

Electric Power Outlook for Pennsylvania 2008-2013

July 2009



Pennsylvania Public Utility Commission

ELECTRIC POWER OUTLOOK FOR PENNSYLVANIA 2008-2013

July 2009

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EXECUTIVE SUMMARY

Introduction

Section 524(a) of the Public Utility Code (Code) requires jurisdictional electric distribution companies to submit to the Commission information concerning plans and projections for meeting future customer demand.¹ The Commission's regulations set forth the form and content of such information, which is to be filed on or before May 1 of each year.² Section 524(b) of the Code requires that the Commission prepare an annual report summarizing and discussing the data provided on or before September 1. This report is to be submitted to the General Assembly, the Governor, the Office of Consumer Advocate and each affected public utility.³

Since the enactment of the *Electricity Generation Customer Choice and Competition Act*,⁴ the Commission's regulations have been modified to reflect the competitive market. Thus, projections of generating capability have been obtained from regional assessments.

Overview

This report concludes that there is sufficient generation, transmission and distribution capacity to reasonably meet the needs of Pennsylvania consumers for the near future. Additional generating capacity will likely be needed by 2013.

Regional generation adequacy and reserve margins of the Mid-Atlantic area have been maintained. While sufficient generation capacity is expected through 2012, 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.

To summarize the relevant statistics in this report, electricity demand in Pennsylvania has grown at a rate of 1.5 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 2003 to 2008 was 1.4 percent.

¹ 66 Pa. C.S. § 524(a).

² 52 Pa. Code §§ 57.141—57.154.

³ 66 Pa.C.S. § 524(b).

⁴ 66 Pa.C.S. §§ 2801—2812.

Aggregate sales in 2008 totaled approximately 148 billion kilowatthours, a 0.5 percent decrease from that of 2007. The current projections for 2008-13 show electricity demand growth at 1.2 percent annually. This includes a residential growth rate of 1.0 percent, a commercial growth rate of 1.5 percent and an industrial growth rate of 1.0 percent.

Regionally, generating resources are projected to be adequate for the next several years. ReliabilityFirst's net internal demand forecast shows it increasing from 177,200 MW in 2008 to 201,700 MW in 2017 at an average annual growth rate of 1.5 percent. The need for additional capacity resources ranges from 300 MW in 2013 to about 11,800 MW in 2017 to maintain an adequate reserve margin. Net capacity resources are projected to be 219,632 MW by 2017, resulting in a reserve margin of 8.2 percent, not including uncommitted resources.

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.

Act 213

The Commission continues to implement procedures and guidelines necessary to carry out the requirements of Act 213.⁵ 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. The amount of electricity to be supplied by alternative resources increases to a total of 18 percent by 2021. A subsequent amendment to Act 213 required the Commission to update its net-metering regulations. Among other things, this allows 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 Final Orders governing net metering and interconnection for customer-generators using renewable resources, consistent with the goal of Act 213, and promoting

⁵ The Alternative Energy Portfolio Standards Act, effective February, 28, 2005.

onsite generation by eliminating barriers, which may have previously existed regarding net metering and interconnection.

Act 129

Act 129 of 2008⁶ added Section 2806.1 to the Pennsylvania Code which requires that the Commission adopt an energy efficiency and conservation program for the reduction of energy demand and consumption within the service territory of each electric distribution company with at least 100,000 customers.⁷ Sales are to be reduced by 1 percent by May 31, 2011, and 3 percent by May 31, 2013. Peak demand is to be reduced by 4.5 percent by May 31, 2013. Based on forecast growth data, consumption reduction goals total 1.5 million megawatthours in 2011 and 4.4 million megawatthours in 2013. Peak demand reduction goals total 1,193 MW for 2013. Plans were filed on July 1, 2009.⁸

Act 129 also requires an increase in the percentage share of Tier I alternative energy resources to be sold under the provisions of Act 213.

LIURP

The Pennsylvania Low Income Usage Reduction Program (LIURP) is a statewide, utility-sponsored, residential usage reduction program mandated by Commission regulations.⁹ 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. Since the program's inception in 1988, over \$330 million have been spent on weatherization treatments for more than 292,071 households. For more information on LIURP, see "Long Term Study of Pennsylvania's Low Income Usage Reduction Program: Results of Analyses and Discussion" at:

http://www.puc.state.pa.us/General/publications_reports/pdf/PSU-LIURP_Report2008.pdf.

⁶ Energy Efficiency and Conservation Program, signed by Governor Rendell on October 15, 2008.

⁷ 66 Pa.C.S. § 2806.1.

⁸ Docket No. M-2008-2069887.

⁹ 52 Pa. Code Chapter 58.

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Section 1 - Introduction

Purpose

Electric Power Outlook for Pennsylvania 2008-2013 summarizes and discusses 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 prepared this report, pursuant to Title 66, Pennsylvania Consolidated Statutes, Section 524. This report is submitted annually to the General Assembly, the Governor, the Office of Consumer Advocate and each affected public utility, and also is made available to the general public on the Commission's website.¹⁰

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 region, which impacts Pennsylvania.

Informational sources include data submitted by jurisdictional investor-owned EDCs, which is filed annually pursuant to the Commission's regulations.¹¹ Sources also include data submitted by regional reliability councils to the North American Electric Reliability Corporation (NERC) which is subsequently forwarded to the federal Energy Information Agency (EIA).

¹⁰ See http://www.puc.state.pa.us/general/publications_reports/pdf/EPO_2009.pdf.

¹¹ 52 Pa. Code §§ 57.141—57.154.

Regional Reliability Organizations

In Pennsylvania, all major electric distribution companies 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.

North American Electric Reliability Corporation

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.

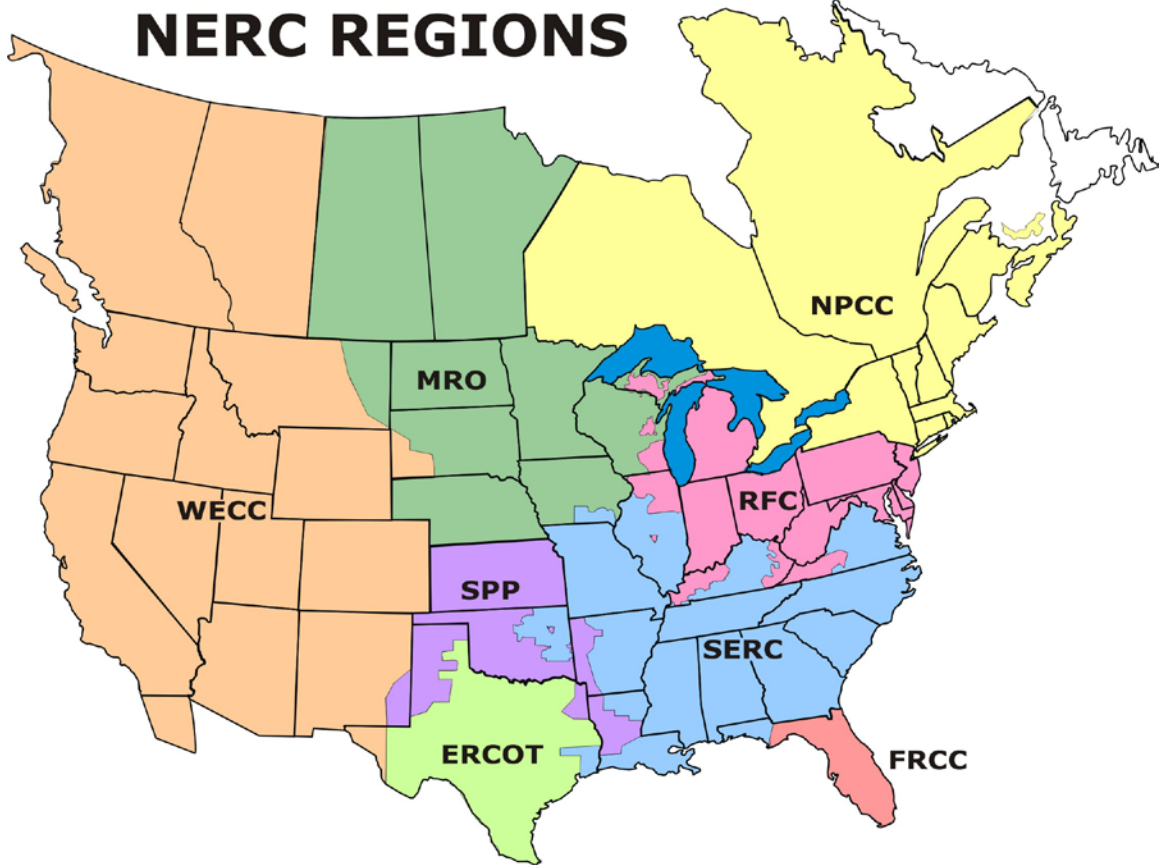
Effective January 1, 2007, NERC and the North American Electric Reliability Corporation merged, with the latter being the surviving entity (also referred to as NERC). As of June 18, 2007, the Federal Energy Regulatory Commission (FERC) granted NERC the legal authority to enforce reliability standards, and made compliance with those standards mandatory.

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 ReliabilityFirst Corporation, which is the successor organization to three former NERC Regional Reliability Councils: MAAC, ECAR and MAIN.

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.

Figure 1.1 provides a map of the eight NERC Regions.

Figure 1.1



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

ReliabilityFirst Corporation

The regional reliability council covering Pennsylvania is the ReliabilityFirst Corporation (RFC), based in Akron, Ohio. RFC was formed by the merger of the Mid-Atlantic Area Council (MAAC), the East Central Area Reliability Coordination

Agreement (ECAR) and the 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 January 1, 2006. See Figure 1.2.

Figure 1.2 ReliabilityFirst Territory



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.

There have been no enforcement actions against any Pennsylvania RFC members since the expansion of NERC's new authority.¹²

¹² See <http://www.nerc.com/filez/enforcement/index.html>.

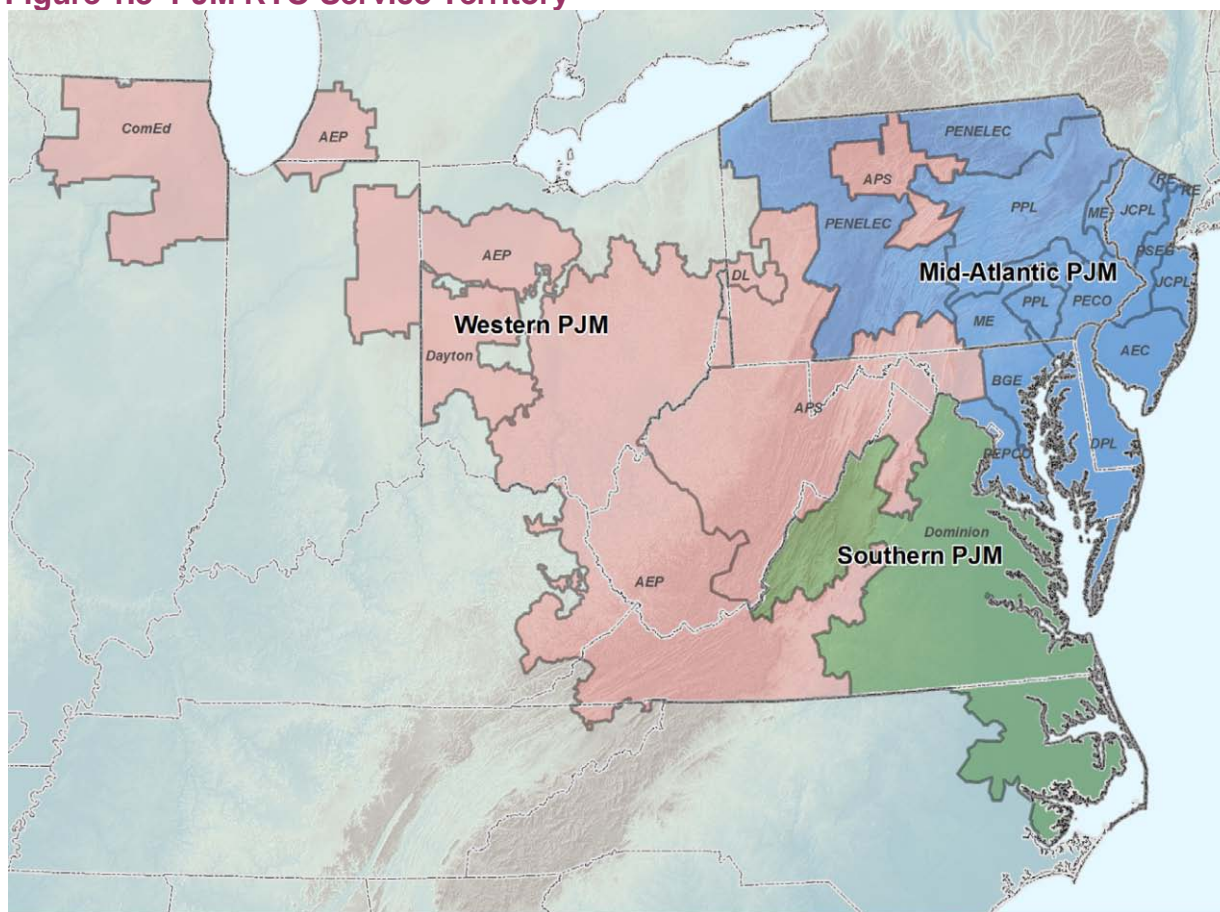
Regional Transmission Organizations

The two main control areas within the RFC footprint are the PJM Regional Transmission Organization (PJM RTO) and the Midwest Independent System Operator (MISO). About two-thirds of the RFC load is in the PJM RTO.

PJM Interconnection

The PJM Interconnection L.L.C. (PJM) is a regional transmission organization that ensures the reliability of the largest centrally dispatched control area in North America. PJM coordinates the operation of about 163,500 MW of generating capacity and 56,350 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. See Figure 1.3.

Figure 1.3 PJM RTO Service Territory



On April 1, 2002, PJM West became operational, broadening the regional scope of the electric grid operator for the Mid-Atlantic Region, to include Allegheny

Power and marking the first time, nationally, that two separate control areas are operated under a single energy market and a single governance structure.

On May 1, 2004, PJM began managing the flow of wholesale electricity over Commonwealth Edison's 5,000 miles of transmission lines in Illinois, making PJM the world's largest grid operator, meeting a peak demand of 87,000 MW. On October 1, 2004, PJM began managing American Electric Power's (AEP's) eastern control area, including nearly 22,300 miles of high-voltage transmission lines within a seven-state area and 23,800 MW of generating capacity. At the same time, Dayton Power and Light integrated into the PJM RTO with 1,000 miles of transmission lines and 4,450 MW of generation. Also, about 20 municipal electric companies, cooperatives and generators in the AEP area have joined PJM. On January 1, 2005, PJM began managing the wholesale flow of electricity for Duquesne Light Company, with 3,400 MW of capacity and 620 miles of transmission lines. These entities, including Allegheny, comprise PJM West.

Virginia Electric and Power (Dominion) was integrated into the PJM RTO on May 1, 2005. Dominion's control area, covering parts of Virginia and North Carolina, operates separately under the single PJM energy market as PJM South, including an additional 6,100 miles of transmission lines and 26,500 MW of generating capacity.

Midwest Independent System Operator

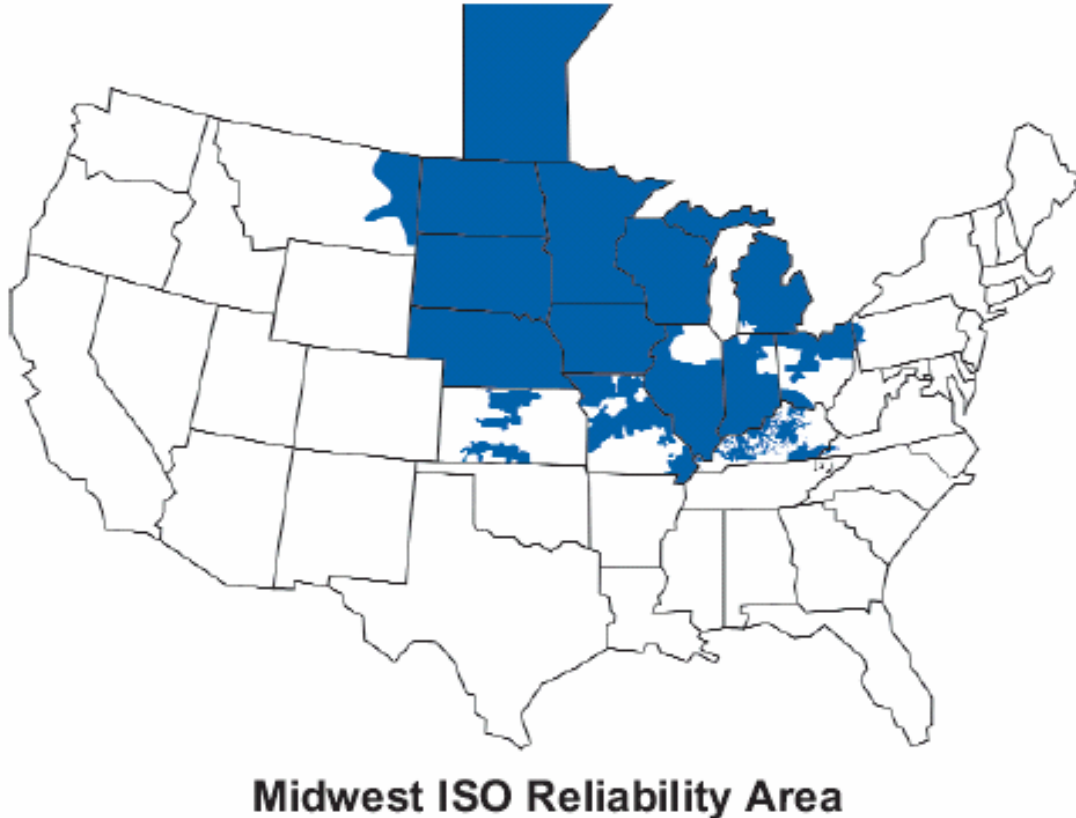
The Midwest Independent System Operator (MISO) is the nation's first RTO approved by the Federal Energy Regulatory Commission (FERC). The MISO, with control centers in Carmel, Indiana, and St. Paul, Minnesota, is responsible for monitoring the electric transmission system, ensuring equal access to the transmission system and maintaining and improving electric system reliability in 13 Midwest states and the Canadian province of Manitoba.

Utilities with 93,600 miles of transmission lines covering 750,000 square miles from Manitoba, Canada, to Kentucky have committed to participate in the MISO. Pennsylvania Power Company is currently the only Pennsylvania utility in the MISO.

On December 10, 2008, Duquesne Light Company announced that it will not transition to the MISO, as indicated earlier. Duquesne has decided to remain with PJM, a decision which was approved by the FERC on January 29, 2009.

Figure 1.4 shows the MISO footprint.

Figure 1.4 MISO Footprint

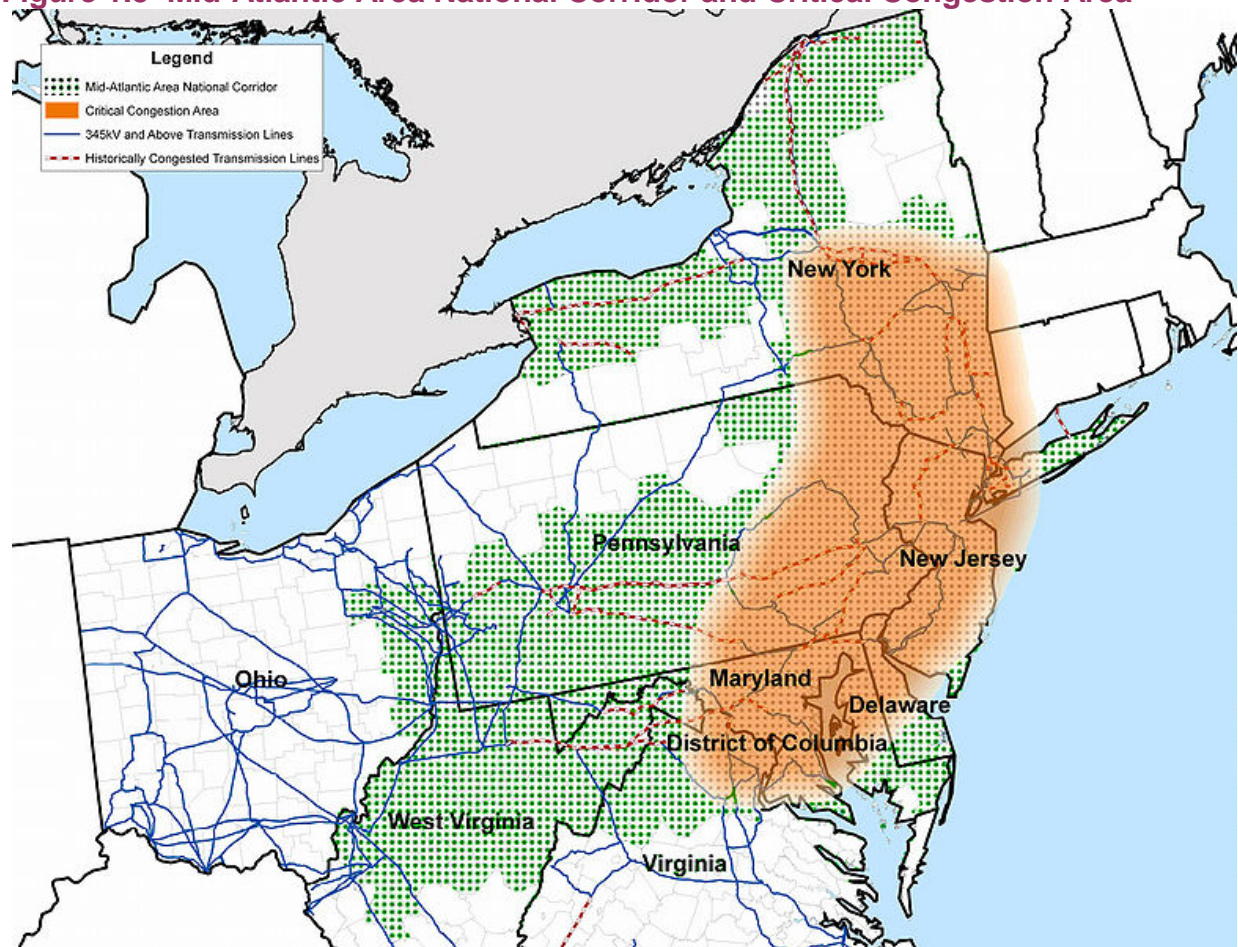


Transmission Line Expansion

Effective October 5, 2007, the U.S. Department of Energy designated 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 the Mid-Atlantic Area National Interest Electric Transmission Corridor under Section 1221 of the Energy Policy Act of 2005. The designation will remain in effect until October 7, 2019. The 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.¹³ See Figure 1.5.

¹³ On February 18, 2009, the U.S. Court of Appeals for the Fourth Circuit issued a decision reversing, vacating and remanding key elements of FERC's final rule implementing its backstop siting authority under Section 216 of the Federal Power Act. In essence, the Court rejected FERC's interpretation that it may exercise its backstop authority when a state commission has affirmatively denied a permit application within one year. *Piedmont Environmental Council v. FERC*, No. 07-1651 (4th Cir. Feb. 18, 2009).

Figure 1.5 Mid-Atlantic Area National Corridor and Critical Congestion Area



The 2008 PJM Regional Transmission Expansion Plan (RTEP), issued February 27, 2009, identifies transmission system upgrades and enhancements to preserve grid reliability. PJM has addressed a number of critical issues in Pennsylvania having a bearing on reliability criteria violations, which drive the need for regional transmission expansion plans. The RTEP identifies two major transmission line projects, approved by the PJM Board, which would have an impact on Pennsylvania.

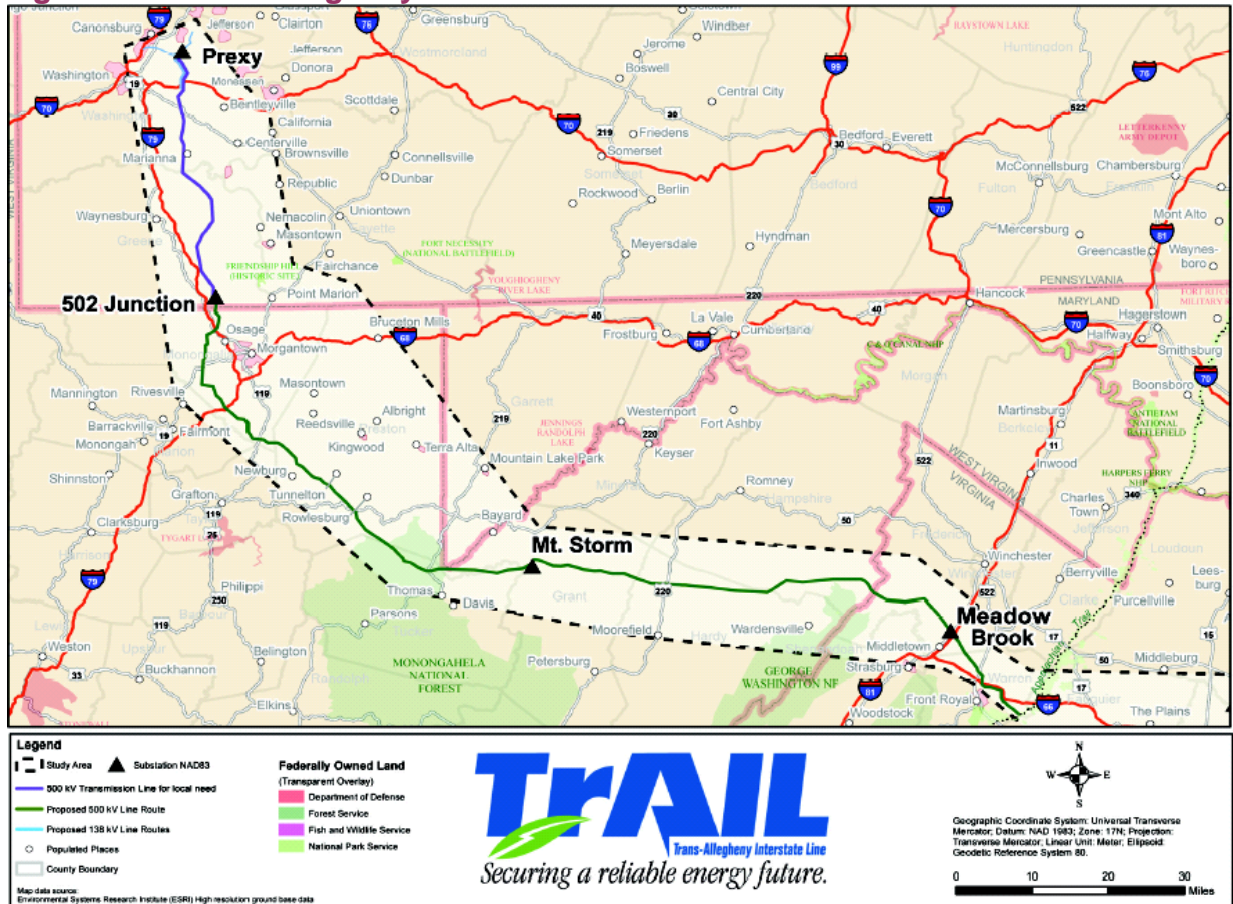
Trans-Allegheny Interstate Line

The 2006 RTEP recommended that Allegheny Power build facilities constituting the Trans-Allegheny Interstate Line (TrAIL). TrAIL was to extend from Southwestern Pennsylvania (37 miles) to West Virginia (114 miles) to Northern Virginia (28 miles). In-service dates ranged 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 one 500 kV and three 138 kV transmission

lines in Washington and Greene counties. The project included 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 Figure 1.6.

Figure 1.6 Trans-Allegheny Interstate Line

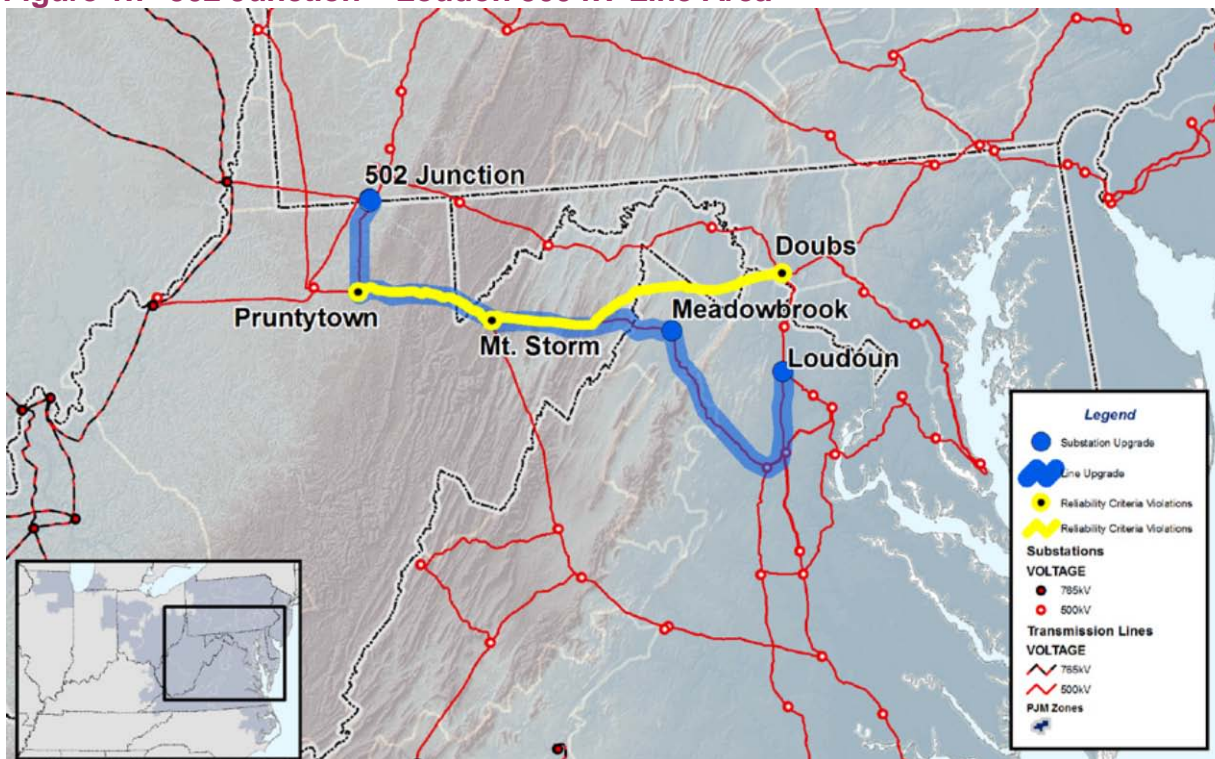


Evidentiary hearings in all three states were concluded by April 2008. A Settlement Agreement was reached for the Pennsylvania portion of the TrAIL Project, involving approval of a 1.2-mile segment of the 500 kV line extending from a new substation in Greene County, Pennsylvania (the 502 Junction) to the West Virginia border. On November 13, 2008, the Commission approved the Settlement Agreement and stayed the application with regard to the Prexy facilities pending the outcome of a collaborative set forth in the Settlement Agreement and the filing of a new or amended application.¹⁴

The 2008 PJM RTEP retool analysis of 2011 system conditions confirmed the need for this line by June 1, 2011, to address reliability criteria violations on the Mt. Storm – Doubs 500 kV line. See Figure 1.7.

¹⁴ Docket Nos. A-110172, *et al.*, and G-00071229.

Figure 1.7 502 Junction – Loudon 500 kV Line Area



Susquehanna – Roseland 500 kV Line

The second 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 substation in Salem Township, Luzerne County, near Berwick, through portions of Luzerne, Lackawanna, Wayne, Pike and Monroe counties to the Delaware River and then eastward to Roseland, New Jersey in the Public Service Electric & Gas Co. system. According to the RTEP, the Susquehanna—Roseland 500 kV project will resolve 21 of 23 identified reliability criteria violations in Eastern Pennsylvania and New Jersey beginning in 2012. The estimated cost to design and construct the Pennsylvania portion of the line (101 miles) is approximately \$510 million.

PPL conducted a multi-faceted analysis to determine the preferred route. Three alternative routes were selected for detailed examination. See Figure 1.8. Following an analysis of comments from the public, societal concerns, environmental impacts, engineering considerations and cost, PPL selected Route B as the preferred route. See Figure 1.9. On January 6, 2009, PPL Electric Utilities Corporation filed its Application for authorization to construct the line and a new substation in Blakely Borough, Lackawanna County. Evidentiary hearings are scheduled for September 2009.

Figure 1.8 Susquehanna—Roseland 500 kV Line

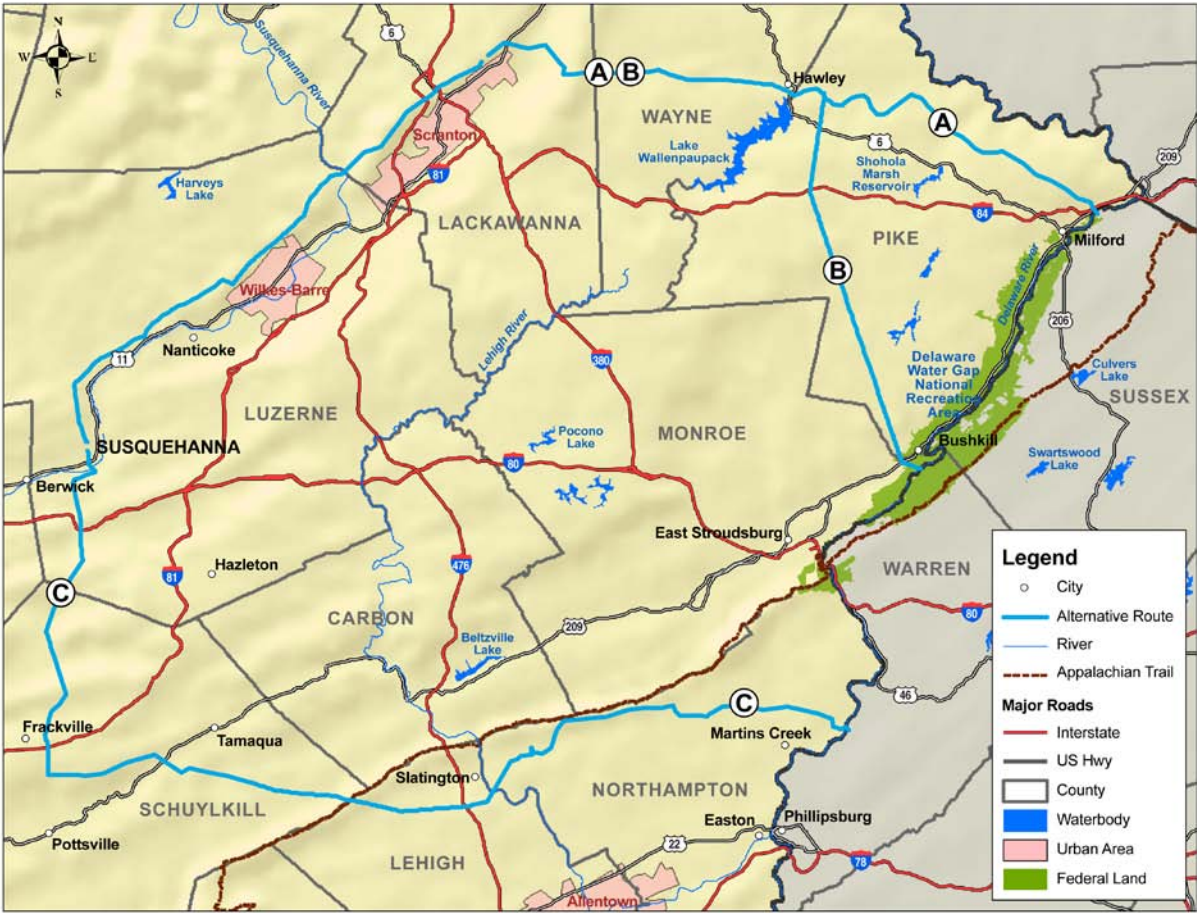
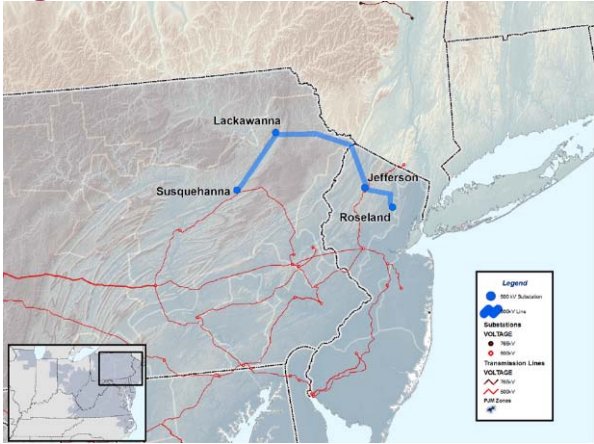


Figure 1.9 Route B

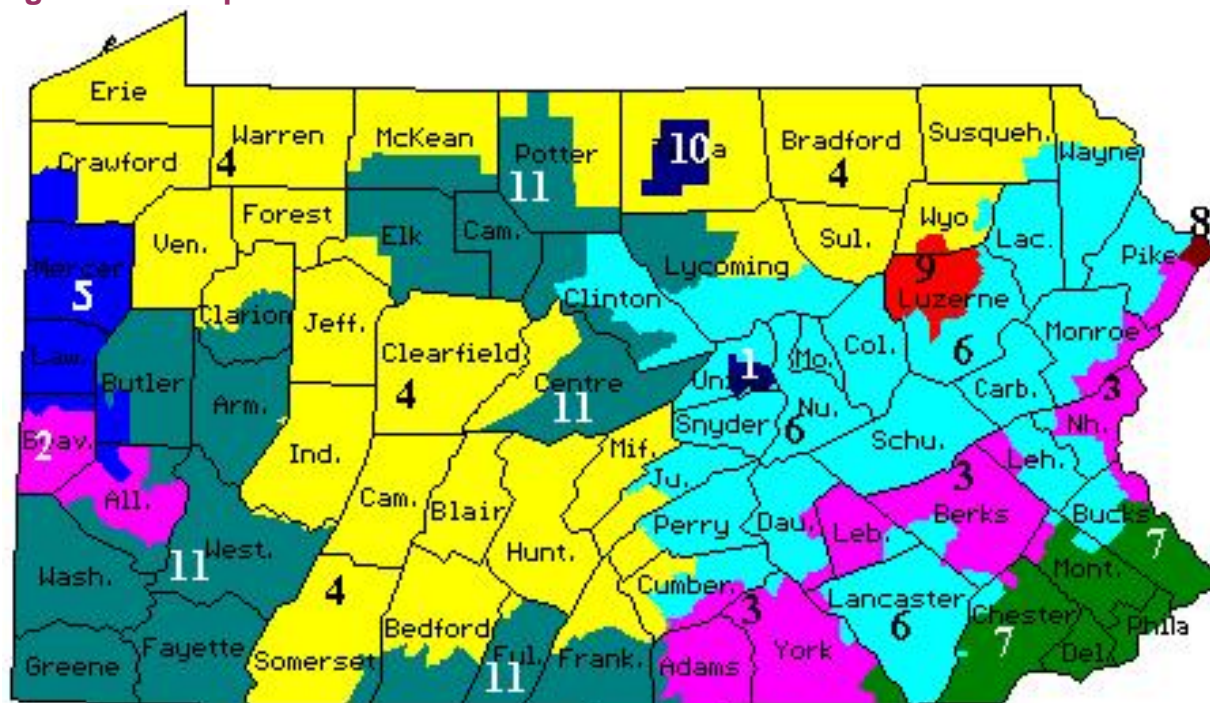


Electric Distribution Companies

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.)

Figure 1.10 Map of EDC Service Territories



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.¹⁵

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, pursuant to a Commission-approved competitive procurement process, for customers who contract for power which is not delivered, or for customers who do not choose an alternate supplier. The acquired electric power must include a prudent mix of spot market purchases, short-term contracts and long-term purchase contracts, designed to ensure adequate and reliable service at the least cost to customers over time. EDCs must also assume the role of provider of last resort for customers choosing to return to the EDC.¹⁶

On May 10, 2007, the Commission finalized the statewide default service rulemaking and policy statement which provides 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. The regulations establish the criteria on how electric generation service is provided to customers who choose to 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.¹⁷

Alternative Energy Portfolio Standards

Act 213¹⁸ 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

¹⁵ Also referred to as “obligation to serve” and “default service.”

¹⁶ 66 Pa.C.S. § 2807(e)(3).

¹⁷ Docket Nos. L-00040169 and M-00072009; 52 Pa. Code §§ 54.4-54.6, 54.31-54.41, 54.123, 54.181-54.189, 57.178 and 69.1801-68.1817.

¹⁸ 73 P.S. §§ 1647.1-1647.8.

wood manufacturing, municipal solid waste, and integrated combined coal gasification technology.

Act 213, which took effect on February 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 (including solar) 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 (a total of 18 percent from both Tier 1 and Tier 2). Act 213 sets forth a 15-year schedule for complying with its mandates, as shown in Table 1.1.

Table 1.1 Alternative Energy Portfolio Standards

Year	Period	Tier 1 (incl. Solar)	Tier 2	Solar PV
1	June 1, 2006 through May 31, 2007	1.50%	4.20%	0.0013%
2	June 1, 2007 through May 31, 2008	1.50%	4.20%	0.0030%
3	June 1, 2008 through May 31, 2009	2.00%	4.20%	0.0063%
4	June 1, 2009 through May 31, 2010	2.50%	4.20%	0.0120%
5	June 1, 2010 through May 31, 2011	3.00%	6.20%	0.0203%
6	June 1, 2011 through May 31, 2012	3.50%	6.20%	0.0325%
7	June 1, 2012 through May 31, 2013	4.00%	6.20%	0.0510%
8	June 1, 2013 through May 31, 2014	4.50%	6.20%	0.0840%
9	June 1, 2014 through May 31, 2015	5.00%	6.20%	0.1440%
10	June 1, 2015 through May 31, 2016	5.50%	8.20%	0.2500%
11	June 1, 2016 through May 31, 2017	6.00%	8.20%	0.2933%
12	June 1, 2017 through May 31, 2018	6.50%	8.20%	0.3400%
13	June 1, 2018 through May 31, 2019	7.00%	8.20%	0.3900%
14	June 1, 2019 through May 31, 2020	7.50%	8.20%	0.4433%
15	June 1, 2020 through May 31, 2021	8.00%	10.00%	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's service territory and the corresponding start dates for compliance are shown in Table 1.2.

Table 1.2 AEPS Compliance Schedule

Company	Exemption Expires	Compliance Begins
Pike County Power and Light	December 31, 2007	January 1, 2008
Citizens' Electric Company	December 31, 2007	January 1, 2008
Wellsboro Electric Company	December 31, 2007	January 1, 2008
UGI Utilities Inc.	December 31, 2006	February 28, 2007
Pennsylvania Power Company	December 31, 2006	February 28, 2007
Duquesne Light Company	December 31, 2007	January 1, 2008
West Penn Power Company	December 31, 2010	January 1, 2011
PPL Electric Utilities Corp.	December 31, 2009	January 1, 2010
Pennsylvania Electric Company	December 31, 2010	January 1, 2011
Metropolitan Edison Company	December 31, 2010	January 1, 2011
PECO Energy Company	December 31, 2010	January 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 October 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.¹⁹ The Commission will use two means to establish qualifications for Alternative Energy Credits: (1) a catalog approach for standard energy saving measures and (2) general guidelines for metered and custom energy saving measures. In April 2007, the Commission entered into a contract with Clean Power Markets to be the Alternative Energy Credit Program Administrator. Clean Power Markets will verify that electric generation suppliers and EDCs are complying with the minimum requirements of Act 213. The Commission also has 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 June 22, 2006, the Commission approved Final Regulations promoting onsite generation by customer-generators using renewable resources and eliminating barriers which may have previously existed regarding net metering. The regulations 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.²⁰

The Commission also approved Final Regulations, on August 17, 2006, which govern interconnection for customer-generators. The regulations promote onsite generation by customer-generators using renewable resources, consistent with the goal of Act 213. The regulations strive to eliminate barriers which may

¹⁹ Docket No. M-00051865.

²⁰ Docket No. L-00050174; 52 Pa. Code §§ 75.11-75.15.

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.²¹

On September 25, 2008, the Commission adopted a Final Rulemaking Order pertaining to the AEPS obligations of the EDCs and EGSs.²²

Act 35 became effective on July 17, 2007, which amends provisions of Act 213, including definitions of customer-generators, the reconciliation mechanism for surplus energy supplied through net metering and the price to be paid for such surplus energy. Pursuant to Act 35, on February 26, 2009, the Commission approved standard Interconnection Application Forms and a Policy Statement addressing Interconnection Application Fees.

Act 35 also expanded the definition of Tier 1 alternative energy sources to include solar thermal energy.

Energy Efficiency and Conservation Program

Act 129 of 2008²³ added Section 2806.1 to the Pennsylvania Code to require that the Commission adopt an energy efficiency and conservation program for the reduction of energy consumption and peak demand within the service territory of each electric distribution company with at least 100,000 customers.²⁴ Sales are to be reduced by 1 percent by May 31, 2011, and 3 percent by May 31, 2013. Peak demand is to be reduced by 4.5 percent by May 31, 2013.

On January 15, 2009, the Commission adopted an Implementation Order to establish the standards each program must meet and provide guidance on the procedures to be followed for submittal, review and approval of all aspects of EDC plans. Programs are to be evaluated using a total resource cost test, based on the *California Manual*, as modified by the Commission.²⁵ Each plan must include a proposed cost recovery tariff mechanism. Plans were filed on July 1, 2009.²⁶

Based on forecast growth data, consumption reduction goals total 1.5 million megawatthours in 2011 and 4.4 million megawatthours in 2013. Peak demand reduction goals total 1,193 MW for 2013. These goals were adopted by the Commission on March 26, 2009. See Table 1.3.

²¹ Docket No. L-00050175; 52 Pa. Code §§ 75.21-75.40.

²² Docket No. L-00060180; 52 Pa. Code §§ 75.61-75.70.

²³ Energy Efficiency and Conservation Program, signed by Governor Rendell on October, 15, 2008.

²⁴ 66 Pa.C.S. § 2806.1.

²⁵ A version of this methodology was previously adopted by the Commission on September 14, 1984, which was subsequently vacated on January 13, 1995, 14 Pa. B. 4514; 52 Pa. Code §§ 69.121-69.122.

²⁶ Docket No. M-2008-2069887.

Table 1.3 Consumption & Peak Demand Reductions

	1% (MWH)	3% (MWH)	4.5% (MW)
Duquesne	140,855	422,565	113
Met-Ed	148,650	445,951	119
Penelec	143,993	431,979	108
Penn Power	47,729	143,188	44
PPL	382,144	1,146,431	297
PECO	393,860	1,181,580	355
West Penn	209,387	628,160	157
Total	1,466,618	4,399,854	1,193

Act 129 also requires an increase in the percentage share of Tier I alternative energy resources to be sold under the provisions of Act 213. The types of alternative energy resources that qualify as Tier I resources were expanded to include specific categories of low impact hydropower and biomass energy.²⁷ A Final Order was adopted on May 28, 2009.²⁸

²⁷ See Act 129 of 2008, section 5, codified in the Pennsylvania consolidated statutes as 66 Pa. C.S. § 2814.

²⁸ Docket No. M-2009-2093383.

Section 2 – Historic and Forecast Data

2008: 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 2008 totaled approximately 148.3 billion kilowatthours (KWH), a 0.5 percent decrease from that of 2007. This decrease was evident in all retail customer groups and follows a 2.8 percent increase in sales from 2006 to 2007. Market share remained unchanged, with residential sales representing 34.6 percent of the total sales, followed by industrial (32 percent) and commercial (30.9 percent). Aggregate non-coincident peak load²⁹ increased to 29,970 MW in 2008, up over 3.3 percent from 2007. See Tables 2.1 and 2.2.

Table 2.1 Major PA EDCs' Energy Demand, Peak Load and Customers Served (2008)

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	586,804	4,060,410	6,631,217	3,079,488	66,811	22,708	13,860,634	963,150	30,222	14,854,006	2,822
Met-Ed	549,486	5,597,600	4,776,548	3,831,118	35,467	0	14,240,733	961,231	13,270	15,215,235	3,045
Penelec	589,552	4,557,862	5,185,820	4,593,995	41,574	0	14,379,251	881,122	4,804	15,265,177	2,880
Penn Power	159,585	1,666,785	1,404,034	1,614,208	6,466	4,348	4,695,840	154,133	1,968	4,851,942	1,063
PECO	1,570,294	13,317,085	8,700,237	16,533,639	908,982	554,752	40,014,695	1,941,212	47,774	42,003,681	8,824
PPL	1,394,202	14,418,614	13,912,558	9,551,368	225,891	981,726	39,090,157	2,665,912	72,806	41,828,875	7,316
UGI	62,262	530,174	344,039	122,861	5,658	91	1,002,824	52,016	1,809	1,056,650	197
West Penn	713,409	7,172,183	4,925,027	8,134,755	52,001	759,876	21,043,842	1,300,129	-	22,343,971	3,823
Total	5,625,594	51,320,713	45,879,480	47,461,432	1,342,850	2,323,501	148,327,976	8,918,905	172,653	157,419,537	29,970
% of Total		34.60%	30.93%	32.00%	0.91%	1.57%	100.00%				
2008 v 2007	0.45%	-0.72%	-0.22%	-0.54%	-1.51%	1.62%	-0.48%	-20.55%	35.31%	-1.86%	3.34%

Table 2.2 Major PA EDCs' Energy Demand, Peak Load and Customers Served (2007)

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	586,526	4,210,531	6,715,380	3,145,181	67,288	0	14,138,380	933,192	-	15,071,572	2,890
Met-Ed	546,158	5,595,280	4,714,979	3,992,283	34,646	0	14,337,188	1,093,899	-	15,431,087	2,825
Penelec	589,691	4,496,831	5,138,859	4,609,562	41,219	0	14,286,471	1,494,819	-	15,781,290	2,524
Penn Power	159,298	1,689,599	1,413,599	1,627,118	6,493	0	4,736,809	771,548	-	5,508,357	1,042
PECO	1,558,421	13,487,283	8,891,613	16,582,182	930,451	520,226	40,411,755	2,265,533	53,271	42,730,559	8,549
PPL	1,386,972	14,410,626	13,755,584	9,481,636	225,887	1,015,486	38,889,219	3,275,807	72,177	42,237,203	7,141
UGI	62,290	537,836	351,978	120,586	5,504	97	1,016,001	59,168	2,150	1,077,318	192
West Penn	711,049	7,265,513	4,997,928	8,159,596	51,986	750,568	21,225,591	1,331,945	-	22,557,536	3,838
Total	5,600,405	51,693,499	45,979,920	47,718,144	1,363,474	2,286,377	149,041,414	11,225,911	127,598	160,394,922	29,001
% of Total		34.68%	30.85%	32.02%	0.91%	1.53%	100.00%				

* For some EDCs, "company use" is included in "system losses."

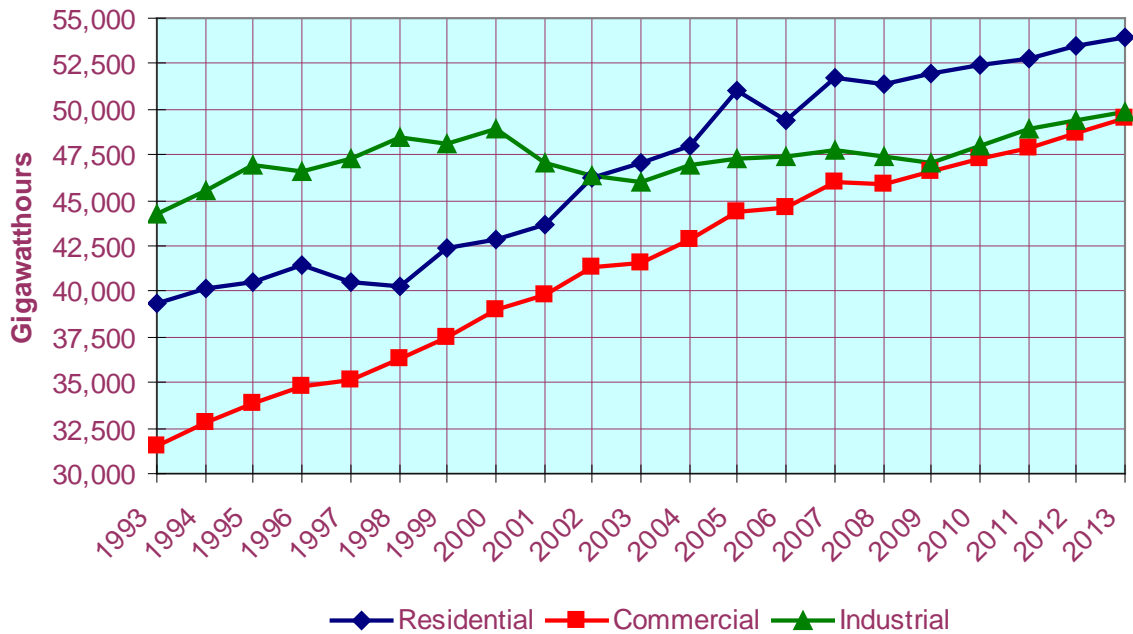
Between 1993 and 2008, the state's energy demand grew at an average rate of 1.5 percent annually. Residential sales grew at an annual rate of 1.8 percent, commercial at 2.5 percent and industrial at 0.5 percent. Over the past five years, residential demand increased an average of 1.8 percent per year,

²⁹ The sum of EDCs' annual peak loads regardless of their date or time of occurrence.

commercial at 2 percent and industrial at 0.6 percent. Average total sales growth from 2003 to 2008 was 1.4 percent.

The current aggregate five-year projection of growth in energy demand is 1.2 percent. This includes a residential growth rate of 1.0 percent, a commercial rate of 1.5 percent and an industrial rate of 1.0 percent. See Figure 2.1.

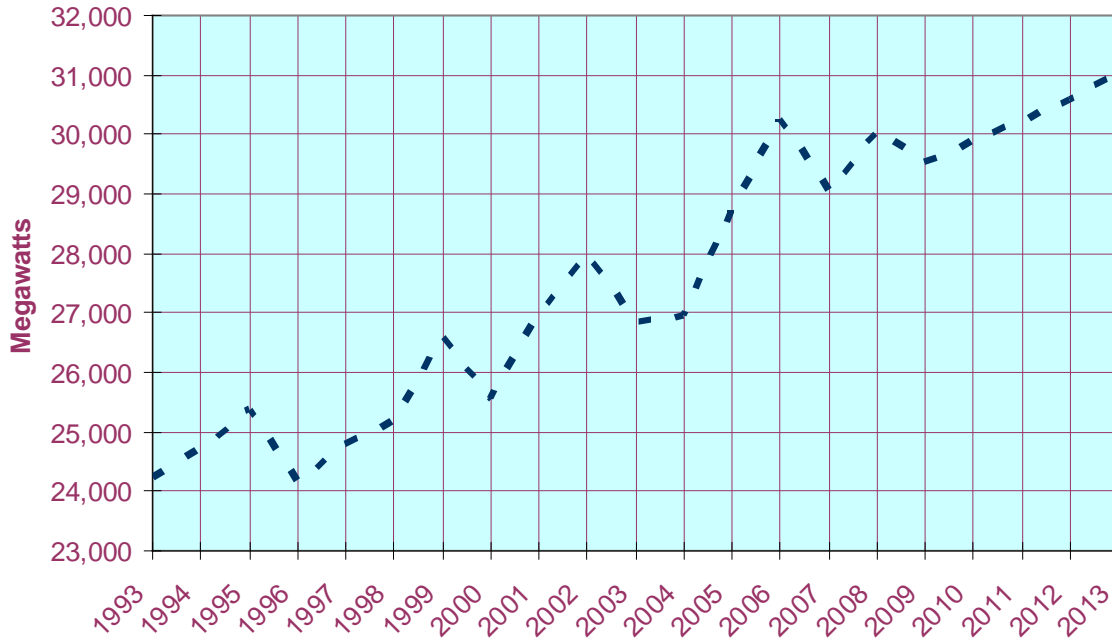
Figure 2.1 Historic & Forecast Aggregate Energy Demand



Over the past 15 years, the average aggregate non-coincident peak load for the major EDCs increased 1.4 percent per year. From 2003-08, the peak load increased by an average of 2.2 percent per year. From 2007-08, the aggregate peak load increased from 29,001 MW to 29,970 MW, or 3.3 percent. The 2008 peak occurred on June 9 and June 10. See Figure 2.2.

The combined forecast of the EDCs' peak load shows the load increasing from 29,970 MW in 2008 to 31,038 MW in 2013 at an average annual growth rate of 0.7 percent. Actual 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.

Figure 2.2 Historic & Forecast Aggregate Peak Load

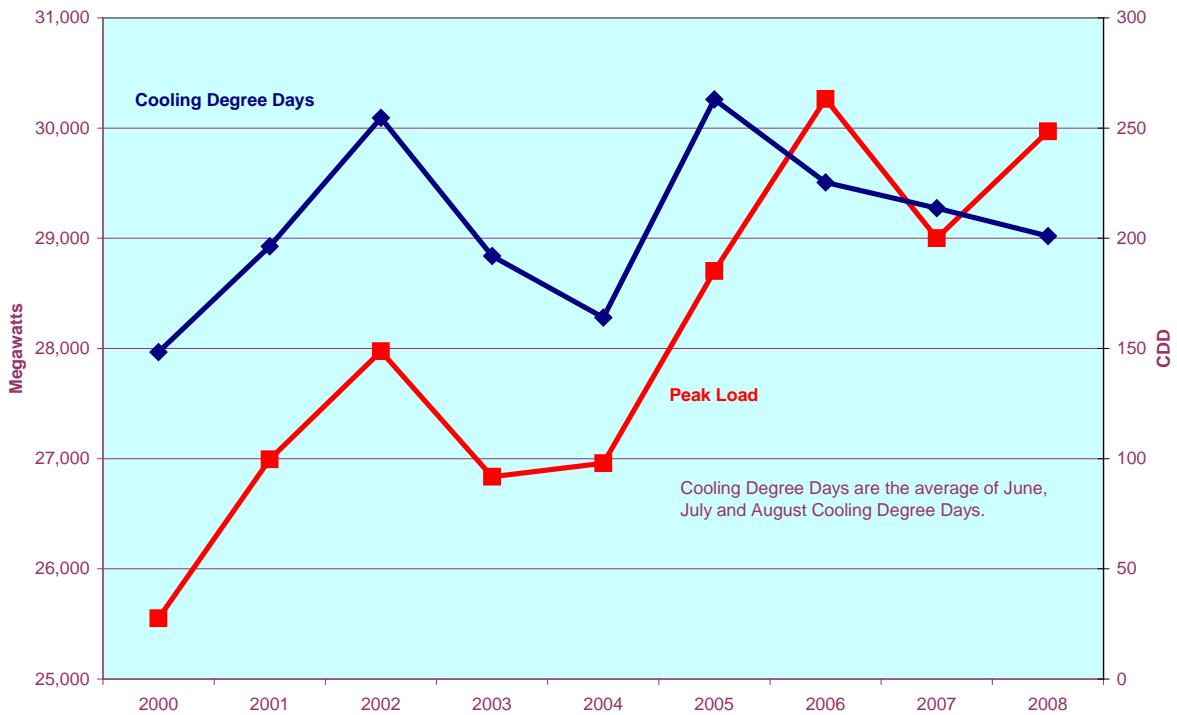


Projections of energy demand and peak load reflect EDC compliance with the requirements of Act 129 relating to energy efficiency and demand response options available for each customer class.

Most EDCs are summer peaking³⁰, and there is usually a correlation between cooling degree days and peak load. Figure 2.3 provides a comparison between cooling degree days and peak load for the past nine years. In some years, the peak load relationship appears to have a strong correlation with cooling degree days. However, in 2008, the increase in peak load corresponds with a decrease in cooling requirements. See Figure 2.3.

³⁰ An EDC with its highest annual load occurring June through September.

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



Source: Cooling Degree Data obtained from National Oceanic and Atmospheric Administration, National Weather Service Climate Prediction Center.

In 2008, over 8.6 million MWH was purchased from independent power producers and qualifying facilities, representing 5.5 percent of net energy for load. See Table 2.3.

Table 2.3 2008 Purchases from IPPs & QFs by Pennsylvania EDCs

EDC	Purchased Energy (MWH)	Percent of Net Energy for Load	Contract Capacity (KW)	Total Capacity (KW)
Citizens'	5,567	3.00%	0	0
Duquesne	0	0.00%	0	0
Met-Ed	2,290,170	15.05%	295,000	354,900
Penelec	3,026,846	19.83%	374,350	427,350
Penn Power	17	0.00%	0	0
PECO	646,538	1.54%	181,000	384,082
PPL	1,747,207	4.18%	0	246,000
UGI	0	0.00%	0	0
West Penn	926,597	4.15%	136	151
Total	8,642,942	5.48%	850,486	1,412,483

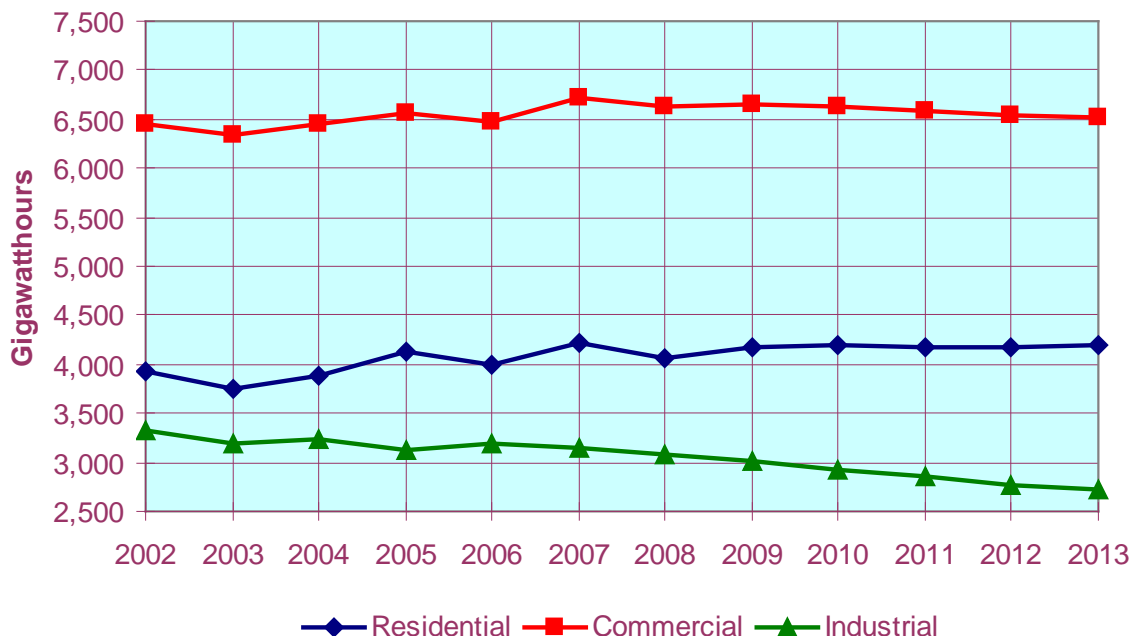
Summary of EDC Data

Duquesne Light Company

Duquesne Light Company (Duquesne) provides service to 586,804 electric utility customers in Southwestern Pennsylvania. In 2008, Duquesne had energy sales totaling nearly 13.9 billion kilowatthours (KWH) -- down 2.0 percent from 2007. Commercial sales continued to dominate Duquesne's market with 47.8 percent of the total sales, followed by residential (29.3 percent) and industrial (22.2 percent).

Between 1993 and 2008, Duquesne's total energy demand increased about 1.1 percent per year: residential demand grew at an annual rate of 1.5 percent; commercial demand grew at 1.3 percent; and industrial demand increased at an average annual rate of 0.07 percent. See Figure 2.4.

**Figure 2.4 Duquesne Light Company
Historic & Forecast Energy Demand**



The current five-year projection of average change in total energy consumption is about -0.5 percent per year. This includes a residential growth rate of 0.7 percent, a commercial rate of -0.3 percent and a major decline in industrial sales of -2.4 percent per year.

Duquesne's summer peak load, occurring on June 9, 2008, was 2,822 megawatts (MW), representing a decrease of 3.3 percent from last year's peak of 2,890 MW. The 2007-08 winter peak load was 2,245 MW or 5.1 percent higher than that of the previous year.

The actual average annual peak load growth rate over the past 15 years was 0.8 percent. Duquesne's forecast shows the peak load increasing from 2,822 MW in the summer of 2008 to 2,890 MW in 2013, or an average annual growth rate of 0.5 percent. The current forecast for 2009 is 4.8 percent below the previous forecast, filed in 2008. See Figure 2.5.

**Figure 2.5 Duquesne Light Company
Historic & Forecast Peak Load**



Tables 2.4-2.7 provide Duquesne's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

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

For Calendar Year 2008, 13 electric generation suppliers (EGSs) and one municipality sold a total of 8.1 billion KWH to retail customers in Duquesne's service territory, or about 58.6 percent of total consumption. There were no instances in 2008 where EGSs failed to supply scheduled load. Since joining PJM

in 2005, PJM has provided energy imbalance service to all load-serving entities, which includes the EGSs.

Over the next four years, Duquesne plans to add 76.1 miles of high-voltage transmission lines to its system through 2013 at a total cost of \$195.9 million.

Duquesne's Direct Load Control Program continued in 2008 for residential and small 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 benefits of this program lie in the area of customer education, as the amount of load curtailed as a result of this program is not significant. Duquesne also offers a real-time Hourly Price Schedule for commercial and industrial customers, which provides hour-by-hour market price signals to customers who can respond by controlling and modifying their usage and consumption patterns.

Duquesne also has a program for the reduction of the energy consumption of low income customers by providing a variety of weatherization measures.

Duquesne is a member of RFC and PJM.

**Table 2.4 Duquesne Light Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirments										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	2756	2715										
2000	2673	2736	2638									
2001	2771	2757	2661	2661								
2002	2886	2776	2682	2682	2850							
2003	2686	2798	2702	2702	2884	2822						
2004	2646		2723	2723	2912	2841	2719					
2005	2884			2743	2934	2855	2740	2722				
2006	3053				2953	2870	2771	2765	2765			
2007	2890					2884	2801	2805	2805	3039		
2008	2822						2831	2835	2835	3086	2948	
2009								2873	2873	3141	3007	2862
2010									2910	3194	3067	2836
2011										3242	3128	2857
2012											3191	2850
2013												2890

**Table 2.5 Duquesne Light Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	3526	3366										
2000	3509	3383	3610									
2001	3584	3400	3643	3643								
2002	3924	3415	3681	3681	3671							
2003	3759	3432	3716	3716	3726	3697						
2004	3886		3759	3759	3772	3721	3811					
2005	4134			3780	3810	3744	3832	3941				
2006	3991				3846	3767	3879	4018	3984			
2007	4211					3791	3925	4088	4054	4141		
2008	4060						3978	4125	4118	4214	4216	
2009								4198	4181	4293	4293	4177
2010									4243	4372	4371	4188
2011										4453	4444	4181
2012											4527	4171
2013												4197

**Table 2.6 Duquesne Light Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	5954	5983										
2000	6092	6073	6113									
2001	6170	6157	6231	6231								
2002	6458	6236	6336	6336	6324							
2003	6346	6327	6438	6438	6467	6436						
2004	6454		6540	6540	6570	6505	6428					
2005	6566			6628	6653	6570	6479	6568				
2006	6474				6729	6636	6597	6711	6693			
2007	6715					6703	6713	6870	6847	6784		
2008	6631						6841	6949	6991	6942	6731	
2009								7076	7129	7127	6768	6648
2010									7259	7302	6815	6627
2011										7457	6878	6583
2012											6952	6533
2013												6527

**Table 2.7 Duquesne Light Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	3481	3771										
2000	3581	3836	3537									
2001	3283	3901	3576	3576								
2002	3328	3964	3615	3615	3315							
2003	3189	4027	3651	3651	3382	3349						
2004	3229		3695	3695	3445	3415	3031					
2005	3128			3742	3491	3437	2990	3347				
2006	3182				3530	3453	3033	3407	3229			
2007	3145					3471	3075	3458	3299	3271		
2008	3079						3123	3501	3359	3315	3098	
2009								3542	3411	3369	3102	3002
2010									3464	3420	3084	2933
2011										3467	3140	2851
2012											3141	2777
2013												2726

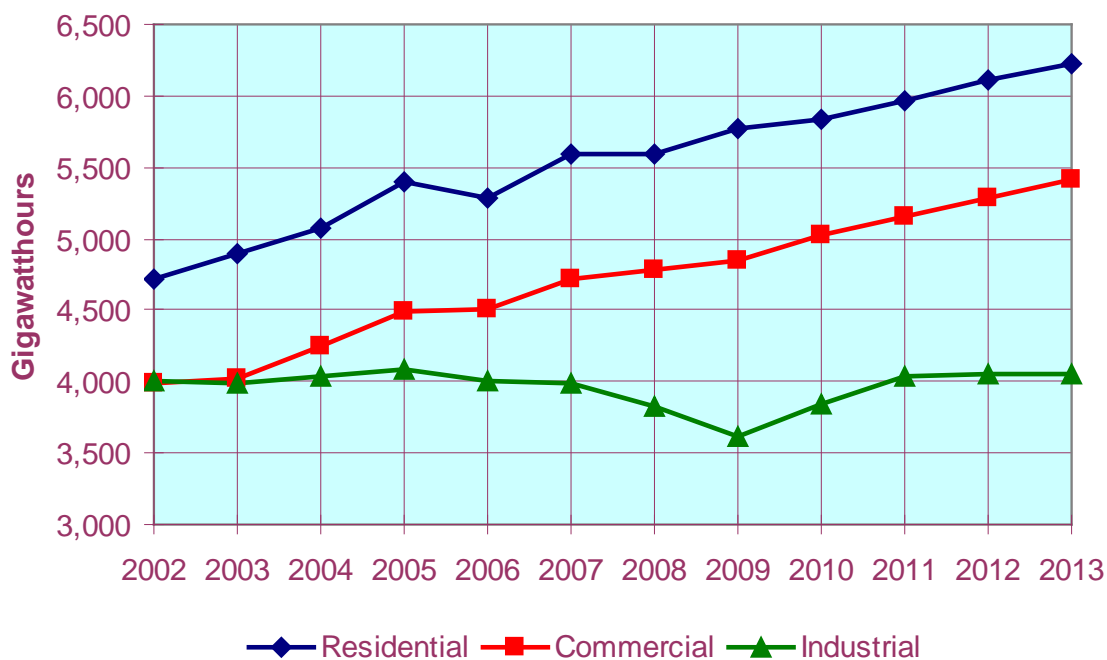
Metropolitan Edison Company

Metropolitan Edison Company (Met-Ed) provides service to 549,486 electric utility customers in Eastern and Southcentral Pennsylvania. In 2008, Met-Ed had total energy sales of 14.2 billion kilowatthours (KWH) -- down 0.7 percent from 2007. Residential sales dominated Met-Ed's market with 39.3 percent of total sales, followed by commercial (33.5 percent) and industrial (26.9 percent). Residential and commercial sales increased from 2007, while industrial sales declined 4.0 percent. Industrial sales were 86.8 percent of the highest level occurring in 2000.

Between 1993 and 2008, Met-Ed's energy demand grew at an average rate of 3.0 percent per year. Residential and commercial sales have maintained relatively steady growth over the period (2.6 percent for residential and 3.6 percent for commercial), while industrial sales have fluctuated considerably. Industrial sales grew at an average rate of about 0.3 percent.

The current five-year projection of growth in total energy demand is 2.0 percent. This includes a residential growth rate of 2.2 percent, a commercial growth rate of 2.6 percent and an industrial rate of 1.1 percent. See Figure 2.6.

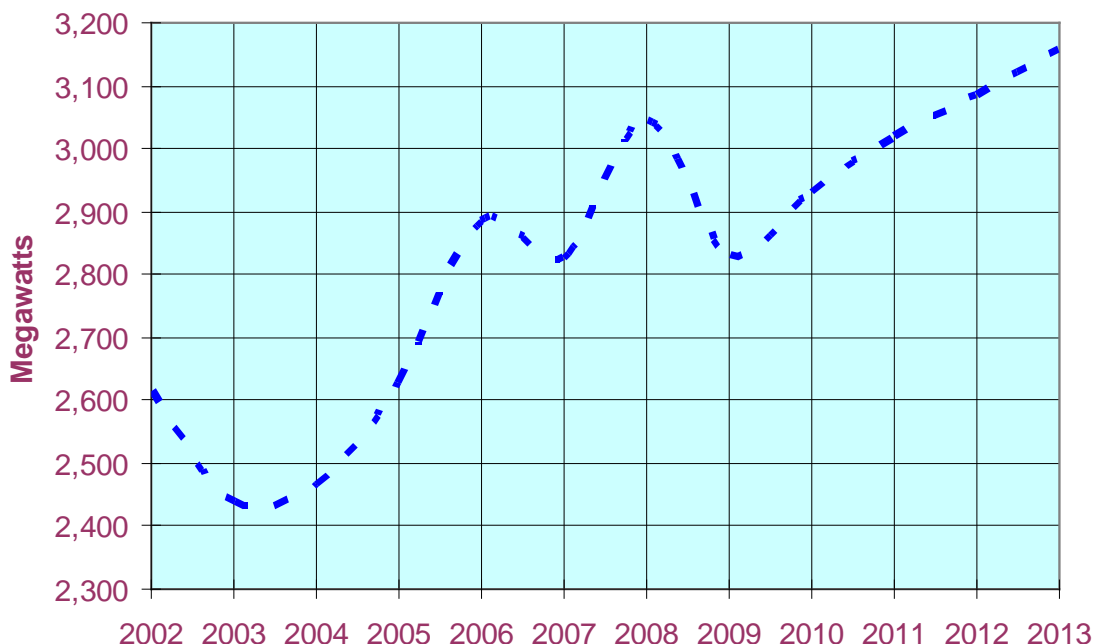
**Figure 2.6 Metropolitan Edison Company
Historic & Forecast Energy Demand**



Met-Ed's summer peak load, occurring on June 10, 2008, was 3,045 megawatts (MW), representing an increase of 7.8 percent from last year's system peak of 2,825 MW. The 2008-09 winter peak load was 2,622 MW or 5.0 percent higher than the previous year's winter peak of 2,498 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 dropping from 3,045 MW to 2,829 MW in 2009 (7.1 percent) and increasing thereafter to 3,158 MW by 2013, or a four-year average annual growth rate of 2.8 percent. The current forecast for 2009 is one percent below the previous forecast. See Figure 2.7.

**Figure 2.7 Metropolitan Edison Company
Historic & Forecast Peak Load**



Tables 2.8-2.11 provide Met-Ed's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

A restructuring settlement, approved by the Commission in 1998, provided for the transfer of 80 percent of Met-Ed's Provider of Last Resort (PLR) responsibility to other generation suppliers by June 2003. Since this did not occur, Met-Ed retains PLR responsibility for those customers who do not choose an alternate energy supplier and currently supplies nearly all of its PLR customers.

Met-Ed divested most of its generation facilities in 1999. Met-Ed sold the York Haven generating station (19.4 MW) during 2007.

In 2008, Met-Ed purchased approximately 2.3 billion KWH from cogeneration and small power production projects, representing about 15.1 percent of net energy for load. Contract capacity (defined as PJM installed capacity credits) is 295 MW of a total capacity of 355 MW. For Calendar Year 2008, one electric generation supplier sold a total of 5.1 million KWH to retail customers in Met-Ed's service territory.

Met-Ed's plans for transmission line additions include 18 miles of 69 kV, 115 kV and 230 kV circuits through 2011 at a combined cost of \$7.9 million.

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. Approximately \$2 million was spent in 2008 for a peak load reduction of 86 KW, a load shift of eight KW and energy savings totaling 733,553 KWH.

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

**Table 2.8 Metropolitan Edison Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	2439	2263										
2000	2274	2318	2404									
2001	2486	2373	2456	2455								
2002	2616	2429	2508	2504	2503							
2003	2438	2486	2559	2553	2554	2527						
2004	2468		2612	2602	2611	2584	2570					
2005	2752			2652	2668	2639	2634	2625				
2006	2884				2725	2691	2702	2689	2689			
2007	2825					2747	2756	2740	2740	2740		
2008	3045						2817	2801	2801	2801	2801	
2009								2857	2856	2857	2857	2829
2010									2915	2915	2915	2932
2011										2972	2972	3017
2012											3032	3085
2013												3158

**Table 2.9 Metropolitan Edison Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	4266	4264										
2000	4377	4352	4344									
2001	4496	4442	4430	4430								
2002	4721	4533	4516	4501	4607							
2003	4895	4624	4602	4577	4708	4846						
2004	5071		4687	4651	4804	4860	4885					
2005	5399			4724	4892	4980	4977	5097				
2006	5287				4988	5094	5083	5176	5325			
2007	5595					5211	5190	5276	5390	5516		
2008	5598						5300	5376	5515	5699	5699	
2009								5472	5640	5872	5872	5771
2010									5764	6037	6037	5836
2011										6187	6187	5969
2012											6341	6109
2013												6232

**Table 2.10 Metropolitan Edison Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	3487	3414										
2000	3699	3518	3518									
2001	3855	3622	3622	3751								
2002	3985	3732	3732	3860	3976							
2003	4018	3841	3837	3970	4096	4057						
2004	4251		3947	4079	4216	4144	4170					
2005	4491			4189	4336	4258	4281	4310				
2006	4509				4456	4363	4388	4400	4462			
2007	4715					4464	4498	4506	4547	4664		
2008	4777						4601	4616	4668	4818	4818	
2009								4721	4788	4969	4969	4853
2010									4908	5108	5108	5020
2011										5244	5244	5152
2012											5375	5291
2013												5421

**Table 2.11 Metropolitan Edison Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	4085	4239										
2000	4412	4307	4313									
2001	4186	4365	4352	4312								
2002	4012	4435	4410	4409	4263							
2003	3986	4506	4459	4490	4341	3954						
2004	4042		4508	4567	4419	3989	4080					
2005	4083			4645	4498	4010	4136	4077				
2006	4008				4577	4030	4162	4119	4176			
2007	3992					4050	4206	4145	4155	4123		
2008	3831						4237	4175	4177	4156	4156	
2009								4195	4200	4181	4181	3620
2010									4221	4193	4193	3842
2011										4201	4201	4035
2012											4209	4047
2013												4048

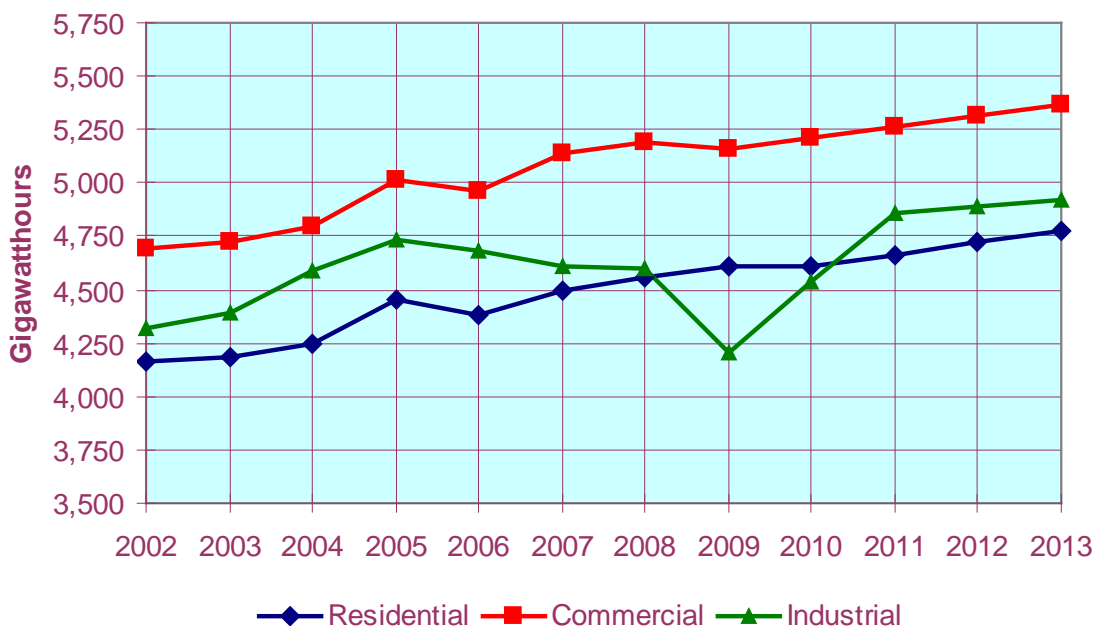
Pennsylvania Electric Company

Pennsylvania Electric Company (Penelec) provides service to 589,552 electric utility customers in Western and Northern Pennsylvania. In 2008, Penelec had energy sales totaling 14.4 billion kilowatthours (KWH) -- up about 0.6 percent from 2007. Commercial sales led Penelec's market with 36.1 percent of the total sales, followed by industrial (31.9 percent) and residential (31.7 percent).

Between 1993 and 2008, Penelec's energy demand grew at an average rate of 1.4 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, with an average annual increase of only 0.4 percent.

The current five-year projection of growth in total energy demand is 1.0 percent. This includes a residential growth rate of 0.9 percent, a commercial growth rate of 0.7 percent and an industrial growth rate of 1.4 percent. See Figure 2.8.

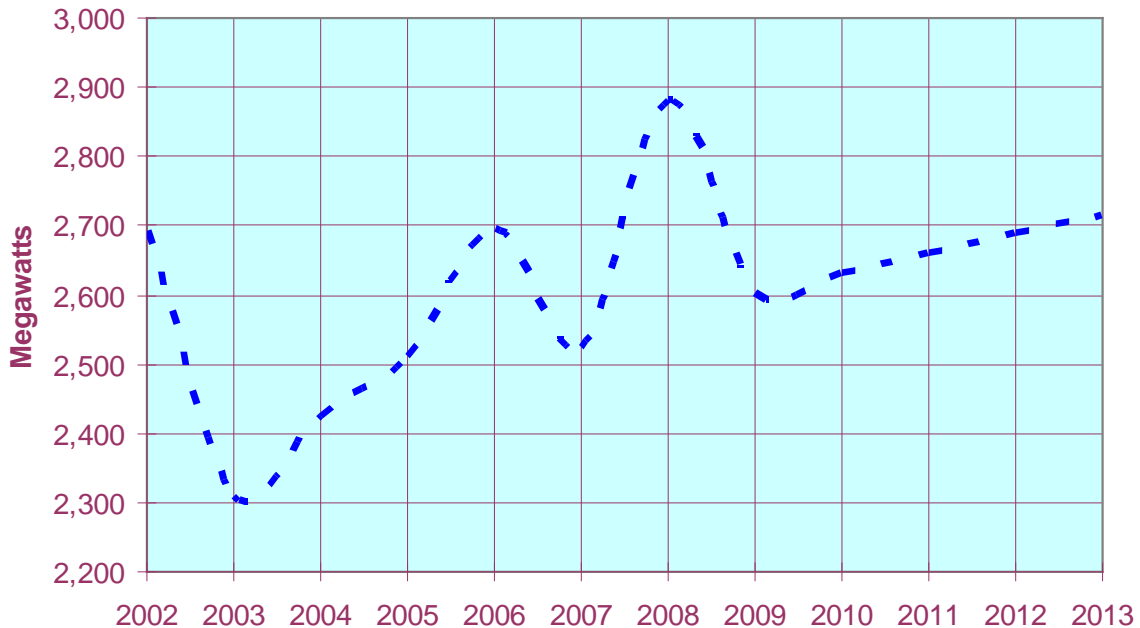
**Figure 2.8 Pennsylvania Electric Company
Historic & Forecast Energy Demand**



Penelec's 2008 summer peak load, occurring on June 9, 2008, was 2,880 megawatts (MW), representing an increase of 14.1 percent from last year's summer peak of 2,524 MW. The 2008-09 winter peak load was 2,866 MW or 18.0 percent higher than the previous year's winter peak of 2,429 MW.

The actual average annual peak load growth rate over the past 15 years was 0.9 percent. Penelec's forecast shows its summer peak load decreasing from 2,880 MW in 2008 to 2,603 MW in 2009 (9.6 percent), and increasing thereafter at an average increase of 1.1 percent per year. The current forecast for 2009 is 2.7 percent below the previous forecast. See Figure 2.9.

**Figure 2.9 Pennsylvania Electric Company
Historic & Forecast Peak Load**



Tables 2.12-2.15 provide Penelec's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

A restructuring settlement, approved by the Commission in 1998, provided for the transfer of 80 percent of Penelec's PLR 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 and currently supplies nearly all of its PLR customers.

Penelec divested all of its generation facilities in 1999.

In 2008, Penelec purchased approximately 3 billion KWH from cogeneration and small power production projects, or about 19.8 percent of net energy for load. Contract capacity (defined as PJM installed capacity credits) is 374 MW out of a total capacity of 427 MW.

For Calendar Year 2008, two licensed electric generation suppliers sold a total of 456 million KWH to retail customers in Penelec's service territory, or about 3.0 percent of total consumption, down from 3.2 percent in 2007.

Between 2009 and 2011, Penelec plans to add about 20 miles of 115-500 kV transmission lines to its system at an estimated cost of \$12.5 million.

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. More than \$2.5 million was spent in 2008 for a peak load reduction of 312 KW, a load shift of 3 KW and energy savings totaling 1.9 million KWH.

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

**Table 2.12 Pennsylvania Electric Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	2583	2672										
2000	2569	2704	2651									
2001	2337	2737	2675	2321								
2002	2693	2770	2700	2347	2337							
2003	2308	2804	2737	2373	2375	2410						
2004	2425		2760	2399	2405	2456	2438					
2005	2531			2425	2437	2505	2481	2511				
2006	2696				2465	2544	2525	2554	2554			
2007	2524					2592	2565	2598	2598	2598		
2008	2880						2604	2637	2637	2637	2637	
2009								2674	2674	2674	2674	2603
2010									2711	2711	2711	2630
2011										2750	2750	2661
2012											2789	2688
2013												2715

**Table 2.13 Pennsylvania Electric Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	3864	3894										
2000	3949	3931	3881									
2001	3991	3968	3915	3977								
2002	4167	4007	3951	4021	4043							
2003	4187	4045	3984	4065	4089	4194						
2004	4249		4017	4109	4134	4162	4135					
2005	4457			4154	4180	4203	4186	4295				
2006	4381				4226	4245	4236	4333	4420			
2007	4497					4287	4287	4385	4438	4469		
2008	4558						4339	4438	4496	4533	4533	
2009								4524	4554	4598	4598	4611
2010									4614	4662	4662	4614
2011										4727	4727	4662
2012											4793	4721
2013												4776

**Table 2.14 Pennsylvania Electric Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	4319	4347										
2000	4509	4459	4387									
2001	4538	4571	4473	4472								
2002	4697	4684	4558	4549	4613							
2003	4727	4797	4643	4626	4730	4782						
2004	4792		4728	4704	4846	4874	4825					
2005	5010			4781	4962	4976	4912	4928				
2006	4961				5078	5076	4986	4990	5049			
2007	5139					5178	5060	5064	5099	5045		
2008	5186						5136	5140	5188	5122	5122	
2009								5213	5277	5199	5199	5159
2010									5367	5277	5277	5213
2011										5356	5356	5265
2012											5436	5320
2013												5364

**Table 2.15 Pennsylvania Electric Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	4866	5047										
2000	4698	5114	5004									
2001	4392	5205	5093	4857								
2002	4315	5293	5177	5144	4670							
2003	4391	5383	5239	5214	4783	4492						
2004	4589		5306	5244	4846	4708	4561					
2005	4729			5274	4887	4749	4666	4527				
2006	4678				4928	4797	4737	4612	4807			
2007	4610					4845	4791	4679	4828	4809		
2008	4594						4815	4708	4881	4881	4881	
2009								4725	4905	4954	4954	4203
2010									4930	4983	4983	4538
2011										5013	5013	4859
2012											5043	4889
2013												4922

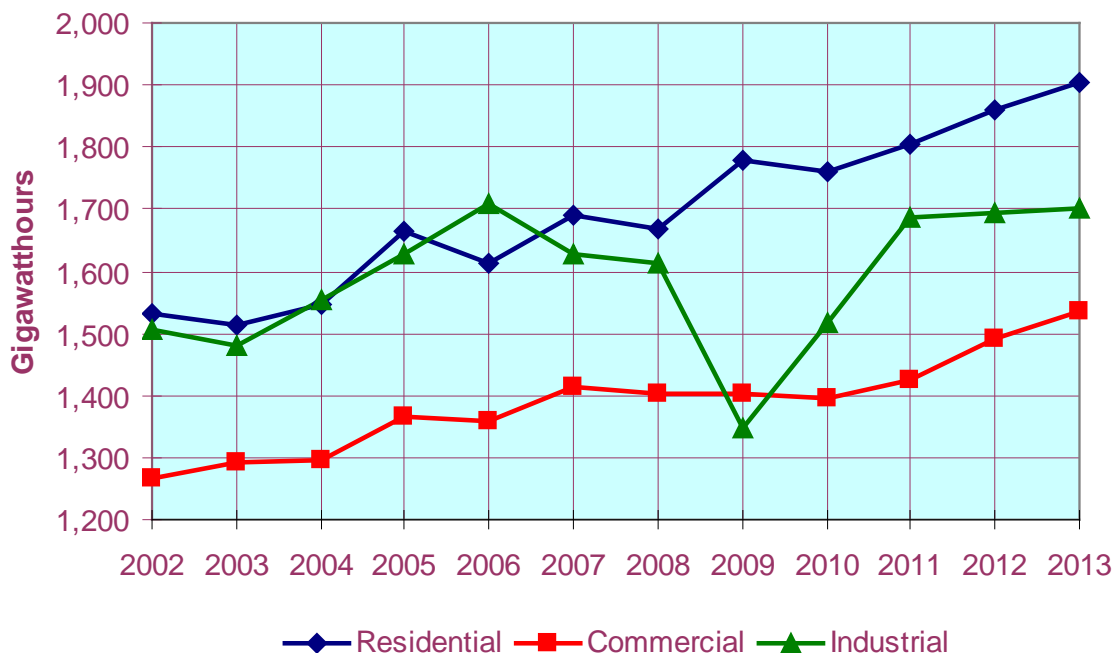
Pennsylvania Power Company

Pennsylvania Power Company (Penn Power) provides service to 159,585 electric utility customers in Western Pennsylvania. In 2008, Penn Power had energy sales totaling about 4.7 billion kilowatthours (KWH) -- a decrease of 0.9 percent from the 2007 figure. Residential sales lead Penn Power's market with 35.5 percent of the total sales, followed by industrial (34.4 percent) and commercial (29.9 percent).

Between 1993 and 2008, Penn Power's energy demand grew at an average rate of 2.7 percent per year. Residential and commercial sales have maintained relatively steady growth over the period at rates of 2.8 percent and 3.6 percent, respectively. Industrial sales have fluctuated considerably, with an overall average annual increase of 1.9 percent.

The current five-year projection of growth in total energy demand is 1.9 percent. This includes a residential growth rate of 2.7 percent, a commercial growth rate of 1.8 percent and an industrial growth rate of 1.0 percent. See Figure 2.10.

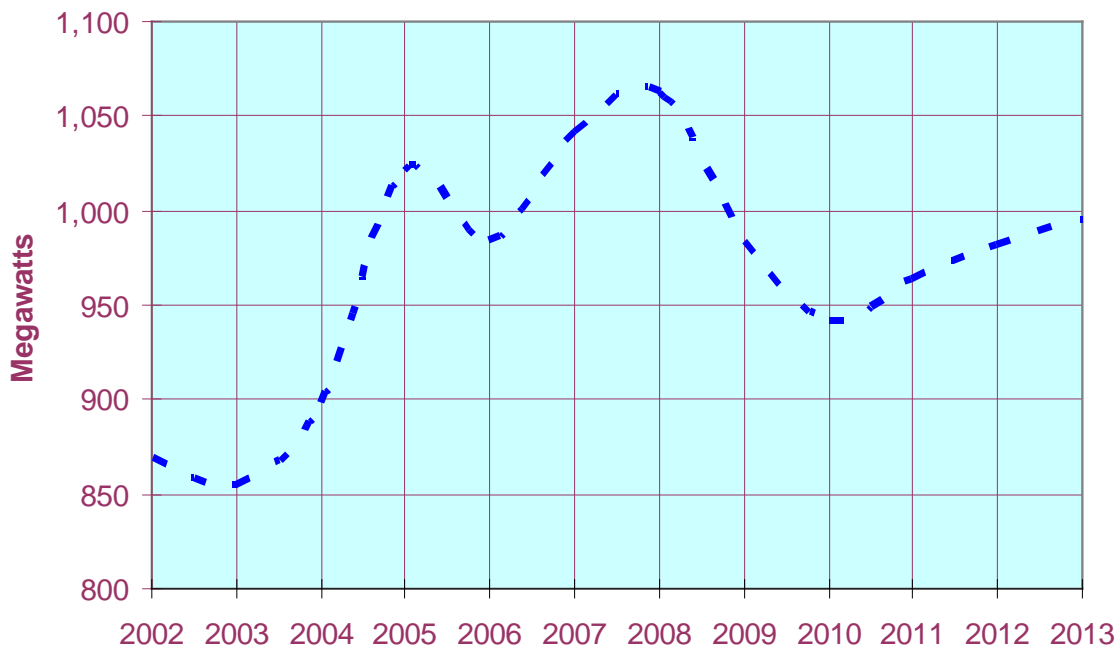
**Figure 2.10 Pennsylvania Power Company
Historic & Forecast Energy Demand**



Penn Power's 2008 summer peak load, occurring on June 9, 2008, was 1,063 megawatts (MW), representing an increase of 2.0 percent from last year's peak of 1,042 MW. The 2008-09 winter peak load of 891 MW was 5.0 percent lower than the previous year's winter peak of 938 MW.

The actual average annual peak load growth rate over the past 15 years was 2.9 percent. Penn Power's forecast shows its peak load decreasing from 1,063 MW in the summer of 2008 to 941 MW in 2010, and then increasing to 995 MW by 2013 at a three-year average annual growth rate of 1.9 percent. The current forecast for 2009 is 3.5 percent above the previous forecast. See Figure 2.11.

**Figure 2.11 Pennsylvania Power Company
Historic & Forecast Peak Load**



Tables 2.16-2.19 provide Penn Power's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

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. American Transmission Systems Inc. owns and operates the transmission assets of Penn Power and the Ohio FirstEnergy companies.

For Calendar Year 2008, five electric generation suppliers sold about 2.6 billion KWH to retail customers in Penn Power's service territory or about 52.9 percent of net energy for load. Penn Power purchased 16,896 KWH from an independent power producer in 2008.

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. Penn Power spent \$836,908 in 2008 for a peak load reduction of 100 KW and energy savings totaling 637,958 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 MISO.

**Table 2.16 Pennsylvania Power Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	845	880										
2000	885	897	935									
2001	1011	919	957	883								
2002	869	941	980	904	918							
2003	855	963	1003	930	947	891						
2004	898	983	1025	956	983	923	865					
2005	1021			982	1022	958	884	952				
2006	984				1058	985	900	921	904			
2007	1042					1020	916	930	930	921		
2008	1063						929	938	938	936	936	
2009								951	951	951	951	984
2010									965	965	965	941
2011										980	980	963
2012											994	981
2013												995

**Table 2.17 Pennsylvania Power Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	1351	1300										
2000	1341	1319	1390									
2001	1391	1339	1412	1360								
2002	1533	1360	1434	1395	1447							
2003	1513	1381	1457	1430	1483	1512						
2004	1545	1403	1479	1451	1520	1523	1542					
2005	1664			1473	1558	1552	1571	1612				
2006	1611				1597	1579	1599	1636	1659			
2007	1690					1607	1629	1665	1699	1659		
2008	1667						1657	1695	1744	1693	1693	
2009								1723	1789	1724	1724	1780
2010									1835	1758	1758	1761
2011										1789	1789	1806
2012											1821	1860
2013												1904

**Table 2.18 Pennsylvania Power Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	1143	1110										
2000	1164	1145	1204									
2001	1220	1181	1242	1162								
2002	1268	1221	1284	1206	1270							
2003	1291	1262	1327	1251	1327	1279						
2004	1296	1304	1372	1293	1387	1310	1309					
2005	1367			1335	1449	1342	1339	1353				
2006	1359				1514	1373	1370	1374	1384			
2007	1414					1405	1402	1400	1422	1394		
2008	1404						1429	1427	1460	1427	1427	
2009								1453	1498	1461	1461	1401
2010									1535	1496	1496	1394
2011										1532	1532	1424
2012											1569	1491
2013												1535

**Table 2.19 Pennsylvania Power Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	1619	1483										
2000	1643	1520	1563									
2001	1539	1558	1596	1618								
2002	1505	1596	1635	1644	1514							
2003	1481	1633	1673	1677	1516	1521						
2004	1554	1670	1711	1716	1517	1507	1529					
2005	1629			1758	1519	1500	1555	1582				
2006	1708				1520	1493	1570	1558	1565			
2007	1627					1489	1580	1563	1578	1720		
2008	1614						1583	1568	1594	1727	1727	
2009								1569	1610	1734	1734	1347
2010									1626	1741	1741	1517
2011										1748	1748	1687
2012											1755	1694
2013												1700

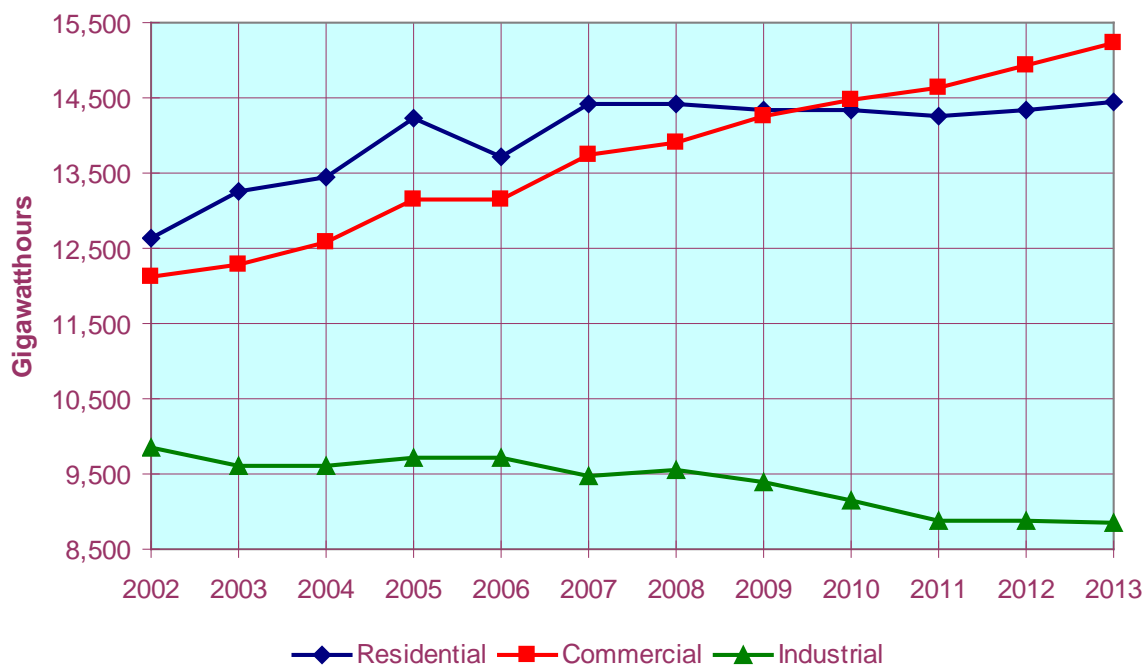
PPL Electric Utilities Corporation

PPL Electric Utilities Corporation (PPL) provides service to about 1.4 million homes and businesses over a 10,000-square-mile area in 29 counties of Central Eastern Pennsylvania. In 2008, PPL had energy sales totaling 39.1 billion kilowatthours (KWH) -- up 0.5 percent from 2007. Residential sales continued to dominate PPL's market with 36.9 percent of the total sales, followed by commercial (35.6 percent) and industrial (24.4 percent).

Between 1993 and 2008, PPL's energy demand grew an average of 1.7 percent per year. Residential energy sales grew at an annual rate of 1.8 percent, commercial at a 2.7 percent rate and industrial at 0.3 percent.

The current five-year projection of average growth in energy demand is 0.3 percent. This includes growth rates of 0.03 percent for residential, 1.8 percent for commercial and -1.5 percent for industrial. See Figure 2.12.

**Figure 2.12 PPL Electric Utilities Corporation
Historic & Forecast Energy Demand**



PPL's 2008 summer peak load, occurring on June 10, 2008, was 7,316 MW compared to the previous summer's peak of 7,141 MW, or a 2.5 percent increase. The 2008-09 winter peak load was 7,414 megawatts (MW), representing an increase of 3.5 percent from last year's peak of 7,163 MW. PPL's seasonal loads have been vacillating between summer peaking and winter peaking. Thus, the current forecast represents the annual peak load.

The actual average annual peak load growth rate over the past 15 years was one percent. PPL's five-year winter peak load forecast scenario shows the peak load decreasing to 7,180 MW in 2009 and then increasing to 7,450 MW in 2013 at an overall average annual rate of 0.1 percent. The forecast shown in Figure 2.13 depicts PPL's annual peak load.

**Figure 2.13 PPL Electric Utilities Corporation
Historic & Forecast Peak Load**



Tables 2.20-2.23 provide PPL's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

Net operable generating capacity of 8,485 MW (summer rating) includes 41.2 percent coal-fired capacity and 24.7 percent nuclear capacity. Natural gas and dual fuel units account for 26.7 percent of the total. Independent power producers also provided 163 MW to the system. In 2008, PPL purchased over 1.7 billion KWH from cogeneration and independent power production facilities, or about 4.2 percent of net energy for load.

In October 2008, PPL Corporation filed an application with the U.S. Nuclear Regulatory Commission for a license to build and operate a new, 1,600 MW nuclear plant near Berwick, Columbia County, with a proposed in-service date of 2018. The existing two-unit Susquehanna nuclear power plant has a total capacity of 2,332 MW.

For Calendar Year 2008, three electric generation suppliers sold a total of 13.9 million KWH to retail customers in PPL's service territory, or about 0.03 percent of net energy for load.

PPL reported a 2008 peak load reduction of 163,447 KW and energy savings of 3.7 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 2.2 percent of the 2008 summer peak load.

PPL's Price Response Service permits customers to respond to market price signals by reducing a portion of their load. In 2008, an estimated 23,080 KW peak load reduction was achieved, with energy savings totaling 322,930 KWH.

PPL also has a program for the reduction of the energy consumption of low income customers by providing a variety of weatherization measures.

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

**Table 2.20 PPL Electric Utilities Corporation
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projected Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	6746	6815										
2000	6355	6905	6580									
2001	6583	7006	6680	6850								
2002	6970	7040	6770	6960	7000							
2003	7197	7140	6860	7060	7070	6790						
2004	7335		6960	7170	7040	6860	7200					
2005	7083			7270	7120	7000	7300	7200				
2006	7577				7200	7140	7410	7290	7310			
2007	7163					7320	7510	7390	7410	7200		
2008	7414						7610	7490	7510	7270	7410	
2009								7580	7610	7340	7450	7180
2010									7710	7400	7500	7250
2011										7480	7580	7320
2012											7680	7360
2013												7450

**Table 2.21 PPL Electric Utilities Corporation
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	11704	11740										
2000	11923	11850	12031									
2001	12269	11980	12150	12176								
2002	12640	12120	12280	12324	12391							
2003	13266	12260	12421	12478	12514	12868						
2004	13441		12562	12634	12650	13062	13308					
2005	14218			12799	12803	13259	13505	13950				
2006	13714				12955	13462	13728	14311	14099			
2007	14411					13671	13962	14675	14392	14180		
2008	14419						14198	15019	14555	14422	14469	
2009								15349	14794	14565	14584	14341
2010									15036	14702	14562	14340
2011										14828	14608	14246
2012											14770	14350
2013												14443

**Table 2.22 PPL Electric Utilities Corporation
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	11002	10740										
2000	11477	10980	11090									
2001	11778	11240	11275	11291								
2002	12117	11500	11444	11431	11850							
2003	12273	11760	11612	11561	12033	12212						
2004	12576		11782	11699	12219	12507	13275					
2005	13157			11848	12411	12757	13601	12967				
2006	13140				12602	13101	13975	13436	13188			
2007	13756					13418	14286	13946	13562	13184		
2008	13913						14631	14517	13836	13476	13676	
2009								15068	14166	13777	14028	14258
2010									14492	14045	14253	14486
2011										14290	14596	14631
2012											14907	14926
2013												15228

**Table 2.23 PPL Electric Utilities Corporation
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	10179	10190										
2000	10280	10350	10543									
2001	10319	10520	10836	10963								
2002	9853	10690	11077	11255	10780							
2003	9599	10860	11295	11521	11135	10355						
2004	9611		11498	11777	11425	10503	9938					
2005	9720			12010	11702	10641	10035	9750				
2006	9704				11970	10795	10155	9926	9968			
2007	9482					10924	10253	10136	10048	9965		
2008	9551						10346	10349	10084	9999	9625	
2009								10577	10150	10032	9570	9401
2010									10214	10059	9228	9141
2011										10084	9005	8879
2012											9009	8866
2013												8864

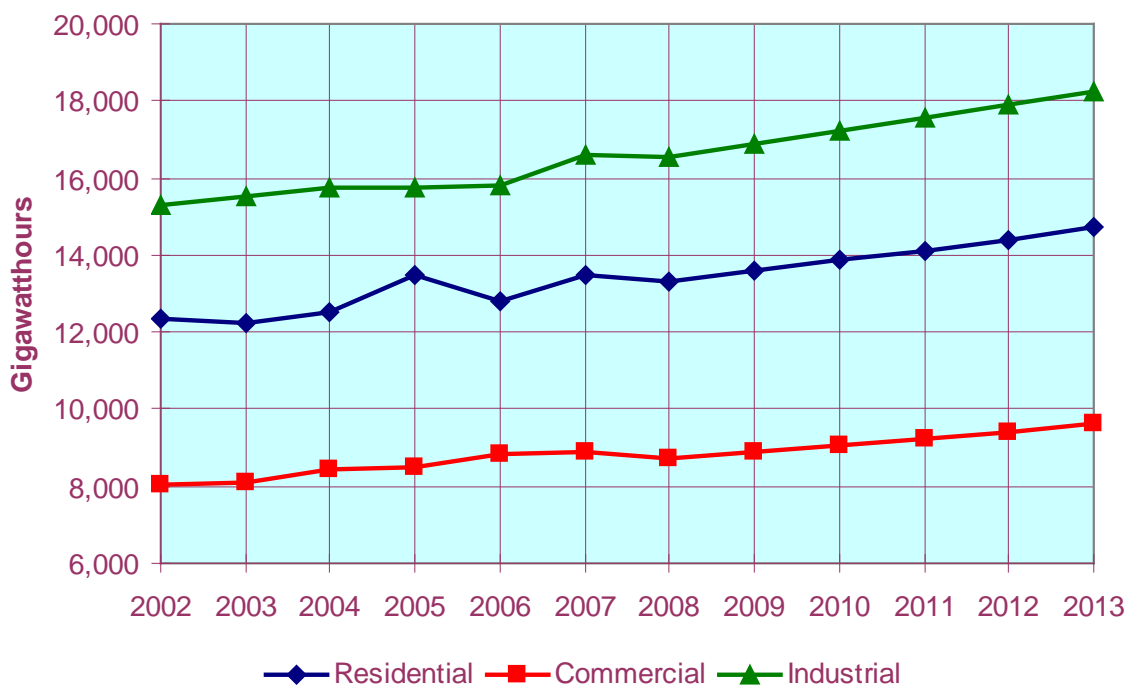
PECO Energy Company

PECO Energy Company (PECO) provides service to nearly 1.6 million electric utility customers in Southeastern Pennsylvania. In 2008, PECO had total energy sales of 40 billion kilowatthours (KWH) -- down 1.0 percent from 2007. Industrial sales continued to dominate PECO's market with 41.3 percent of the total sales, followed by residential (33.3 percent) and commercial (21.7 percent).

Between 1993 and 2008 PECO's energy demand grew an average of 1.3 percent per year. Residential energy sales grew at an annual rate of 1.8 percent, commercial at 3.0 percent and industrial at 0.3 percent.

The current five-year projection of growth in energy demand is 2.0 percent. This includes an annual growth rate of 2.0 percent for the residential, commercial and industrial sectors. See Figure 2.14.

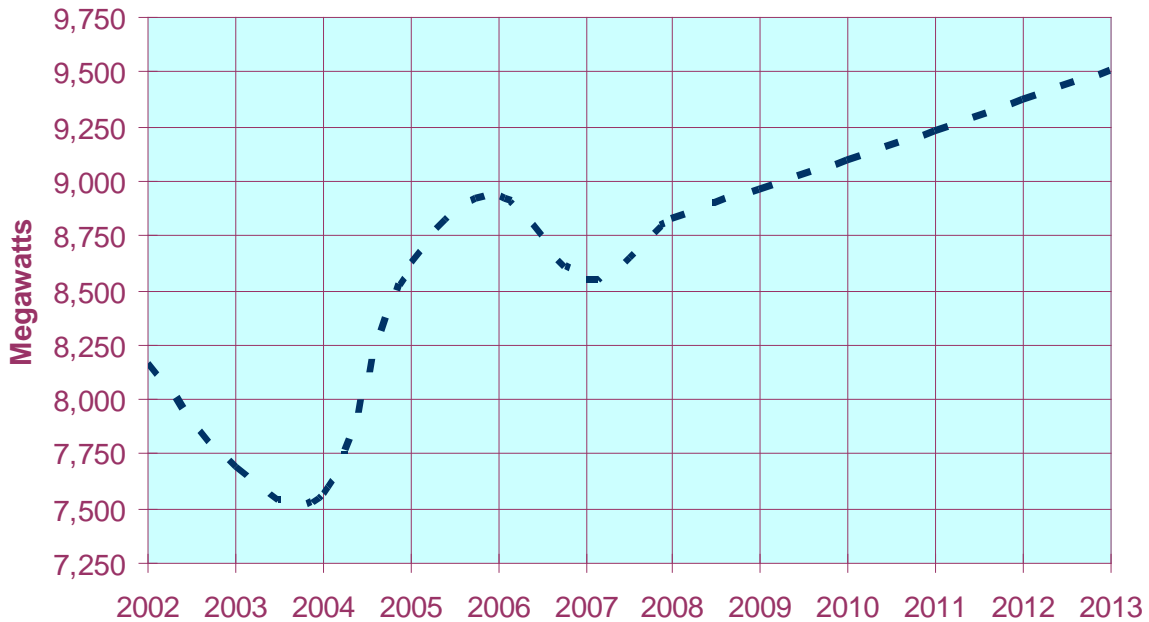
**Figure 2.14 PECO Energy Company
Historic & Forecast Energy Demand**



PECO's 2008 summer peak load, occurring on June 10, 2008, was 8,824 megawatts (MW), representing an increase of 3.2 percent from last year's peak of 8,549 MW. The 2008/09 winter peak demand was 6,777 MW or 4.0 percent above the previous winter's peak of 6,519 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 2008 summer peak load of 8,824 MW to 9,506 MW in the summer of 2013, or an annual growth rate of 1.5 percent. See Figure 2.15.

**Figure 2.15 PECO Energy Company
Historic & Forecast Peak Load**



Tables 2.24-2.27 provide PECO's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

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

In 2008, PECO purchased about 646.5 million KWH from cogeneration and independent power production facilities, or about 1.5 percent of net energy for load. Contract capacity totaled 181 MW.

For Calendar Year 2008, electric generation suppliers sold a total of about 607 million KWH to retail customers in PECO's service territory or about 1.5 percent of total consumption, down from 1.6 percent in 2007. On the summer

peak day, electric generation suppliers represented a load of 139 MW, or 1.6 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 2008, the peak load reduction resulting from this rate option was 185 MW, with energy savings of 1.8 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 2.24 PECO Energy Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projections of Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	7850	7063										
2000	7333	7135	7339									
2001	7948	7233	7398	7392								
2002	8164	7308	7457	7451	8012							
2003	7696	7387	7517	7510	8076	8229						
2004	7567		7577	7570	8140	8295	8129					
2005	8626			7631	8205	8362	8320	8320				
2006	8932				8271	8428	8445	8445	8755			
2007	8549					8496	8571	8571	8887	9066		
2008	8824						8700	8700	9020	9202	8677	
2009								8831	9155	9340	8807	8956
2010									9293	9480	8940	9091
2011										9622	9074	9227
2012											9210	9365
2013												9506

**Table 2.25 PECO Energy Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	11132	10516										
2000	11304	10600	10600									
2001	11178	10685	10685	11278								
2002	12335	10770	10770	11385	11634							
2003	12259	10856	10856	11488	11733	12020						
2004	12507		10943	11592	11855	11905	12250					
2005	13469			11697	11957	11981	12385	12385				
2006	12797				12059	12054	12592	12592	13738			
2007	13487					12128	12839	12839	14013	13053		
2008	13317						13179	13179	14293	13314	13757	
2009								13443	14579	13580	14032	13583
2010									14870	13852	14313	13855
2011										14129	14599	14132
2012											14891	14415
2013												14703

**Table 2.26 PECO Energy Company
Actual and Projected Commercial Energy Demand (Gigawatts)**

Year	Actual Energy Demand	Projected Commercial* Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	7154	6597										
2000	7481	6649	6649									
2001	7604	6703	6702	7315								
2002	8019	6756	6756	7446	7732							
2003	8077	6810	6810	7578	7963	8135						
2004	8414		6864	7711	8099	8233	8140					
2005	8520			7844	8265	8434	8349	8349				
2006	8857				8436	8637	8550	8550	8691			
2007	8892					8839	8755	8755	8864	9034		
2008	8700						8965	8965	9042	9215	9069	
2009								9144	9223	9399	9251	8874
2010									9407	9587	9436	9052
2011										9779	9625	9233
2012											9817	9417
2013												9606

* Small Commercial & Industrial

**Table 2.27 PECO Energy Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial* Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	15477	15919										
2000	15828	16047	16047									
2001	15312	16175	16175	15405								
2002	15323	16304	16305	15406	15324							
2003	15518	16435	16435	15408	15417	15130						
2004	15741		16567	15409	15429	14959	15477					
2005	15774			15409	15442	14980	15448	15449				
2006	15821				15458	15001	15448	15448	16089			
2007	16582					15022	15448	15448	16411	16137		
2008	16534						15448	15448	16739	16460	16914	
2009								15757	17074	16789	17252	16864
2010									17415	17125	17597	17202
2011										17467	17949	17546
2012											18308	17897
2013												18254

* Large Commercial & Industrial

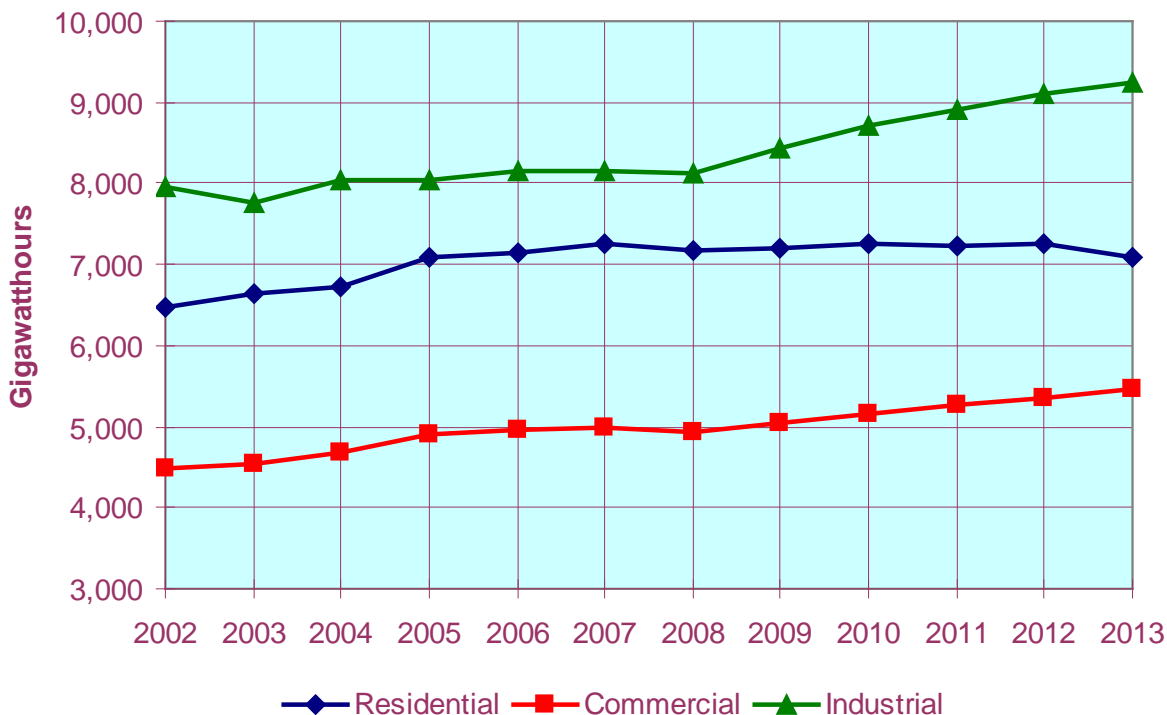
West Penn Power Company

West Penn Power Company (dba Allegheny Power) provides service to 713,409 electric utility customers in Western, North and South Central Pennsylvania. In 2008, West Penn had total retail energy sales of about 21.0 billion kilowatthours (KWH) – down 0.9 percent from 2007. Industrial sales continued to dominate West Penn's market with 38.7 percent of the total sales, followed by residential (34.1 percent) and commercial (23.4 percent).

Between 1993 and 2008, West Penn's energy demand grew an average of 1.4 percent per year. Sales for all sectors have maintained relatively steady growth during the period. Residential sales grew at an annual rate of 1.6 percent, commercial sales at 2.3 percent and industrial sales at 0.9 percent.

The current five-year projection of growth in energy demand is 1.5 percent. This includes a residential growth rate of -0.2 percent, a commercial rate of 2.0 percent and an industrial rate of 2.6 percent. See Figure 2.16.

**Figure 2.16 West Penn Power Company
Historic & Forecast Energy Demand**



West Penn's 2008 summer peak load, occurring on June 9, 2008, was 3,823 megawatts (MW), representing a decrease of 0.4 percent from last year's summer peak of 3,838 MW. The 2008-09 winter peak load was 3,671 MW or 3.5 percent higher than the previous year's winter peak of 3,546 MW.

The actual average annual peak load growth rate over the past 15 years was 1.5 percent. West Penn's load forecast scenario shows the peak load increasing from 3,823 MW in the summer of 2008 to 4,120 MW in 2013, or an average annual growth rate of 1.5 percent. See Figure 2.17.

**Figure 2.17 West Penn Power Company
Historic & Forecast Peak Load**



Tables 2.28-2.31 provide West Penn's forecasts of peak load and residential, commercial and industrial energy demand from 1999 through 2009.

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 2008 through 2014 totaling 171.3 miles of 138 kV and 500 kV at an estimated cost of \$249.9 million. This cost figure includes \$152.1 million for the Trans-Allegheny Interstate Line (TrAIL) project, discussed in Section 1.

In 2008, West Penn purchased 926.6 million KWH from cogeneration and independent power production facilities, or about 4.2 percent of net energy for load. Contract capacity for these facilities was 136 MW.

As of March 31, 2008, West Penn began offering the Interruptible Load for Reliability (IRL) program, administered by PJM, to non-residential customers with at least 100 KW load reduction. Under IRL, customers are compensated to be on call to reduce load during system emergencies. Currently, there are 18 customers with a total load reduction of 20 MW in the program. West Penn also has a low-income weatherization program (LIURP), which includes the installation of a variety of weatherization measures. Energy savings for 2008 totaled 3.0 million KWH.

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

**Table 2.28 West Penn Power Company
Actual and Projected Peak Load (Megawatts)**

Year	Actual Peak Demand	Projections of Peak Load Requirements										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	3328	3279										
2000	3277	3360	3284									
2001	3677	3425	3304	3141								
2002	3582	3484	3341	3445	3458							
2003	3455	3519	3380	3465	3505	3535						
2004	3407		3415	3501	3542	3572	3621					
2005	3752			3536	3586	3610	3670	3702				
2006	3926				3622	3639	3705	3763	3723			
2007	3838					3674	3738	3812	3782	3813		
2008	3826						3766	3845	3824	3882	3871	
2009								3866	3864	3965	3958	3910
2010									3895	4028	4036	3990
2011										4078	4083	4032
2012											4123	4084
2013												4120

**Table 2.29 West Penn Power Company
Actual and Projected Residential Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Residential Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	6020	5873										
2000	6022	6013	6061									
2001	6325	6077	6172	6192								
2002	6459	6165	6256	6260	6374							
2003	6641	6165	6339	6329	6471	6486						
2004	6724	6231	6445	6436	6596	6599	6818					
2005	7088			6521	6680	6671	6890	6923				
2006	7133				6775	6744	6965	7047	7164			
2007	7266					6821	7041	7136	7289	7319		
2008	7172						7132	7194	7387	7484	7481	
2009								7189	7417	7639	7654	7206
2010									7447	7761	7774	7264
2011										7869	7892	7233
2012											7965	7248
2013												7102

**Table 2.30 West Penn Power Company
Actual and Projected Commercial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Commercial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	4137	4039										
2000	4265	4215	4182									
2001	4360	4313	4225	4326								
2002	4497	4401	4275	4395	4458							
2003	4529	4443	4329	4449	4543	4577						
2004	4691		4397	4517	4624	4653	4701					
2005	4892			4571	4684	4695	4780	4791				
2006	4959				4749	4739	4832	4907	4996			
2007	4998					4776	4878	5006	5092	5083		
2008	4925						4936	5098	5179	5179	5115	
2009								5135	5249	5279	5235	5048
2010									5318	5365	5327	5160
2011										5452	5387	5275
2012											5462	5353
2013												5450

**Table 2.31 West Penn Power Company
Actual and Projected Industrial Energy Demand (Gigawatthours)**

Year	Actual Energy Demand	Projected Industrial Energy Demand										
		Year Forecast Was Filed										
		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1999	8237	8575										
2000	8383	8830	7942									
2001	7955	8975	8120	8481								
2002	7957	9167	8230	8597	8006							
2003	7747	9161	8353	8663	8116	7885						
2004	8039		8477	8729	8188	7973	7814					
2005	8051			8799	8230	8023	7913	8027				
2006	8144				8290	8087	7998	8137	8283			
2007	8160					8187	8069	8220	8429	8282		
2008	8135						8140	8311	8543	8411	8311	
2009								8313	8615	8584	8476	8440
2010									8634	8728	8699	8711
2011										8766	8799	8906
2012											8844	9093
2013												9246

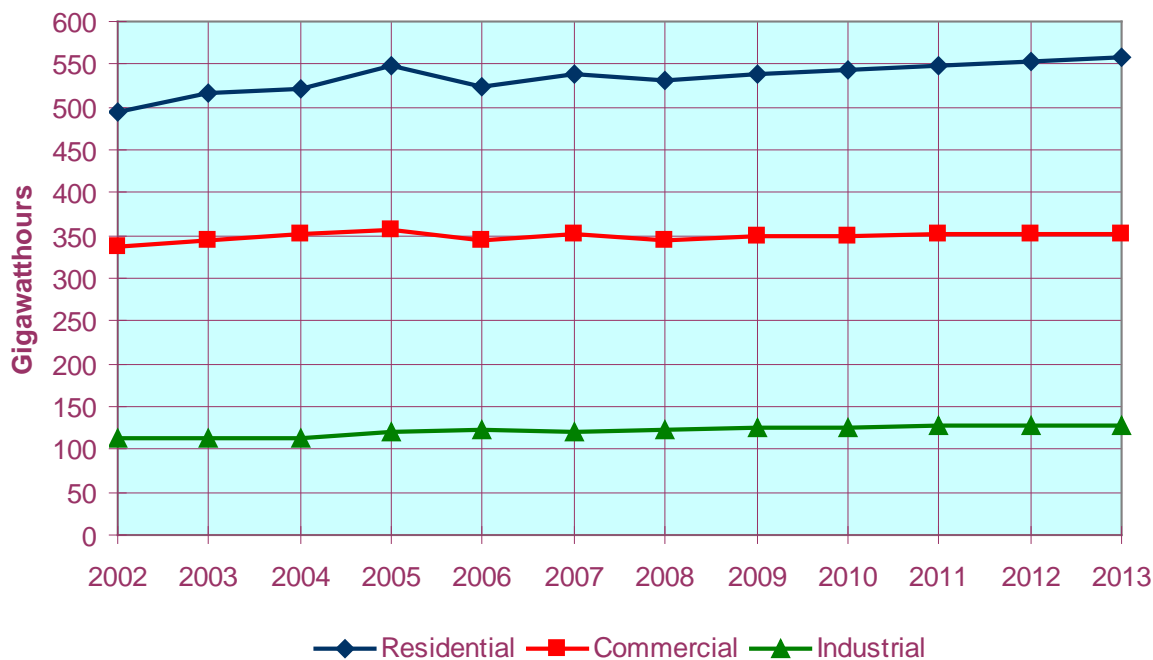
UGI Utilities, Inc.

The Electric Division of UGI Utilities, Inc. (UGI) provides electric service to 62,262 customers in Northwestern Luzerne and Southern Wyoming counties in Pennsylvania. In 2008, UGI had energy sales totaling over 1 billion kilowatthours (KWH) – down 1.3 percent from 2007. Residential sales continued to dominate UGI's market with 52.9 percent of the total sales, followed by commercial (34.3 percent) and industrial (12.3 percent).

Between 1993 and 2008, UGI experienced an average growth in total sales of 1.1 percent, which includes a residential growth rate of 1.0 percent, a commercial rate of 1.1 percent and an industrial rate of 1.8 percent.

Over the five-year planning horizon, UGI expects energy demand to increase at an average rate of 0.8 percent. This includes an average annual increase in residential sales of 1.0 percent, a growth in commercial sales of 0.5 percent per year and an industrial growth rate of 0.9 percent. See Figure 2.18.

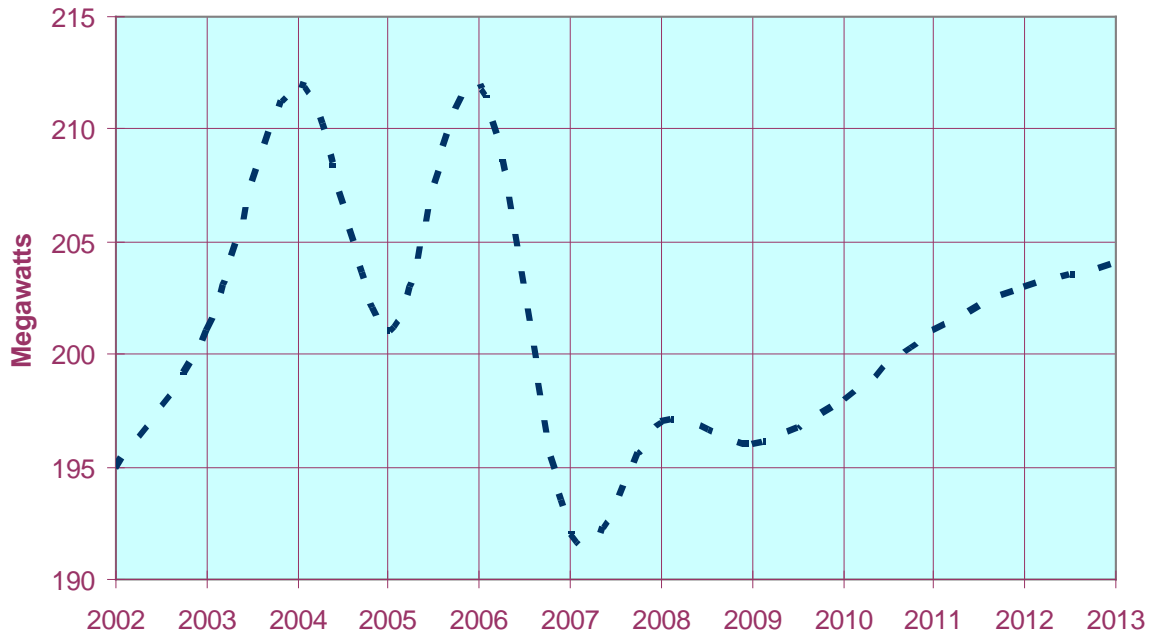
**Figure 2.18 UGI Utilities, Inc.
Historic & Forecast Energy Demand**



Peak demand on the UGI system occurred on Jan. 16, 2009, and totaled 197 megawatts (MW), or 2.6 percent above the 2007-08 winter peak load of 192 MW. This peak demand was only 1.0 percent higher than the peak demand experienced during the summer of 2008.

The actual average annual peak load growth rate over the past five years was 1.5 percent. The five-year forecast indicates an average increase in peak load of 0.7 percent. Peak load is projected to increase from 197 MW in 2008-09 to 204 MW in 2013-14. See Figure 2.19.

**Figure 2.19 UGI Utilities, Inc.
Historic & Forecast Peak Load**



There were no shopping customers in UGI's service territory between 2006 and 2008. For Calendar Year 2009, there is one EGS serving 17 customers. 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 PLR service to all customers during 2009 under generation rates that are limited to a system average of 9.796 cents per KWH for residential classes and 9.842 cents per KWH for all other rate schedules.

UGI offers 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. A two hour load-reduction event was called on January 22, 2008, during which 2,844 KWH were conserved. 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

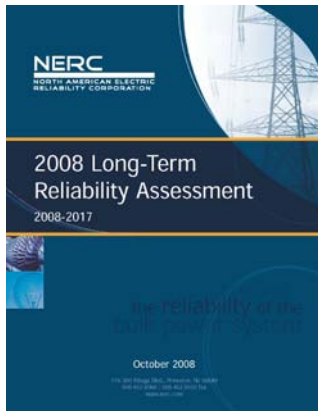
Regional Reliability Assessments

The passage of the Pennsylvania Electricity Generation Customer Choice and Competition Act substantially changed the Commission's jurisdiction as well as the Commission's ability to compile data from the generation sector. As a result, most information on generation and transmission capacity is regional. Therefore, this section summarizes the regional reliability assessments of NERC, ReliabilityFirst and PJM for generation and transmission capability.

The reliability of the interconnected bulk power system is defined in terms of two basic and functional aspects. *Adequacy* is the ability of the bulk power system to supply the aggregate electrical demand and energy requirements of the customer at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements. *Operating Reliability* is the ability of the bulk power system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements from credible contingencies. 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 (total demand less dispatchable, controllable capacity demand response), expressed as a percentage of net internal demand. *Capacity margin* is the difference between available resources and net internal demand, expressed as a percentage of available resources.

North American Electric Reliability Corporation

The North American Electric Reliability Corporation's (NERC) mission is to ensure the reliability of the bulk power system in North America. To achieve this objective, NERC develops and enforces reliability standards; monitors the bulk power system; assesses and reports on future transmission and generation adequacy; and offers education and certification programs to industry personnel. NERC is a non-profit, self-regulatory organization that relies on the diverse and collective expertise of industry participants that comprise its various committees and sub-groups. It is subject to oversight by governmental authorities in Canada and the United States. NERC assesses and reports on the reliability and adequacy of the North American bulk power system according to eight regional areas. The users, owners, and operators of the bulk power system within these areas account for virtually all the electricity supplied in the United States, Canada, and a portion of Baja California Norte, Mexico.



Reliability Assessment³¹

The *2008 Long-Term Reliability Assessment* represents NERC's independent judgment of the reliability and adequacy of the bulk power system in North America for the coming 10 years. NERC's primary purpose in preparing this assessment is to identify areas of concern regarding the reliability of the North American bulk power system and to make recommendations for their remedy.

In its most recent reliability assessment for the 2008-2017 period, NERC identifies five key findings:

1. *Capacity margins in many regions are improved compared to 2007 figures, due in part to significant increases in demand response and supply-side resources. Nevertheless more resources will be required to maintain reliability in Western Canada and the Desert Southwest areas in the coming years.*
2. *Wind resources are growing in importance in many areas of North America as new facilities come online. With growing dependence on wind generation, it is vital to ensure that these variable resources are reliably integrated into the bulk power system.*
3. *Though total miles of transmission additions have increased when compared to last year's assessment, much more transmission will be required to reliably integrate projected location constrained resources such as wind, nuclear, clean coal, and others into the bulk power system.*
4. *Demand response programs increased significantly in this year's projections. The long-term sustainability of these impacts will need to be monitored closely as these programs are used to meet reliability requirements more frequently.*
5. *NERC performed its initial analysis of reliability metrics from the last six years and concluded that the drive towards suitable maintenance, operating tools and training must continue. It is vital that these metrics be further refined and the trends analyzed so that root causes can be addressed.*

NERC offers several conclusions and recommendations

1. Regulators need to continue their support for the development of additional cost effective transmission resources, including equitable cost allocation guidelines for such resources. Further, they should revise their existing

³¹ NERC, *2008 Long-Term Reliability Assessment*, October 2008.

processes to expedite the licensing of cost effective transmission resources needed to maintain reliability.

2. Regulators and policy makers must support the development of cost-effective transmission resources, including equitable cost allocation guidelines for the delivery of both remotely located wind resources and ancillary services (such as spinning reserve and frequency response) to demand centers where such resources and/or services are deemed necessary and beneficial. Coordinated effort is needed to better determine appropriate calculations for measuring the availability of wind on peak.
3. Additional demand-side resources could be an effective option to preserve system reliability over the next 10 years. In addition, they may facilitate the integration of renewable and variable resources. Potential reliability impacts of broad-scale use of demand response resources must be better understood by industry and regulators. Better measurement and verification techniques will be needed to measure and track actual availability of demand response under various system conditions.

NERC has also identified seven emerging issues affecting risk assessment: a) greenhouse gas reductions; b) fuel storage and transportation; c) rising global demand for energy and equipment; d) increased adoption of demand-side and distributed generation resources; e) replacing, upgrading and adding transmission infrastructure for the 21st century, including enhanced cyber security protections; f) water availability and use; and g) mercury emissions regulations.

Peak demand in the United States is expected to increase by 127,614 MW or an average of 1.7 percent per year for the next 10 years, while net capacity resources are projected to increase by 47,610 MW or 5.2 percent (0.5 percent annually). Capacity margins are expected to decline from 16.5 percent in the summer of 2008 to 7.4 percent in 2017.

The NERC Reference Margin Level capacity margin level of 13 percent is used to identify approximately when additional resources may be needed. The existing capacity sufficiently meets the NERC Target Margin Level through 2015; however, this includes the combination of a predominately summer peaking system (NERC-US) and one that, with the exclusion of Ontario, is a winter peaking system (NERC-Canada).

ReliabilityFirst Corporation

ReliabilityFirst Corporation (RFC) is one of eight regional reliability councils within NERC, and has replaced the reliability oversight functions of MAAC, ECAR and MAIN. The two main control areas within the RFC footprint are the PJM RTO and the MISO. About two-thirds of the RFC load is in PJM.

From the perspective of the RTOs, about 60 percent of the MISO load and 85 percent of the PJM load is within RFC. The reliability of these two RTOs determines the reliability of the RFC region. The reliability assessment summarized herein reflects the resource adequacy of each RTO based on their individual reserve margin requirements.³²

Compliance Standards

Analyses were conducted by PJM and the MISO to determine the reserve margins that were equivalent to the RFC Loss of Load Expectation (LOLE) criterion of not exceeding one occurrence in 10 years on an annual basis. RFC's assessment of long-term PJM resource adequacy is based on the reserve margin target determined from the PJM Reliability Pricing Model analysis for the planning year 2008-2009. This reserve margin is 15.0 percent through 2012 and 15.5 percent for later years. The reserve margin for the MISO 2008-2009 planning year is 14.1 percent. These reserve margin targets were weight-averaged together to develop a combined reserve margin target for the RFC region of 14.7 percent.

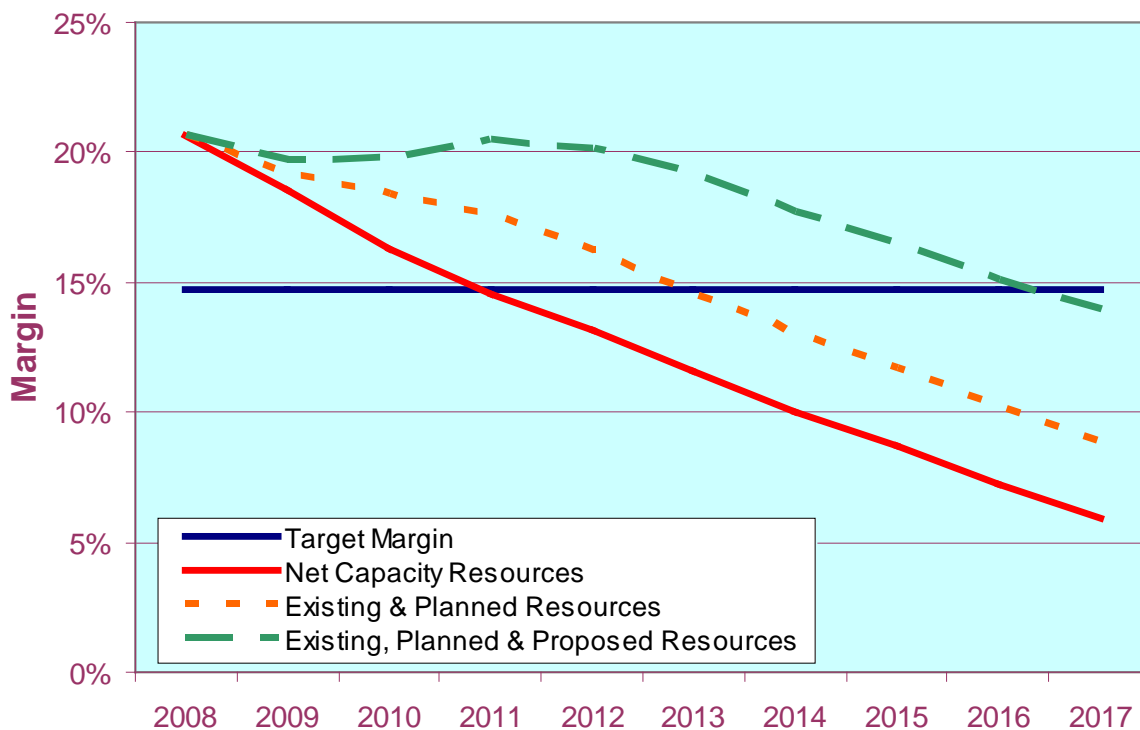
Reliability Assessment

RFC anticipates that its reserve margin target will be satisfied through 2012, provided that proposed generation projects (5,700 MW) will be completed in a timely manner and enhancements to the transmission network will be capable of reliably delivering those resources. In 2013, additional capacity resources of less than 300 MW will likely be needed to maintain adequate reserves. The amount of proposed resources needed through 2017, in addition to planned resources, will increase to about 11,800 MW by 2017, or about 25 percent of the combined PJM and MISO proposed generator resources in the RFC area.

Summer reserve margins in RFC range from a high of 20.6 percent in 2008, declining to 8.9 percent in 2017 (17.1 percent and 8.2 percent capacity margins, respectively). These reserve margins are based on forecast net internal demand and net capacity resources. See Figure 3.1.

³² Ibid.

Figure 3.1 RFC 2008-2017 Reserve Margin Comparison



The system peak demand of the PJM RTO for the summer of 2008, occurring on June 9, was 130,100 MW or 2.5 percent below the projection and 6.7 percent less than the 2007 peak demand. For the summer of 2017, the net internal demand is projected to be 153,800 MW, or an equivalent compound growth rate of 1.6 percent. PJM installed generating capacity totaled 164,895 MW at the end of 2008, which was dominated by coal (40.7 percent) and natural gas (29.3 percent). A 2008 generation of 735,244 GWh included 55.0 percent coal and 34.6 percent nuclear. See Figures 3.2 and 3.3.³³

Figure 3.2 PJM 2008 Installed Capacity

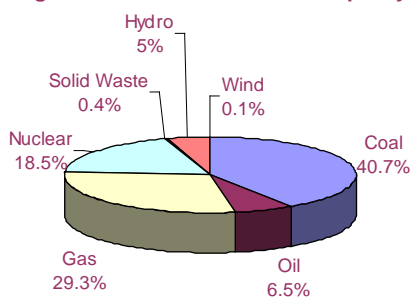
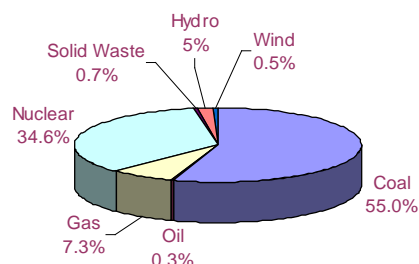


Figure 3.3 PJM 2008 Generation



³³ *State of the Market Report for PJM*, March 11, 2009.

At the time of PJM's 2008 summer peak load, the actual reserve margin for existing capacity resources was 34,079 MW, or 26.2 percent. With an additional 7,769 MW of planned new capacity, the reserve margins are expected to meet the 15 percent reserve margin target through 2013. After that time, the target increases to 15.5 percent.³⁴ The amount of resources expected for the 2012-2013 delivery year is 172,691 MW³⁵, resulting in a reserve margin of 23.6 percent.

The MISO net internal peak demand for the summer of 2009 is projected to be 102,238 MW. For the summer of 2017, the net internal demand is projected to be 114,497 MW, or an equivalent compound growth rate of 1.4 percent. The MISO market has 121,552 MW of net capacity resources for the 2009 summer. There is also 6,638 MW of existing capacity categorized as "uncertain" for the next 8 years. The amount of proposed increase in capability from the MISO generator interconnection queue is 25,200 MW.

The reserve margin for existing capacity resources is 19,314 MW in the MISO for 2009, which is 18.9 percent, based on net internal demand. With an additional 4,449 MW of planned new capacity, the reserve margins are expected to meet the 14.1 percent target through 2014. The amount of proposed resources needed starts at 1,280 MW in 2015 and increases to 4,640 MW by 2017, or about 18.4 percent of proposed resources in the MISO generator interconnection queue.

The fuel mix of generating units in the RFC region is 15.0 percent nuclear, 3.0 percent hydro and pumped storage hydro, 47.0 percent coal, 8.0 percent oil, 26.0 percent gas and 1.0 percent wind and other. Although recent events provide evidence that the gas supply and coal delivery networks are near their current limits, RFC does not expect a fuel problem to affect the long term assessment.

Over the next six years, there are plans within the RFC region for the addition of more than 1,600 miles of high voltage transmission lines (100 kV and above) and numerous new substations and transformers expected to enhance and strengthen the bulk transmission system. PJM's RTEP has identified four major "backbone" projects, two of which were mentioned earlier.

The Trans-Allegheny Interstate Line, scheduled for operation in 2011, consists of a new 500 kV circuit from 502 Junction to Mt. Storm to Meadow Brook to Loudon. This project will relieve anticipated overloads and voltage problems in the Washington, D.C., area, including anticipated overloads expected in 2011 on the existing 500 kV network.

³⁴ The 2008 PJM Reserve Requirement Study (October 8, 2008) recommends endorsement of a 16.2% reserve requirement for the 2012/2013 planning period.

³⁵ Existing installed capacity + expected queue generation – announced retirements.

The planned 130-mile, 500 kV circuit from Susquehanna to Lackawanna to Roseland will tie into the existing 500 kV network and, with the addition of 500/230 kV transformers, will create a strong link from generation sources in Northeastern and North Central Pennsylvania into New Jersey. These facilities are expected to be in service by June 2012.

The Potomac-Appalachian Transmission Highline consists of a 244-mile Amos to Bedington 765 kV line and a 92-mile, twin circuit 500 kV line from Bedington to Kemptown. This project will reduce the west-to-east power flow on the existing PJM 500 kV transmission paths and provide significant benefits to the constrained area of Washington and Baltimore.

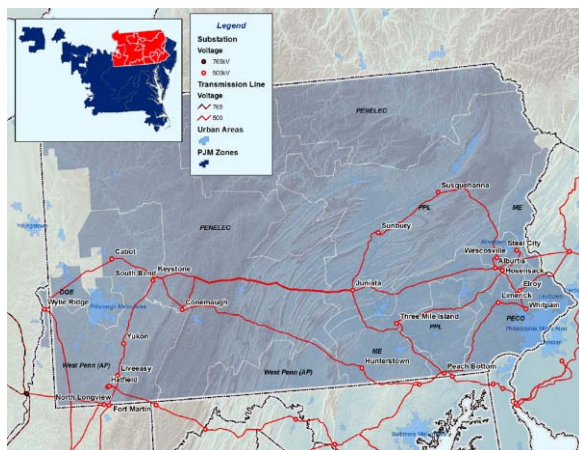
The fourth “backbone” project is the Mid-Atlantic Power Pathway, consisting of a new 190-mile 500 kV line beginning at Possum Point, Virginia, and terminating at Salem, New Jersey.

Pennsylvania

The Pennsylvania outlook reflects the projections of RFC. Since transmission and generation are not regulated by this 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 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. PJM's service area in the state is shown in Figure 3.4.

Figure 3.4 PJM Service Area in Pennsylvania³⁶



Load-serving entities (LSEs) acquire capacity resources by entering into bilateral agreements, participating in the PJM-operated capacity market, owning generation, or pursuing load-management options. The PJM generator interconnection process ensures that new capacity resources satisfy LSE requirements to reliably meet their obligations.

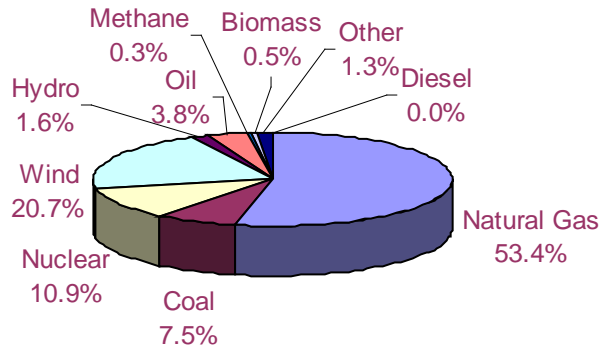
All new generation, which anticipates interconnecting and operating in parallel with the PJM transmission grid and participating in the PJM capacity and/or energy markets, must submit an interconnection request to PJM. These requests are placed in queues, or waiting lists, for the performance of feasibility studies and other technical reviews.

Proposed new generating plants and increased capacity of existing plants located in Pennsylvania total 20,981 MW through 2015. These facilities are either under study (active), under construction, partially in-service or in-service.

³⁶ PJM 2008 Regional Transmission Expansion Plan, February 27, 2009.

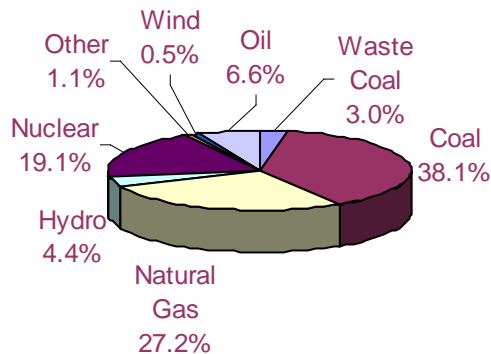
About 53.0 percent of queued capacity is from natural gas projects. Some of these queued generator interconnection requests are duplicative, since more than one point of injection into the system is being evaluated. Also, this additional capacity may be used to serve Pennsylvania customers or out-of-state customers. See Figure 3.5. Appendix A provides the status of generator interconnection requests located in Pennsylvania.

Figure 3.5 PJM Queued Capacity in Pennsylvania



The generating capacity located in Pennsylvania totals 51,135 MW.³⁷ As stated earlier, the output of some of these facilities may serve loads outside of Pennsylvania. The state’s demand is about 30,000 MW. See Figure 3.6. Appendix B lists the existing power plants located in Pennsylvania.

Figure 3.6 Existing Capacity in Pennsylvania



³⁷ Electric Power Generation Association.

Section 4 - Conclusions

Conclusions

Pennsylvania continues to benefit from a high level of electric service reliability. The Pennsylvania outlook reflects the regional assessment of RFC.

RFC reports that there is sufficient generation, transmission and distribution capacity in Pennsylvania to meet the needs of electric consumers for the foreseeable future. RFC anticipates that its reserve margin target will be satisfied through 2012, provided that proposed generation projects will be completed in a timely manner and enhancements to the transmission network will be capable of reliably delivering those resources. Summer reserve margins in RFC range from a high of 20.6 percent in 2008, declining to 8.9 percent in 2017. In 2013, additional capacity resources will likely be needed to maintain adequate reserves.

The 2008 PJM reserve margin for existing capacity resources was 26.2 percent. Reserve margins are expected to meet the 15 percent reserve margin target through 2013.

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. These efforts include the implementation of Alternative Energy Portfolio Standards and the Energy Efficiency and Conservation Program. In the long term, this initiative will improve overall energy efficiency, including energy markets and system reliability. 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 2008 totaled approximately 148.3 billion kilowatthours, a 0.5 percent decrease from that of 2007. Residential sales accounted for 34.6 percent of the total sales, followed by industrial (32 percent) and commercial (30.9 percent).

Between 1993 and 2008, the state's energy demand grew at an average annual rate of 1.5 percent. Residential sales grew at an annual rate of 1.8 percent, commercial at 2.5 percent and industrial at 0.5 percent. Average total sales growth from 2003 to 2008 was 1.4 percent. The current aggregate five-year projection of growth in energy demand is 1.2 percent. This includes a residential

growth rate of 1.0 percent, a commercial rate of 1.5 percent and an industrial rate of 1.0 percent.

Over the past 15 years, the average non-coincident peak load for the major EDCs increased 1.4 percent per year. The peak load is expected to increase from 29,970 MW in 2008 to 31,038 MW in 2013 at an average annual growth rate of 0.7 percent.

* * * * *

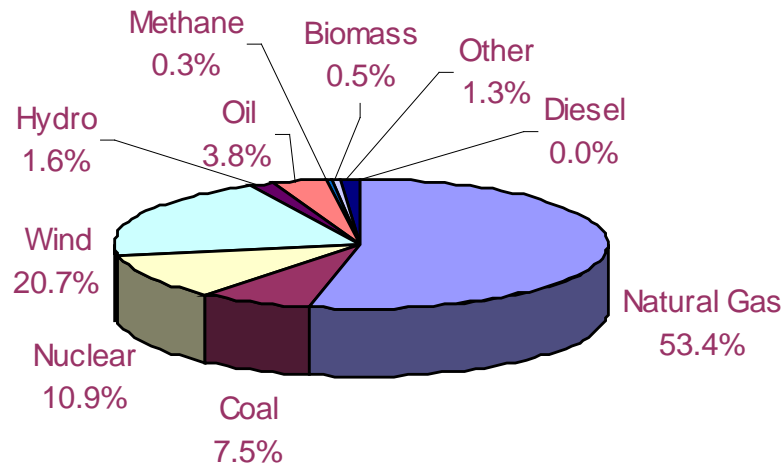


Appendix A – Status of Plant Additions and Upgrades

Note: The following data represents PJM interconnection requests for new generating resources located in Pennsylvania. Some project requests may be duplicative, in that the same project may be considered for more than one point of injection into the system. However, in those cases, only one project is being considered for construction.

Source: *PJM 2008 Regional Transmission Expansion Plan*, February 27, 2009

PJM Queued Capacity in Pennsylvania



Status of Pennsylvania's Plant Additions & Upgrades

Queue	Project	MW	In-Service	Status	Fuel	Transmission Owner
G46	Peach Bottom 500 kV	70	2007	Partially In-Service	Nuclear	PECO
G06	Martins Creek #4	30	2012	Under Construction	Coal	PPL
G51_W60	Hatfield Ferry 500 kV	525	2010	Suspended	Coal	APS
L13	Rockwood	40	2008	In-Service	Wind	PENELEC
L19	Karthaus 230 kV	290	2012	Suspended	Coal	APS
M11	Susquehanna #1	111	2008	Partially In-Service	Nuclear	PPL
M12	Susquehanna #2	107	2010	Under Construction	Nuclear	PPL
M26	Champion	272	2012	Suspended	Coal	APS
N32	Gans 138 kV	50.4	2010	Suspended	Wind	APS
N36	Gold-Sabinsville 115 kV	50	2009	Active	Wind	PENELEC
O18	Salix-Claysburg 115 kV	65	2008	Partially In-Service	Wind	PENELEC
O19	Somerset 115 kV	33	2012	Active	Wind	PENELEC
O26	Pine Grove 69 kV	8	2008	Partially In-Service	Diesel	PPL
O28	Jenkins-Harwood #2	51	2011	Suspended	Wind	PPL
O36	Honey Brook 12 kV	1.6	2008	Active	Methane	PPL
O38	Johnstown-Altoona 230 kV	50	2008	Partially In-Service	Wind	PENELEC
O39	Sunbury-Dauphin 69 kV	56	2010	Suspended	Wind	PPL
O40	Pine Grove - Frailey 69 kV	28	2012	Suspended	Wind	PPL
O52	Gold-Potter Co 115 kV	50	2010	Active	Wind	PENELEC
O53	Beaver Valley #1	81	2007	Partially In-Service	Nuclear	DL
O54	Beaver Valley #2	77	2007	Partially In-Service	Nuclear	DL
O56	Osterburg East 115 kV	76	2011	Active	Wind	PENELEC
O59	Gold 115 kV	99	2009	Active	Wind	PENELEC
O60	Berlin 23 kV	5.4	2010	Active	Wind	PENELEC
O70	Susquehanna - Harwood 230 kV	124	2011	Suspended	Wind	PPL
O72	Hooversville - Central City	60	2009	Suspended	Wind	PENELEC
P01	Westover - Madera 115 kV	65	2010	Active	Wind	PENELEC
P04	Peach Bottom 500 kV	550	2010	Under Construction	Natural Gas	PECO
P22	Johnstown - Altoona 230 kV	20	2009	Under Construction	Wind	PENELEC
P28	Mehoopany 115 kV	150	2009	Active	Wind	PENELEC
P34	Washington Landfill	6.4	2009	Under Construction	Biomass	APS
P45A	Thompson 115 kV	120	2009	Active	Wind	PENELEC
P47	Mansfield-S. Trpy 115 kV	100	2009	Active	Wind	PENELEC
P60	New Baltimore 115 kV	52.5	2010	Active	Wind	PENELEC
Q20	Holtwood	140	2013	Under Construction	Hydro	PPL
Q25	Donegal-Iron City 138 kV	80	2008	Active	Wind	APS
Q27	Frackville-Shennandoah 69 kV	100	2008	Partially In-Service	Wind	PPL
Q28	Eldred-Frackville 230 kV	170	2009	Under Construction	Wind	PPL
Q34	Garrett 115 kV	100	2009	Active	Wind	PENELEC
Q36	Tyrone N. - Philipsburg 115 kV	50	2009	Active	Wind	PENELEC
Q46	Curwensville 34.5 kV	10	2009	Active	Coal	PENELEC
Q47	Peach Bottom	140	2012	Active	Nuclear	PECO
Q53	Summit-West Fall 115 kV	50	2008	Under Construction	Wind	PENELEC
Q59	S. Reading-Birdsboro 64 kV	6.4	2008	Under Construction	Biomass	ME
Q62	Sayton-Snake Spring 115 kV	100	2009	Active	Wind	PENELEC
Q63	Seneca 230 kV	16	2008	Active	Hydro	PENELEC
Q72	Mansfield - S. Troy 115 kV	110	2009	Active	Wind	PENELEC
Q73	South Reading 69 kV	30	2008	Under Construction	Biomass	ME
R01	Susquehanna	800	2013	Active	Nuclear	PPL
R02	Susquehanna	800	2013	Active	Nuclear	PPL
R05	Thompson 115 kV	50	2009	Active	Wind	PENELEC
R08	Central City - Hooversville	300	2012	Active	Coal	PENELEC
R09	Summit - Claysburg 115 kV	48	2009	Active	Wind	PENELEC

Status of Pennsylvania's Plant Additions & Upgrades

Queue	Project	MW	In-Service	Status	Fuel	Transmission Owner
R32	Salix - Claysburg 115 kV	75	2009	Active	Wind	PENELEC
R40	Rockwood - Meyersdale 115 kV	37.8	2008	Under Construction	Wind	PENELEC
R42	Moselem 69 kV	6	2009	Suspended	Biomass	ME
R43	Frackville - Hauto #3	20	2009	Active	Wind	PPL
R53	Stanton - Brookside 69 kV	60	2009	Active	Wind	PPL
R56	Quemahoring - Hooversville	124	2009	Active	Wind	PENELEC
R57	South Reading 69 kV	30	2008	Under Construction	Biomass	ME
R81	Emilie 230 kV	101	2008	Partially In-Service	Natural Gas	PECO
R92	DuBois 115 kV	70	2009	Active	Wind	PENELEC
S05	Seneca #2 230 kV	16	2008	Active	Hydro	PENELEC
S11	Seward-Tower 51 115 kV	70	2009	Active	Wind	PENELEC
S20	Pine Grove-Fishbach 69 kV	50	2009	Active	Wind	PPL
S23	Graceton 230 kV	550	2011	Active	Natural Gas	PECO
S29B	Somerseset 23 kV	5.7	2009	Active	Methane	PENELEC
S40	Hegins	10.5	2009	Under Construction	Methane	PPL
S41	Eldred-Reed 69 kV	12.5	2010	Suspended	Biomass	PPL
S42	Eldred-Fairview	18	2010	Suspended	Wind	PPL
S49	Bedford 115 kV	202.5	2009	Active	Wind	PENELEC
S64	York Inc. 115 kV	18	2011	Active	Biomass	ME
S66	Downing Avenue 115 kV	96	2009	Active	Other	PENELEC
S103	Warren 115 kV	57	2008	Active	Natural Gas	PENELEC
S116	North Temple 230 kV	912	2011	Active	Natural Gas	ME
T20	Falls	3	2009	Under Construction	Other	PECO
T39	Coudersport 46 kV	18	2008	Active	Wind	APS
T49	Steel City	42	2008	Active	Natural Gas	PPL
T85	Roxbury - Blain 23 kV	6.4	2008	Under Construction	Methane	PENELEC
T86	Bradford 34.5 kV	1.6	2008	Under Construction	Methane	PENELEC
T108	Archbald 69 kV	9.2	2010	Under Construction	Methane	PPL
T109	Keystone 500 kV	20	2009	Active	Coal	PENELEC
T110	Keystone 500 kV	20	2009	Active	Coal	PENELEC
T117	Hunlock Creek 69 kV	135	2011	Active	Natural Gas	UGI
T118	Linwood 230 kV	10	2007	Active	Natural Gas	PECO
T121	Potter 115 kV	120	2009	Active	Wind	PENELEC
T129	Printz 230 kV	20	2010	Under Construction	Natural Gas	PECO
T155	Belknap 25 kV	6	2010	Active	Hydro	APS
T156	Champion	20	2011	Active	Coal	APS
T162	Lock Haven	90	2011	Active	Coal	PPL
T174	Yukon-Browns Run 500 kV	930	2011	Active	Natural Gas	APS
T182	TMI 230 kV	24	2008	Active	Nuclear	ME
U1-010	Peach Bottom	18	2011	Active	Natural Gas	PECO
U1-012	Richmond	630	2013	Active	Natural Gas	PECO
U1-013	Eddystone	630	2013	Active	Natural Gas	PECO
U1-038	Millheim	50	2010	Active	Wind	APS
U1-050	Clearfield	200	2011	Active	Wind	PENELEC
U1-051	Clearfield	130	2011	Active	Wind	PENELEC
U1-057	North Lebanon	950	2011	Active	Natural Gas	ME
U1-067	Honey Brook	1.6	2008	Active	Methane	PPL
U1-069	Emsworth Locks & Dam	30	2015	Active	Hydro	DL
U1-071	CW Bill Young Lock & Dam	15	2015	Active	Hydro	APS
U1-072	Braddock Lock & Dam	10	2015	Active	Hydro	DL
U1-073	Allegheny Lock & Dam #7	16	2015	Active	Hydro	APS
U1-074	Point Marion Lock & Dam	10	2015	Active	Hydro	APS
U1-076	Allegheny Lock & Dam #2	12	2015	Active	Hydro	DL

Status of Pennsylvania's Plant Additions & Upgrades

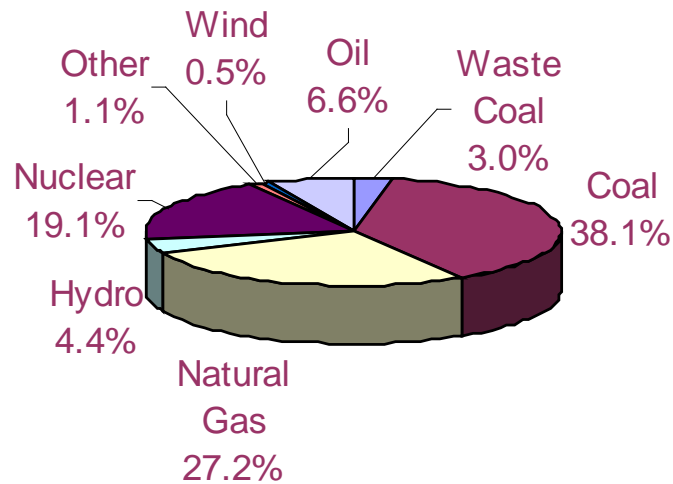
Queue	Project	MW	In-Service	Status	Fuel	Transmission Owner
U1-077	Allegheny Lock & Dam #4	16	2015	Active	Hydro	APS
U1-080	Montgomery Lock & Dam	35	2015	Active	Hydro	DL
U1-081	Monongahela Lock & Dam #4	10	2015	Active	Hydro	APS
U1-082	Maxwell Lock & Dam	10	2015	Active	Hydro	APS
U1-086	Eldred 230 kV	150	2010	Active	Other	PPL
U2-015	Harwood E. Palmerton 230 kV	100	2010	Active	Wind	PPL
U2-016	Grover 230 kV	85	2010	Active	Wind	PPL
U2-029	Passyunk	1.3	2015	Active	Other	PECO
U2-053	Martins Creek	800	2012	Active	Natural Gas	PPL
U2-054	Weissport	2.6	2011	Active	Hydro	PPL
U2-055	Karthus-Milesburg 230 kV	89.1	2012	Active	Wind	APS
U2-063	Croydon 230 kV	5	2008	Under Construction	Natural Gas	PECO
U2-067	Eldred-Pine Grove 69 kV	2.5	2008	Under Construction	Other	PPL
U2-069	Frackville	56	2010	Active	Wind	PPL
U2-070	Somerset	7.5	2010	Active	Wind	PENELEC
U2-073	Frostburg 138 kV II	200	2010	Active	Wind	APS
U2-074	Peach Bottom-Rock Springs	650	2012	Active	Natural Gas	PECO
U2-075	Susquehanna-Roseland 500 kV	636	2012	Active	Natural Gas	PPL
U2-076	Falls	10	2009	Active	Methane	PECO
U2-085	Sakron-Prince #3 138 kV	11.4	2009	Active	Methane	PPL
U2-099	Martins Creek 230 kV	700	2012	Active	Natural Gas	PPL
U3-001	Barbadoes 34 kV	1	2008	Active	Other	PECO
U3-008	Mt. Bethel 230 kV	200	2012	Active	Oil	ME
U3-009	Mt. Bethel 230 kV	595	2014	Active	Oil	ME
U3-010	Towanda	120	2011	Active	Wind	PENELEC
U3-012	Bradford 115 kV	85	2011	Active	Wind	PENELEC
U3-013	Clermont 115 kV	125	2011	Active	Wind	PENELEC
U3-018	Knieriem	20	2010	Active	Wind	PENELEC
U3-023	Printz 230 kV	720	2012	Active	Natural Gas	PECO
U3-029	Beaver Valley #1	37	2010	Active	Nuclear	DL
U3-030	Beaver Valley #2	38	2011	Active	Nuclear	DL
U4-004	York 115 kV	120	2011	Active	Natural Gas	ME
U4-005	Susquehanna	640	2013	Active	Natural Gas	PPL
U4-013	North Lebanon 230 kV	950	2011	Active	Natural Gas	ME
U4-014	Seigfried-Hauto 69 kV	10	2009	Active	Other	PPL
U4-016	Harwood	48	2010	Active	Natural Gas	PPL
U4-032	South Bend 500 kV	400	2013	Active	Natural Gas	APS

Appendix B – Existing Electric Generating Facilities

Note: The following data represents the most recently available data on existing generating facilities located in Pennsylvania. Data was provided by the Electric Power Generation Association. Below is a summary of generating facilities by fuel type:

FUEL TYPE	MW
COAL	19,488
GAS	13,927
NUCLEAR	9,747
OIL	3,385
WATER	2,257
WASTE COAL	1,510
OTHER	543
WIND	279
TOTAL	51,135

Existing Capacity in Pennsylvania



Pennsylvania's Existing Electric Generating Facilities

Company Name	Plant Name	Fuel Type	Alternate Fuel Type	Technical Type	MW
A/C Power-Colver Operations	Colver Power Project	Waste Coal		ST-S	102
AES Corporation	Beaver Valley	Coal		ST	120
AES Corporation	Ironwood	Gas		CC	765
Allegheny Electric Cooperative*	Raystown Hydroelectric Project (Matson)	Water		HY	21.7
Allegheny Energy Supply*	Armstrong Generating Station	Coal		ST	380
Allegheny Energy Supply*	Chambersburg Gen. Facility, AE Units 12&13	Gas		SC	88
Allegheny Energy Supply*	Gans Gen. Facility, AE Units 8&9	Gas		GT	88
Allegheny Energy Supply*	Hatfield's Ferry Power Station	Coal		ST	1710
Allegheny Energy Supply*	Hunlock Creek Power Station	Gas		GT	50
Allegheny Energy Supply*	Lake Lynn Hydroelectric Project	Water		HY	51.2
Allegheny Energy Supply*	Mitchell Generating Station	Coal	Oil	ST	448.8
Allegheny Energy Supply*	Springdale, Units 1,2,3,4 & 5	Gas		CC/GT	628
AmerGen Energy Co. LLC (Exelon)	Three Mile Island	Nuclear		ST	786
Babcock & Brown Wind Partners	Allegheny Ridge Wind Farm	Wind		WTG	80
Bio-Energy Partners	Lake View Landfill	Other		IC	6.1
Brookfield Renewable Power, Inc.	Piney Dam (PA) Hydroelectric Plant	Water		HY	28.8
Chambersburg Borough Electric Dept	Chambersburg Power Plant	Gas	Oil	IC	30.47
Cogentrix	Northampton Generating Station	Waste Coal		ST-S	134
Cogentrix	Scrubgrass Generating Plant	Waste Coal		ST	83
Colmac Clarion Inc	Colmac Clarion Inc	Waste Coal		ST	32
Community Energy, Inc.	Locust Ridge Wind Farm	Wind		WTG	26
Community Energy, Inc.*	Bear Creek	Wind		WTG	24
Competitive Power Ventures Inc. (CPV)	Liberty Electric Power LLC	Gas		CC	610
Connect Energy*	Bethlehem Commerce Plant	Gas		CC	1,092
Consolidated Rail Corporation	Juniata Locomotive Shop	Coal		ST-H	10
Constellation Generation Group	Safe Harbor Hydroelectric Plant	Water		HY	417.5
Constellation Power Inc.	Handsome Lake Plant	Gas		SC	250
Constellation Power Inc. (50%)	Panther Creek Energy Facility	Waste Coal		ST-S	95
Corona Power LLC	Sunbury Generating Station	Coal	Oil	ST/GT/IC	462.5
Covanta Energy Corporation	Delaware Valley Resource Recovery Facility	Other		ST-S	90
Covanta Energy Corporation	Lancaster County Resource Recovery Facility	Other		ST	35.7
Covanta Energy for Harrisburg Authority	Harrisburg WTE Plant	Other		ST-S	24.1
Dominion Generation	Fairless Energy	Gas		CC	1200
Duke Energy	Fayette County Energy Facility	Gas		CC	630
Dynegy	Ontelaunee Energy Center	Gas		CCGT	545
Exelon Nuclear	Limerick Nuclear Gen. Station, Units 1&2	Nuclear		ST	2462
Exelon Nuclear	Peach Bottom Atomic Power St., Units 2&3	Nuclear		ST	2364
Exelon Power Generation Co. LLC*	Cromby Generating Station	Coal	Oil/Gas	ST	373.75
Exelon Power Generation Co. LLC*	Croydon Plant	Gas		GT	370
Exelon Power Generation Co. LLC*	Eddystone Generating Station	Coal	Oil/Gas	ST	1489.2
Exelon Power Generation Co. LLC*	Exelon Power Dist. Gen. Group (38 Units)	Oil	Gas	GT	1078
Exelon Power Generation Co. LLC*	Exelon Power Mid-Atlantic Peaking Division	Gas	Oil	GT	2798.3
Exelon Power Generation Co. LLC*	Fairless Hills Generating	Other		ST-S	60
Exelon Power Generation Co. LLC*	Muddy Run HydroElectric Plant	Water		HY	1071
Exelon Power Generation Co. LLC*	Schuylkill Generating Station	Oil		GT-S	175
Exelon Power Generation Co. LLC*	Exelon-Epuron Solar Energy Center	Other		PV	60
FirstEnergy Generation Corp.*	Bruce Mansfield Plant	Coal		ST	2460
FirstEnergy Generation Corp.*	Seneca Pumped Storage Plant	Water		HY	450
FirstEnergy Generation Corp.*	York Haven	Water		HY	19
FirstEnergy Nuclear Operating Co.*	Beaver Valley Power Station	Nuclear		ST	1775
FPL Energy*	Green Mountain Wind Energy Center	Wind		WTG	10.4
FPL Energy*	Meyersdale Wind Power Project	Wind		WTG	30
FPL Energy*	Mill Run Wind	Wind		WTG	15
FPL Energy*	Somerset Wind Farm	Wind		WTG	9
FPL Energy*	Waymart Wind Farm	Wind		WTG	64.5
Gas Recovery Services, Inc.	Modern Landfill Production Plant	Other		GT	9
GDF Suez Energy Generation NA, Inc.*	NEPCO-Northeastern Power Co.	Waste Coal		ST	59
GDF Suez Energy Generation NA, Inc.*	Northumberland Cogeneration Facility	Other	Gas	GT	18

Pennsylvania's Existing Electric Generating Facilities

Company Name	Plant Name	Fuel Type	Alternate Fuel Type	Technical Type	MW
General Electric Co.	Erie Works Plant	Coal		GT	36
General Electric Co.	Grove City Plant	Oil		GT	10.6
Gilberton Power Co.	John B Rich Memorial Power Station	Waste Coal		ST-S	80
Ingenco	Mountain View Landfill	Other	Oil	IC	16
Integrus Energy Services, Inc.	WPS Westwood Generation	Waste Coal		ST	30
International Power America, Inc. (ANP)	Armstrong Energy LLC	Gas		GT	688
J. P. Mascaro & Son	Pioneer Crossing	Other		IC	6.4
J.P. Morgan Chase Bank	Liberty Plant	Gas		CC	578
Kimberly Clark Corp	Chester Cogeneration Plant	Coal	Coke	ST-S	59
Koppers, Inc.	Koppers Montgomery Cogeneration Plant	Other		ST-S	10
Merck & Co., Inc.	West Point (PA) Merck Plant	Gas		GT/ST	30.25
Mid-Atlantic Energy Co.	Clairton USX B Plant	Gas		ST	219.75
Mid-Atlantic Energy Co.	Piney Creek LP	Waste Coal		ST	33
Midwest Generation LLC	Homer City (EME) Generation	Coal		ST	2012
Mount Carmel Cogeneration, Inc.	Mount Carmel Cogeneration, Inc.	Waste Coal		ST-S	46.5
NAES Corp	North East Cogeneration Plant	Gas		CC	81.8
Northern Star Generation Services Co.	Cambria County Cogen	Waste Coal		ST-S	98
NRG Thermal, LLC	NRG Energy Paxton LLC	Gas	Oil	ST-S	12.6
PEI Power Corp.	Archbald Power Station	Other		GT/ST	24
PENELEC	Arnold (Green Mountain)	Wind		WTG	10
PENELEC	Arnold (Green Mountain)	Wind		WTG	10
Pennsylvania Renewable Resources Assoc	Conemaugh Saltsburg	Water		HY	15
PH Glatfelter Co.	Spring Grove Glatfelter Cogeneration Plant	Coal		ST-S	67.25
Power Systems Operations	Ebensburg Power Co	Waste Coal		ST-S	48.5
PPL Corp.*	Lebanon County Landfill (2007)	Other		IC	3.2
PPL Generation LLC*	Allentown Generating Station	Oil		GT	64
PPL Generation LLC*	Fishbach Generating Station	Oil		GT	37.2
PPL Generation LLC*	Harrisburg Generating Station	Oil		GT	64
PPL Generation LLC*	Harwood (PA) Generation Station	Oil		GT	32
PPL Generation LLC*	Jenkins Generating Station	Oil		GT	32
PPL Generation LLC*	Lock Haven Generating Station	Oil		GT	18.6
PPL Generation LLC*	Lower Mt. Bethel Energy LLC	Gas		CC	623
PPL Generation LLC*	PPL Brunner Island	Coal		ST	1500
PPL Generation LLC*	PPL Holtwood, LLC	Water		HY	108
PPL Generation LLC*	PPL Martins Creek	Oil	Gas	GT/ST	1664
PPL Generation LLC*	PPL Montour LLC	Coal		ST	1552
PPL Generation LLC*	PPL Susquehanna LLC	Nuclear		ST	2360
PPL Generation LLC*	PPL Wallenpaupack LLC	Water		HY	44
PPL Generation LLC*	Suburban Generation Station c/o Martins Cree	Oil		GT	29
PPL Generation LLC*	West Shore Generating Station	Oil		GT	37.2
PPL Generation LLC*	Williamsport Generating Station	Oil		GT	32
Procter & Gamble	Mehoopany Plant	Gas		GT-S	53
Rohm and Haas Co.	Bristol	Oil		ST	1.5
RRI Energy, Inc.*	Blossburg Plant (Mothball Pending)	Gas		GT	19
RRI Energy, Inc.*	Brunot Island Generating Station	Gas	Oil	CC/GT	342
RRI Energy, Inc.*	Cheswick Generating Station	Coal	Diesel	ST	580
RRI Energy, Inc.*	Conemaugh Power Plant	Coal	Oil	IC/ST	1712
RRI Energy, Inc.*	Elrama Generating Station	Coal		ST	510.3
RRI Energy, Inc.*	FR Philips Generating Station	Coal		ST	411.3
RRI Energy, Inc.*	Hamilton Generating Station	Oil		GT	20
RRI Energy, Inc.*	Hunterstown Generating Station	Gas	Diesel	CC	930
RRI Energy, Inc.*	Keystone Generating Station	Coal	Oil	IC/ST	1712
RRI Energy, Inc.*	Mountain Generating Station	Gas	Oil	GT	40
RRI Energy, Inc.*	<i>New Castle Generating Station</i>	Coal	Oil	ST/IC	333
RRI Energy, Inc.*	<i>Orrtanna Generating Station</i>	Oil		GT	20
RRI Energy, Inc.*	Portland Generating Station	Coal	Gas	GT/ST	570
RRI Energy, Inc.*	Seward Generating Station	Waste Coal		ST	521
RRI Energy, Inc.*	Shawnee Generating Station	Oil		GT	20

Pennsylvania's Existing Electric Generating Facilities

Company Name	Plant Name	Fuel Type	Alternate Fuel Type	Technical Type	MW
RRI Energy, Inc.*	Shawville Generating Station	Coal	Oil	ST	603
RRI Energy, Inc.*	Titus Generating Station	Coal	Gas	ST/GT	274
RRI Energy, Inc.*	Tolna Station	Oil		GT	40
RRI Energy, Inc.*	Warren Generating Station	Gas	Oil	GT	68
Schuylkill Energy Resources	St Nicholas Cogeneration Plant	Waste Coal		ST-S	100
Sithe Energies Inc.	Allegheny Lock & Dam No. 8	Water		HY	13
Sithe Energies Inc.	Allegheny Lock & Dam No. 9	Water		HY	17.4
Smurfit-Stone Container Corp.	Philadelphia Container Plant	Oil		ST-S	10
Solar Turbines Inc.	York Solar Plant	Gas		CC	70
Sunoco Inc	Marcus Hook Cogen Power Plant	Other		GT-S	50.5
Sunoco Inc	Marcus Hook Cogeneration Plant	Gas		CC	836.1
Temple University	Temple Univ. Standby Electric Gen. Facility	Gas		IC-H	16
UGI Development Co.*	Hunlock Creek Power Station	Coal	Oil	ST	50
Veolia Energy North America, Inc.	Grays Ferry Power Plant	Gas		CC	174.6
Veolia ES Waste-to-Energy Inc	Montenay Montgomery LP	Other		ST	32.1
Veolia ES Waste-to-Energy Inc	York County WTE	Other		ST	38
Weyerhaeuser Co (WEYCO)	Bradford (PA) Plant	Coal	Liq	ST	52
Wheelabrator Technologies Inc. (WTI)	Wheelabrator Falls, Inc.	Other		ST	53
Wheelabrator Technologies Inc. (WTI)	Wheelabrator Frackville Energy Co.	Waste Coal		ST-S	48
WM Renewable Energy	Pottstown Plant	Other		GT	6.4
Total MW in PA					51135.07

*=verified data

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Source: Electric Power Generation Association

