.0	125.6	124.4	123.2	142.3	101.5	93.5
UGI	448.5	528.4	528.3	552.5	566.0	492.7	506.0
Total	3,575	4,513	4,279	4,555	4,993	4,067	3,649
NET OPERATING INCOME (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	45.0	38.6	29.4	31.5	40.2	52.1	63.5
Equitable	63.5	63.6	23.6	10.4	33.6	94.7	43.0
NFG	NA	16.2	16.3	27.4	29.0	30.5	35.1
PECO	55.0	116	180.6	56.6	42.2	88.0	87.0
Dominion	66.0	66.5	43.3	62.9	56.7	46.6	48.6
UGI Penn Natural	48.0	38.8	27.9	27.5	20.6	24.1	31.0
PGW	98.1	38.5	118.8	48.4	61.8	74.5	93.9
UGI Central Penn	10.1	13.8	6.4	11.4	14.7	14.7	20.4
T.W. Phillips	10.3	9.9	9.5	11.4	9.6	7.7	6.7
UGI	52.0	58.3	52.3	65.9	60.3	63.4	67.3
Total	448	460	508	353	369	496	497

*Table 14 Administration & General Expense*

ADMINISTRATION & GENERAL EXPENSE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	38.0	47.8	45.5	49.6	39.9	45.3	53.4
Equitable	47.3	45.2	38.4	62.7	37.1	32.1	28.1
NFG	28.6	26.5	26.5	26.3	26.7	26.5	27.1
PECO	40.0	34.8	35.8	33.0	30.4	31.9	29.4
Dominion	17.1	16.8	15.4	8.0	14.9	9.7	32.8
UGI Penn Natural	11.6	13.7	13.9	16.8	20.1	21.8	21.2
PGW	78.5	74.8	77.9	101.6	101.9	103.4	120.3
UGI Central Penn	17.4	19.8	22.0	23.4	16.7	15.0	17.6
T.W. Phillips	7.3	7.3	9.1	9.6	9.9	10.2	12.3
UGI	37.7	37.3	40.3	36.6	35.6	37.4	36.5
Total	324	324	325	368	333	333	379
MAINTENANCE EXPENSE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	9.0	9.3	11.0	12.3	13.8	14.1	14.1
Equitable	11.5	13.3	11.7	11.6	11.4	12.5	10.8
NFG	3.57	3.80	3.69	4.1	4.2	4.1	4.0
PECO	13.2	16.5	17.9	21.2	22.5	22.8	23.7
Dominion	16.6	19.1	20.5	20.1	21.6	24.1	24.7
UGI Penn Natural	4.4	4.6	4.4	4.8	6.4	7.1	6.7
PGW	NA	22.1	18.7	20.1	21.0	25.6	25.7
UGI Central Penn	2.8	2.4	2.2	3.6	7.7	4.7	4.3
T.W. Phillips	4.2	4.6	4.7	5.8	6.5	5.8	6.2
UGI	10.9	10.0	10.1	9.8	10.6	11.8	11.9
Total	76	106	105	113	128	133	132
DEPRECIATION EXPENSE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	14.2	15.4	15.8	16.9	18.2	21.0	22.5
Equitable	14.8	15.9	16.7	17.5	18.6	18.8	20.0
NFG	11.1	11.2	11.3	11.6	11.2	11.1	11.1
PECO	33.7	34.8	29.6	29.0	30.8	31.5	32.7
Dominion	17.8	18.7	19.7	19.7	20.4	20.4	21.6
UGI Penn Natural	11.0	12.3	13.3	15.0	15.2	16.3	16.7
PGW	34.5	34.7	35.6	38.1	38.8	37.2	39.0
UGI Central Penn	6.7	6.9	7.0	8.3	8.5	7.5	7.8
T.W. Phillips	6.0	6.0	6.2	5.8	6.1	6.1	5.9
UGI	19.3	20.3	21.3	20.8	21.0	22.1	22.5
Total	169	176	177	183	189	192	200

*Table 15 Total Gas Costs, AVG Cost of Gas Purchased, Gross Plant in Service*

TOTAL GAS COSTS (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	357.5	436.2	427.3	436.9	621.4	250.2	328.7
Equitable	207.4	249.8	255.4	255.6	436.5	234.5	204.1
NFG	179.8	219.6	236.2	188.4	229.1	174.3	95.1
PECO	502.5	617.3	618.2	569.3	647.5	384.4	381.3
Dominion	268.0	369.7	325.5	281.2	354.4	263.8	186.8
UGI Penn Natural	188.3	239.3	221.7	230.0	245.9	232.0	198.9
PGW	NA	659.9	531.2	540.9	587.2	392.6	321.7
UGI Central Penn	89.0	107.3	130.0	122.8	124.8	78.9	83.4
T.W. Phillips	73.2	95.8	84.3	85.2	112.2	63.8	52.0
UGI	322.5	450.2	410.2	428.4	428.1	390.7	340.0
<b>Total</b>	<b>2,188</b>	<b>3,445</b>	<b>3,240</b>	<b>3,139</b>	<b>3,787</b>	<b>2,465</b>	<b>2,192</b>
AVERAGE COST OF GAS PURCHASED (\$/MCF)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	7.01	9.86	8.93	8.99	11.32	6.00	7.04
Equitable	6.35	8.08	7.45	8.04	9.02	6.34	7.67
NFG	6.76	8.68	10.83	7.97	7.97	7.76	5.43
PECO	8.67	10.30	11.47	9.85	11.04	6.79	6.85
Dominion	6.98	8.89	10.70	7.92	8.65	7.30	5.29
UGI Penn Natural	7.12	9.33	9.23	7.77	8.44	9.60	5.08
PGW	NA	9.9	10.3	9.3	11.0	7.44	6.31
UGI Central Penn	6.77	8.10	12.21	8.85	9.64	8.23	5.85
T.W. Phillips	6.55	8.95	8.29	8.14	9.41	7.00	5.69
UGI	8.64	11.75	12.72	11.79	12.01	11.46	5.11
<b>Overall Ave.</b>	<b>6.45</b>	<b>7.21</b>	<b>9.38</b>	<b>10.21</b>	<b>8.86</b>	<b>7.79</b>	<b>6.03</b>
GROSS UTILITY PLANT IN SERVICE (\$ Million)							
LDC	2004	2005	2006	2007	2008	2009	2010
Columbia	673.7	710.4	748.6	788.6	851.1	925.1	981.9
Equitable	704.8	722.2	746.8	815.3	874.2	911.7	925.4
NFG	NA	415.8	428.7	441.0	454.6	465.7	478.9
PECO	1435.9	1452.3	1510.1	1556.5	1595.5	1646.8	1698.5
Dominion	803.4	846.1	885.8	887.0	917.1	946.5	99.9
UGI Penn Natural	485.1	503.7	515.2	531.9	552.9	564.4	575.2
PGW	1315.9	1362.0	1389.8	1421.1	1454.9	1502.0	1531.0
UGI Central Penn	244.2	259.4	280.0	294.6	312.6	332.3	347.3
T.W. Phillips	224.6	230.6	204.6	213.7	224.4	229.4	237.7
UGI	943.5	977.4	1027.0	1068.5	1113.2	1153.5	1187.7
<b>Total</b>	<b>6,831</b>	<b>7,480</b>	<b>7,737</b>	<b>8,018</b>	<b>8,351</b>	<b>8,677</b>	<b>8,958</b>

## Appendix A Units of Measure

Natural gas is measured in two ways: by heat content or volume.

The basic heat unit is the British thermal unit (Btu). A Btu is about the amount of heat produced by a wooden kitchen match.

One cubic foot of gas contains about a thousand BTUs. Volume is measured in cubic feet.

10 Ccf = 1Mcf = 1,000,000 BTUs. Most companies bill residential customers in hundred cubic feet (Ccf).

One Mcf is a thousand cubic feet, which contains about a million BTUs (mmBTU).

One MMcf is a million cubic feet.

One Bcf is a billion cubic feet. Bcf is commonly used to describe a volume of gas.

One Bcfd is a billion cubic feet per day. Bcfd is commonly used to describe a volumetric flowrate of gas.

One ton of gas = 2,000 pounds. Emissions of vented gas is reported to Pennsylvania Department of Environmental Protection in tons.



## **Pennsylvania Natural Gas Trends and Developments**

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