

Electric Power Outlook for Pennsylvania 2006-2011

August 2007



Pennsylvania Public Utility Commission

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Published annually by the
Pennsylvania Public Utility Commission
P.O. Box 3265,
Harrisburg, PA 17105-3265
www.puc.state.pa.us

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Executive Summary

Each public utility which produces, generates, distributes, or furnishes electricity must annually submit to the Commission information concerning its future plans to meet its customers' demands. 66 Pa.C.S. § 524. The law requires the Commission to prepare a report summarizing and discussing the data provided on or before Sept. 1. The Commission is required to submit the report to the General Assembly, the Governor, the Office of Consumer Advocate (OCA) and each affected public utility. The Commission adopted regulations at Title 52 §§ 57.141 – 57.154, Annual Resource Planning Report, in order to comply with the requirements of the public utility law.

This report concludes that there is sufficient generation, transmission and distribution capacity to meet the needs of Pennsylvania consumers for the foreseeable future.

Regional generation adequacy and reserve margins of the Mid-Atlantic area have been maintained. While sufficient generation capacity is expected for the next five years, the Commission will continue its current policy of encouraging generation adequacy within the region.

With respect to transmission adequacy, the transmission system in the Mid-Atlantic region has sufficient capacity to meet demand. Transmission expansions and upgrades are being planned for the next five years to reinforce the bulk power grid. Current initiatives at the federal level may also help improve the overall reliability and efficiencies of the transmission system.

To summarize the relevant statistics in this report, electricity demand in Pennsylvania has grown at a rate of 1.6 percent annually in the past 15 years. This is an aggregate figure for all sectors, including industrial, commercial and residential. Average total sales growth from 2001 to 2006 was 1.8 percent. Aggregate sales in 2006 totaled approximately 145 billion kilowatthours (KWH), a 0.7 percent decrease from that of 2005 and approximately 4 percent of the United States' total sales. The 0.7 percent energy demand decrease in 2006 adjusts energy demand back in line with the recent trend and future predictions. The energy demand increase of 4.5 percent that occurred in 2005 appears to have been an anomaly. The current projections for 2006-2011 show electricity demand growth at 1.8 percent annually. This includes a residential growth rate of 1.9 percent, a commercial growth rate of 2.1 percent and an industrial growth rate of 1.4 percent.

Regionally, generating resources are projected to be adequate for the next several years. The newly formed corporation, Reliability *First's* coincident net internal demand forecast shows it increasing from 187,500 MW in 2006, to

216,400 MW in 2015, at an average annual growth rate of 1.6 percent. The amount of potential capacity resources is expected to be sufficient through 2012. Starting in 2013, additional capacity resources will be needed to maintain a 15 percent reserve margin. At this time, no forecasts have been made whether the necessary additional capacity will be long lead time coal and nuclear fueled or shorter lead time plants such as natural gas fueled. However, it appears more and more unlikely that coal or nuclear fueled capacity could be brought on-line by 2013 without a significant commitment to such a facility in the very near future.

Pennsylvania must maintain its commitment to the basics of energy production and to encourage new initiatives in demand side response, energy efficiency, renewable energy, and other new technologies so we can continue as a national leader in these areas. We also need to continue providing assistance to low-income customers to reduce their energy consumption.

To this end, the Commission is implementing the requirements of the Alternative Energy Portfolio Standards Act (Act 213), which became effective on Feb. 28, 2005. Act 213 requires that an annually increasing percentage of electricity sold to retail customers be derived from alternative energy resources, including solar, wind, low-impact hydropower, geothermal, biologically derived methane gas, fuel cells, biomass, coal mine methane, waste coal, demand-side management, distributed generation, large-scale hydropower, by-products of wood-pulping and wood manufacturing, municipal solid waste and integrated combined coal gasification technology. A subsequent amendment to Act 213 requires updating of the Commission's net-metering regulations. Among other things, this will allow net-metered customer-generators to receive full retail value for all energy produced in excess of internal use.

The Commission issued a Final Order governing the participation of demand side management, energy efficiency and load management programs and technologies in the alternative energy market. The Commission also issued a Final Order governing net metering and proposed regulations concerning interconnection for customer-generators using renewable resources, consistent with the goal of Act 213, and promoting onsite generation by eliminating barriers which may have previously existed regarding net metering and interconnection. Final regulations became effective on Dec. 16, 2006.

The Pennsylvania Low Income Usage Reduction Program (LIURP) is a statewide, utility-sponsored, residential usage reduction program mandated by Commission regulations at 52 Pa. Code Chapter 58. The primary goal of LIURP is to assist low-income residential customers to reduce energy bills through usage reduction (energy conservation) and, as a result, to make bills more affordable. For more information on LIURP, see "Report on Universal Service Programs" at: http://www.puc.state.pa.us/general/publications_reports/publications_reports_yearly.aspx.

Table of Contents

Section 1 - Introduction

<i>Purpose</i>	1
<i>Regional Reliability Organizations</i>	2
<i>Transmission Line Projects</i>	3
<i>Electric Distribution Companies</i>	6
<i>Alternative Energy Portfolio Standards</i>	8

Section 2 - Historic and Forecast Data

<i>2006: A Year in Review</i>	11
<i>Summary of EDC Data</i>	15
Duquesne Light Company	15
Metropolitan Edison Company	20
Pennsylvania Electric Company	25
Pennsylvania Power Company	30
PPL Electric Utilities Corporation	35
PECO Energy Company	40
West Penn Power Company	45
UGI Utilities Inc.	50

Section 3 - Regional Reliability

<i>Regional Reliability Assessments</i>	52
<i>North American Electric Reliability Council</i>	52
Compliance Standards	54
Reliability Assessment	55
<i>ReliabilityFirst Corporation</i>	56
Compliance Standards	56
Reliability Assessment	57
<i>PJM Interconnection L.L.C.</i>	58
Compliance Standards	59
Reliability Assessment	59
<i>Pennsylvania</i>	60

Section 4 - Conclusion

<i>Conclusions</i>	62
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Appendix A - Regional Maps

<i>PJM RTO Service Territory</i>	65
<i>Midwest ISO</i>	66

Appendix B - Status of Plant Additions and Upgrades

<i>Status of Pennsylvania's Plant Additions and Upgrades</i>	67
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Appendix C - Existing Generating Facilities

<i>Pennsylvania's Existing Electric Generating Facilities</i>	70
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Section 1 - Introduction

Purpose

Electric Power Outlook for Pennsylvania 2006-2011 is a statistical report summarizing and discussing the current and future electric power supply and demand situation for the eight major investor-owned jurisdictional electric distribution companies (EDCs) operating within the Commonwealth and the entities responsible for maintaining the reliability of the bulk electric supply system within the region. Any comments or conclusions contained in this report do not necessarily reflect the views or opinions of the Commission or individual Commissioners. Although this report has been issued by the Commission, it is not to be considered or construed as approval or acceptance by the Commission of any of the plans, assumptions or calculations made by the EDCs or regional reliability entities and reflected in the information submitted.

The Bureau of Conservation, Economics and Energy Planning (CEEP) prepares this report, pursuant to Title 66, Pennsylvania Consolidated Statutes, Section 524. This report is submitted annually to the General Assembly, the Governor, OCA and each affected public utility. The report is also made available to the general public on the Commission's Web site.¹

The information contained in this report includes a brief description of the existing generation, transmission and distribution system for each EDC, highlights of the past year, information on EDCs' projections of peak load, and a discussion of historical trends in electric utility forecasting. Since the eight largest EDCs operating in Pennsylvania represent approximately 99 percent of jurisdictional electricity sales, the smaller companies have not been included in this report.

The report also provides a regional perspective with statistical information on the projected resources and aggregate peak loads for the regional reliability councils.

Informational sources include data submitted by jurisdictional investor-owned EDCs, which is filed annually pursuant to the Commission's regulations.² Sources also include data submitted by regional reliability councils to the North American Electric Reliability Council (NERC) which is subsequently forwarded to the federal Energy Information Agency (EIA).

¹ See http://www.puc.state.pa.us/general/publications_reports/pdf/EPO_2006.pdf.

² 52 Pa. Code §§ 57.141-57.154.

Regional Reliability Organizations

In Pennsylvania, all major electric utilities are interconnected with neighboring systems extending beyond state boundaries. These systems are organized into regional entities – regional reliability councils – which are responsible for ensuring the reliability of the electric system. The regional reliability council covering Pennsylvania is the newly formed ReliabilityFirst Corporation (RFC). RFC was formed by the merger of the Mid-Atlantic Area Council (MAAC), the East Central Area Reliability Coordination Agreement (ECAR) and Mid-America Interconnected Network, Inc. (MAIN). RFC is one of eight regional councils of NERC and serves the states of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin, and the District of Columbia. RFC became operational on Jan. 1, 2006.

NERC establishes criteria, standards and requirements for its members and all control areas. All control areas must operate in a manner such that system instability, uncontrolled system separation and cascading outages will not occur as a result of the most severe single contingency.

RFC sets forth the criteria which individual utilities and systems must follow in planning adequate levels of generating capability. Among the factors which are considered in establishing these levels are load characteristics, load forecast error, scheduled maintenance requirements and the forced outage rates of generating units. The RFC reliability standards require that sufficient generating capacity be installed to ensure that the probability of system load exceeding available capacity is no greater than one day in 10 years. Load serving entities that are members of RFC have a capacity obligation determined by evaluating individual system load characteristics, unit size and operating characteristics.

On March 31, 2006, RFC and the Midwest Reliability Organization (MRO) entered into a Coordination Agreement for the purpose of coordinating the development of reliability standards and compliance and enforcement procedures; cooperating on the development and procedures employed to conduct power system analysis, studies and evaluations between the regions; and facilitating efficient and effective administration of MRO and RFC duties.

The PJM Interconnection L.L.C. (PJM) is a regional transmission organization (RTO) that ensures the reliability of the largest centrally dispatched control area in North America. PJM coordinates the operation of more than 160,000 MW of generating capacity and more than 56,000 miles of transmission lines. The PJM RTO coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

The Midwest Independent System Operator (Midwest ISO) is the nation's first RTO approved by the Federal Energy Regulatory Commission (FERC). The Midwest ISO is based in Carmel, Indiana, and is responsible for monitoring the electric transmission system, ensuring equal access to the transmission system, and maintaining and improving electric system reliability in the Midwest.

Utilities with 93,600 miles of transmission lines covering nearly 1 million square miles from Manitoba, Canada, to Kentucky have committed to participate in the Midwest ISO. Pennsylvania Power Company is the only Pennsylvania utility in the Midwest ISO.

The Midwest ISO "footprint" currently contains 162,981 MW of generating capacity. The generator fuel mix is dominated by coal-fired resources, accounting for about 51 percent of the capability. Most of the recent investment has been in natural gas resources, which currently account for 28 percent of the capability in the region. The Midwest ISO system-wide peak, set on July 31, 2006, was 136,520 MW.

The Midwest ISO and PJM are both members of RFC.

See Appendix A for maps of the PJM RTO and the Midwest ISO.

Transmission Line Projects

On May 7, 2007, the U.S. Department of Energy published its *Draft National Interest Electric Transmission Corridor Designations* which designates all or major portions of West Virginia, Pennsylvania, Maryland, Delaware, the District of Columbia, New Jersey, New York and Virginia, as well as minor portions of Ohio as National Interest Electric Transmission Corridors under Section 1221 of the Energy Policy Act of 2005. The proposed corridor includes 52 out of Pennsylvania's 67 counties. Section 1221 gives FERC authority to approve the construction or modification of electric transmission facilities within a designated corridor if the state does not approve an application within one year.

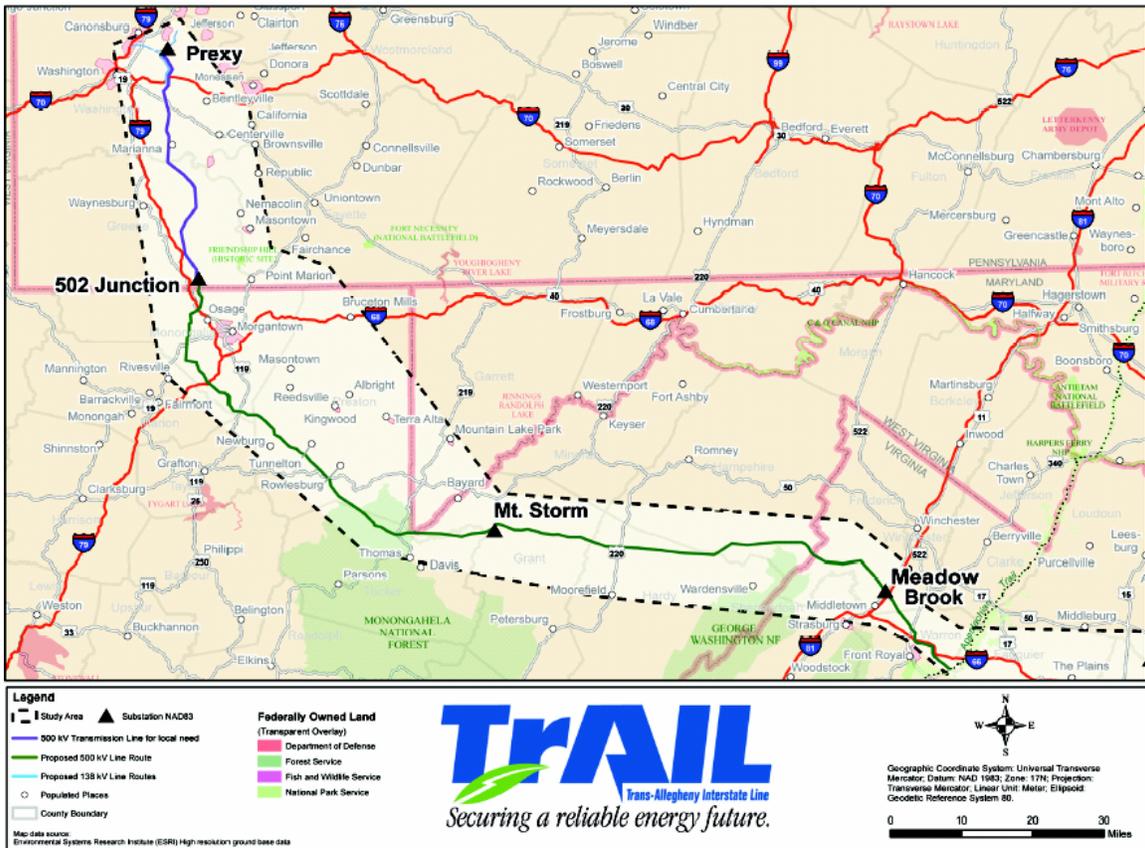
The Pennsylvania Public Utility Commission expects to be involved at both the state and federal levels with regard to any proceedings relating to proposed transmission lines.

In June 2006, PJM approved a five-year regional transmission expansion plan (RTEP) designed to maintain the reliability of the electric transmission grid in the PJM Region. The RTEP identified three major transmission line projects within the region, which, as proposed, would have a significant impact on Pennsylvania.

The RTEP recommended that Allegheny Power build facilities constituting the Trans-Allegheny Interstate Line (TrAIL). TrAIL will extend from Southwestern

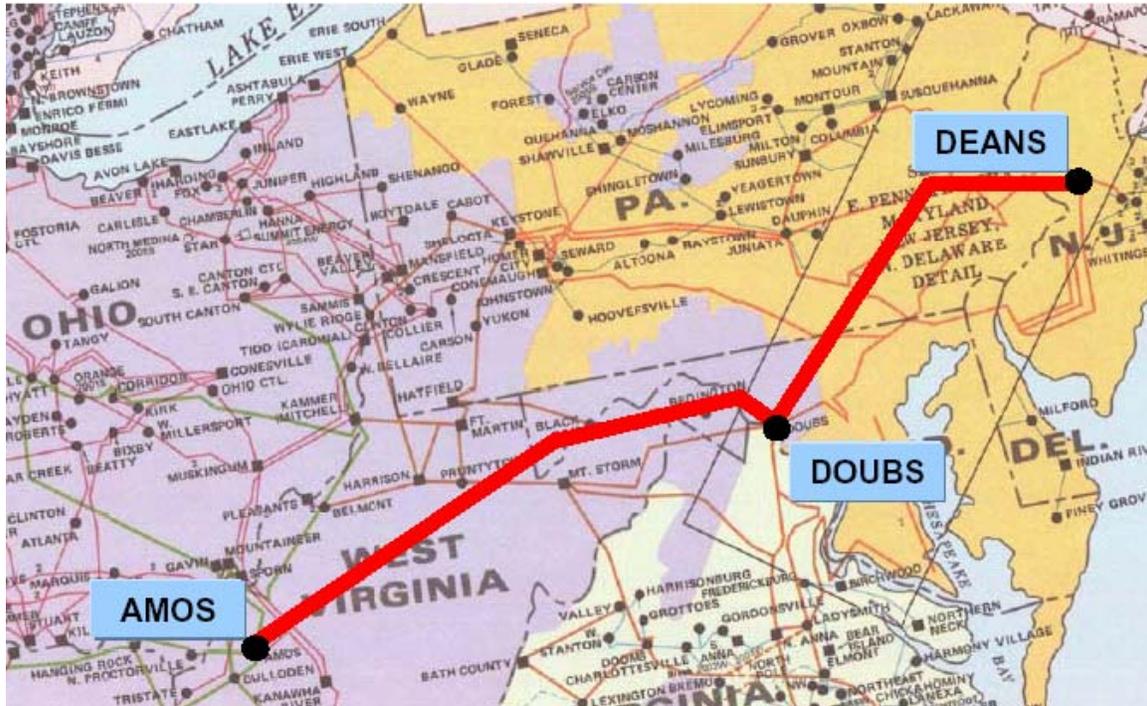
Pennsylvania (37 miles) to West Virginia (114 miles) to Northern Virginia (28 miles). In-service dates range from 2009 to mid-2010.

In support of the TrAIL project, Trans-Allegheny Interstate Line Company, an Allegheny Energy subsidiary, filed an application with the Commission on April 13, 2007, proposing the construction of a 500 kV and three 138 kV transmission lines in Washington and Greene counties. The project includes a substation in Washington County (Prexy Substation), a substation in Greene County (502 Junction Substation), three 138 kV transmission lines and a 36-mile 500 kV transmission line. (See map below.)

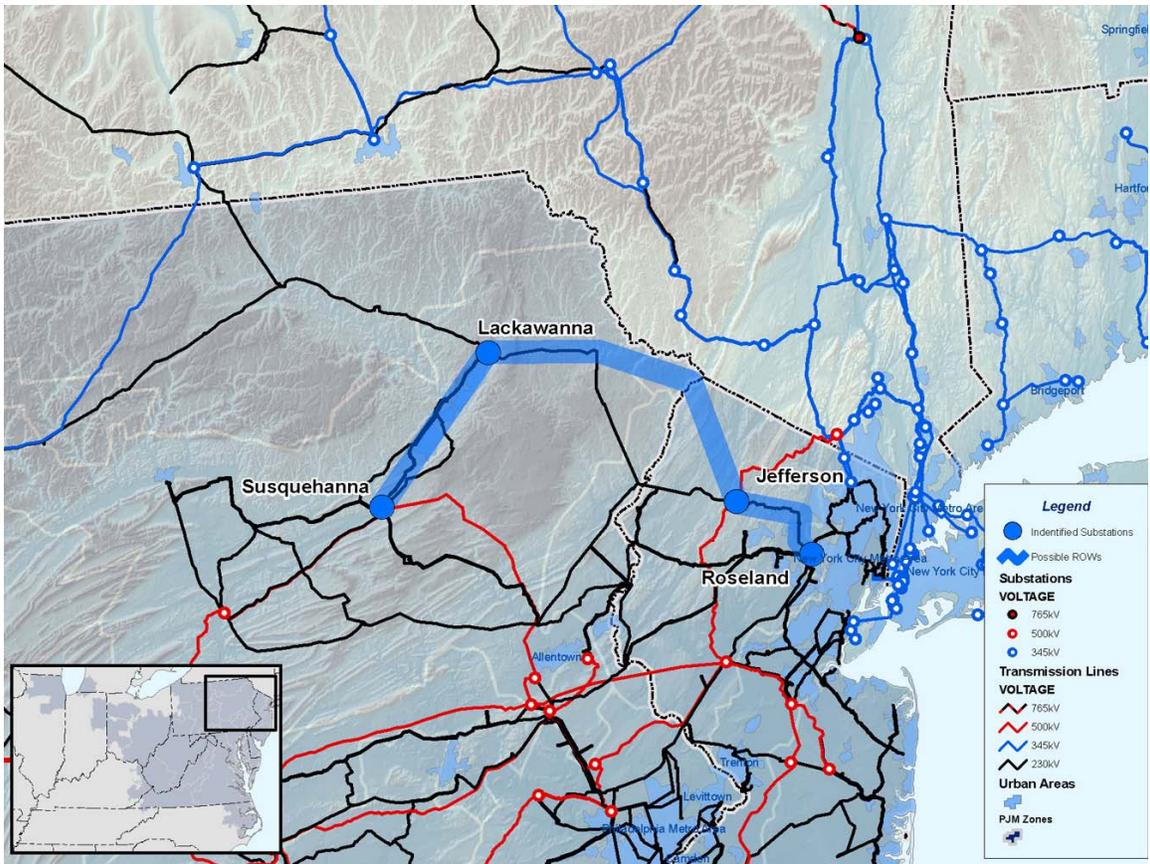


The second major transmission project identified is American Electric Power's (AEP) proposed 765 kV interstate transmission line from West Virginia to New Jersey. Allegheny Energy has signed a Memorandum of Understanding with AEP to form a joint venture company to build and own these new transmission assets. A PJM study indicates that this line is the preferred solution for ensuring the long-term reliability of the region's transmission system. The proposed transmission superhighway will span approximately 550 miles. It is designed to reduce congestion costs in the PJM regional transmission region by substantially improving the ability to transfer electricity from west to east. The transfer capability will improve by approximately 5,000 megawatts (MW) and reduce transmission

line losses by approximately 280 MW. A portion of the line is proposed to traverse through Southeastern Pennsylvania. The proposed project in-service date is 2014 with an estimated cost of \$3 billion.



The third major transmission project identified by the RTEP describes a new 500 kV circuit which is proposed to run approximately 120 miles from the Susquehanna 500 kV station in Luzerne County to Lackawanna County and then eastward to New Jersey. The proposed circuit is expected to create a strong link from generation sources in North-central Pennsylvania into Eastern PJM. The line is estimated to cost \$350 million, if built as a single-circuit 500 kV line.

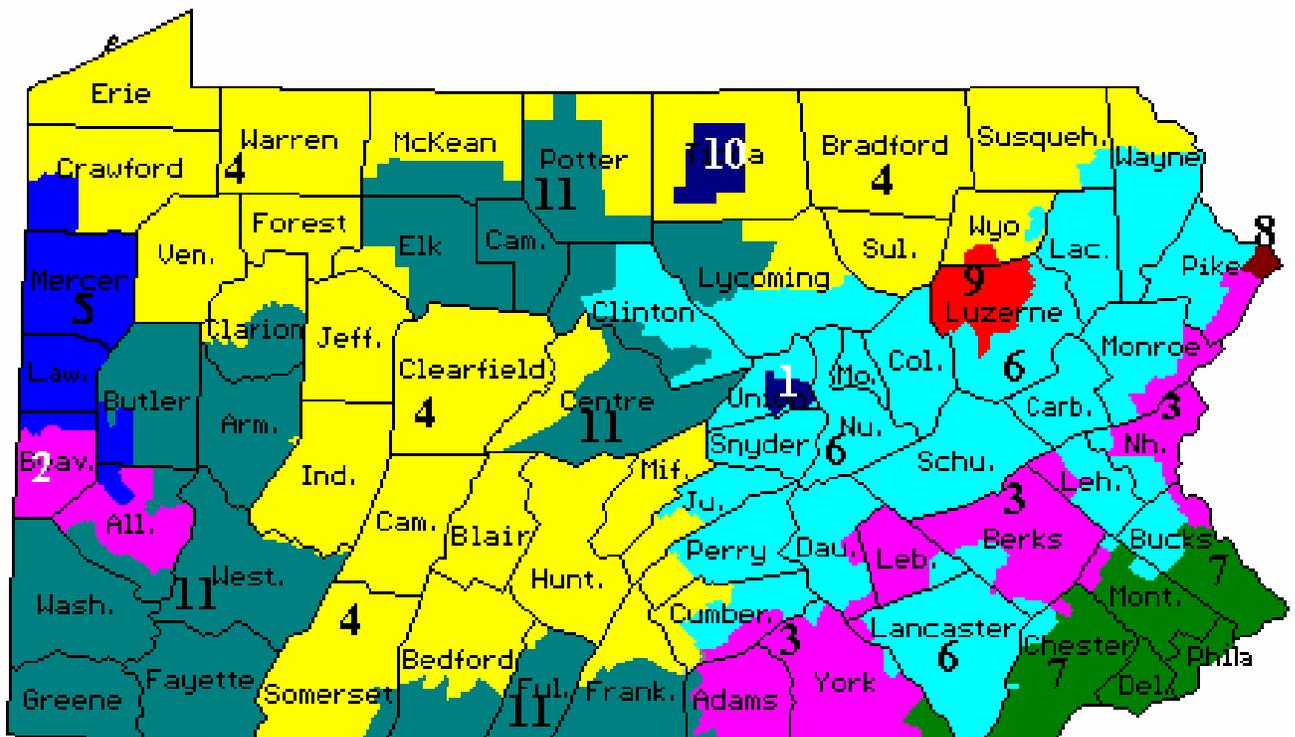


For further information on these and other proposed projects, visit the PJM Web site at <http://www.pjm.com/planning/reg-trans-exp-plan.html>.

Electric Distribution Companies

Eleven electric distribution companies (EDCs) currently serve the electrical energy needs of the majority of Pennsylvania's homes, businesses and industries. Cooperatives and municipal systems provide service to several rural and urban areas. The 11 jurisdictional EDCs (nine systems) are:

1. Citizens' Electric Company
2. Duquesne Light Company
3. Metropolitan Edison Company (FirstEnergy)
4. Pennsylvania Electric Company (FirstEnergy)
5. Pennsylvania Power Company (FirstEnergy)
6. PPL Electric Utilities Corporation
7. PECO Energy Company (Exelon)
8. Pike County Light & Power Company (Orange & Rockland Utilities Inc.)
9. UGI Utilities Inc.
10. Wellsboro Electric Company
11. West Penn Power Company (Allegheny Energy Inc.)



Due to the deregulation of electric generation, local generating resources are now available to the competitive wholesale market. During their rate cap or transition periods, the EDCs either entered into long-term contracts for power from traditional resources with affiliates or other generation suppliers or purchased

power from the wholesale market to fulfill their provider of last resort (POLR) obligations.³

It is the responsibility of each load-serving entity to make provisions for adequate generating resources to serve its customers. Furthermore, Section 2807(e)(3) of the Public Utility Code requires that, at the end of the transition period (the period in which the EDC recovers its stranded costs), the local EDC or Commission-approved alternate supplier must acquire electric energy at prevailing market prices for customers who contract for power which is not delivered, or for customers who do not choose an alternate supplier. EDCs must also assume the role of provider of last resort for customers choosing to return to the EDC.⁴

On Feb. 8, 2007, the Commission adopted proposed statewide default service regulations and a policy statement which provided guidelines to default service providers regarding the acquisition of electric generation supply, the recovery of associated costs and the integration of default service with competitive retail electric markets.

On May 10, 2007, the Commission finalized the statewide default service rulemaking and policy statement. The regulations establish the criteria on how electric generation service is provided to customers who choose to not obtain generation service from an alternate supplier. In reviewing the comments and considering revisions to the proposed default service rules, the Commission recognized that some elements of the default service rules should be addressed in a policy statement that provides guidance to the industry rather than strict rules. IRRC approved the final regulations on July 19, 2007. The policy statement required no further action.

Alternative Energy Portfolio Standards

Act 213⁵ requires that an annually increasing percentage of electricity sold to retail customers be derived from alternative energy resources. This applies to both electric distribution companies and electric generation suppliers.

These alternative energy resources are categorized as Tier 1 and Tier 2 resources. Tier 1 resources include solar, wind, low-impact hydropower, geothermal, biologically-derived methane gas, fuel cells, biomass and coal mine methane. Tier 2 resources include waste coal, demand-side management, distributed generation, large-scale hydropower, by-products of wood-pulping and wood manufacturing, municipal solid waste and integrated combined coal gasification technology.

³ Also referred to as “obligation to serve” and “default service.”

⁴ 66 Pa.C.S. § 2807(e)(3).

⁵ 73 P.S. §§ 1648.1–1648.8.

Act 213, which took effect on Feb. 28, 2005, requires that, within two years of the effective date, at least 1.5 percent of the electric energy sold to retail customers must be generated from Tier 1 resources. The percentage of electric energy derived from Tier 1 resources is to increase by at least 0.5 percent each year so that, by the 15th year, at least 8 percent of the energy sold to retail customers in each service territory will come from these resources. Energy sold from Tier 2 resources is to increase to 10 percent of the total retail sales by the 15th year. Act 213 sets forth a 15-year schedule for complying with its mandates. The compliance schedule is as follows:

		Tier 1 % (incl. Solar)	Tier 2	Solar PV %
Year 1:	June 1, 2006 through May 31, 2007	1.5%	4.2%	0.0013%
Year 2:	June 1, 2007 through May 31, 2008	1.5%	4.2%	0.0030%
Year 3:	June 1, 2008 through May 31, 2009	2.0%	4.2%	0.0063%
Year 4:	June 1, 2009 through May 31, 2010	2.5%	4.2%	0.0120%
Year 5:	June 1, 2010 through May 31, 2011	3.0%	6.2%	0.0203%
Year 6:	June 1, 2011 through May 31, 2012	3.5%	6.2%	0.0325%
Year 7:	June 1, 2012 through May 31, 2013	4.0%	6.2%	0.0510%
Year 8:	June 1, 2013 through May 31, 2014	4.5%	6.2%	0.0840%
Year 9:	June 1, 2014 through May 31, 2015	5.0%	6.2%	0.1440%
Year 10:	June 1, 2015 through May 31, 2016	5.5%	8.2%	0.2500%
Year 11:	June 1, 2016 through May 31, 2017	6.0%	8.2%	0.2933%
Year 12:	June 1, 2017 through May 31, 2018	6.5%	8.2%	0.3400%
Year 13:	June 1, 2018 through May 31, 2019	7.0%	8.2%	0.3900%
Year 14:	June 1, 2019 through May 31, 2020	7.5%	8.2%	0.4433%
Year 15:	June 1, 2020 through May 31, 2021	8.0%	10.0%	0.5000%

Companies are exempt from these requirements for the duration of their cost-recovery periods. The current expiration dates for the cost recovery period in each EDC service territory and their start dates for compliance are as follows:

	<u>Exemption expires</u>	<u>Compliance begins</u>
Pike County Power and Light	Dec. 31, 2005	Feb. 28, 2007
Citizens Electric of Lewisburg	Dec. 31, 2007	Jan. 1, 2008
Wellsboro Electric Company	Dec. 31, 2007	Jan. 1, 2008
UGI Utilities Inc. – Electric Division	Dec. 31, 2006	Feb. 28, 2007
Pennsylvania Power Company	Dec. 31, 2006	Feb. 28, 2007
Duquesne Light Company	Dec. 31, 2007	Jan. 1, 2008
West Penn Power Company	Dec. 31, 2010	Jan. 1, 2011
PPL Electric Utilities Inc.	Dec. 31, 2009	Jan. 1, 2010
Pennsylvania Electric Company	Dec. 31, 2010	Jan. 1, 2011
Metropolitan Edison Company	Dec. 31, 2010	Jan. 1, 2011
PECO Energy Company	Dec. 31, 2010	Jan. 1, 2011

The Commission is required to establish regulations governing the verification and tracking of energy efficiency and demand side management

measures, pursuant to Act 213, including benefits to all customer classes. On Oct. 3, 2005, the Commission issued a Final Order governing the participation of demand side management, energy efficiency and load management programs and technologies in the alternative energy market.⁶ The Commission will use two means to establish qualifications for Alternative Energy Credits – a catalog approach for standard energy saving measures and general guidelines for metered and custom energy saving measures. On April 12, 2006, the Commission released a Request for Qualifications, via Secretarial Letter, for parties interested in serving as an Alternative Energy Credit Program Administrator.

On Nov. 30, 2006, the Commission selected Clean Power Markets as the administrator. The contract was signed in early 2007. The Commission has also chosen PJM's Generation Attribute Tracking System (GATS) to assist EDCs in their compliance with the requirements of Act 213, including certification of projects.

On Nov. 10, 2005, the Commission adopted a proposed Rulemaking Order which promotes onsite generation by customer-generators using renewable resources and eliminates barriers which may have previously existed regarding net metering. The regulations, which were approved as final on June 22, 2006, also provide for metering capabilities that will be required and a compensation mechanism which reimburses customer-generators for surplus energy supplied to the electric grid.⁷ A subsequent amendment to Act 213 requires updating of the Commission's net-metering regulations. Among other things, this will allow net-metered customer-generators to receive full retail value for all energy produced in excess of internal use.

Also, on Nov. 10, 2005, the Commission adopted a proposed Rulemaking Order which establishes regulations governing interconnection for customer-generators. The proposed regulations were drafted with a view toward promoting onsite generation by customer-generators using renewable resources, consistent with the goal of Act 213. The regulations strive to eliminate barriers which may have previously existed with regard to interconnection, while ensuring that interconnection by customer-generators will not pose unnecessary risks to the electric distribution systems in the Commonwealth.⁸

⁶ Docket No. M-00051865.

⁷ Docket No. L-00050174.

⁸ Docket No. L-00050175.

Section 2 - Historic and Forecast Data

2006: A Year in Review

The eight largest EDCs operating in Pennsylvania deliver approximately 99 percent of the jurisdictional companies' electrical energy needs. Aggregate sales in 2006 totaled approximately 145 billion kilowatthours (KWH), a 0.7 percent decrease from that of 2005, and approximately 4 percent of the United States' total sales. The 0.7 percent energy demand increase in 2006 adjusts energy demand back in line with the recent trend and future predictions. The 2005 energy demand increase of 4.5 percent appears to have been an anomaly. This is evidenced by reviewing the chart in Figure 2.1. Residential sales led the Pennsylvania market capturing 34.1 percent of the total sales, followed by industrial (32.7 percent) and commercial (30.8 percent). Aggregate non-coincident peak load⁹ increased to 30,264 MW in 2006, up 4.9 percent from 2005 (See Tables 2.1 and 2.2 below).

EDC	Total Customers Served	Residential (MWH)	Commercial (MWH)	Industrial (MWH)	Other (MWH)	Sales For Resale (MWH)	Total Consumption (MWH)	System Losses (MWH)	Company Use (MWH)	Net Energy For Load (MWH)	Peak Load (MW)
Duquesne	586,513	3,990,795	6,473,524	3,182,369	67,656	69,786	13,784,130	757,915	n/a	14,542,045	3,053
Met-Ed	541,680	5,287,177	4,508,851	4,008,119	35,140	0	13,839,287	886,545	n/a	14,725,832	2,884
Penelec	589,159	4,381,042	4,960,886	4,677,714	40,808	0	14,060,450	1,462,331	n/a	15,522,781	2,696
Penn Power	158,864	1,611,213	1,358,814	1,707,565	6,552	0	4,684,144	292,551	n/a	4,976,695	984
PECO	1,551,812	12,796,906	8,857,138	15,820,846	891,310	480,086	38,846,286	2,158,644	49,720	41,054,650	8,932
PPL	1,377,374	13,714,245	13,140,071	9,703,906	190,771	985,705	37,734,698	2,641,665	71,937	40,448,300	7,577
UGI	62,075	523,728	343,632	122,985	5,662	85	996,092	54,754	2,160	1,053,005	212
West Penn	707,263	7,132,630	4,958,589	8,143,698	48,982	721,587	21,005,488	1,359,005	n/a	22,364,491	3,926
Total	5,574,740	49,437,736	44,601,505	47,367,202	1,286,881	2,257,249	144,950,575	9,613,410	123,817	154,687,799	30,264
% of Total		34.11%	30.77%	32.68%	0.89%	1.56%	100.00%				
2006 v 2005	0.66%	-3.02%	0.55%	0.28%	-6.61%	13.32%	-0.68%	-7.03%	-15.73%	-1.11%	4.90%

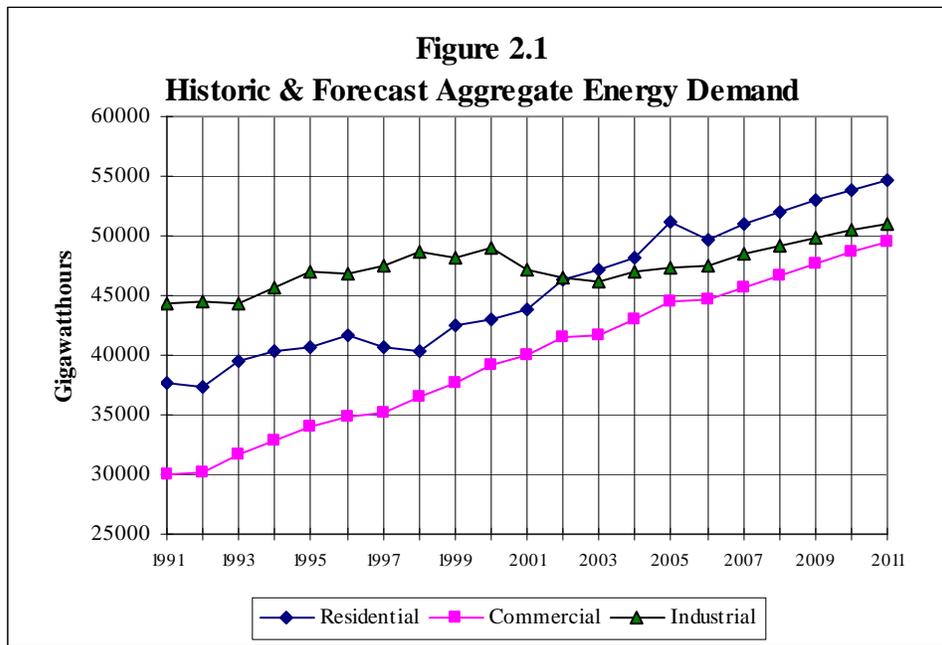
EDC	Total Customers Served	Residential (MWH)	Commercial (MWH)	Industrial (MWH)	Other (MWH)	Sales For Resale (MWH)	Total Consumption (MWH)	System Losses (MWH)	Company Use (MWH)	Net Energy For Load (MWH)	Peak Load (MW)
Duquesne	586,355	4,133,600	6,565,958	3,128,361	68,628	82,724	13,979,271	860,616	n/a	14,839,887	2,884
Met-Ed	530,011	5,398,738	4,491,082	4,083,016	35,703	0	14,008,539	952,840	n/a	14,961,379	2,752
Penelec	587,533	4,456,524	5,009,594	4,729,091	40,564	0	14,235,773	1,365,667	n/a	15,601,440	2,531
Penn Power	157,660	1,664,331	1,366,607	1,628,727	6,532	0	4,666,197	389,756	n/a	5,055,953	1,021
PECO	1,543,543	13,468,664	8,520,215	15,773,692	962,032	183,920	38,908,523	2,468,611	63,360	41,440,494	8,626
PPL	1,365,305	14,218,431	13,156,789	9,720,133	206,276	1,020,899	38,322,528	2,800,994	81,508	41,205,030	7,083
UGI	62,005	548,458	356,456	119,849	5,845	73	1,030,681	58,681	2,064	1,091,426	201
West Penn	705,580	7,087,624	4,891,781	8,050,583	52,450	704,236	20,786,674	1,443,197	n/a	22,229,871	3,752
Total	5,537,992	50,976,370	44,358,482	47,233,452	1,378,030	1,991,852	145,938,186	10,340,362	146,932	156,425,480	28,850
% of Total		34.93%	30.40%	32.37%	0.94%	1.36%	100.00%				

⁹ The sum of EDCs' annual peak loads regardless of their date or time of occurrence.

Between 1991 and 2006, the state's energy demand grew at an average rate of 1.6 percent annually. Residential sales grew at an annual rate of 1.8 percent, commercial at 2.7 percent and industrial at 0.5 percent.

Over the past five years, residential demand increased an average of 2.5 percent per year, commercial at 2.3 percent and industrial at 0.1 percent. Average total sales growth from 2001 to 2006 was 1.8 percent.

The current aggregate five-year projection of growth in energy demand is 1.8 percent. This includes a residential growth rate of 1.9 percent, a commercial rate of 2.1 percent and an industrial rate of 1.4 percent (See Figure 2.1 below). Gigawatthours are a measure of energy sales over time and megawatts are a measure of the instantaneous peak usage of electricity.



Over the past 15 years, the average aggregate non-coincident peak load for the major EDCs increased 1.7 percent per year. From 2001-06, the peak load increased by an average of 2.3 percent per year. From 2005-06, the aggregate peak load increased from 28,703 MW to 30,264 MW, or 5.4 percent (See Figure 2.2).

Most EDCs are summer peaking¹⁰ and there is usually a correlation between cooling degree days¹¹ and peak load. Figure 2.3 provides a comparison between cooling degree days and peak load for the past seven years. The 2006 data relationship, however, appears to be somewhat askew, as compared to previous years. Part of the increase reflects a lower than normal peak load in the

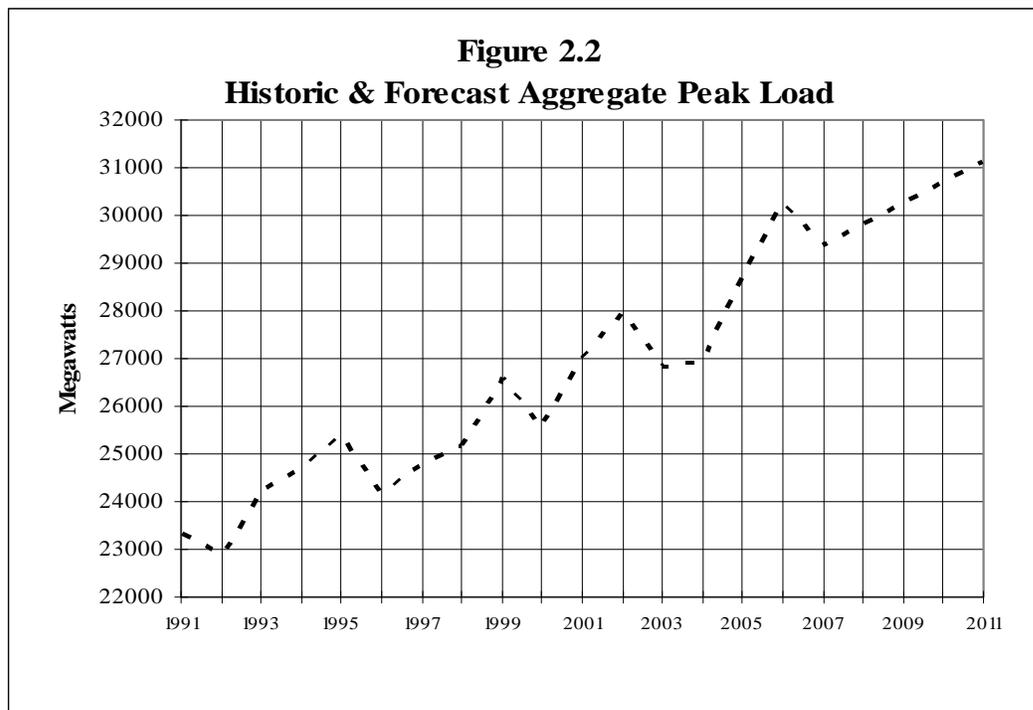
¹⁰ An EDC with its highest annual load occurring June through September.

¹¹ Summations of positive differences between the average daily temperature and 65° F.

years 2003 and 2004. This is why one must look at multiple years in analyzing changes in the peak load. Cooling degree days at or around the 2006 summer peak load were much higher than at other times, possibly explaining, at least in part, the increase in load.

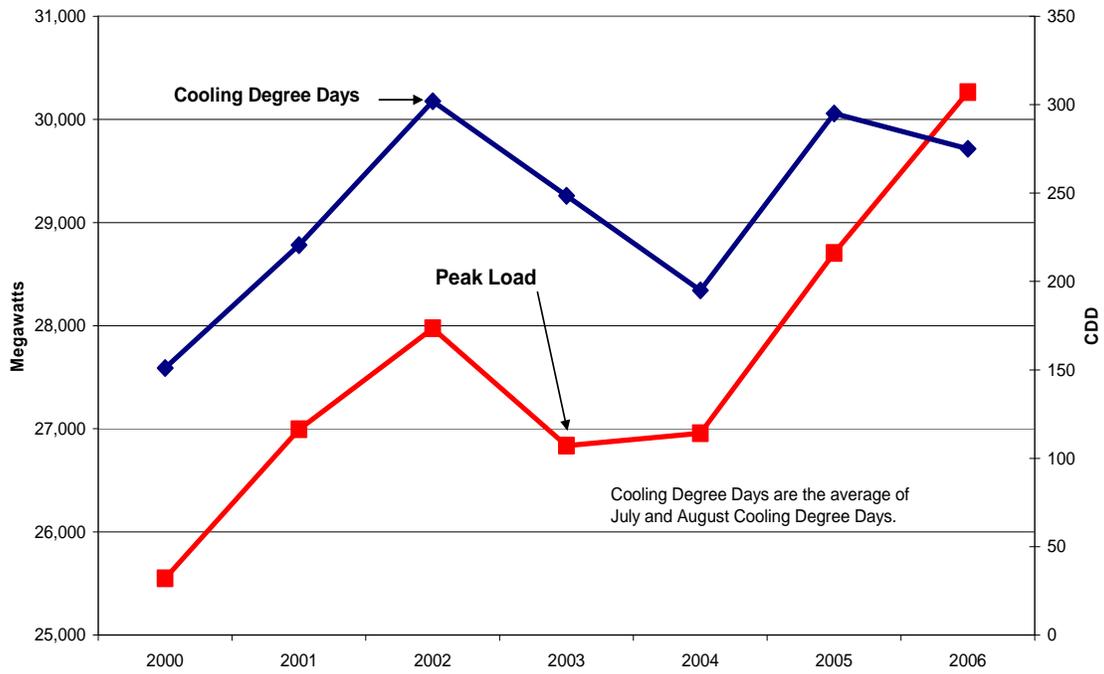
The relationship among peak load and energy demand and cooling degree days is shown in Figures 2.3 and 2.4.

The combined forecast of the EDCs' peak load shows the load decreasing from 30,264 MW in 2006, to 29,377 MW in 2007, then increasing to 31,124 MW in 2011 at an average annual growth rate of 1.5 percent. Peak loads are weather-adjusted to reflect normal weather conditions prior to using forecasting methodologies. Thus, the projected growth rates reflect the year-to-year fluctuations in energy sales and peak load.



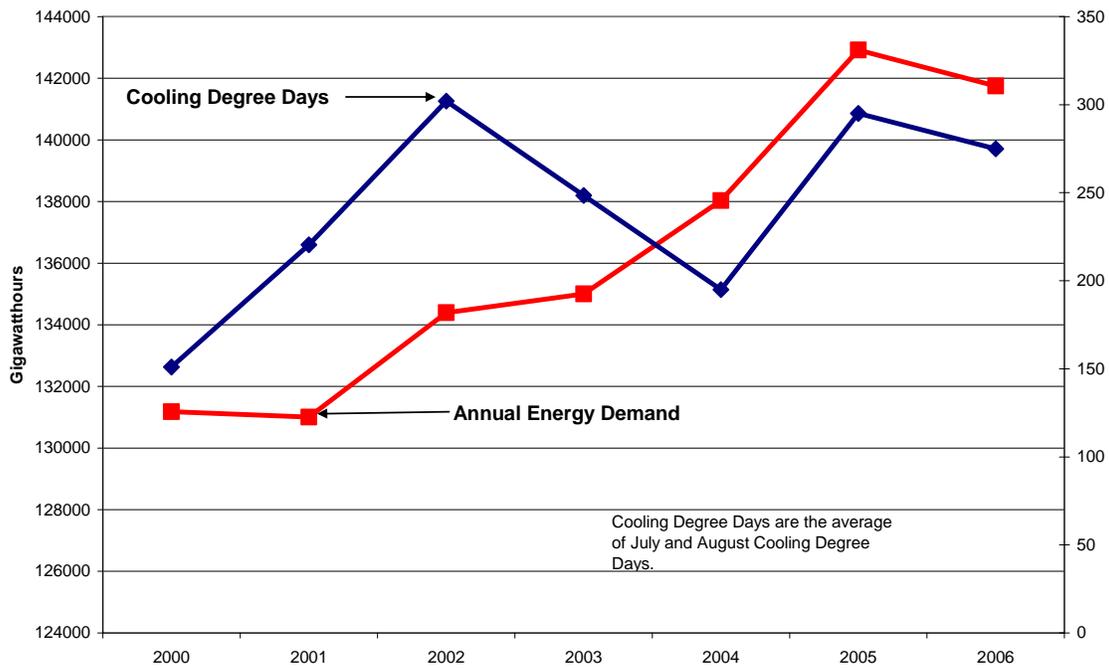
As can be seen in Figure 2.2, the 2006 peak load was weather-adjusted prior to projecting forward.

Figure 2.3 Cooling Degree Days vs Peak Load for Major Pennsylvania EDCs



Source: Cooling Degree Data obtained from EIA.

Figure 2.4. Cooling Degree Days vs Annual Energy Demand

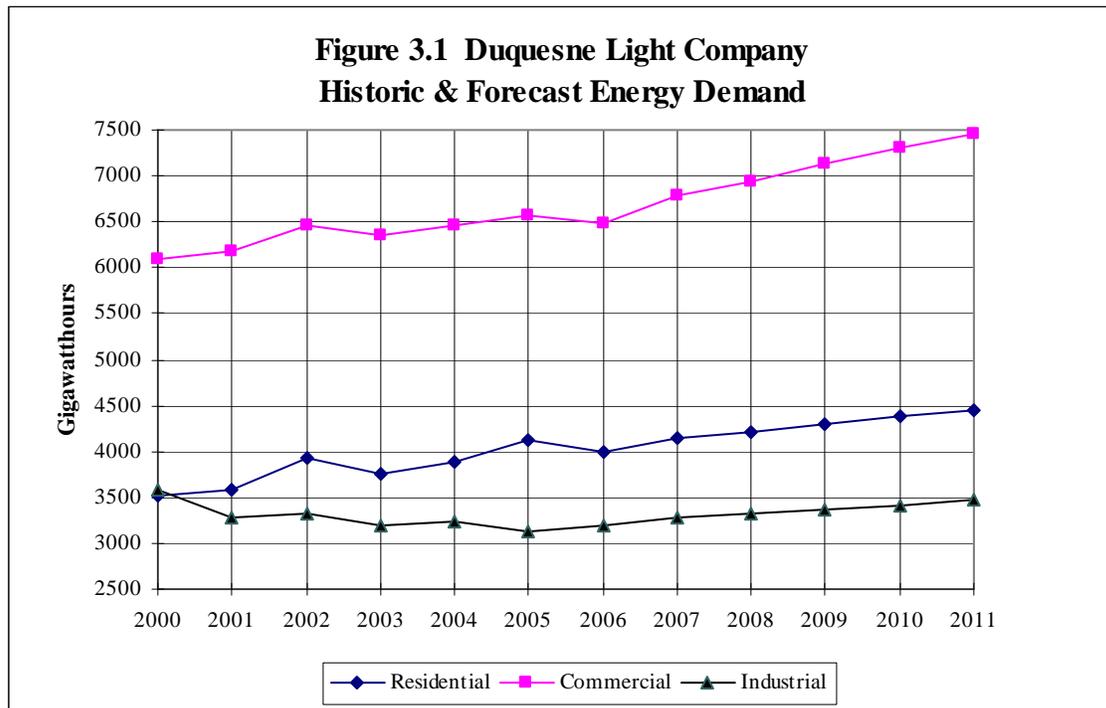


Summary of EDC Data

Duquesne Light Company

Duquesne Light Company (Duquesne) provides service to 586,513 electric utility customers in Southwestern Pennsylvania. In 2006, Duquesne had energy sales totaling 13.8 billion kilowatthours (KWH) -- down 1.4 percent from 2005. commercial sales continued to dominate Duquesne's market with 47 percent of the total sales, followed by residential (29 percent) and industrial (23.1 percent).

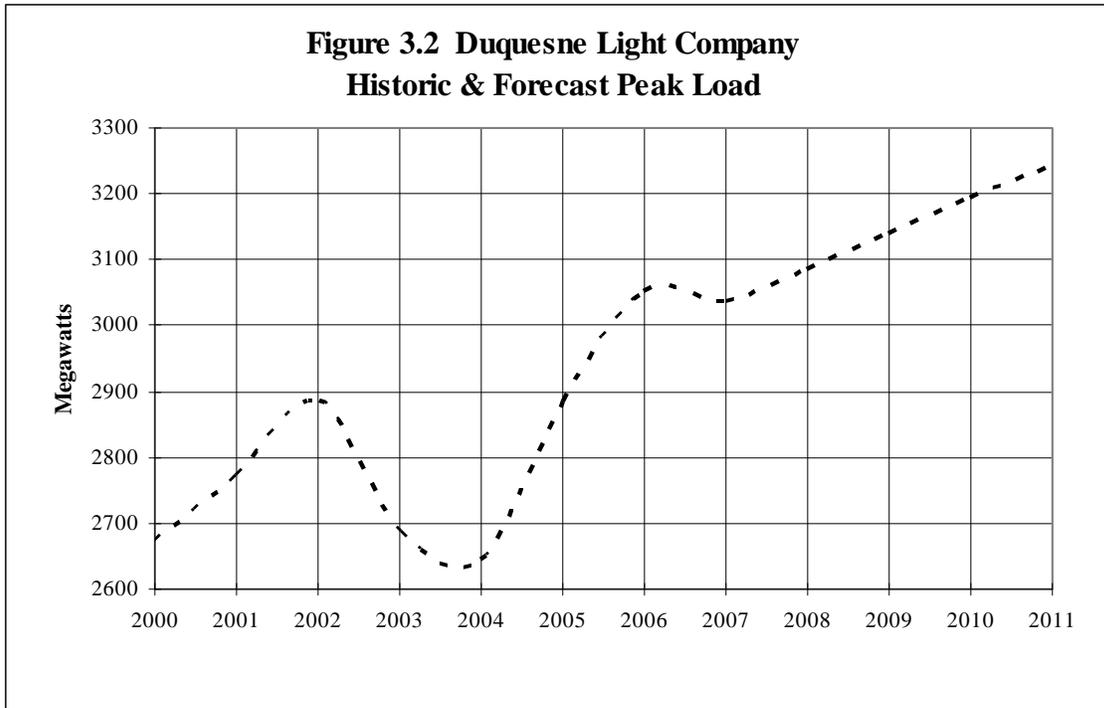
Between 1991 and 2006, Duquesne's total energy demand increased about 1 percent per year. Residential demand grew at an annual rate of 1.3 percent, commercial demand grew at 1.2 percent and industrial demand increased at an average annual rate of 0.3 percent.



The current five-year projection of average growth in total energy consumption is about 2.4 percent per year. This includes a residential growth rate of 2.2 percent, a commercial growth rate of 2.9 percent and an industrial growth rate of 1.7 percent per year.

Duquesne's summer peak load, occurring on Aug. 3, 2006, was 3,053 megawatts (MW), representing an increase of 5.9 percent over last year's peak of 2,884 MW. The 2006-07 winter peak load was 2,235 MW or 2.8 percent higher than that of the previous year.

The actual average annual peak load growth rate over the past 15 years was 1.6 percent. Duquesne's forecast shows the peak load increasing from 3,053 MW in the summer of 2006 to 3,242 MW in 2011, or an average annual growth rate of 1.2 percent.



Tables 3.1-3.4 provide Duquesne's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

PJM manages the flow of wholesale electricity for Duquesne. Duquesne's integration into PJM involves transferring control of 670 miles of high-voltage transmission lines; however, ownership remains with Duquesne. PJM is the regional reliability coordinator for Duquesne.

For calendar year 2006, 13 electric generation suppliers (EGSs) sold a total of 7.8 billion KWH to retail customers in Duquesne's service territory, or about 56.3 percent of total consumption. There were no instances in 2006 where EGSs failed to supply scheduled load.

Over the next three years, Duquesne plans to add 39.1 miles of high-voltage transmission lines to its system at a total cost of \$82.5 million.

Duquesne's Direct Load Control Program continued in 2006 for residential and commercial customers in which air conditioning units will be shut off or cycled during periods of high temperature. Customers receive a credit on the monthly bill, based on the program option selected. The amount of load curtailed as a result of this program is not significant. Duquesne also offers a real-time economic Load Response Program wherein, with advance notice, Duquesne may declare a voluntary load curtailment when the market price for generation is anticipated to reach a level that makes load reduction economically attractive for both the customer and the company.

Duquesne is a member of RFC and PJM.

**Table 3.1 Duquesne Light Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	2671	2583												
1998	2484	2614	2614											
1999	2756	2632	2632	2715										
2000	2673	2653	2653	2736	2638									
2001	2771	2677	2677	2757	2661	2661								
2002	2886	2702	2702	2776	2682	2682	2850							
2003	2686	2727	2727	2798	2702	2702	2884	2822						
2004	2646	2754	2754		2723	2723	2912	2841	2719					
2005	2884	2782	2782			2743	2934	2855	2740	2722				
2006	3053	2810	2810				2953	2870	2771	2765	2765			
2007			2839					2884	2801	2805	2805	3039		
2008									2831	2835	2835	3086		
2009										2873	2873	3141		
2010											2910	3194		
2011												3242		

**Table 3.2 Duquesne Light Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	3274	3228												
1998	3382	3234	3234											
1999	3526	3240	3240	3366										
2000	3509	3249	3249	3383	3610									
2001	3584	3258	3258	3400	3643	3643								
2002	3924	3267	3267	3415	3681	3681	3671							
2003	3759	3276	3276	3432	3716	3716	3726	3697						
2004	3886	3287	3287		3759	3759	3772	3721	3811					
2005	4134	3297	3297			3780	3810	3744	3832	3941				
2006	3991	3210	3307				3846	3767	3879	4018	3984			
2007			3318					3791	3925	4088	4054	4141		
2008									3978	4125	4118	4214		
2009										4198	4181	4293		
2010											4243	4372		
2011												4453		

**Table 3.3 Duquesne Light Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	5703	5858												
1998	5826	5945	5945											
1999	5954	6039	6039	5983										
2000	6092	6159	6159	6073	6113									
2001	6170	6301	6301	6157	6231	6231								
2002	6458	6450	6450	6236	6336	6336	6324							
2003	6346	6606	6606	6327	6438	6438	6467	6436						
2004	6454	6773	6773		6540	6540	6570	6505	6428					
2005	6566	6944	6944			6628	6653	6570	6479	6568				
2006	6474	7118	7118				6729	6636	6597	6711	6693			
2007			7296					6703	6713	6870	6847	6784		
2008									6841	6949	6991	6942		
2009										7076	7129	7127		
2010												7259	7302	
2011														7457

**Table 3.4 Duquesne Light Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

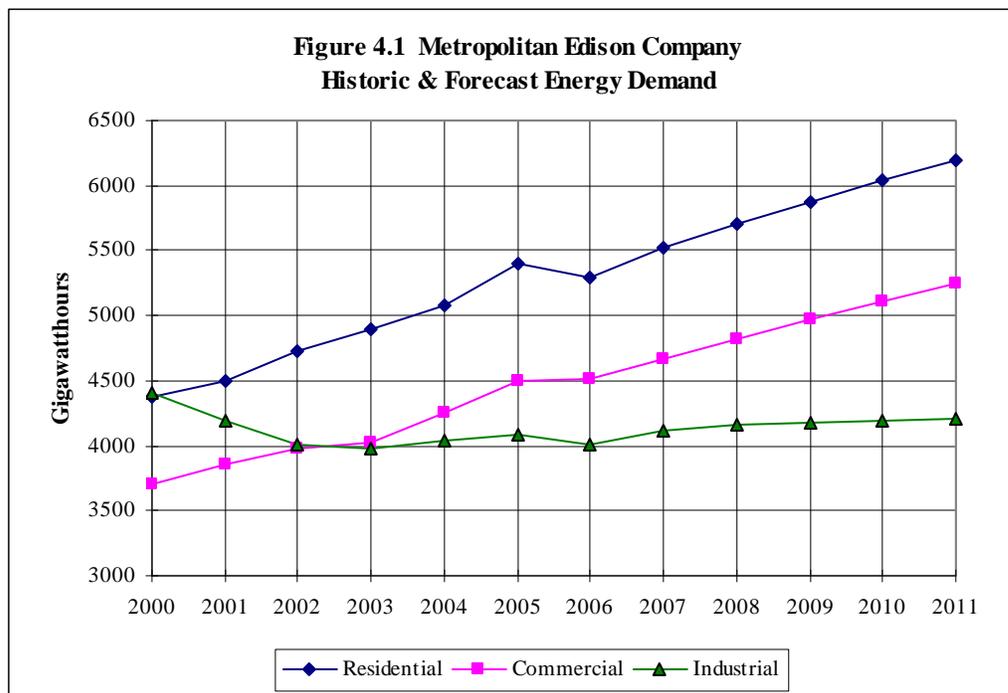
Year	Actual Energy Demand	Projected Industrial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	3501	3431												
1998	3412	3690	3690											
1999	3481	3828	3828	3771										
2000	3581	3919	3919	3836	3537									
2001	3283	3988	3988	3901	3576	3576								
2002	3328	4059	4059	3964	3615	3615	3315							
2003	3189	4130	4130	4027	3651	3651	3382	3349						
2004	3229	4202	4202		3695	3695	3445	3415	3031					
2005	3128	4276	4276			3742	3491	3437	2990	3347				
2006	3182	4351	4351				3530	3453	3033	3407	3229			
2007			4427					3471	3075	3458	3299	3271		
2008									3123	3501	3359	3315		
2009										3542	3411	3369		
2010												3464	3420	
2011														3467

Metropolitan Edison Company

Metropolitan Edison Company (Met-Ed) provides service to nearly 542,000 electric utility customers in Eastern and Southcentral Pennsylvania. In 2006, Met-Ed had total energy sales of 13.8 billion kilowatthours (KWH) - - down 1.4 percent from 2005. Residential sales dominated Met-Ed's market with 38.2 percent of the total sales, followed by commercial (32.6 percent) and industrial (29 percent).

Between 1991 and 2006, Met-Ed's energy demand grew at an average rate of 2.4 percent per year. Residential and commercial sales have maintained relatively steady growth over the period (2.7 percent for residential and 3.7 percent for commercial), while industrial sales have fluctuated considerably. Industrial sales grew at an average rate of about 0.9 percent.

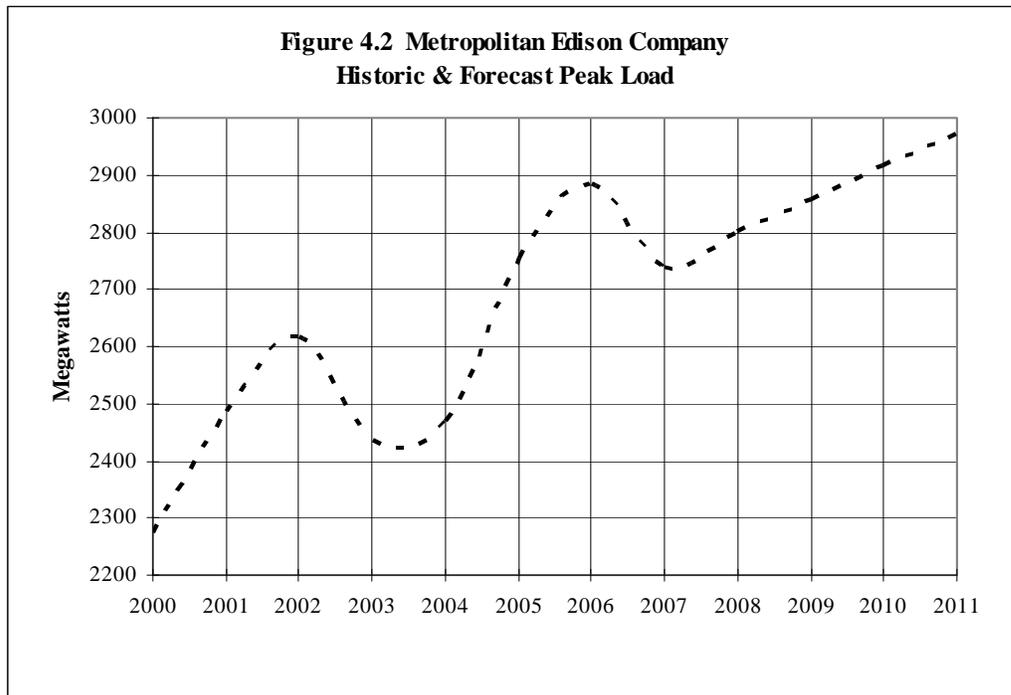
The current five-year projection of growth in total energy demand is 2.5 percent. This includes a residential growth rate of 3.2 percent, a commercial growth rate of 3.1 percent and an industrial rate of 0.9 percent.



Met-Ed's summer peak load, occurring on Aug. 2, 2006, was 2,884 megawatts (MW), representing an increase of 4.8 percent from last year's system peak of 2,752 MW. The 2006-07 winter peak load was 2,506 MW or 2.6 percent higher than the previous year's winter peak of 2,442 MW.

The actual average annual peak load growth rate over the past 15 years was 3.0 percent. Met-Ed's forecast shows its peak load increasing from 2,884 MW

to 2,972 MW by 2011, or an average annual growth rate of 0.6 percent. Met-Ed's peak load represents about 22.6 percent of FirstEnergy's peak load.



Tables 4.1-4.4 provide Met-Ed's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

A restructuring settlement, approved by the Commission in 1998, provided for the transfer of 80 percent of Met-Ed's POLR responsibility to other generation suppliers by June 2003. Since this did not occur, Met-Ed retains POLR responsibility for those customers who do not choose an alternate energy supplier.

Met-Ed divested most of its generation facilities in 1999. Met-Ed currently retains ownership of the York Haven generating station, which has a combined generating capacity of 19.4 MW.

In 2006, Met-Ed purchased approximately 2.3 billion KWH from cogeneration and small power production projects. Contract capacity (defined as PJM installed capacity credits) is 295 MW. For calendar year 2006, six electric generation suppliers sold a total of 16.7 million KWH to retail customers in Met-Ed's service territory, or about 0.1 percent of total consumption.

Met-Ed's plans for transmission line additions include 75.2 miles of 69 kV, 115 kV and 230 kV circuits through 2009.

Met-Ed's only active conservation program identified is a low-income weatherization program (LIURP), which includes the installation of a variety of

weatherization measures in the homes of customers with electric heat and/or electric water heating and/or high base load use. In addition, 60 time-of-day conversions were made. Approximately \$1.8 million was spent in 2006 for a peak load reduction of 108 KW, a load shift of 45 KW and energy savings totaling 911,180 KWH.

Met-Ed is a wholly owned subsidiary of FirstEnergy Corporation and a member of the PJM Interconnection and Reliability *First*.

**Table 4.1 Metropolitan Edison Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	2224	2139												
1998	2176	2176	2194											
1999	2439	2205	2233	2263										
2000	2274	2228	2268	2318	2404									
2001	2486	2264	2305	2373	2456	2455								
2002	2616	2303	2343	2429	2508	2504	2503							
2003	2438	2345	2386	2486	2559	2553	2554	2527						
2004	2468	2388	2429		2612	2602	2611	2584	2570					
2005	2752	2432	2472			2652	2668	2639	2634	2625				
2006	2884	2475	2515				2725	2691	2702	2689	2689			
2007			2559					2747	2756	2740	2740	2740		
2008									2817	2801	2801	2801		
2009										2857	2856	2857		
2010											2915	2915		
2011													2972	

**Table 4.2 Metropolitan Edison Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	4034	4028												
1998	4040	4041	4122											
1999	4266	4095	4204	4264										
2000	4377	4152	4264	4352	4344									
2001	4496	4222	4328	4442	4430	4430								
2002	4721	4292	4391	4533	4516	4501	4607							
2003	4895	4361	4451	4624	4602	4577	4708	4846						
2004	5071	4430	4513		4687	4651	4804	4860	4885					
2005	5399	4499	4575			4724	4892	4980	4977	5097				
2006	5287	4571	4636				4988	5094	5083	5176	5325			
2007			4697						5211	5190	5276	5390	5516	
2008										5300	5376	5515	5699	
2009											5472	5640	5872	
2010												5764	6037	
2011														6187

**Table 4.3 Metropolitan Edison Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	3209	3106													
1998	3209	3179	3224												
1999	3487	3258	3306	3414											
2000	3699	3338	3389	3518	3518										
2001	3855	3420	3473	3622	3622	3751									
2002	3985	3512	3567	3732	3732	3860	3976								
2003	4018	3607	3663	3841	3837	3970	4096	4057							
2004	4251	3703	3762		3947	4079	4216	4144	4170						
2005	4491	3805	3864			4189	4336	4258	4281	4310					
2006	4509	3912	3972				4456	4363	4388	4400	4462				
2007			4083					4464	4498	4506	4547	4664			
2008									4601	4616	4668	4818			
2009										4721	4788	4969			
2010											4908	5108			
2011												5244			

**Table 4.4 Metropolitan Edison Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

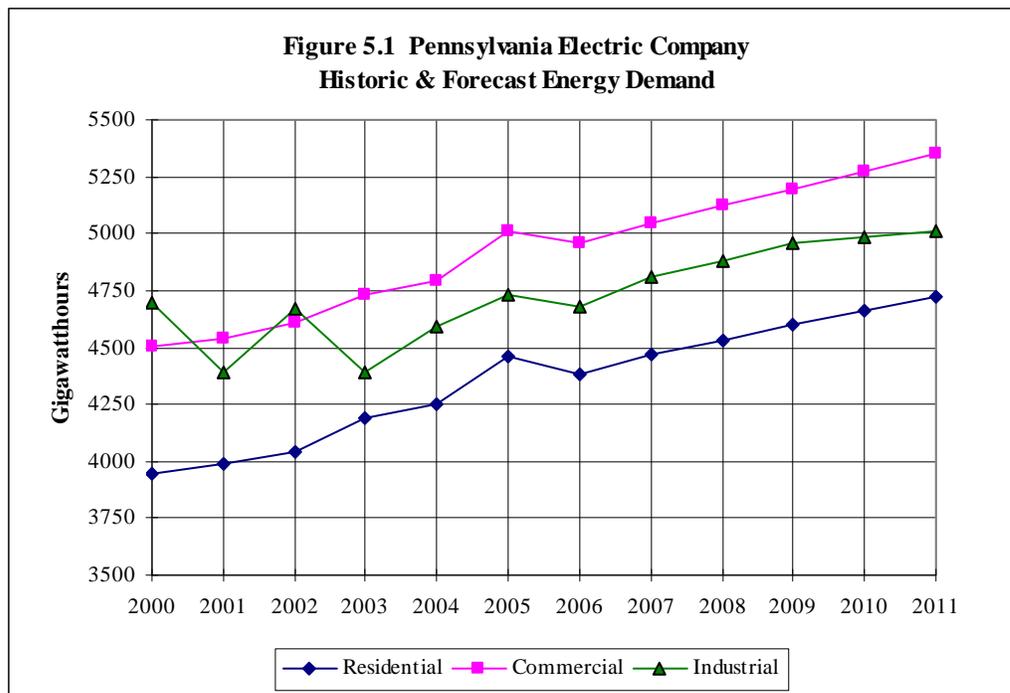
Year	Actual Energy Demand	Projected Industrial Energy Demand													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	4097	4064													
1998	4173	4132	4136												
1999	4085	4197	4229	4239											
2000	4412	4294	4305	4307	4313										
2001	4186	4389	4370	4365	4352	4312									
2002	4012	4468	4448	4435	4410	4409	4263								
2003	3986	4535	4560	4506	4459	4490	4341	3954							
2004	4042	4627	4664		4508	4567	4419	3989	4080						
2005	4083	4724	4776			4645	4498	4010	4136	4077					
2006	4008	4810	4876				4577	4030	4162	4119	4176				
2007			4964					4050	4206	4145	4155	4123			
2008									4237	4175	4177	4156			
2009										4195	4200	4181			
2010											4221	4193			
2011												4201			

Pennsylvania Electric Company

Pennsylvania Electric Company (Penelec) provides service to more than 589,000 electric utility customers in Western and Northern Pennsylvania. In 2006, Penelec had energy sales totaling 14.1 billion kilowatthours (KWH) - - down about 0.7 percent from 2005. Commercial sales dominated Penelec's market with 35.3 percent of the total sales, followed by industrial (33.3 percent) and residential (31.1 percent).

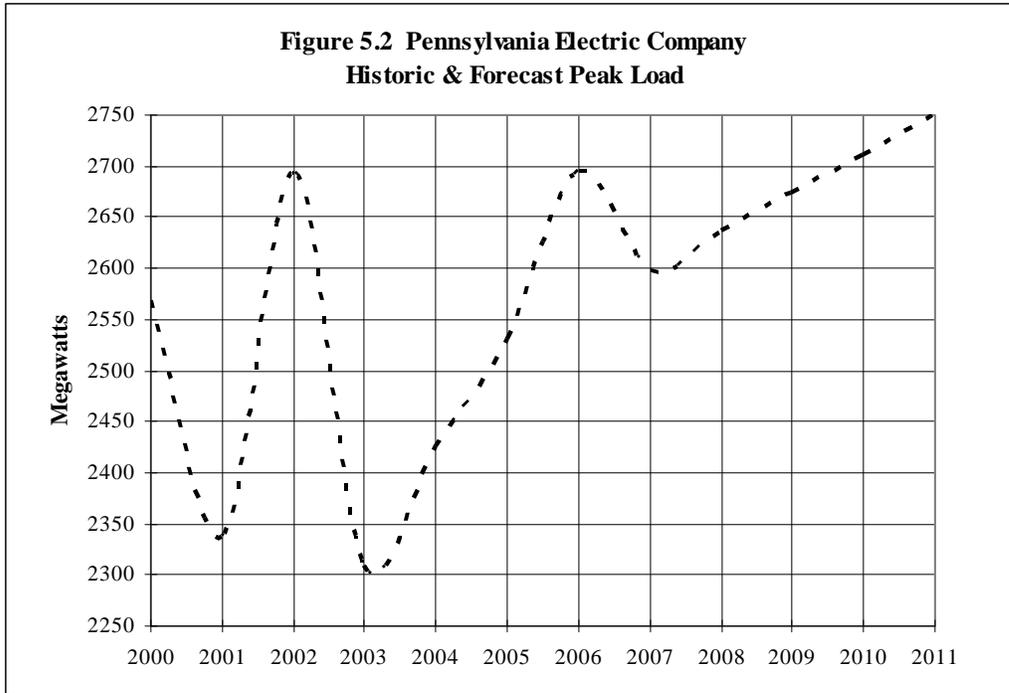
Between 1991 and 2006, Penelec's energy demand grew at an average rate of 1.2 percent per year. Residential and commercial sales have maintained relatively steady growth over the period (1.4 percent for residential and 2.4 percent for commercial), while industrial sales have fluctuated greatly. Industrial sales for 2006 were 0.8 percent less than the 1991 level, or an average annual decrease of 0.1 percent.

The current five-year projection of growth in total energy demand is 1.5 percent. This includes a residential growth rate of 1.5 percent, a commercial growth rate of 1.5 percent and an industrial growth rate of 1.4 percent.



Penelec's 2006 summer peak load, occurring on Aug. 2, 2006, was 2,696 megawatts (MW), representing an increase of 6.5 percent from last year's summer peak of 2,531 MW. The 2006-07 winter peak load was 2,463 MW or 2.2 percent higher than the previous year's winter peak of 2,410 MW.

The actual average annual peak load growth rate over the past 15 years was 1.2 percent. Penelec's forecast shows its summer peak load increasing from 2,696 MW in 2006, to 2,750 MW in 2011, or an average increase of 1.5 percent. Penelec's peak load represents about 21.1 percent of FirstEnergy's peak load.



Tables 5.1-5.4 provide Penelec's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

A restructuring settlement, approved by the Commission in 1998, provided for the transfer of 80 percent of Penelec's POLR responsibility to other generation suppliers by June 2003. Since this did not occur, Penelec retains POLR responsibility for those customers who do not choose an alternate energy supplier.

Penelec divested all of its generation facilities in 1999.

In 2006, Penelec purchased approximately 3.1 billion KWH from cogeneration and small power production projects. Contract capacity (defined as PJM installed capacity credits) is 395 MW.

In 2006, out of 23 licensed electric generation suppliers, four sold a total of 490 million KWH to retail customers in Penelec's service territory, or about 3.5 percent of total consumption, down from 6.7 percent in 2005.

Between 2006 and 2008, Penelec plans to add about 171 miles of 115 kV transmission lines to its system.

Penelec's only active conservation program is a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures in the homes of customers with electric heat and/or electric water heating and/or high baseload use. In addition, 28 time-of-day conversions were made. Over \$1.9 million was spent in 2006, for a peak load reduction of 207 KW, a load shift of 22 KW and energy savings totaling 1.3 million KWH.

Penelec is a wholly owned subsidiary of FirstEnergy Corporation and a member of the PJM Interconnection and Reliability *First*.

**Table 5.1 Pennsylvania Electric Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	2481	2751												
1998	2613	2742	2688											
1999	2583	2795	2730	2672										
2000	2569	2855	2772	2704	2651									
2001	2337	2904	2813	2737	2675	2321								
2002	2693	2951	2853	2770	2700	2347	2337							
2003	2308	2564	2472	2804	2737	2373	2375	2410						
2004	2425	2604	2506		2760	2399	2405	2456	2438					
2005	2531	2643	2540			2425	2437	2505	2481	2511				
2006	2696	2682	2573				2465	2544	2525	2554	2554			
2007			2606					2592	2565	2598	2598	2598	2598	
2008									2604	2637	2637	2637	2637	
2009										2674	2674	2674	2674	
2010											2711	2711	2711	
2011												2750	2750	

**Table 5.2 Pennsylvania Electric Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	3801	3853												
1998	3756	3890	3870											
1999	3864	3921	3922	3894										
2000	3949	3948	3950	3931	3881									
2001	3991	3982	3979	3968	3915	3977								
2002	4167	4015	4009	4007	3951	4021	4043							
2003	4187	4046	4039	4045	3984	4065	4089	4194						
2004	4249	4077	4069		4017	4109	4134	4162	4135					
2005	4457	4109	4099			4154	4180	4203	4186	4295				
2006	4381	4139	4129				4226	4245	4236	4333	4420			
2007			4160					4287	4287	4385	4438	4469		
2008									4339	4438	4496	4533		
2009										4524	4554	4598		
2010											4614	4662		
2011												4727		

**Table 5.3 Pennsylvania Electric Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	4098	4156													
1998	4198	4282	4283												
1999	4319	4388	4408	4347											
2000	4509	4495	4531	4459	4387										
2001	4538	4600	4658	4571	4473	4472									
2002	4697	4695	4784	4684	4558	4549	4613								
2003	4727	4795	4908	4797	4643	4626	4730	4782							
2004	4792	4898	5031		4728	4704	4846	4874	4825						
2005	5010	4995	5152			4781	4962	4976	4912	4928					
2006	4961	5099	5270				5078	5076	4986	4990	5049				
2007			5386					5178	5060	5064	5099	5045			
2008									5136	5140	5188	5122			
2009										5213	5277	5199			
2010											5367	5277			
2011												5356			

**Table 5.4 Pennsylvania Electric Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

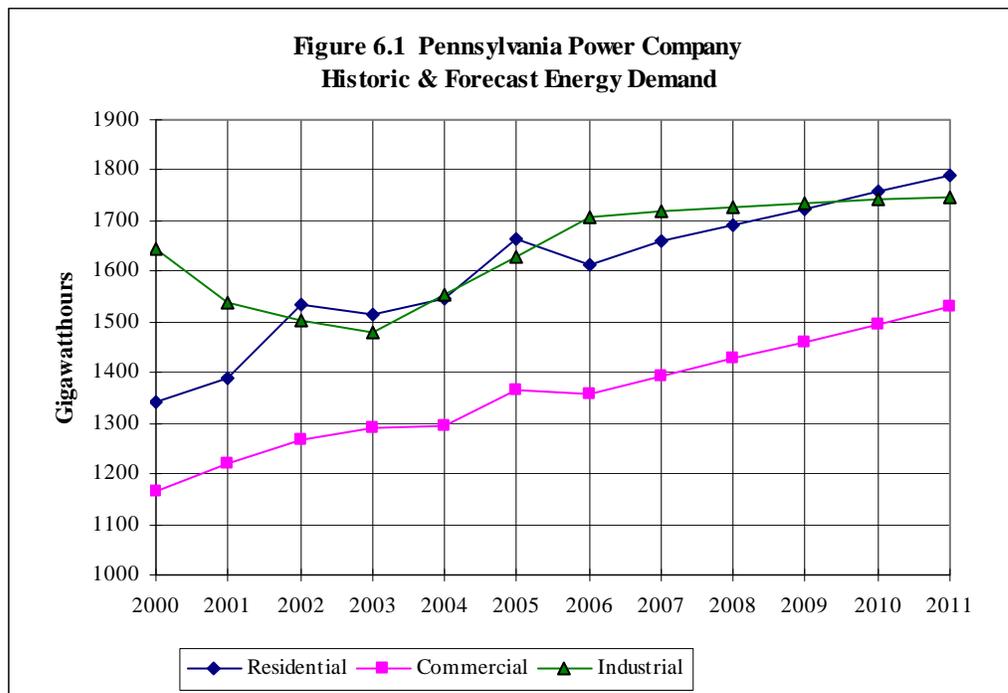
Year	Actual Energy Demand	Projected Industrial Energy Demand													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	4836	5054													
1998	4996	5172	4836												
1999	4866	5235	4894	5047											
2000	4698	5309	4948	5114	5004										
2001	4392	5363	5002	5205	5093	4857									
2002	4315	5411	5057	5293	5177	5144	4670								
2003	4391	5460	5113	5383	5239	5214	4783	4492							
2004	4589	5515	5169		5306	5244	4846	4708	4561						
2005	4729	5570	5226			5274	4887	4749	4666	4527					
2006	4678	5637	5284				4928	4797	4737	4612	4807				
2007			5342					4845	4791	4679	4828	4809			
2008									4815	4708	4881	4881			
2009										4725	4905	4954			
2010											4930	4983			
2011												5013			

Pennsylvania Power Company

Pennsylvania Power Company (Penn Power) provides service to nearly 159,000 electric utility customers in Western Pennsylvania. In 2006, Penn Power had energy sales totaling nearly 4.7 billion kilowatthours (KWH) -- an increase of 0.2 percent from the 2005 figure. Industrial sales lead Penn Power's market with 36.5 percent of the total sales, followed by residential (34.4 percent) and commercial (29 percent).

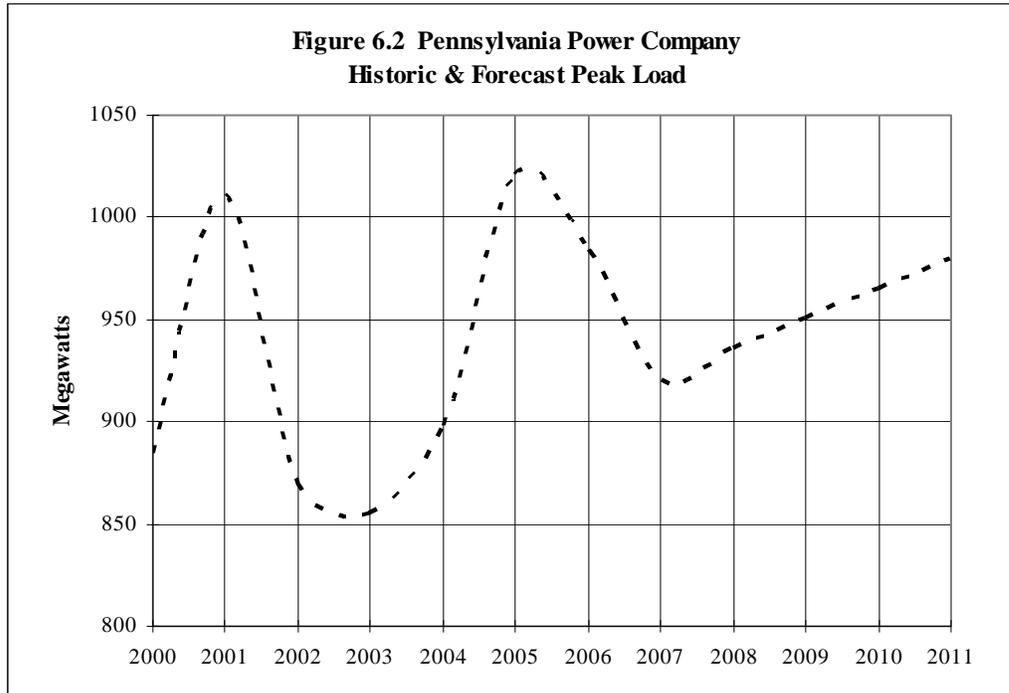
Between 1991 and 2006, Penn Power's energy demand grew at an average rate of 1.7 percent per year. Residential and commercial sales have maintained relatively steady growth over the period at rates of 2.8 percent and 3.8 percent, respectively. Industrial sales have fluctuated considerably and, in 2006, were only 93.7 percent of the 1991 level, or an average annual decline of 0.4 percent.

The current five-year projection of growth in total energy demand is 1.6 percent. This includes a residential growth rate of 2.1 percent, a commercial growth rate of 2.4 percent and an industrial growth rate of 0.5 percent.



Penn Power's 2006 summer peak load, occurring on Aug. 1, 2006, was 1,984 megawatts (MW), representing a decrease of 3.6 percent from last year's peak of 1,021 MW. The 2006-07 winter peak load of 908 MW was 3.5 percent higher than the previous year's winter peak of 877 MW.

The actual average annual peak load growth rate over the past 15 years was 1.9 percent. Penn Power's forecast shows its peak load decreasing from 984 MW in the summer of 2006 to 921 MW in 2007, and then increasing to 980 MW by 2011, or an average annual growth rate of 1.6 percent. Penn Power's peak load represents about 7.7 percent of FirstEnergy's peak load.



Tables 6.1-6.4 provide Penn Power's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

The electrical systems of Penn Power and the other FirstEnergy operating companies are interconnected and fully integrated. All of Penn Power's generating facility ownership (1,237 MW) was transferred in 2005. Ownership of Beaver Valley 1 and 2 and Perry 1 was transferred to FirstEnergy Nuclear Generation Corp., and ownership of the fossil units was transferred to FirstEnergy Generation Corp.

Competitive bidding took place during 2006 for provider of last resort (POLR) service for all customers electing to receive default service from Penn Power during the period Jan. 1, 2007, to May 31, 2008. The solicitation was for a 17 month period to allow for synchronization with final form POLR regulations in June 2008.¹² The generation rate cap expired at the end of 2006.

¹² Docket No. P-00052188.

For calendar year 2006, one electric generation supplier sold about 7.4 million KWH to retail customers in Penn Power's service territory or about 0.2 percent of total consumption. Penn Power purchased 48,360 KWH from an independent power producer in 2006.

Penn Power's only active conservation program is a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures in the homes of customers with electric heat and/or electric water heating and/or high baseload use. Nearly \$629,000 was spent in 2006 for a peak load reduction of 92 KW and energy savings totaling 571,216 KWH.

Penn Power is a wholly owned subsidiary of Ohio Edison Company, which is a wholly owned subsidiary of FirstEnergy. FirstEnergy is a member of ReliabilityFirst and the Midwest ISO.

**Table 6.1 Pennsylvania Power Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	829	781												
1998	895	804	902											
1999	845	830	919	880										
2000	885	858	937	897	935									
2001	1011	892	958	919	957	883								
2002	869	928	980	941	980	904	918							
2003	855	962	1003	963	1003	930	947	891						
2004	898	997	1026	983	1025	956	983	923	865					
2005	1021	1019	1050			982	1022	958	884	952				
2006	984	977	1012				1058	985	900	921	904			
2007			1036						1020	916	930	930	921	
2008										929	938	938	936	
2009											951	951	951	
2010												965	965	
2011														980

**Table 6.2 Pennsylvania Power Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	1238	1238												
1998	1278	1265	1300											
1999	1351	1292	1318	1300										
2000	1341	1320	1336	1319	1390									
2001	1391	1373	1355	1339	1412	1360								
2002	1533	1430	1374	1360	1434	1395	1447							
2003	1513	1459	1398	1381	1457	1430	1483	1512						
2004	1545	1488	1423	1403	1479	1451	1520	1523	1542					
2005	1664	1502	1445			1473	1558	1552	1571	1612				
2006	1611	1516	1467				1597	1579	1599	1636	1659			
2007			1494						1607	1629	1665	1699	1659	
2008										1657	1695	1744	1693	
2009											1723	1789	1724	
2010												1835	1758	
2011														1789

**Table 6.3 Pennsylvania Power Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	1013	970												
1998	1090	1010	1042											
1999	1143	1054	1074	1110										
2000	1164	1103	1108	1145	1204									
2001	1220	1167	1143	1181	1242	1162								
2002	1268	1238	1182	1221	1284	1206	1270							
2003	1291	1314	1221	1262	1327	1251	1327	1279						
2004	1296	1395	1262	1304	1372	1293	1387	1310	1309					
2005	1367	1436	1304			1335	1449	1342	1339	1353				
2006	1359	1478	1348				1514	1373	1370	1374	1384			
2007			1392					1405	1402	1400	1422	1394		
2008									1429	1427	1460	1427		
2009										1453	1498	1461		
2010											1535	1496		
2011												1532		

**Table 6.4 Pennsylvania Power Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

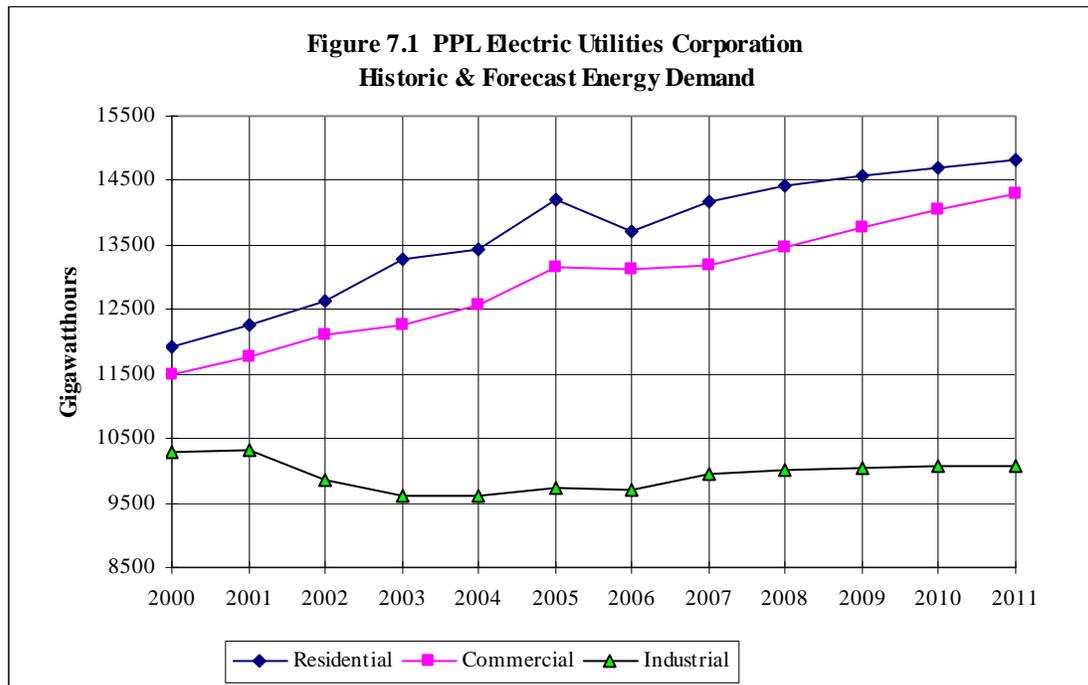
Year	Actual Energy Demand	Projected Industrial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	1659	1967												
1998	1436	2002	1677											
1999	1619	2043	1716	1483										
2000	1643	2082	1759	1520	1563									
2001	1539	2138	1803	1558	1596	1618								
2002	1505	2184	1847	1596	1635	1644	1514							
2003	1481	2230	1890	1633	1673	1677	1516	1521						
2004	1554	2273	1933	1670	1711	1716	1517	1507	1529					
2005	1629	2314	1981			1758	1519	1500	1555	1582				
2006	1708	2357	2029				1520	1493	1570	1558	1565			
2007			2076					1489	1580	1563	1578	1720		
2008									1583	1568	1594	1727		
2009										1569	1610	1734		
2010											1626	1741		
2011												1748		

PPL Electric Utilities Corporation

PPL Electric Utilities Corporation (PPL) provides service to about 1.38 million homes and businesses over a 10,000 square mile area in 29 counties of Central Eastern Pennsylvania. In 2006, PPL had energy sales totaling 37.7 billion kilowatthours (KWH) -- down 1.6 percent from 2005. Residential sales continued to dominate PPL's market with 36.3 percent of the total sales, followed by commercial (34.8 percent) and industrial (25.7 percent).

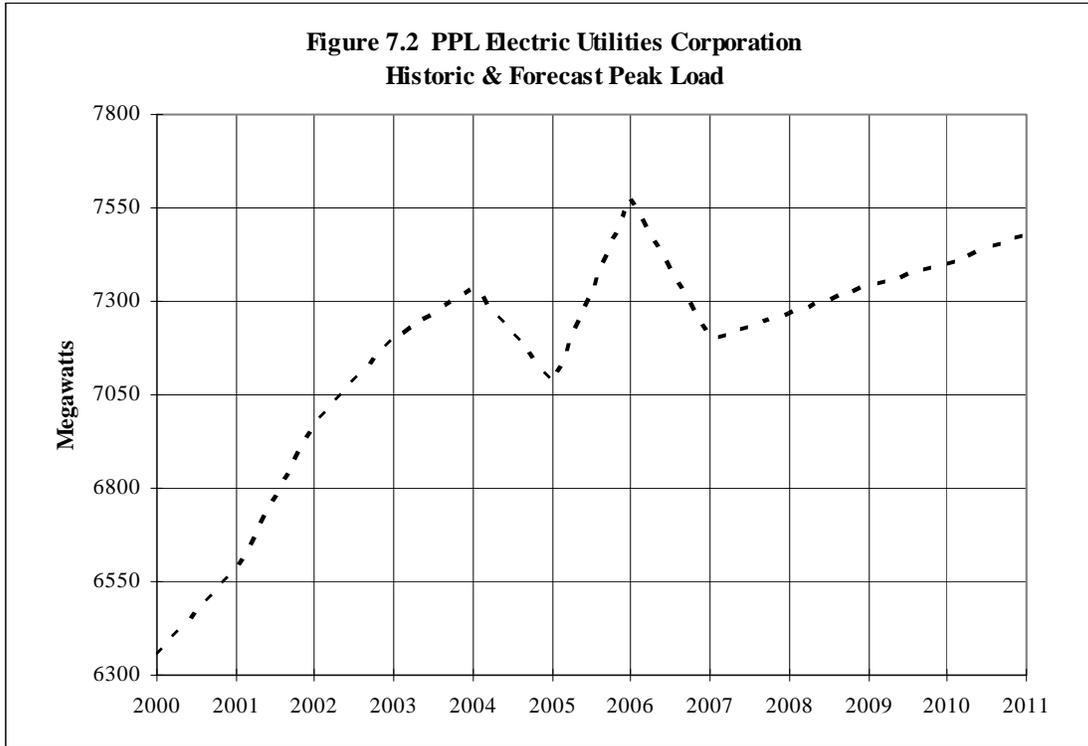
Between 1991 and 2006, PPL's energy demand grew an average of 1.9 percent per year. Residential energy sales grew at an annual rate of 1.9 percent, commercial at a 2.7 percent rate and industrial at 0.9 percent.

The current five year projection of average growth in energy demand is 1.4 percent. This includes growth rates of 1.6 percent for residential, 1.7 percent for commercial and 0.8 percent for industrial.



PPL's 2006-07 winter peak load, occurring on Feb. 5, 2007, was 7,577 megawatts (MW), representing an increase of 7 percent from last year's peak of 7,083 MW. The 2006 summer peak load was 7,554 MW compared to the previous summer's peak of 7,035 MW, or a 7.4 percent increase.

The actual average annual peak load growth rate over the past 15 years was 1.6 percent. PPL's five-year winter peak load forecast scenario shows the peak load decreasing to 7,200 MW in 2007, and then increasing to 7,460 MW in the winter of 2011-12 at an average annual rate of 0.9 percent. PPL expects to become slightly summer-peaking by 2011, with a projected load of 7,480 MW.



Tables 7.1-7.4 provide PPL's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

Net operable generating capacity of 8,616 MW (summer rating) includes 43.4 percent coal-fired capacity and 23.8 percent nuclear capacity. Natural gas and dual fuel units account for 26.1 percent of the total. Independent power producers also provided 303 MW to the system. In 2006, PPL purchased more than 2.4 billion KWH from cogeneration and independent power production facilities, or about 6.4 percent of total sales.

On June 13, 2007, PPL announced that it had taken preliminary steps that would preserve the option to build a third nuclear generating unit at the Susquehanna plant near Berwick, Columbia County. It is expected that such a project would be a joint venture, because of regulatory uncertainties and the large capital commitment. The existing two nuclear units have a total capacity of 2,360 MW.

For calendar year 2006, eight electric generation suppliers sold a total of approximately 95.6 million KWH to retail customers in PPL's service territory, or about 0.3 percent of total consumption, down from 1.2 percent in 2005.

Over the next five years, PPL plans to add about 264 miles of new transmission lines at an estimated total cost of \$341 million.

For 2006, PPL reported a peak load reduction of 246.5 MW and energy savings of 2.6 million KWH, resulting from its Interruptible Service – Economic Provisions tariff schedule. Customers reducing load for economic conditions receive significant rate discounts. The peak load reduction from this program represents approximately 3.3 percent of the 2006 summer peak load.

PPL's Price Response Service permits customers to respond to market price signals by reducing a portion of their load. In 2006, an estimated 1,100 KW peak load reduction was achieved, with energy savings totaling about 29,600 KWH. The Residential Demand Side Response Rider, which provides for the option of shifting load from on-peak hours, reduced the peak by 104 KW and saved 60,435 KWH.

PPL is a member of PJM and Reliability*First*.

**Table 7.1 PPL Electric Utilities Corporation
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	5925	6910												
1998	6688	6935	6910											
1999	6746	7030	6935	6815										
2000	6355	7120	7030	6905	6580									
2001	6583	7130	7120	7006	6680	6850								
2002	6970	7250	7130	7040	6770	6960	7000							
2003	7197	7350	7250	7140	6860	7060	7070	6790						
2004	7335	7470	7350		6960	7170	7040	6860	7200					
2005	7083	7580	7470			7270	7120	7000	7300	7200				
2006	7577	7690	7580				7200	7140	7410	7290	7310			
2007			7690					7320	7510	7390	7410	7200		
2008									7610	7490	7510	7270		
2009										7580	7610	7340		
2010											7710	7400		
2011												7480		

**Table 7.2 PPL Electric Utilities Corporation
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	11434	11690												
1998	11156	11760	11690											
1999	11704	11830	11760	11740										
2000	11923	11910	11830	11850	12031									
2001	12269	12020	11910	11980	12150	12176								
2002	12640	12160	12020	12120	12280	12324	12391							
2003	13266	12290	12160	12260	12421	12478	12514	12868						
2004	13441	12430	12290		12562	12634	12650	13062	13308					
2005	14218	12570	12430			12799	12803	13259	13505	13950				
2006	13714	12710	12570				12955	13462	13728	14311	14099			
2007			12710					13671	13962	14675	14392	14180		
2008									14198	15019	14555	14422		
2009										15349	14794	14565		
2010											15036	14702		
2011												14828		

**Table 7.3 PPL Electric Utilities Corporation
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1997	10309	10490										
1998	10597	10740	10490									
1999	11002	11000	10740	10740								
2000	11477	11280	11000	10980	11090							
2001	11778	11560	11280	11240	11275	11291						
2002	12117	11870	11560	11500	11444	11431	11850					
2003	12273	12140	11870	11760	11612	11561	12033	12212				
2004	12576	12410	12140		11782	11699	12219	12507	13275			
2005	13157	12680	12410			11848	12411	12757	13601	12967		
2006	13140	12940	12680				12602	13101	13975	13436	13188	
2007			12940					13418	14286	13946	13562	13184
2008									14631	14517	13836	13476
2009										15068	14166	13777
2010											14492	14045
2011												14290

**Table 7.4 PPL Electric Utilities Corporation
Actual and Projected Industrial Energy Demand (Gigawatthours)**

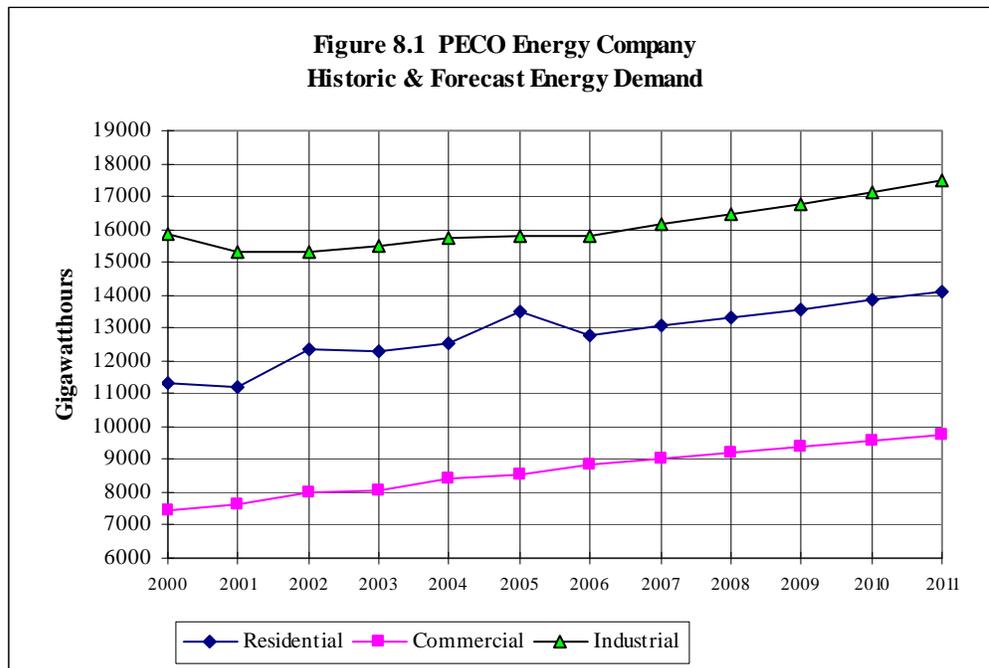
Year	Actual Energy Demand	Projected Industrial Energy Demand										
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1997	10078	10070										
1998	10220	10110	10070									
1999	10179	10270	10110	10190								
2000	10280	10440	10270	10350	10543							
2001	10319	10610	10440	10520	10836	10963						
2002	9853	10790	10610	10690	11077	11255	10780					
2003	9599	10960	10790	10860	11295	11521	11135	10355				
2004	9611	11140	10960		11498	11777	11425	10503	9938			
2005	9720	11320	11140			12010	11702	10641	10035	9750		
2006	9704	11510	11320				11970	10795	10155	9926	9968	
2007			11510					10924	10253	10136	10048	9965
2008									10346	10349	10084	9999
2009										10577	10150	10032
2010											10214	10059
2011												10084

PECO Energy Company

PECO Energy Company (PECO) provides service to more than 1.6 million electric utility customers in southeastern Pennsylvania. In 2006, PECO had total retail energy sales of 38.8 billion kilowatthours (KWH) -- down 0.2 percent from 2005. Industrial sales continued to dominate PECO's market with 40.7 percent of the total sales, followed by residential (32.9 percent) and commercial (22.8 percent).

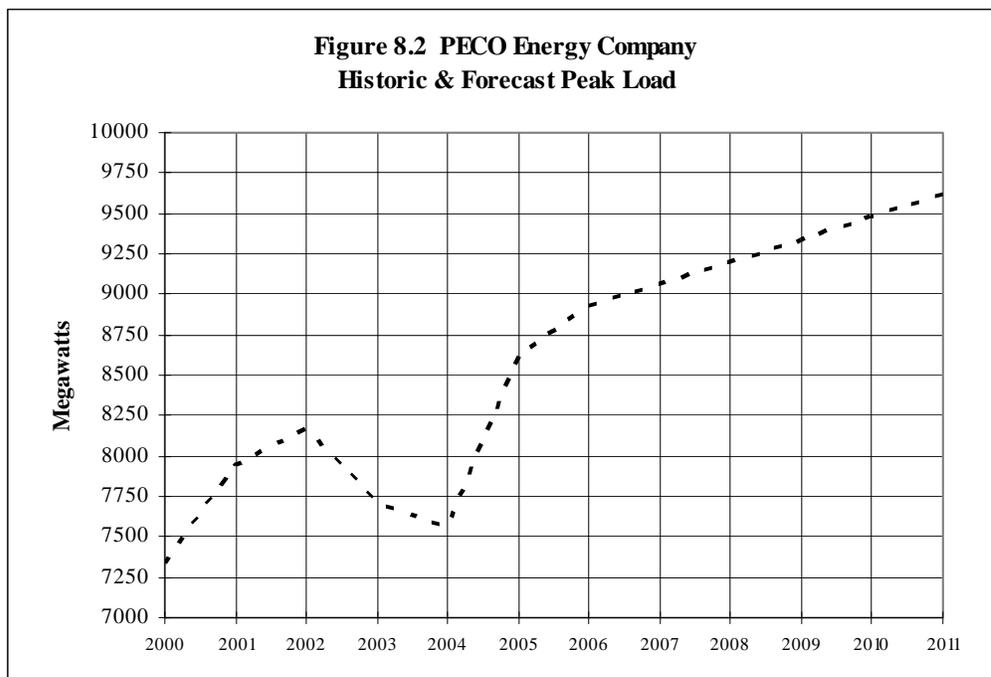
Between 1991 and 2006, PECO's energy demand grew an average of 1.3 percent per year. Residential energy sales grew at an annual rate of 1.7 percent and commercial at a 3.7 percent rate. Industrial sales declined at an average rate of 0.1 percent.

The current five-year projection of growth in energy demand is 2 percent. This includes an annual growth rate of 2 percent for the residential, commercial and industrial sectors.



PECO's 2006 summer peak load, occurring on Aug. 3, 2006, was 8,932 megawatts (MW), representing an increase of 3.5 percent from last year's peak of 8,626 MW. The 2006-07 winter peak demand was 6,835 MW or 4.4 percent above the previous winter's peak of 6,550 MW.

The actual average annual peak demand growth rate over the past 15 years was 1.5 percent. PECO's current forecast shows the peak load increasing from the actual 2006 summer peak load of 8,932 MW to 9,622 MW in the summer of 2011, or an annual growth rate of 1.5 percent.



Tables 8.1-8.4 provide PECO's forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

PECO has entered into a Purchased Power Agreement with Exelon Generation to provide energy and capacity for its POLR load through the end of 2010. Other resources may be obtained through purchases from the wholesale markets.

In 2006, PECO purchased about 538 million KWH from cogeneration and independent power production facilities, or about 1.4 percent of total energy consumption. Contract capacity totaled 178 MW.

For calendar year 2006, electric generation suppliers sold a total of about 836 million KWH to retail customers in PECO's service territory or about 2.2 percent of total consumption, down from 5.8 percent in 2005. On the summer peak day, electric generation suppliers represented a load of 213 MW, or 2.4 percent.

PECO has developed commercial and industrial rate incentive programs to encourage customers to manage their energy demands and usage consistent with system capabilities. During 2006, the peak load reduction resulting from this rate option was 180 MW, with energy savings of over 1.5 million KWH. PECO also has a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures.

PECO is a member of Reliability*First* and PJM.

**Table 8.1 PECO Energy Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projections of Peak Load Requirements												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	7390	6868												
1998	7108	6973	6973											
1999	7850	7063	7063	7063										
2000	7333	7135	7135	7135	7339									
2001	7948	7233	7233	7233	7398	7392								
2002	8164	7308	7308	7308	7457	7451	8012							
2003	7696	7387	7387	7387	7517	7510	8076	8229						
2004	7567	7466	7466		7577	7570	8140	8295	8129					
2005	8626	7547	7547			7631	8205	8362	8320	8320				
2006	8932	7629	7629				8271	8428	8445	8445	8755			
2007			7711					8496	8571	8571	8887	9066		
2008									8700	8700	9020	9202		
2009										8831	9155	9340		
2010											9293	9480		
2011												9622		

**Table 8.2 PECO Energy Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	10515	10653												
1998	10376	10732	10515											
1999	11132	10812	10516	10516										
2000	11304	10894	10600	10600	10600									
2001	11178	10976	10685	10685	10685	11278								
2002	12335	11059	10770	10770	10770	11385	11634							
2003	12259	11142	10856	10856	10856	11488	11733	12020						
2004	12507	11225	10943		10943	11592	11855	11905	12250					
2005	13469	11310	11031			11697	11957	11981	12385	12385				
2006	12797	11394	11119				12059	12054	12592	12592	13738			
2007			11208					12128	12839	12839	14013	13053		
2008									13179	13179	14293	13314		
2009										13443	14579	13580		
2010											14870	13852		
2011												14129		

**Table 8.3 PECO Energy Company
Actual and Projected Commercial Energy Demand (Gigawatts)**

Year	Actual Energy Demand	Projected Commercial* Energy Demand										
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1997	6689	6667										
1998	7012	7044	6643									
1999	7154	7346	6597	6597								
2000	7481	7650	6649	6649	6649							
2001	7604	7955	6703	6703	6702	7315						
2002	8019	8262	6756	6756	6756	7446	7732					
2003	8077	8572	6810	6810	6810	7578	7963	8135				
2004	8414	8882	6865		6864	7711	8099	8233	8140			
2005	8520	9195	6920			7844	8265	8434	8349	8349		
2006	8857	9510	6975				8436	8637	8550	8550	8691	
2007			7031					8839	8755	8755	8864	9034
2008									8965	8965	9042	9215
2009										9144	9223	9399
2010											9407	9587
2011												9779

* Small Commercial & Industrial

**Table 8.4 PECO Energy Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial* Energy Demand										
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1997	14992	15299										
1998	15929	15259	15456									
1999	15477	15271	15919	15919								
2000	15828	15248	16047	16047	16047							
2001	15312	15353	16175	16175	16175	15405						
2002	15323	15333	16304	16304	16305	15406	15324					
2003	15518	15314	16435	16435	16435	15408	15417	15130				
2004	15741	15294	16566		16567	15409	15429	14959	15477			
2005	15774	15278	16699			15409	15442	14980	15448	15449		
2006	15821	15262	16832				15458	15001	15448	15448	16089	
2007			16967					15022	15448	15448	16411	16137
2008									15448	15448	16739	16460
2009										15757	17074	16789
2010											17415	17125
2011												17467

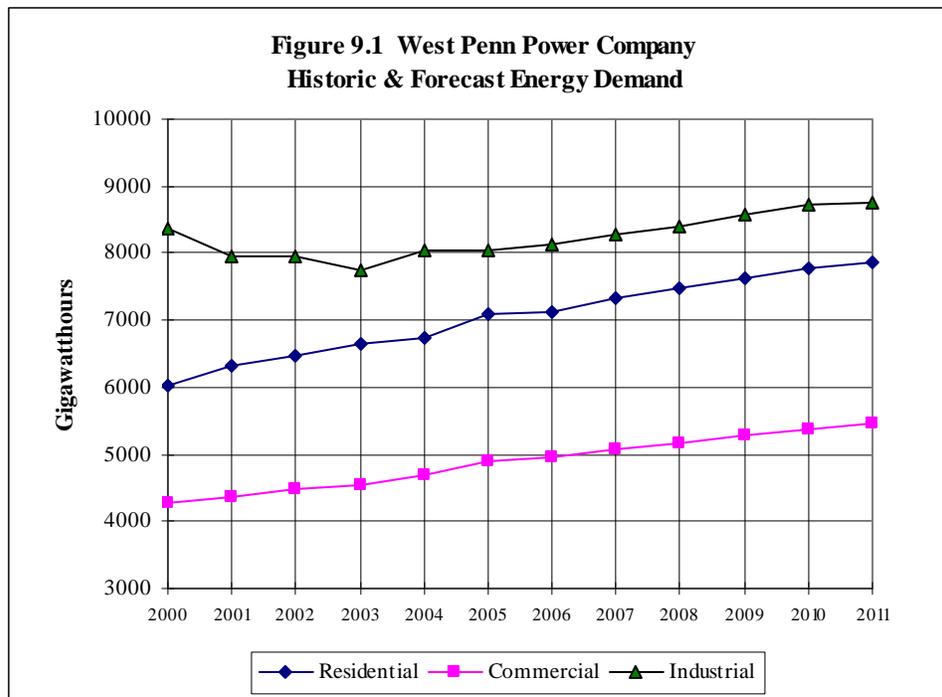
* Large Commercial & Industrial

West Penn Power Company

West Penn Power Company (dba Allegheny Power) provides service to more than 707,000 electric utility customers in Western, North and South Central Pennsylvania. In 2006, West Penn had total retail energy sales of about 20.8 billion kilowatthours (KWH) – up 1.05 percent from 2005. Industrial sales continued to dominate West Penn's market with 38.8 percent of the total sales, followed by residential (34 percent) and commercial (23.6 percent).

Between 1991 and 2006, West Penn's energy demand grew an average of 1.8 percent per year. Sales for all sectors have maintained relatively steady growth during the period. Residential sales grew at an annual rate of 1.8 percent, commercial sales at 2.7 percent and industrial sales at 1.4 percent over the past 15 years.

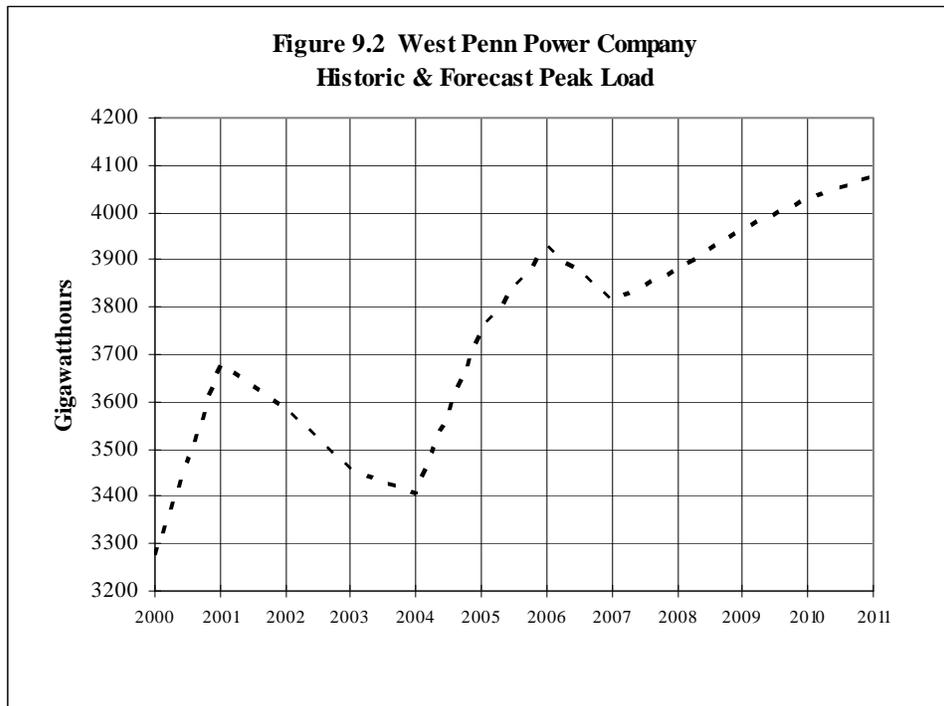
The current five year projection of growth in energy demand is 1.8 percent. This includes a residential growth rate of 2 percent, a commercial rate of 1.9 percent and an industrial rate of 1.5 percent.



West Penn's 2006 summer peak load, occurring on Aug. 2, 2006, was 3,926 megawatts (MW), representing an increase of 4.6 percent from last year's summer peak of 3,752 MW. The 2006-07 winter peak load was 3,768 MW or 7 percent higher than the previous year's winter peak of 3,520 MW.

The actual average annual peak load growth rate over the past 15 years was about 2 percent. West Penn's load forecast scenario shows the peak load

increasing from 3,926 MW in the summer of 2006 to 4,078 MW in 2011, or an average annual growth rate of 0.8 percent.



Tables 9.1-9.4 provide West Penn’s forecasts of peak load and residential, commercial and industrial energy demand from 1997 through 2007.

In April 2002, Allegheny Power joined PJM Interconnection. As a PJM member, Allegheny Power is responsible for following the reliability standards of the PJM markets. The company has access to an increased amount of energy resources within the expanded PJM market. West Penn remains an electric distribution company, providing transmission and distribution service to its customers and providing default service, or POLR, for those customers who do not choose an alternate supplier.

West Penn has identified several transmission line projects in construction or planned from 2004 through 2010 totaling 83.7 miles at an estimated cost of \$27.6 million. This cost figure does not include the Trans-Allegheny Interstate Line (TrAIL) project, discussed in Chapter 1.

In 2006, West Penn purchased nearly 1.1 billion KWH from cogeneration and independent power production facilities. Contract capacity for these facilities was 136 MW.

West Penn implemented a Generation Buy Back program in 2001, intended as a way for West Penn to buy back or displace firm load from large commercial and industrial customers that have on-site generation or operational flexibility. At

the program's peak, 39 West Penn customers signed up with a potential load reduction of 231.5 MW. Due to mild weather and the lack of sustained price volatility, no events have been initiated since 2001. As of March 31, 2006, there were 28 customers registered representing a potential load reduction of about 74 MW. West Penn also has a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures.

West Penn is a subsidiary of Allegheny Energy Inc. and a member of *ReliabilityFirst*.

**Table 9.1 West Penn Power Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projections of Peak Load Requirements													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	3251	3315													
1998	3192	3371	3379												
1999	3328	3417	3442	3279											
2000	3277	3462	3496	3360	3284										
2001	3677	3506	3545	3425	3304	3141									
2002	3582	3547	3578	3484	3341	3445	3458								
2003	3455	3586	3617	3519	3380	3465	3505	3535							
2004	3407	3630	3668		3415	3501	3542	3572	3621						
2005	3752	3679	3723			3536	3586	3610	3670	3702					
2006	3926	3722	3769				3622	3639	3705	3763	3723				
2007			3812					3674	3738	3812	3782	3813			
2008									3766	3845	3824	3882			
2009										3866	3864	3965			
2010											3895	4028			
2011												4078			

**Table 9.2 West Penn Power Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand													
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
1997	5757	5923													
1998	5823	6020	6127												
1999	6020	6118	6250	5873											
2000	6022	6223	6381	6013	6061										
2001	6325	6282	6446	6077	6172	6192									
2002	6459	6371	6518	6165	6256	6260	6374								
2003	6641	6445	6604	6165	6339	6329	6471	6486							
2004	6724	6546	6699	6231	6445	6436	6596	6599	6818						
2005	7088	6624	6763			6521	6680	6671	6890	6923					
2006	7133	6722	6864				6775	6744	6965	7047	7164				
2007			6976					6821	7041	7136	7289	7319			
2008									7132	7194	7387	7484			
2009										7189	7417	7639			
2010											7447	7761			
2011												7869			

**Table 9.3 West Penn Power Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	3833	3950												
1998	3993	4055	4080											
1999	4137	4161	4163	4039										
2000	4265	4271	4270	4215	4182									
2001	4360	4347	4339	4313	4225	4326								
2002	4497	4430	4393	4401	4275	4395	4458							
2003	4529	4501	4457	4443	4329	4449	4543	4577						
2004	4691	4588	4557		4397	4517	4624	4653	4701					
2005	4892	4664	4630			4571	4684	4695	4780	4791				
2006	4959	4756	4707				4749	4739	4832	4907	4996			
2007			4779						4776	4878	5006	5092	5083	
2008										4936	5098	5179	5179	
2009											5135	5249	5279	
2010												5318	5365	
2011														5452

**Table 9.4 West Penn Power Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

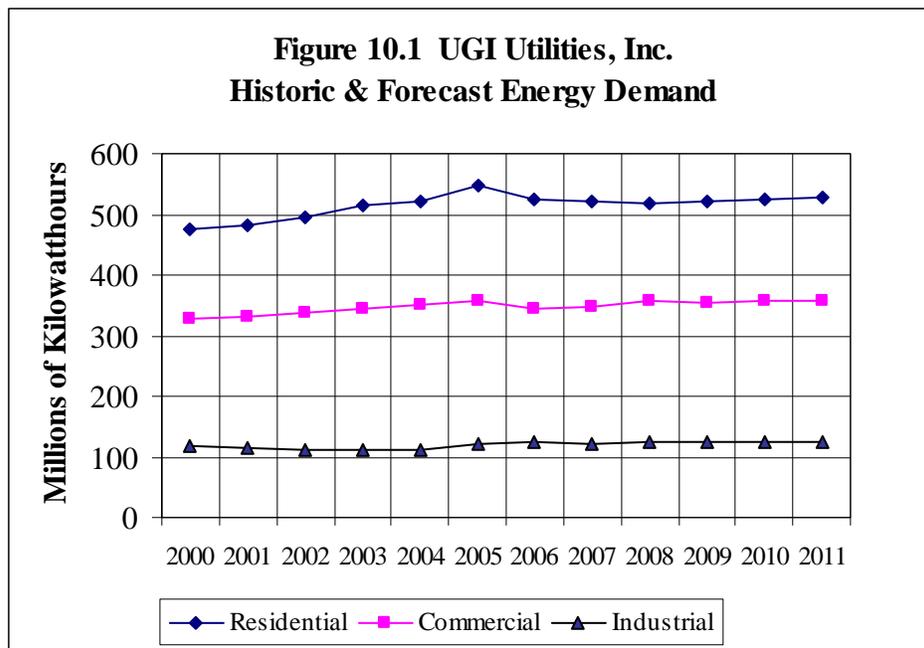
Year	Actual Energy Demand	Projected Industrial Energy Demand												
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007		
1997	8046	8427												
1998	8226	8755	8608											
1999	8237	8855	8808	8575										
2000	8383	8976	8997	8830	7942									
2001	7955	9052	9070	8975	8120	8481								
2002	7957	9156	9136	9167	8230	8597	8006							
2003	7747	9241	9264	9161	8353	8663	8116	7885						
2004	8039	9367	9448		8477	8729	8188	7973	7814					
2005	8051	9450	9561			8799	8230	8023	7913	8027				
2006	8144	9566	9660				8290	8087	7998	8137	8283			
2007			9768						8187	8069	8220	8429	8282	
2008										8140	8311	8543	8411	
2009											8313	8615	8584	
2010												8634	8728	
2011														8766

UGI Utilities Inc.

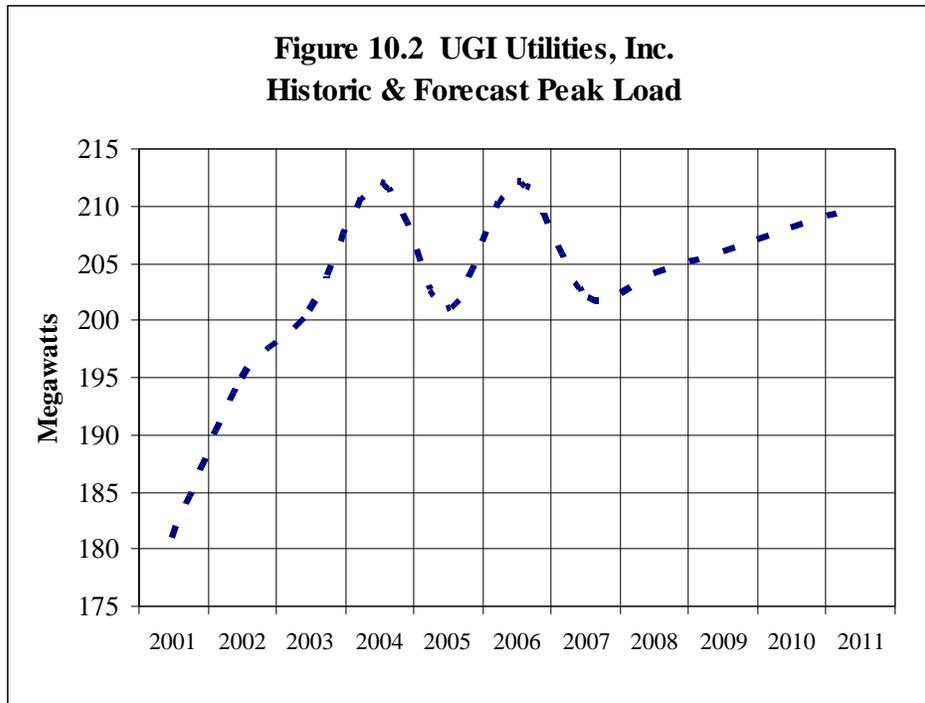
The Electric Division of UGI Utilities Inc. (UGI) provides electric service to more than 62,000 customers in Northwestern Luzerne and Southern Wyoming counties, Pennsylvania. In 2006, UGI had energy sales totaling nearly 1.0 billion kilowatthours (KWH) -- down 3.4 percent from 2005. Residential sales continued to dominate UGI's market with 52.6 percent of the total sales, followed by commercial (34.5 percent) and industrial (12.3 percent).

Between 1991 and 2006, UGI experienced an average growth in total sales of 1.4 percent, which includes a residential growth rate of 1.3 percent, a commercial rate of 1.5 percent and an industrial rate of 2 percent.

Over the five-year planning horizon, UGI expects energy demand to increase at an average rate of 0.4 percent. This includes an average annual increase in residential sales of 0.1 percent, a growth in commercial sales 0.9 percent per year and an industrial growth rate of 0.5 percent. The five-year forecast indicates an average decline in peak load of 0.2 percent. Peak load is projected to decrease from 212 MW in 2006 to 210 MW in 2011.



Peak demand on the UGI system occurred on Aug. 1, 2006, and totaled 212 megawatts (MW), or 5.5 percent above the 2005 peak load of 201 MW. This is the first time UGI reached a summer peak. This peak demand was 5 percent higher than the peak demand experienced during the winter of 2005.



The number of shopping customers in UGI's service territory reached a peak of 2,604 in May 1999. All of those customers have returned to UGI retail service. UGI does not own electric generation supply and will meet its customers' energy requirements by making wholesale purchases in various markets.

Under a Stipulation in Settlement, adopted in June 2006, UGI will provide POLR service to all customers during 2007 under generation rates that are limited to a system average of 8.933 cents per KWH for residential classes and 8.981 cents per KWH for all other rate schedules.

In 2006, UGI offered a Voluntary Load Reduction Program to commercial and industrial customers with the ability to reduce a measurable and verifiable portion of their load during peak periods, or supply some part of their load using self-generation facilities. Each of the program participants had a PJM Locational Marginal Price (LMP) threshold of \$200/MWH. Two commercial and industrial customers actively participated in the program, resulting in a peak load reduction of 644 KW and energy savings of 51.1 MWH. UGI also has a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures.

UGI is a member of PJM.

Section 3 - Regional Reliability

Regional Reliability Assessments

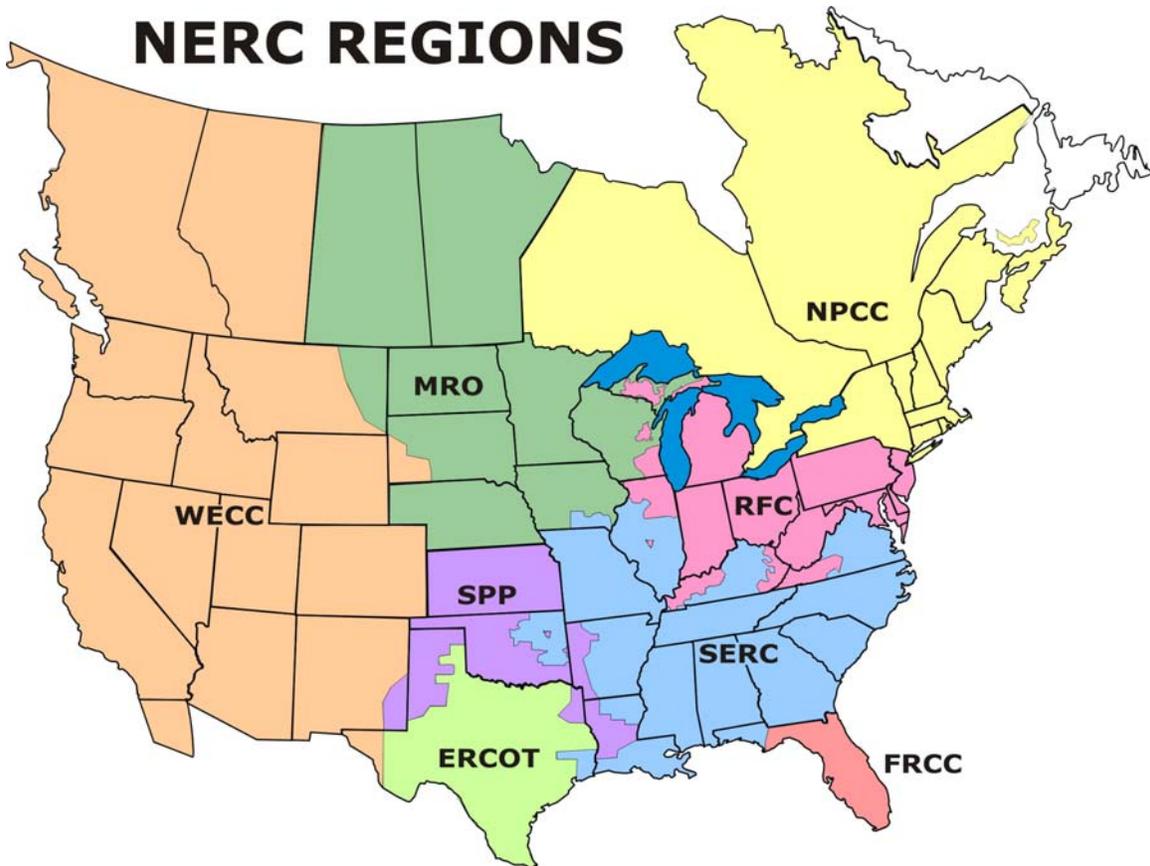
The passage of the Pennsylvania Electricity Generation Customer Choice and Competition Act substantially changed the Commission's jurisdiction as well as our ability to compile data from the generation sector. At this time, all information on generation and transmission capacity is regional. Therefore, this section summarizes the regional reliability assessments of ReliabilityFirst and PJM for generation and transmission capability. The regional reports state that there is sufficient generation and transmission capacity in Pennsylvania to meet the needs of electric consumers for the foreseeable future.

North American Electric Reliability Council

In 1968, electric utilities formed the North American Electric Reliability Council (NERC) to promote the reliability of the electricity supply for North America. Since its formation, NERC has operated as a voluntary organization, dependent on reciprocity and mutual self-interest. Due to the restructuring of the electric utility industry, NERC has been transformed from a voluntary system of reliability management to one that is mandatory, with the backing of U.S. and Canadian governments. The mission of the new organization is to develop, promote and enforce reliability standards.

NERC's members currently include eight regional reliability councils. Members of these regional councils include investor-owned utilities, federal, rural electric cooperatives, state/municipal and provincial utilities, independent power producers, and power marketers. The regional council operating in Pennsylvania is RFC, which is the successor organization to three former NERC Regional Reliability Councils: MAAC, ECAR and MAIN.

NERC REGIONS



Source: <http://www.nerc.com>.

ERCOT - Electric Reliability Council of Texas

FRCC - Florida Reliability Coordinating Council

MRO - Midwest Reliability Organization

NPCC - Northeast Power Coordinating Council

RFC - ReliabilityFirst Corporation

SERC - Southeastern Electric Reliability Council

SPP - Southwest Power Pool

WECC - Western Electricity Coordinating Council

Electric system reliability is addressed by considering two basic and functional aspects of the electric system: adequacy and security. Adequacy is the ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

Security is the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements.

Resource adequacy can be expressed in terms of either reserve margin or capacity margin. Reserve margin is the difference between available resources and net internal demand, expressed as percentage of net internal demand. Capacity margin is the difference between available resources and net internal demand, expressed as a percentage of available resources.

Compliance Standards

NERC believes that compliance with reliability standards must be mandatory. The number and complexity of transactions are increasing, due to an increase in the expanse of competitive markets. Compliance with NERC standards is necessary to maintain system reliability to protect the public welfare and ensure a robust competitive market.

On Aug. 8, 2005, President George W. Bush signed into law the Energy Policy Act of 2005 (Act). Section 1211 of the Act amends the Federal Power Act to grant the FERC regulatory jurisdiction over an Electric Reliability Organization (ERO). This ERO would develop and enforce reliability standards that provide for an adequate level of reliability of the bulk power system. Reliability standards would be approved by the FERC. The ERO would have the authority to impose a penalty on a user, owner or operator of the bulk power system for a violation of an approved reliability standard.

On Feb. 3, 2006, the FERC issued a Final Rule concerning certification of the ERO and procedures for the establishment, approval and enforcement of electric reliability standards.¹³ On April 4, 2006, North American Electric Reliability Corporation (NERC Corp.) filed its application with the FERC to become the ERO. Concurrently with its FERC application, NERC made filings seeking comparable recognition from government authorities in Canada, including the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, and Nova Scotia, and the National Energy Board. On July 20, 2006, the FERC certified the NERC Corp¹⁴ as the ERO for the United States.¹⁵ As the ERO, NERC Corp. will have legal authority to develop and enforce reliability standards for the bulk power system, rather than relying on voluntary compliance. NERC Corp. proposes to delegate its enforcement function to Regional Entities throughout North America. NERC Corp. began operations as the ERO on Jan. 1, 2007.

¹³ Docket No. RM05-30-000; Order No. 672.

¹⁴ NERC Corp. is NERC's wholly owned subsidiary. NERC and NERC Corp. will be merged, with NERC Corp. as the surviving corporation.

¹⁵ FERC, Docket No. RR06-1-000, 116 FERC ¶ 61,602.

Reliability Assessment¹⁶

In its reliability assessment, NERC states that “Available capacity margins are projected to decline over the 2006-15 period.” Available capacity margins, which include only committed resources, are projected to drop below minimum regional target levels in ERCOT, MRO, New England, RFC, and the Rocky Mountain and Canada areas of WECC in the next 2–3 years, with other portions of the Northeastern, Southwest, and Western U.S. reaching minimum levels later in the ten-year period.

Electric utilities forecast demand to increase over the next 10 years by 19 percent (141,000 MW) in the United States and 13 percent (9,500 MW) in Canada, but project committed resources to increase by only 6 percent (57,000 MW) in the U.S., and by 9 percent (9,000 MW) in Canada. Given the short lead time for developing some types of generation, this difference could be offset by assignment or development of capacity that has not yet been committed or announced.

Over 50,000 MW of uncommitted resources exist today NERC-wide that either do not have firm contracts or a legal or regulatory requirement to serve load, lack firm transmission service or a transmission study to determine availability for delivery, are designated or classified as energy only resources, or are in mothballed status because of economic considerations.

Over the next ten years, uncommitted resources will more than double with the inclusion of generation currently under construction or in the planning stage, but which is not yet under contract to serve load. In many cases, these uncommitted resources represent a viable source of incremental resources that can be used to meet minimum regional target levels.

In its report, NERC recognized several issues which need to be addressed regarding resource adequacy.

- Electric utilities need to commit to add sufficient supply-side or demand-side resources, either through markets, bi-lateral contracts, or self supply, to meet minimum regional target levels.
- Electric utilities, with support from state, federal, and provincial government agencies, need to actively pursue effective and efficient demand response programs.
- NERC, in conjunction with regional reliability organizations, electric utilities, resource planning authorities, and resource providers, will address the

¹⁶ NERC, *2006 Long-Term Reliability Assessment*, October 2006.

issue of “uncommitted resources” by establishing more specific criteria for counting resources toward supply requirements.

- NERC will expedite the development of its new reliability standard on resource adequacy assessment that will establish parameters for taking into account various factors, such as: fuel deliverability; energy-limited resources; supply/demand uncertainties; environmental requirements; transmission emergency import constraints and objectives; capability to share generation reserves to maintain reliability, etc.

More than 9,000 miles of new transmission (230 kV and above) are proposed to be added through 2010, with a total of about 12,873 miles added over the 2006-15 timeframe.

The increase represents a 6.1 percent increase in the total miles of installed extra high voltage (EHV) transmission lines (230 kV and above) in North America over the 2006-15 assessment period. Furthermore, upgrading or replacing existing lower capacity transmission lines also increases the capacity and reliability of the existing transmission network, but does not increase the reported miles of transmission lines.

ReliabilityFirst Corporation

ReliabilityFirst Corporation (RFC) is one of eight regional reliability councils comprised of investor-owned electric utilities, power marketers and independent power producers. RFC serves the states of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Virginia, West Virginia, and Wisconsin, and the District of Columbia. There are 46 regular members and 19 associate members.

RFC was established on Jan. 1, 2006, to replace the reliability oversight functions of MAAC, ECAR and MAIN. The two main control areas within the RFC footprint are the PJM RTO and the Midwest ISO.

RFC signatories participate in the wholesale energy and capacity markets, obtain transmission services, enter into bilateral transactions and participate in emergency procedures. RFC members are obligated to comply with its and NERC’s operating and planning principles and standards.

Compliance Standards

The RFC reliability standards require that sufficient generating capacity be installed to ensure that the probability of system load exceeding available capacity is no greater than 0.1 day in one year or one day in 10 years. Load-serving entities that are members of RFC have a capacity obligation determined by

evaluating individual system load characteristics and unit size and operating characteristics. These obligation reserves must be met by all load-serving entities in PJM as signatories to the Reliability Assurance Agreement.

Reliability Assessment

The RFC region is expected to have sufficient resources to satisfy a 15 percent reserve margin through 2007.

Proposed capacity additions and existing capacity that is undeliverable, uncommitted, or energy-only resources, could satisfy the 15 percent reserve margin through 2012, if the transmission system is capable of fully delivering those resources. Additional capacity resources will still be needed beyond 2012 to maintain a 15 percent reserve margin. No commitments to resource development beyond 2011 are known at this time.

The net demonstrated capability was projected to be about 241,000 MW at year end of 2006. This includes capacity from members and nonmembers alike. The total announced increase in generating capacity from 2007 through 2015 is about 15,000 MW. This does not include several thousand megawatts of “possible capacity additions” identified by some members. Approximately 3,700 MW of this potential capacity increase from 2007 through 2015 is in the form of combustion turbines and combined-cycle plants projected to operate on natural gas.

The construction status of many near-term capacity projects is not known until nearly the in-service date, and later projects are not yet under construction. This makes for uncertainty regarding the timing and amount of new capacity additions, and consequently, the expected RFC reserve margins. Additionally, a significant amount of existing capacity is not counted toward meeting the reserve requirements as this capacity is considered undeliverable, is not committed to load within the region, or is an energy only resource.

With curtailment of interruptible loads and demand-side loads, RFC’s coincident net internal demand is projected to increase from 187,500 MW in 2006 to 216,400 MW in 2015. This is an average annual load growth of 1.6 percent over the period of study.

The RFC region’s mix of generating capacity includes 49 percent coal, 15 percent nuclear, 26 percent natural gas, 6 percent oil and 3 percent hydroelectric (including pumped storage).

The transmission networks are expected to meet adequacy and operating criteria over a wide range of anticipated system conditions as established operating procedures are followed, limitations are observed and critical facilities

are placed in service when required. Local transmission overloads are possible during some generation and transmission contingencies. Over the next five years, about 592 miles of extra high-voltage (EHV) transmission lines 230 kV and above, and six new substations are expected to enhance and strengthen the bulk transmission network.

PJM Interconnection L.L.C.

PJM coordinates with its member companies to meet the load requirements of the region. PJM's members also use bilateral contracts and the spot energy market to secure power to meet the electric load of about 51 million people over an area of 164,260 square miles. In order to reliably meet its load requirement, PJM must monitor and assess over 56,000 miles of transmission lines for congestion concerns or physical capability problems. There are over 450 members of PJM.

PJM was formed in 1927 with the interconnection of three utilities to realize the benefits and efficiencies of sharing resources. In 1997, PJM became the first fully functioning independent system operator. Today, PJM is the world's largest centrally dispatched grid operator and administers the world's largest competitive wholesale electricity market.

For a summary of PJM's recent history, see Page 2.

Compliance Standards

The PJM reliability standards are the same as the standards for the MAAC region and the newly formed RFC region. Sufficient generating capacity must be installed to ensure that the probability of system load exceeding available capacity is no greater than one day in 10 years. Currently, a reserve margin of 15 percent of the net internal demand is considered adequate.

PJM also evaluates the adequacy of the planned transmission system's ability to meet customer energy and demand requirements in light of reasonably expected outages to system facilities. Generation plans, transmission plans and load forecasts provide the basis for system models upon which the analysis is performed. The PJM Open Access Transmission Tariff contains certain technical requirements and standards applicable to generation interconnections with transmission providers.

In addition, PJM sets forth member responsive actions to emergency conditions. An emergency in the PJM Control Area is defined as:

- An abnormal system condition requiring manual or automatic action to maintain system frequency, or to prevent loss of firm load, equipment damage, or tripping of system elements that could adversely affect the reliability of an electric system or the safety of persons or property;
- A fuel shortage requiring departure from normal operating procedures in order to minimize the use of such scarce fuel; or
- A condition that requires implementation of emergency procedures.

Emergency procedures include: reductions of load of interruptible customers, voltage reductions, voluntary load curtailments, public appeals to reduce load, automatic load shedding and manual load dumping.

Reliability Assessment

The PJM RTO weather normalized system peak load occurring on Aug. 2, 2006, was 144,644 MW, reflecting the Mid-Atlantic Region and the AP, ComEd, AEP, DAY, DLCO and Dominion Control Zones.¹⁷ This peak load was nearly 8 percent higher than the 2005 peak load. PJM total installed capacity is about 162,571 MW. In 2020, PJM projects that it will need to provide for total generating capacity of 220,000 MW, including reserves.

¹⁷ 2006 State of the Market Report, PJM, March 8, 2007.

The following distribution of energy resources was used to generate electricity in the PJM region:

	2006 Capacity	2005 Generation	2006 Generation
Coal	41%	56%	57%
Nuclear	18%	34%	34%
Hydro, Wind & Other	5%	3%	3%
Oil	7%	1%	0%

*PJM 2006 State of the Market Report.

At the end of 2006, about 46,372 MW of capacity were in PJM generation request queues for construction, increasing supply by over 28 percent. It is not likely that all of the generation in the queues will be built.

Pennsylvania

The Pennsylvania outlook reflects the projections of RFC. Since transmission and generation are not regulated by the Commission, we must look to regional entities for data concerning the status of the electric system. While we can determine the aggregate load for the state's consumers, we do not know, with complete certainty, what generating facilities will be available to serve these consumers.

Planning the enhancement and expansion of transmission capability on a regional basis is one of the primary functions of regional transmission organizations. PJM implements this function pursuant to the Regional Transmission Expansion Planning Protocol (RTEPP) set forth in Schedule 6 of the PJM Operating Agreement. A key part of this regional planning protocol is the evaluation of both generation interconnection and merchant transmission interconnection requests, the procedures for which are codified under Part IV of the PJM Open Access Transmission Tariff.

Although transmission planning is performed on a regional basis, most transmission additions and upgrades in Pennsylvania are planned to support the local delivery system and new generating facilities. The recently announced TrAIL project is the exception.

All new generation, which anticipates interconnecting and operating in parallel with the PJM transmission grid and anticipates participating in the PJM capacity and/or energy markets, must submit an interconnection request to PJM.

These requests are placed in queues, or waiting lists, for the performance of feasibility studies and other technical reviews.

Proposed new generating plants and increased capacity of existing plants located in Pennsylvania total 10,850 MW. These facilities are either under study, under construction, partially in-service or in-service. This additional capacity may be used to serve Pennsylvania customers or out-of-state customers. Appendix B provides the status of new power plant queues for Pennsylvania.

Appendix C lists the existing power plants located in Pennsylvania, along with the operating companies' names and fuel types. The generating capacity of these plants totals 46,475 MW. As stated earlier, the output of some of these facilities may serve loads outside of Pennsylvania.

Section 4 - Conclusions

Conclusions

Pennsylvania continues to benefit from a high level of electric service reliability.

RFC, which covers Pennsylvania, continues to have sufficient generating resources to maintain a high level of reliability during the summer of 2007 and beyond. Load growth in the Mid-Atlantic is expected to be moderate. Thousands of megawatts of new capacity are proposed to be in service between 2007 and 2011, and it is anticipated that total generating capacity will exceed demand by a reliable margin. New capacity will help to ensure the reliability of electric service in the state and will maintain or increase the robustness of the competitive energy markets.

Thus, the regional reliability council reports that there is sufficient generation, transmission and distribution capacity in Pennsylvania to meet the needs of electric consumers for the foreseeable future.

The Commission continues to pursue demand side management, energy efficiency and load-management programs and technologies to address ways to encourage customers to reduce their demand. In the long term, this initiative will improve overall energy efficiency. Furthermore, the implementation of the Alternative Energy Portfolio Standards Act will serve as a catalyst for the development of alternative energy resources. Through demand side measures and overall improvements in energy efficiency, EDCs and all customer classes will benefit from this effort.

* * *

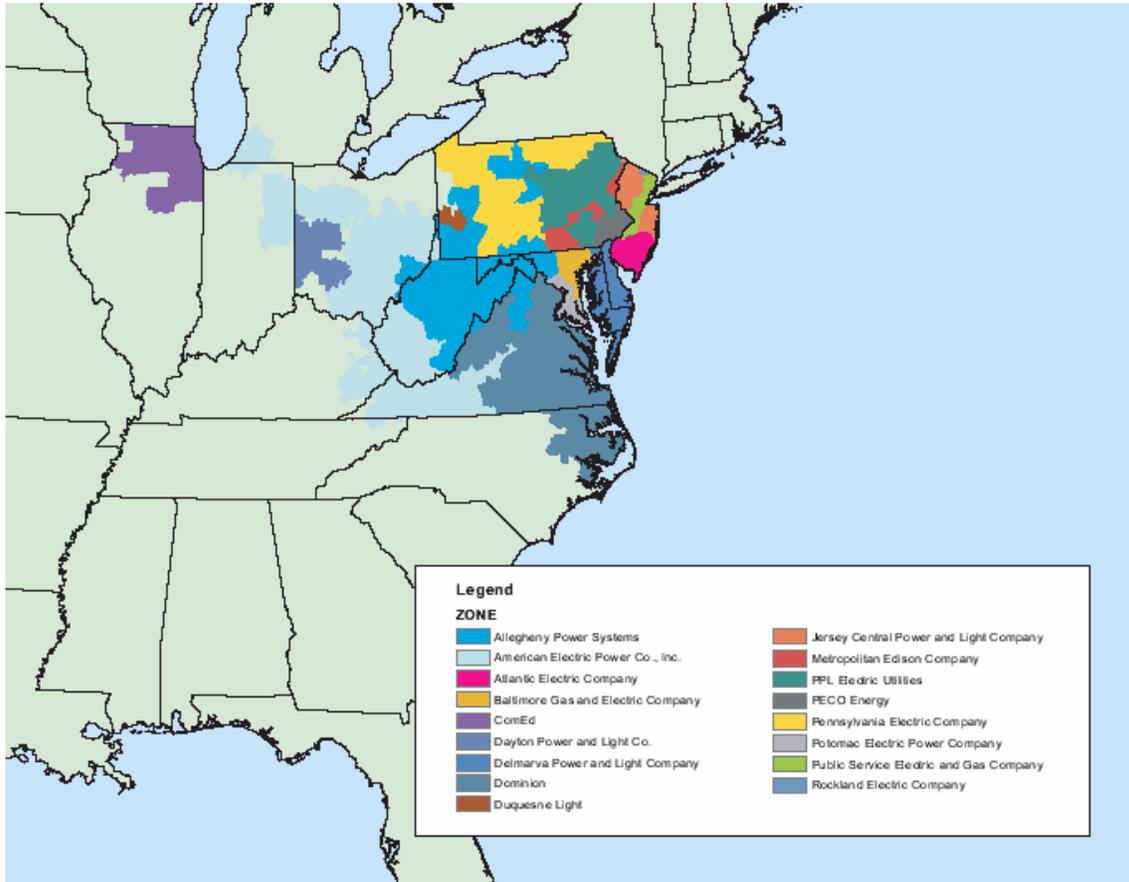
To summarize the relevant statistics in this report, aggregate Pennsylvania sales in 2006 totaled approximately 145 billion kilowatthours (KWH), a 0.7 percent decrease from that of 2005. Pennsylvania's usage represents 4 percent of the United States' total usage. Residential sales accounted for 34.1 percent of the total sales, followed by industrial (32.7 percent) and commercial (30.8 percent).

Between 1991 and 2006, the Commonwealth's energy demand grew an average annual rate of 1.6 percent. Residential sales grew at an annual rate of 1.8 percent, commercial at 2.7 percent and industrial at 0.5 percent. Average total sales growth from 2001 to 2006 was 1.8 percent. The current aggregate five-year projection of growth in energy demand is 1.8 percent. This includes a residential growth rate of 1.9 percent, a commercial rate of 2.1 percent and an industrial rate of 1.4 percent.

Generation and transmission resources within the RFC region are expected to be adequate to maintain regional reliability. RFC's coincident net internal demand forecast shows it increasing from 187,500 MW in 2006 to 216,400 MW in 2015, at an average annual growth rate of 1.6 percent.

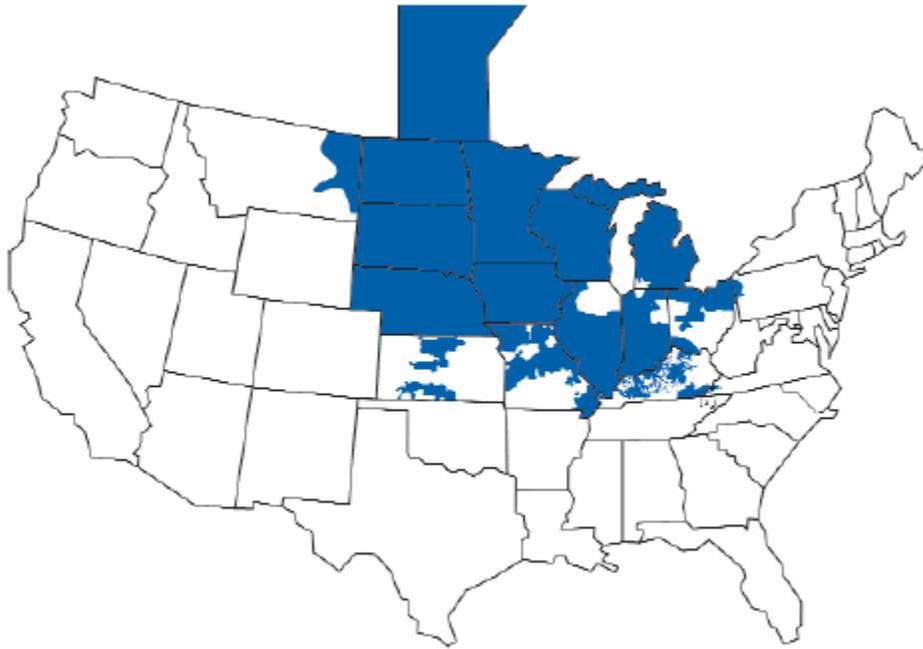
Appendix A – Regional Maps

PJM RTO Service Territory



Source: PJM.

Midwest ISO



Midwest ISO Reliability Area

Source: Midwest ISO.

Appendix B – Status of Plant Additions and Upgrades

Status of Pennsylvania's Plant Additions & Upgrades

Queue	Project	MW	In-Service	Status	Fuel
C02	South Lebanon 230 kV	47	2007	Under Study	Natural Gas
G06	Martins Creek #4	30	2007	Under Study	Coal
G46	Peach Bottom 500 kV	70	2007	Partially In-Service	Nuclear
I13	Hooversville 115 kV	30	2007	Under Construction	Wind
K13	Hooversville 115 kV	6	2007	Under Construction	Wind
L13	Rockwood	40	2007	Under Construction	Wind
L19	Karthus 230 kV	290	2008	Under Construction	Coal
M11	Susquehanna #1	111	2008	Under Construction	Nuclear
M12	Susquehanna #2	107	2007	Under Construction	Nuclear
M26	Champion	272	2008	Under Construction	Coal
N31	Freemansburg 69 kV	5	2007	Under Construction	Methane
N36	Gold-Sabinsville	50	2008	Under Study	Wind
O17	Somerset-Allegheny 115 kV	65	2007	Under Study	Wind
O18	Salix-Claysburg 115 kV	85	2008	Under Study	Wind
O19	Somerset 115 kV	33	2007	Under Study	Wind
O26	Pine Grove 69 kV	8	2007	Under Construction	Diesel
O38	Johnstown-Altoona 230 kV	50	2007	Under Construction	Wind
O40	Pine Grove - Frailey 69 kV	44	2007	Under Study	Wind
O46	Frackville-Hauto #3 69 kV	2	2007	In-Service	Wind
O48	Hays Mill - Lookout 115 kV	36	2007	Under Construction	Wind
O52	Gold-Potter Co 115 kV	100	2007	Under Study	Wind
O56	Osterburg East 115 kV	125	2007	Under Study	Wind
O59	Gold 115 kV	99	2007	Under Study	Wind
O60	Berlin 23 kV	5	2007	Under Study	Wind
O70	Susquehanna - Harwood 230 kV	124	2007	Under Study	Wind
O72	Hooversville - Central City	60	2007	Under Study	Wind
P01	Westover - Madera 115 kV	65	2007	Under Study	Wind
P03	Frackville-Hauto #3	1	2007	In-Service	Wind
P04	Peach Bottom 500 kV	550	2008	Under Study	Natural Gas
P22	Johnstown - Altoona 230 kV	50	2007	Under Study	Wind
P28	Mehoopany 115 kV	150	2007	Under Study	Wind
P45A	Thompson 115 kV	120	2009	Under Study	Wind
P47	Mansfield-S. Trpy 115 kV	100	2007	Under Study	Wind
P60	New Baltimore 115 kV	60	2007	Under Study	Wind
Q20	Holtwood	140	2010	Under Study	Natural Gas
Q24	Gold-Sabinsville 115 kV	101	2008	Under Study	Wind
Q25	Donegal-Iron City 138 kV	80	2008	Under Study	Wind
Q27	Frackville-Shennandoah 69 kV	100	2007	Under Study	Wind
Q28	Eldred-Frackville 230 kV	220	2008	Under Study	Wind
Q34	Garrett 115 kV	100	2008	Under Study	Wind
Q36	Tyrone N. - Philipsburg 115 kV	60	2008	Under Study	Wind
Q45	North Lebanon 13.2 kV	3	2007	Under Construction	Methane
Q46	Curwensville 34.5 kV	10	2009	Under Study	Coal
Q47	Peach Bottom	140	2012	Under Study	Nuclear
Q52	Hunlock Creek	300	2011	Under Study	Coal
Q53	Summit-West Fall 115 kV	50	2008	Under Study	Wind
Q58	Sunbury-Susquehanna	100	2008	Under Study	Wind
Q59	S. Reading-Birdsboro 64 kV	9	2007	Under Construction	Biomass
Q62	Sayton-Snake Spring 115 kV	100	2008	Under Study	Wind

Status of Pennsylvania's Plant Additions & Upgrades (contd)

Queue	Project	MW	In-Service	Status	Fuel
Q72	Mansfield - S. Troy 115 kV	110	2008	Under Study	Wind
Q73	South Reading 69 kV	19	2007	Under Construction	Biomass
R01	Susquehanna	800	2013	Under Study	Nuclear
R02	Susquehanna	800	2013	Under Study	Nuclear
R04	Sunbury 500 kV	817	2011	Under Study	Coal
R05	Thompson 115 kV	50	2009	Under Study	Wind
R08	Central City - Hooversville	300	2012	Under Study	Coal
R09	Summit - Claysburg 115 kV	48	2007	Under Study	Wind
R24	Susquehanna - Alburdis 500 kV	940	2011	Under Study	Coal
R27	Frackville	52	2010	Under Study	Coal
R32	Salix - Claysburg 115 kV	75	2008	Under Study	Wind
R40	Rockwood - Meyersdale 115 kV	2	2007	Under Study	Wind
R41	Roxbury - Blain 23 kV	6	2007	Under Study	Methane
R42	Moselem 69 kV	6	2007	Under Study	Biomass
R45	Mansfield - Tower Hill 115 kV	70	2008	Under Study	Wind
R53	Stanton - Brookside 69 kV	60	2008	Under Study	Wind
R56	Quemahoring - Hooversville	124	2009	Under Study	Wind
R57	South Reading 69 kV	11	2008	Under Construction	Biomass
R81	Emilie 230 kV	120	2008	Under Study	Natural Gas
R92	DuBois 115 kV	70	2009	Under Study	Wind
SO5	Seneca #2 230 kV	16	2007	Under Study	Natural Gas
S103	Warren 115 kV	57	2008	Under Study	Natural Gas
S11	Seward-Tower 51 115 kV	70	2009	Under Study	Wind
S19	Pine Grove-Frailey 69 kV	28	2009	Under Study	Wind
S20	Pine Grove-Fishbach 69 kV	50	2009	Under Study	Wind
S22	Peach Bottom 500 kV	550	2011	Under Study	Natural Gas
S23	Graceton 230 kV	550	2011	Under Study	Natural Gas
S29B	Somerset 23 kV	6	2008	Under Study	Methane
S34	Handsome Lake Energy 345 kV	20	2008	In-Service	Natural Gas
S40	Hegins	16	2008	Under Study	Methane
S41	Eldred-Cleveland 69 kV	13	2008	Under Study	Biomass
S42	Eldred-Fairview	20	2008	Under Study	Wind
S44	Mifflin County	110	2009	Under Study	Wind
S49	Bedford 115 kV	162	2009	Under Study	Wind
S64	York Inc. 115 kV	18	2011	Under Study	Biomass
S65	Cambria	85	2010	Under Study	Wind
S66	Downing Avenue 115 kV	96	2009	Under Study	Other

Natural Gas -- 2,050 MW (18.9%)

Coal -- 3,011 MW (27.8%)

Nuclear -- 2,028 MW (18.7%)

Wind -- 3,545 MW (32.7%)

Methane -- 36 MW (0.33%)

Diesel -- 8 MW (0.07%)

Biomass -- 76MW (0.7%)

Other -- 96 MW (0.9%)

Source: PJM

Appendix C – Existing Generating Facilities

Pennsylvania's Existing Electric Generating Facilities

COMPANY NAME	ST.	PLANT NAME	FUEL TYPE	ALT. FUEL TYPE	TECH. TYPE	MW
A/C Power-Colver Operations	PA	Colver Power Project	Waste Coal			102
AES Corporation	PA	Ironwood	Gas		CC	705
AES Corporation	PA	Beaver Valley	Coal			135
Allegheny Electric Cooperative*	PA	Raystown Hydroelectric Project (Matsen)	Water			21.7
Allegheny Energy Supply*	PA	Armstrong Generating Station	Coal		ST	356
Allegheny Energy Supply*	PA	Chambersburg Gen. Facility, AE Units 12&13	Gas		SC	88
Allegheny Energy Supply*	PA	Gans Gen. Facility, AE Units 8&9	Gas			88
Allegheny Energy Supply*	PA	Hatfield's Ferry Power Station	Coal		ST	1710
Allegheny Energy Supply*	PA	Lake Lynn Hydroelectric Project	Water			52
Allegheny Energy Supply*	PA	Mitchell Generating Station	Coal	Oil		370
Allegheny Energy Supply*	PA	Springdale, Units 1,2,3,4 & 5	Gas		CC	628
Allegheny Energy Supply*	PA	Hunlock Creek Power Station	Gas		CT	46
AmerGen Energy Co. LLC (Exelon)	PA	Three Mile Island	Nuclear			850
American Ref-Fuel Co.	PA	Delaware Valley Resource Recovery Facility	Other			90
Atlantic Renew. & Horizon Wind Energy	PA	Mill Run Wind (FPL)	Wind			15
Atlantic Renew. & Horizon Wind Energy	PA	Somerset Wind Farm	Wind			9
BioEnergy Partners	PA	Pottstown Plant	Other			6.4
Brascan Power	PA	Piney	Water			27
Calpine Corporation	PA	Philadelphia Water Project	Gas			23
Cambria Cogen Co. (Northern Star Gen.)	PA	Cambria County Cogen	Waste Coal			85
Chambersburg Borough Electric Dept	PA	Chambersburg Power Plant	Gas		IC	7.27
City of Harrisburg	PA	Harrisburg WTE Plant	Other			8.2
Cogentrix	PA	Northampton Generating Station	Waste Coal			107
Cogentrix	PA	Scrubgrass Generating Plant	Waste Coal			83
Community Energy	PA	Bear Creek	Wind			24
Conectiv Energy	PA	North East Cogeneration Plant	Gas		CC	81.8
Conectiv Energy	PA	Bethlehem Plant	Gas		CC	1,100
Constellation Energy	PA	Safe Harbor Hydroelectric Plant	Water			417.5
Constellation Power Inc.	PA	Handsome Lake Plant	Gas		SC	250
Constellation Power Inc. (50%)	PA	Panther Creek Energy Facility	Waste Coal			80
Corona Power LLC	PA	Sunbury Generating Station	Coal	Oil	ST/GT/IC	421.7
Covanta Energy Corporation	PA	Lancaster County Resource Recovery Facility	Other			35.7
Dominion Generation	PA	Armstrong County	Gas	Oil	CT	600
Dominion Generation	PA	Fairless Energy	Gas			1180
Duke Energy	PA	Fayette County	Gas		CC	620
Exelon Generation Co. LLC*	PA	Fairless Hills Generating	Other		ST/S	60
Exelon Generation Co. LLC*	PA	Cromby Generating Station	Coal	Oil/Nat. Gas	ST	345
Exelon Generation Co. LLC*	PA	Croydon Plant	Gas			370
Exelon Generation Co. LLC*	PA	Eddystone Generating Station	Coal	Oil/Nat. Gas	ST	1408
Exelon Generation Co. LLC*	PA	Falls Plant	Gas			50
Exelon Generation Co. LLC*	PA	Delaware Generating Station (Retiring)	Oil			250
Exelon Generation Co. LLC*	PA	Exelon Power Dist. Gen. Group (47 Units)	Oil	Gas		795
Exelon Generation Co. LLC*	PA	Grows Landfill	Other			6.6
Exelon Generation Co. LLC*	PA	Limerick Nuclear Gen. Station, Units 1&2	Nuclear			2400
Exelon Generation Co. LLC*	PA	Moser Plant	Oil			48
Exelon Generation Co. LLC*	PA	Muddy Run Hydroelectric Plant	Water			1072
Exelon Generation Co. LLC*	PA	Peach Bottom Atomic Power St., Units 2&3	Nuclear			2186
Exelon Generation Co. LLC*	PA	Pennsbury Plant	Oil			48
Exelon Generation Co. LLC*	PA	Schuylkill Generating Station	Oil			175
Exelon Generation Co. LLC*	PA	Southwark Plant	Oil			54
FirstEnergy Generation Corp.*	PA	Bruce Mansfield Plant	Coal		ST	2360
FirstEnergy Generation Corp.*	PA	York Haven	Water			19
FirstEnergy Generation Corp.*	PA	Seneca Pumped Storage Plant	Water			435
FirstEnergy Nuclear Operating Co.*	PA	Beaver Valley Power Station	Nuclear			1630
FPL Energy	PA	Marcus Hook Plant	Gas		CC	750
FPL Energy	PA	Waymart Wind Farm	Wind			64.5
FPL Energy	PA	Meyersdale Wind Power Project	Wind			30
General Chemical Corp.	PA	Marcus Hook Cogen	Oil			4.5
General Electric Co.	PA	Erie Works Plant	Coal			36
General Electric Co.	PA	Grove City Plant	Oil			10.6
Gilberton Power Co.	PA	John B Rich Power Station	Waste Coal			80
Indiana University of Pennsylvania	PA	S.W. Jack Cogeneration Plant	Gas			24
J.P. Morgan Chase Bank	PA	Liberty Plant	Gas		CC	578
Kimberly Clark	PA	Chester Operations	Waste Coal			60
LS Power Equity Partners	PA	Ontelaunee Energy Center	Gas		CC	550
Merck & Co., Inc.	PA	West Point (PA) Merck Plant	Gas			30.25
Mid-Atlantic Energy Co.	PA	Piney Creek LP	Waste Coal			32
Midwest Generation LLC	PA	Homer City (EME) Generation	Coal		ST	2012
Montenay Power Corp.	PA	Montgomery County	Other			31
Montenay Power Corp.	PA	York County WTE	Other			35

Pennsylvania's Existing Electric Generating Facilities

National Renewable Resources Assoc.	PA	Conemaugh Saltsburg	Water			15
National Wind Power	PA	Garrett (Somerset County)	Wind			10.4
PEI Power Corp.	PA	Archbald Power Station	Gas		CT	70
Pennsylvania Wind Energy	PA	Humboldt Industrial Park	Wind			0.13
Penntech Paper Inc.	PA	Bradford (PA) Plant	Coal			52
Power Systems Operations	PA	Ebensburg Plant	Waste Coal			50
PPL Generation LLC*	PA	PPL Bruner Island	Coal			1434
PPL Generation LLC*	PA	PPL Martins Creek (Retirement 2007)	Coal	Oil	ST/GT	1920
PPL Generation LLC*	PA	PPL Montour LLC	Coal			1526
PPL Generation LLC*	PA	PPL Holtwood	Water			109
PPL Generation LLC*	PA	PPL Lower Mt. Bethel	Gas		CC	575
PPL Generation LLC*	PA	PPL Susquehanna LLC	Nuclear			2352
PPL Generation LLC*	PA	PPL Wallenpaupack	Water			44
PPL Generation LLC*	PA	PPL Allentown CTG	Oil		CT	78
PPL Generation LLC*	PA	PPL Fishbach CTG	Oil		CT	36
PPL Generation LLC*	PA	PPL Harrisburg CTG	Oil		CT	72
PPL Generation LLC*	PA	PPL Harwood	Oil		CT	36
PPL Generation LLC*	PA	PPL Jenkins CTG	Oil		CT	36
PPL Generation LLC*	PA	PPL Lock Haven CTG	Oil		CT	18
PPL Generation LLC*	PA	PPL West Shore CTG	Oil		CT	36
PPL Generation LLC*	PA	PPL Williamsport CTG	Oil		CT	36
Procter & Gamble	PA	Mehoopany Plant	Gas			45
Reliant Energy Wholesale Group*	PA	Blossburg Plant (Mothball Pending)	Gas			19
Reliant Energy Wholesale Group*	PA	Cheswick Generating Station	Coal			577
Reliant Energy Wholesale Group*	PA	Conemaugh Power Plant	Coal	Gas	ST/IC	1883
Reliant Energy Wholesale Group*	PA	Eirama Generating Station	Coal			474
Reliant Energy Wholesale Group*	PA	Hamilton CT	Oil			20
Reliant Energy Wholesale Group*	PA	FR Philips Generating Station	Coal			411.3
Reliant Energy Wholesale Group*	PA	Keystone Generating Station	Coal	Oil		1883
Reliant Energy Wholesale Group*	PA	Mountain Plant	Gas	Oil		40
Reliant Energy Wholesale Group*	PA	New Castle Generating Station	Coal	Oil	ST/IC	303
Reliant Energy Wholesale Group*	PA	Orrtanna Plant	Oil			20
Reliant Energy Wholesale Group*	PA	Portland Generating Station	Coal	Gas	ST/GT/CT	570
Reliant Energy Wholesale Group*	PA	Seward Generating Station	Waste Coal			521
Reliant Energy Wholesale Group*	PA	Shawville Generating Station	Coal	Oil		603
Reliant Energy Wholesale Group*	PA	Titus Generating Station	Coal	Gas	ST/GT	274
Reliant Energy Wholesale Group*	PA	Tolna Station	Oil		CT	40
Reliant Energy Wholesale Group*	PA	Warren Power Plant	Gas	Oil		
Reliant Energy Wholesale Group*	PA	Brunot Island Generating Station	Gas	Oil	3 - SC	343
Reliant Energy Wholesale Group*	PA	Hunterstown Plant	Gas		CC	795
Reliant Energy Wholesale Group*	PA	Wayne	Oil			
Reliant Energy Wholesale Group*	PA	Shawnee CT	Oil		CT	20
Rohm and Haas Co.	PA	Bristol	Oil			1.5
Schuylkill Energy Resources	PA	Shenandoah Plant	Waste Coal			80
Sithe Energies Inc.	PA	Allegheny Lock & Dam No. 8	Water			13
Sithe Energies Inc.	PA	Allegheny Lock & Dam No. 9	Water			17.4
Smurfit-Stone Corp.	PA	Philadelphia Container Plant	Oil			10
Solar Turbines Inc.	PA	York Solar Plant	Gas			70
Temple University	PA	Temple Univ. Standby Electric Gen. Facility	Gas			16
Thermal North America	PA	Grays Ferry Power Plant	Gas		CC	173.6
Tractebel Power Inc.	PA	NEPCO	Waste Coal			50
Tractebel Power Inc.	PA	Northumberland Cogeneration Facility	Other			16.2
Trigen Energy Corp.	PA	Pennsylvania House Power Plant	Other			0.1
UGI Development Co.*	PA	Hunlock Creek Power Station	Coal	Oil		46
Wheelabrator Technologies Inc.	PA	Frackville Energy Co.	Waste Coal			42
Wheelabrator Technologies Inc.	PA	Wheelabrator Falls WTE	Other			53
WPS Power Development	PA	WPS Westwood Generation	Waste Coal			30
Total MW in PA						46475
*=verified data						
Revised 04/23/07						

Source: <http://www.epga.org/GeneratingFacilities.xls>.

Coal - 21,169 MW (45.5 percent)	Oil – 1845 MW (4 percent)
Gas - 9870 MW (21.2 percent)	Waste Coal – 1449 MW (3.1 percent)
Nuclear - 9419 MW (20.3 percent)	Wind – 153 MW (0.3 percent)
Water - 2243 MW (4.8 percent)	Other – 342 MW (0.7 percent)