Monthly Flash Estimates of Electric Power Data

Data for: September 2006

Section 1. Commentary

September is a transitional month between summer and fall, when decreased electricity use coincides with a decline in cooling demand. In contrast to recent Septembers, which have been warmer than normal, cooling and heating degree days for September 2006 were each within 10 percent of the norm. In September 2006, cooling degree days were 35.0 percent lower than September 2005 and 57.1 percent lower than August 2006.

The changes in temperature translated into a 5.2 percent decline in September 2006 net electricity generation when compared to September 2005, and an 18.2 percent decline when compared to August 2006. Similarly, September 2006 retail sales of electricity were down 4.2 percent from September 2005 and down 14.0 percent from August 2006. For September 2006, the average retail price of electricity was 6.6 percent higher than for September 2005 and down 2.9 percent from August 2006. Year-to-date, through September 2006, the average retail price of electricity was up 10.0 percent compared to the first nine months of 2005.

The changes in generation by fuel type also reflected the overall generation changes. Between August 2006 and September 2006, coal-fired generation was down 14.7 percent. Over the same period, generation from petroleum liquids and natural-gas fired generation also experienced declines, down 54.3 percent and 32.1 percent, respectively. For the first nine months of 2006, generation from coal and petroleum liquids was down 1.3 percent and 55.1 percent, respectively, when compared to the same period in 2005, while natural gas generation was up 5.1 percent over the same period. September nuclear generation was little changed – down 0.1 percent when comparing 2006 to 2005; however, it was 2.0 percent higher year-to-date through September when comparing 2005 and 2006. In September 2006, conventional hydroelectric generation continued to experience a seasonal decrease, down 13.9 percent from August 2006. Year-to-date, through September 2006, hydroelectric generation was up 8.8 percent compared to the first nine months of 2005.

With the end of the summer cooling season, the coal stock build-up for the winter has begun. Bituminous and subbituminous coal stocks for September 2006 were 3.8 percent and 0.2 percent higher, respectively, when compared to August 2006, and were 18.1 percent and 38.3 percent higher, respectively, when compared to September 2005. Subbituminous coal stocks have essentially recovered from the problems associated with the rail delivery constraints during the summer of 2005. In September 2006, bituminous stocks were 60.1 million tons and subbituminous stocks were 60.6 million tons. Petroleum liquids stocks were also higher in September 2006, up 3.3 percent from August 2006.

Table of Contents

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained herein should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy of the Department of Energy or any other organization. For additional information, contact Orhan Yildiz at 202-287-1586, or at Orhan.Yildiz@eia.doe.gov.

Section 2. Key Indicators of Generation, Consumption & Stocks

Data for: September 2006

Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
Total Change From:			
August 2006	-18.2%	-7.5%	-13.9%
September 2005	-5.2%	-0.1%	3.5%
Year to Date	0.1%	2.0%	8.8%
Latest 12 Month Period*	0.4%	2.3%	4.3%

Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
August 2006	-33.2%	-14.0%	1.9%
September 2005	-2.9%	-4.6%	27.9%
Year to Date	4.5%	-1.1%	n/a
Latest 12 Month Period*	3.2%	-0.6%	n/a

* Change in total consumption or generation for the latest 12 month period (October 2005 to September 2006) compared to the prior 12 month period (October 2004 to September 2005).

Note: The 2005 data presented in this publication have been revised to be consistent with the recently published Electric Power Annual 2005. For the remainder of this publication, references to September 2005 EIA data are appended with an "R".

Section 3. Month-to-Month Comparisons: Generation, Consumption and Stocks (Total)

Data for: September 2006

Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Sep-06	Sep-05	% Change	Aug-06	% Change
Coal	161,416	171,681	-6.0%	189,258	-14.7%
Petroleum Liquids	2,947	10,478	-71.9%	6,446	-54.3%
Natural Gas	72,081	73,092	-1.4%	106,116	-32.1%
Nuclear	66,642	66,739	-0.1%	72,016	-7.5%
Hydroelectric Conventional	17,939	17,339	3.5%	20,834	-13.9%
All Other	11,067	10,865	1.9%	11,535	-4.1%
Total (All Energy Sources)	332,092	350,193	-5.2%	406,205	-18.2%

Fossil Fuel Consumption for Electric Generation (Total, All Sectors)

Table 3.2 Total Consumption of Fossil Fuels for Electric Generation (All Sectors)

Consumption of Fossil Fuels	Sep-06	Sep-05	% Change	Aug-06	% Change
Coal (Thousand Short Tons)	85,110	89,217	-4.6%	98,917	-14.0%
Petroleum Liquids (Thousand Barrels)	5,218	17,698	-70.5%	11,139	-53.2%
Natural Gas (Million Cubic Feet)	607,510	625,797	-2.9%	909,941	-33.2%

Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Sep-06	Sep-05	% Change	Aug-06	% Change
Coal (Thousand Short Tons)	125,572	98,192	27.9%	123,285	1.9%
Petroleum Liquids (Thousand Barrels)	49,739	35,568	39.8%	48,132	3.3%

Notes:
- Coal consumption and generation includes subbituminous coal, bituminous coal, anthracite, lignite, waste coal and coal synfuel.
- Coal stocks include the coal categories listed immediately above except for waste coal. The bituminous category includes anthracite and coal synfuel.
- Petroleum Liquids consumption and generation includes distillate oil, residual oil, jet fuel, kerosene and waste oil.
- Petroleum Liquids stocks includes the oil categories listed immediately above, except waste oil is excluded from data collected for January 2004 and subsequently. Data prior to 2004 contains small quantities of waste oil.
- The "All Other" generation category includes biomass, solar, wind, geothermal, hydroelectric pumped storage, petroleum coke, other gases, and other miscellaneous energy sources.

Section 4. Net Generation Trends

Data for: September 2006

Table 4.1 Trends in Total Generation by Fuel (All Sectors)
Millions of Kilowatthours

Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	January 2006	September 2006	1,493,494	33,770	629,453	597,827	228,994	104,573	3,088,111
Prior Period	January 2005	September 2005	1,513,908	75,242	599,031	586,103	210,386	99,704	3,084,374
Percent Difference			-1.3%	-55.1%	5.1%	2.0%	8.8%	4.9%	0.1%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	October 2005	September 2006	1,992,765	58,623	788,396	793,711	288,195	136,736	4,058,426
Prior Period	October 2004	September 2005	2,005,778	94,496	757,021	776,191	276,397	130,990	4,040,873
Percent Difference			-0.6%	-38.0%	4.1%	2.3%	4.3%	4.4%	0.4%

Figure 4.1 Trends in Total Net Generation (All Sectors): 2004, 2005, and 2006

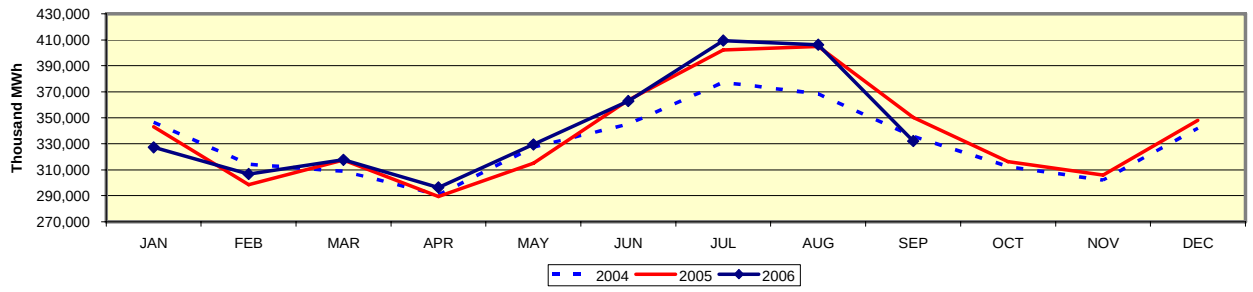


Figure 4.2 Fossil Fuel Generation Trends (Values as Indices, Jan. 2002 = 1.0)

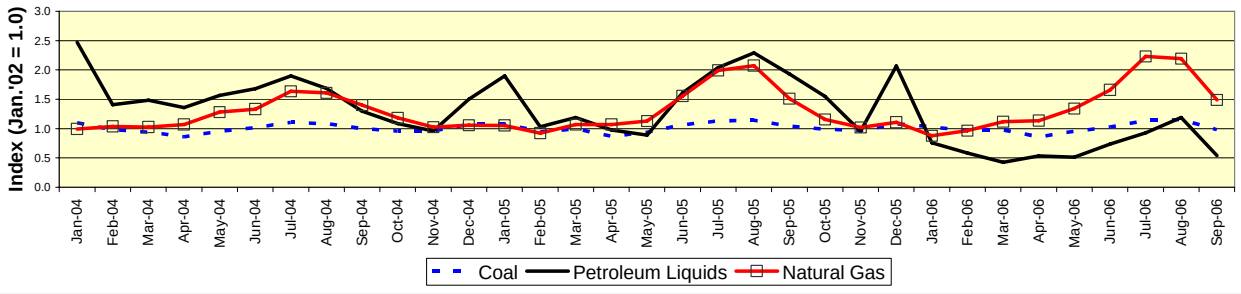
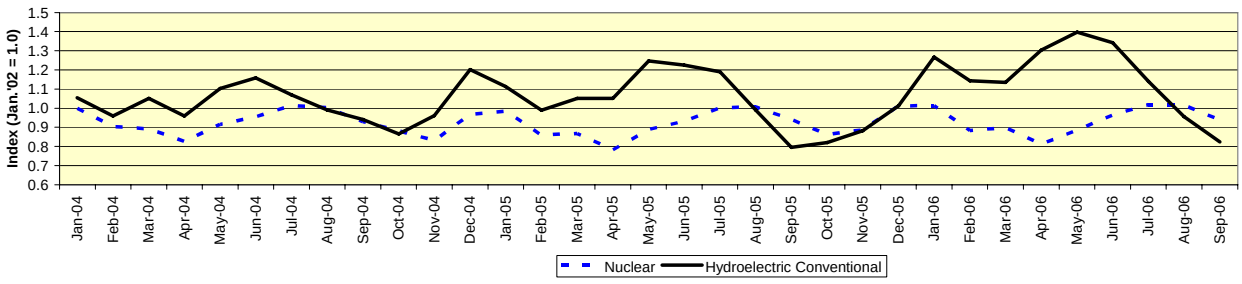


Figure 4.3 Nuclear and Hydroelectric Generation Trends (Values as Indices, Jan. 2002 = 1.0)



Section 5. Fossil Fuel Consumption Trends

Data for: September 2006

Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	January 2006	September 2006	777,459	58,821	5,376,490
Prior Period	January 2005	September 2005	786,365	126,915	5,145,790
Percent Difference			-1.1%	-53.7%	4.5%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	October 2005	September 2006	1,036,973	100,607	6,717,461
Prior Period	October 2004	September 2005	1,043,527	159,462	6,509,371
Percent Difference			-0.6%	-36.9%	3.2%

Figure 5.1 Trend in Total Coal Consumption For Electric Generation (All Sectors): 2004, 2005 and 2006

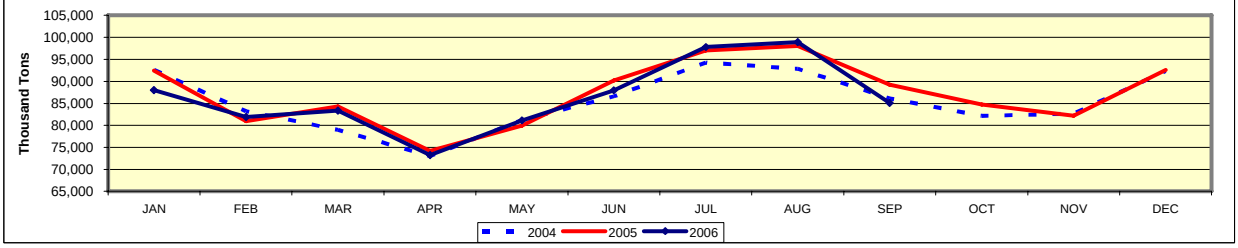


Figure 5.2 Trend in Total Petroleum Liquids Consumption For Electric Generation (All Sectors): 2004, 2005 and 2006

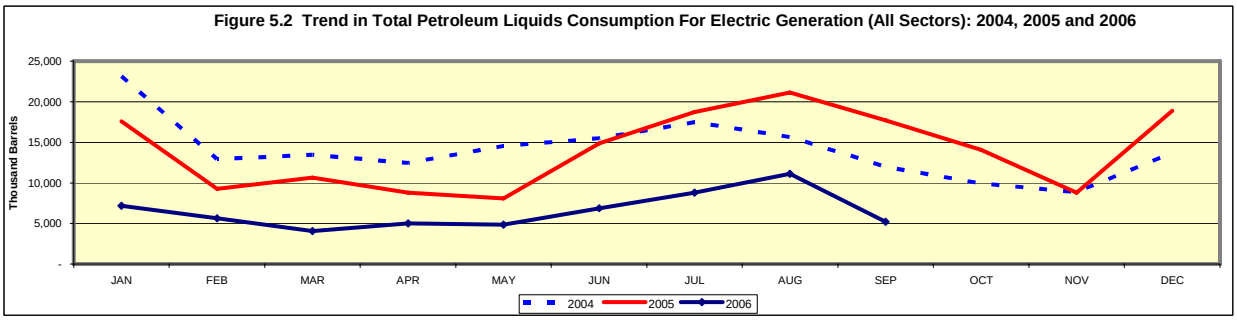
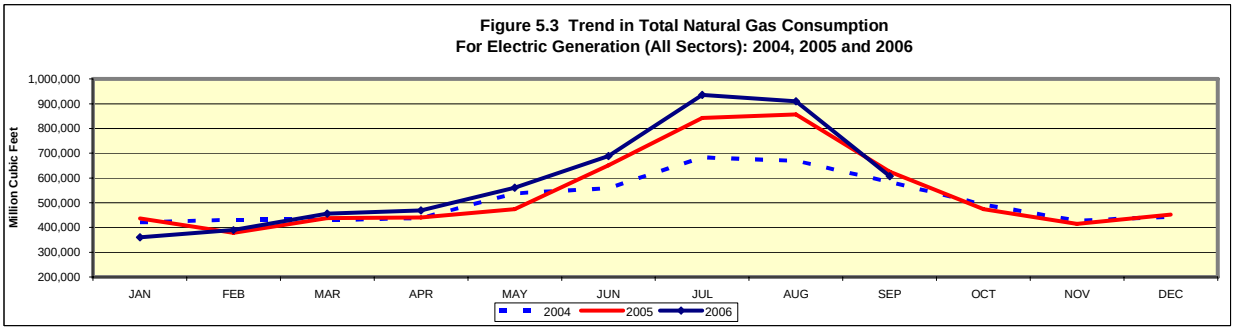


Figure 5.3 Trend in Total Natural Gas Consumption For Electric Generation (All Sectors): 2004, 2005 and 2006



Section 6. Fossil Fuel Stock Trends

Data for: September 2006

Table 6.1 Trends in Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Sep-06	Sep-05	% Change	Aug-06	% Change
Coal, Total (Thousand Short Tons)	125,572	98,192	27.9%	123,285	1.9%
Bituminous (includes anthracite and coal synfuel)	60,121	50,895	18.1%	57,913	3.8%
Subbituminous	60,595	43,802	38.3%	60,455	0.2%
Lignite	4,857	3,495	39.0%	4,917	-1.2%
Petroleum Liquids (Thousand Barrels)	49,739	35,568	39.8%	48,132	3.3%

Figure 6.1 Trend in Coal Stocks (Electric Power Sector): 2004, 2005, and 2006

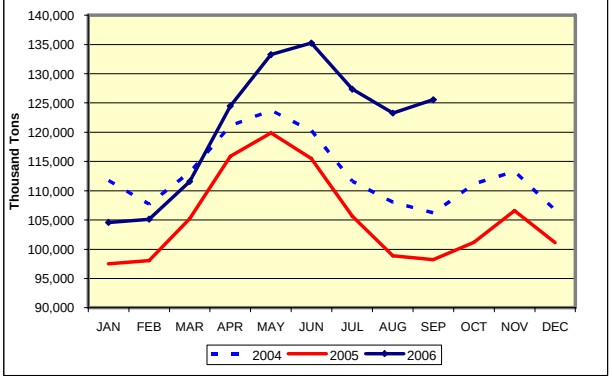


Figure 6.2 Trend in Petroleum Liquids Stocks (Electric Power Sector): 2004, 2005, and 2006

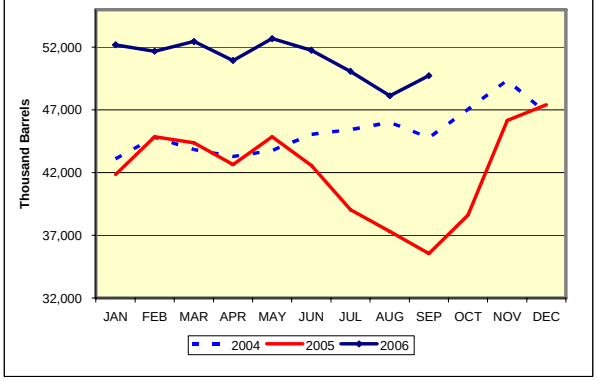


Figure 6.3 Trend in Bituminous Coal Stocks (Electric Power Sector): 2004, 2005, and 2006

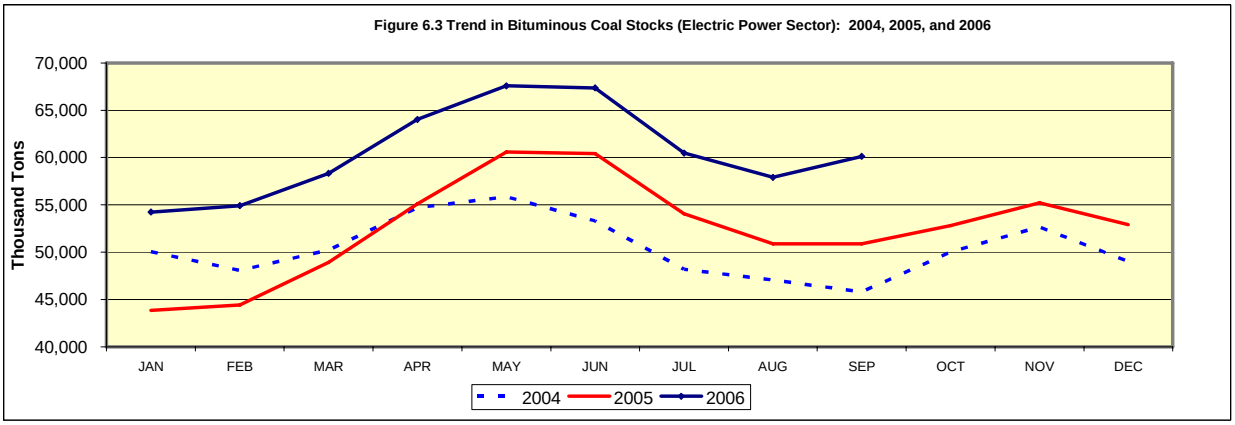
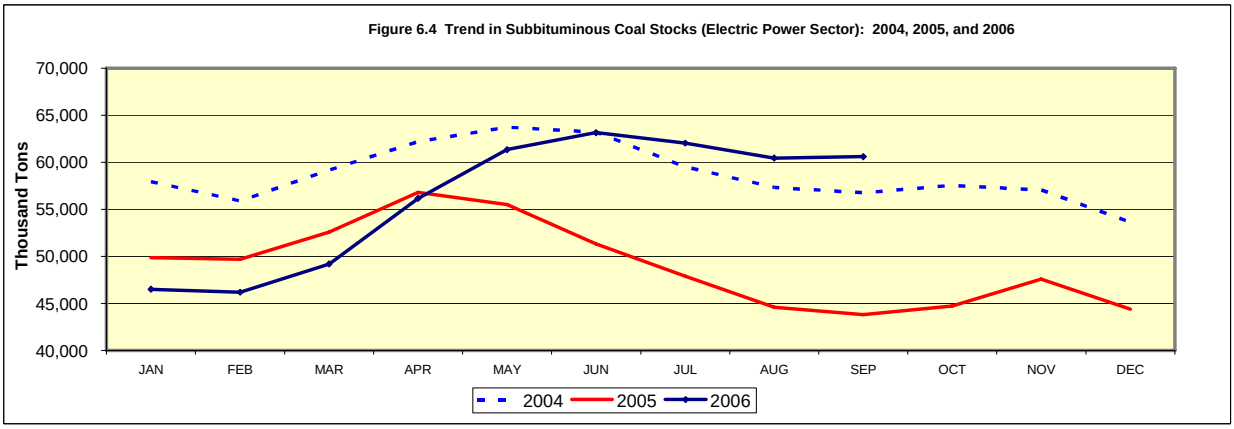


Figure 6.4 Trend in Subbituminous Coal Stocks (Electric Power Sector): 2004, 2005, and 2006



Section 7. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices

Data for: September 2006

Retail Sales

Table 7.1 Retail Sales (Million kWh)

Ultimate Customer	Sep-06	Sep-05	% Change	Aug-06	% Change
Residential	116,103	126,516	-8.2%	150,384	-22.8%
Commercial	114,931	116,517	-1.4%	127,839	-10.1%
Industrial	85,424	87,256	-2.1%	89,824	-4.9%
Transportation	677	635	6.7%	698	-3.0%
All Sectors	317,135	330,923	-4.2%	368,744	-14.0%

Average Retail Price

Table 7.2 Average Retail Price (Cents/kWh) -- U.S. Total

Ultimate Customer	Sep-06	Sep-05	% Change	Aug-06	% Change
Residential	10.94	9.94	10.1%	10.94	0.0%
Commercial	9.78	9.18	6.5%	9.96	-1.8%
Industrial	6.25	6.17	1.3%	6.56	-4.7%
Transportation	7.93	9.25	-14.3%	8.29	-4.3%
All Sectors	9.25	8.68	6.6%	9.53	-2.9%

Table 7.3 Average Retail Price (Cents/kWh) by Census Division

Census Division	Residential			All Sectors		
	Sep-06	Sep-05	% Change	Sep-06	Sep-05	% Change
New England	16.75	14.08	19.0%	14.78	12.52	18.1%
Middle Atlantic	14.34	13.53	6.0%	12.07	12.10	-0.2%
East North Central	9.66	8.74	10.5%	7.62	7.11	7.2%
West North Central	8.65	8.25	4.8%	6.91	6.71	3.0%
South Atlantic	10.16	9.27	9.6%	8.72	8.03	8.6%
East South Central	8.39	7.63	10.0%	7.02	6.54	7.3%
West South Central	12.07	10.86	11.1%	9.92	9.42	5.3%
Mountain	9.41	9.04	4.1%	7.82	7.62	2.6%
Pacific Contiguous	12.42	10.61	17.1%	11.58	10.41	11.2%
Pacific Noncontiguous	21.00	18.55	13.2%	18.45	16.51	11.8%
U.S. Total	10.94	9.94	10.1%	9.25	8.68	6.6%

Section 8. Retail Sales Trends

Data for: September 2006

Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)
Millions of Kilowatthours

Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2006	September 2006	1,047,435	987,020	757,552	6,126	2,798,133
Prior Period	January 2005	September 2005	1,044,677	964,274	766,813	5,649	2,781,414
Percent Difference			0.3%	2.4%	-1.2%	8.4%	0.6%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	October 2005	September 2006	1,361,984	1,297,825	1,009,895	7,984	3,677,687
Prior Period	October 2004	September 2005	1,341,750	1,264,393	1,019,764	7,477	3,633,384
Percent Difference			1.5%	2.6%	-1.0%	6.8%	1.2%

Figure 8.1
Trends in Total Retail Sales of Electricity (All Sectors): 2004, 2005, and 2006

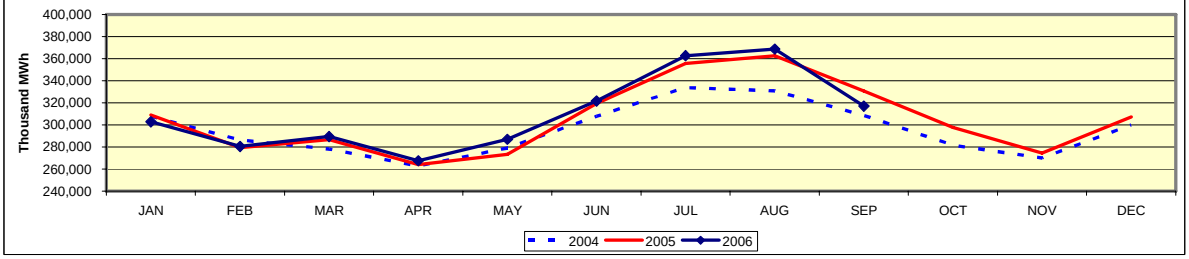


Figure 8.2
Retail Sales of Electricity Trends (Values as Indices, Jan. 2002 = 1.0)

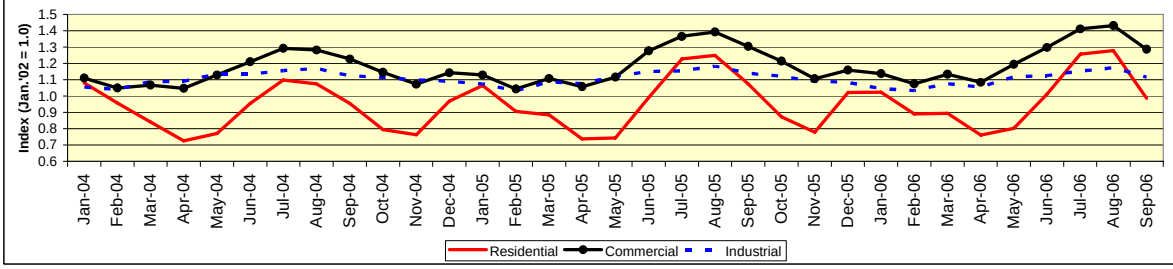
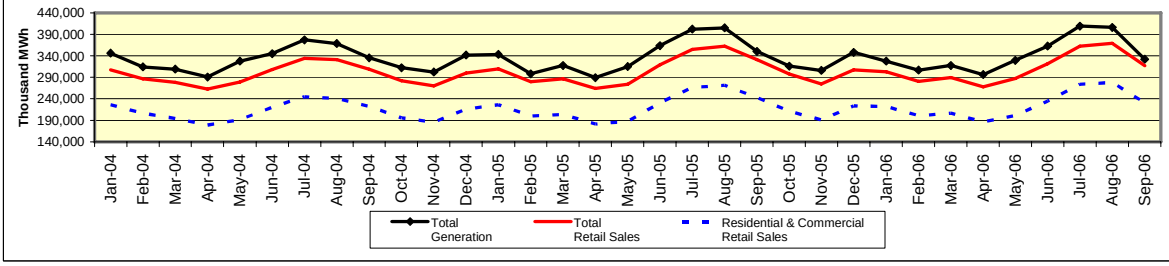


Figure 8.3
Trends in Total Generation and Retail Sales of Electricity



Section 9. Average Retail Price Trends

Data for: September 2006

Table 9.1 Trends in Average Retail Price of Electricity (All Sectors)
Cents per Kilowatthour

Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2006	September 2006	10.47	9.42	6.11	7.73	8.91
Prior Period	January 2005	September 2005	9.41	8.62	5.67	8.55	8.10
Percent Difference			11.3%	9.3%	7.8%	-9.6%	10.0%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	October 2005	September 2006	10.26	9.28	6.07	7.95	8.76
Prior Period	October 2004	September 2005	9.28	8.48	5.54	8.20	7.95
Percent Difference			10.6%	9.4%	9.6%	-3.0%	10.2%

Figure 9.1 Trends in Average Retail Price of Electricity (All Sectors): 2004, 2005, and 2006

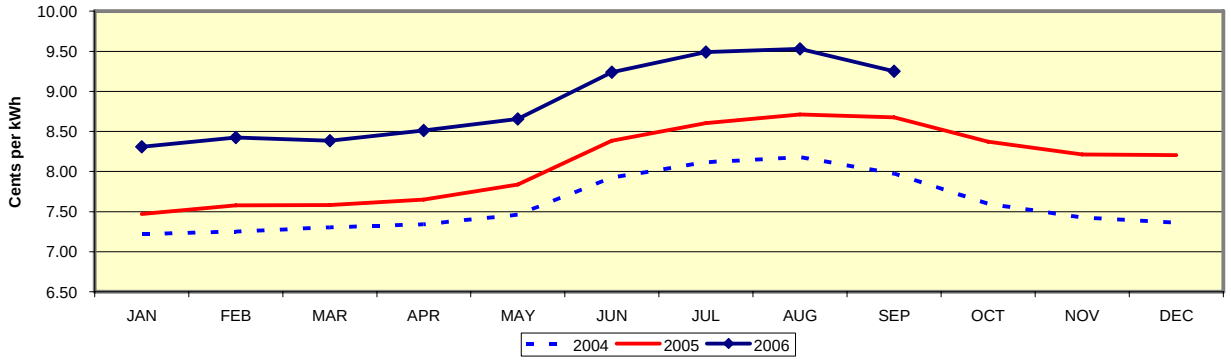
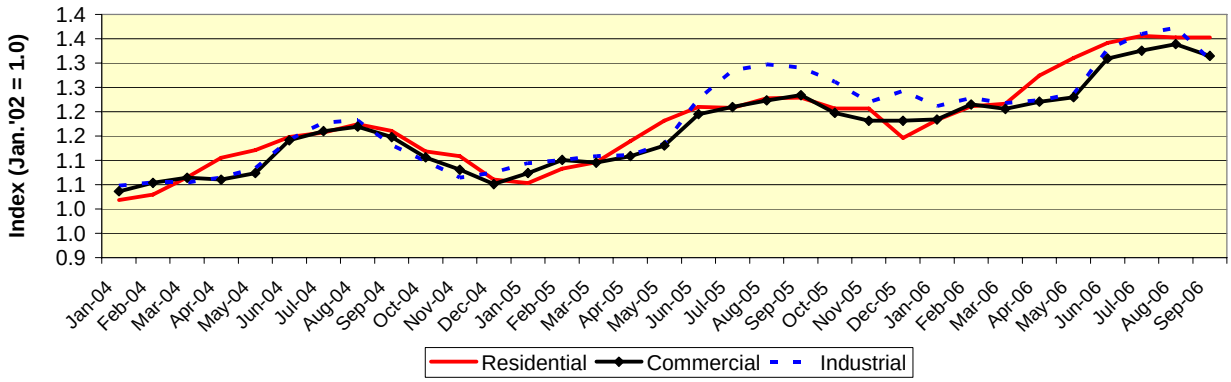


Figure 9.2 Average Retail Price of Electricity: Trends by Sector (Values as Indices, Jan. 2002 = 1.0)



Section 10. Heating and Cooling Degree Days

Data for: September 2006

Table 10.1 Degree Days

		Heating Degree Days			Cooling Degree Days		
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From the Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From the Normal
Current Period	September 2006	82	77	5	143	155	-12
Previous Period	September 2005	32	77	-45	220	155	65
Percent Difference		156.3%			-35.0%		

Table 10.2 Trends in Heating and Cooling Degree Days

Year-to-Date Comparison

	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	January 2006	September 2006	2,464	1,323
Prior Period	January 2005	September 2005	2,678	1,344
Percent Difference			-8.0%	-1.6%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	October 2005	September 2006	4,015	1,424
Prior Period	October 2004	September 2005	4,191	1,436
Percent Difference			-4.2%	-0.8%

Figure 10.1 Trend in Heating Degree Days: 2005, 2006 and Normal

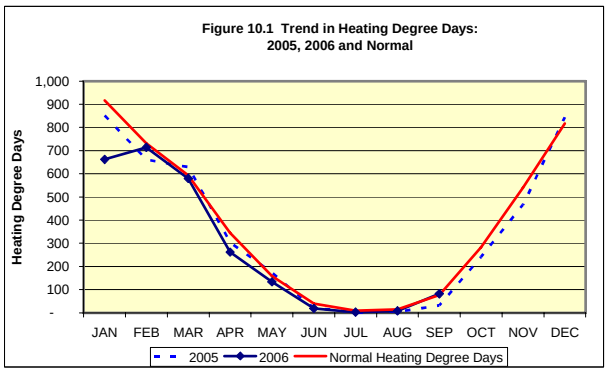


Figure 10.2 Trend in Cooling Degree Days: 2005, 2006 and Normal

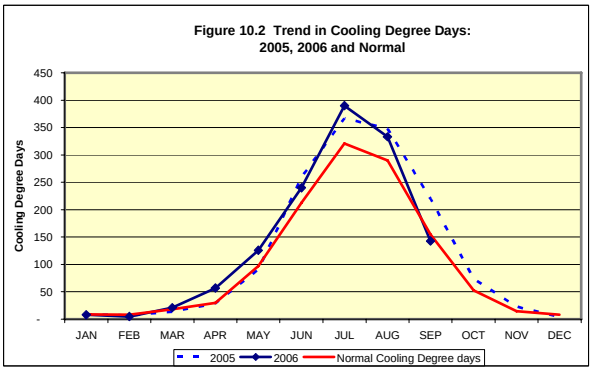


Figure 10.3 Trend in Cumulative Heating Degree Days: 2005, 2006 and Normal

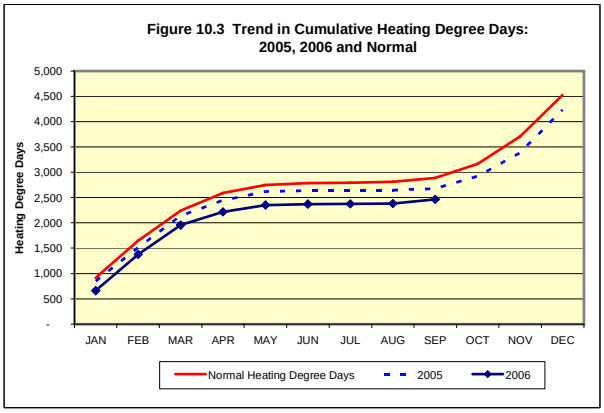
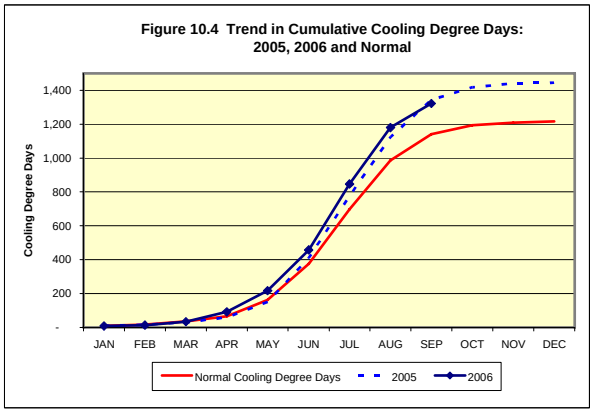


Figure 10.4 Trend in Cumulative Cooling Degree Days: 2005, 2006 and Normal



Section 11. Documentation

Data for: September 2006

General: The *Monthly Flash Estimates of Electric Power Data* ("*Flash Estimates*") is prepared by the Electric Power Division, Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), U.S. Department of Energy. Data published in the *Flash Estimates* are compiled from the following sources: Form EIA-826,"Monthly Electric Utility Sales and Revenues with State Distributions Report," Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

The survey data is collected monthly from a statistically-derived sample of power plants and electricity retailers. The nominal sample sizes are: for the Form EIA-826, approximately 450 electric utilities and other energy service providers; for the Form EIA-920, approximately 300 combined heat and power (CHP) plants; and for the Form EIA-906, approximately 1,440 non-CHP plants. With the exception of stocks, a regression-based method is used to estimate totals from the sample. Essentially complete samples are collected for the *Electric Power Monthly*, which includes State-level values. The *Flash Estimates* is based on an incomplete sample and includes only national-level estimates. Stocks data for out-of-sample plants and any monthly non-respondents are estimated by bringing forward the last reported value for a plant.

For complete documentation on EIA monthly electric data collection and estimation, see the Technical Notes to the *Electric Power Monthly*, at: http://www.eia.doe.gov/cneaf/electricity/epm/epm.pdf. Values displayed in the *Flash Estimates* may differ from values published in the *Electric Power Monthly* due to independent rounding. This report represents the EIA's initial release for national level electricity data. Updated information will be released in the *Electric Power Monthly*.

Sector definitions: The Electric Power Sector comprises electricity-only and CHP plants within the North American Industrial Classification System 22 category whose primary business is to sell electricity, or electricity and heat, to the public (i.e., electric utility plants and Independent Power Producers (IPP), including IPP plants that operate as combined heat and power producers). The All Sectors totals include the Electric Power Sector and the Commercial and Industrial sectors (Commercial and Industrial power producers are primarily CHP plants).

Composition of fuel categories: See notes on page 3.

Degree Days: Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree days).