

Monthly Flash Estimates of Electric Power Data

Data for:
May 2009

Section 1. Commentary

In May 2009, the contiguous United States as a whole experienced temperatures that were above the monthly average. However, regional differences in temperature occurred as the West, Southwest, and Northwest all experienced above normal temperatures while the rest of the United States experienced near normal temperatures. Heating degree days for the contiguous United States were 20.8 percent below the average for the month of May and 31.1 percent below a much colder May 2008. Likewise, cooling degree days for the contiguous United States were 12.4 percent above the average for the month of May and 19.8 percent above May 2008.

Retail sales of electricity decreased 5.0 percent in May 2009 compared to May 2008. This decrease in retail sales was caused mainly by the significant decline in industrial consumption as observed by the 15.9-percent decrease in industrial retail sales over the same period. The average U.S. retail price of electricity continued to show an upward trend in May 2009 from the previous year, increasing 3.4 percent from May 2008. This increase in the average U.S. retail price from May 2008 can be attributed to the higher cost of coal used for electricity generation and the expiration of price caps in several deregulated States.

Total electric power generation in the United States decreased 4.2 percent from May 2008. Coal generation had the largest year-over-year percentage decline, decreasing 14.7 percent. This drop was caused by the increased cost of coal as a fuel used in electricity generation and the decrease in demand for electric power due to the economic downturn in the United States. Natural gas generation in May 2009 increased 9.7 percent compared to May 2008. Petroleum liquids generation decreased 6.5 percent over the same period. Conventional hydroelectric generation was 10.2 percent higher than May 2008 and 15.5 percent higher than April 2009 as many states east of the Mississippi River and in the Northwest experienced above normal precipitation in May 2009.

Following the year-over-year decrease in coal generation, the consumption of coal to produce electricity decreased 13.6 percent when compared to May 2008. Over the same time period, petroleum liquids consumption decreased 4.9 percent, while natural gas consumption increased 9.3 percent.

In May 2009, total coal stocks in the Electric Power Sector increased 5.0 percent from the previous month. The April 2009-to-May 2009 change in coal stocks consisted of a 6.4-percent increase in bituminous coal and a 3.7-percent increase in subbituminous coal. Petroleum liquids stocks remained relatively unchanged from April 2009.

References for weather data:

<http://www.ncdc.noaa.gov/oa/climate/research/2009/may/national.html>

Table of Contents

1. Commentary	Page 1
2. Key Indicators of Generation, Consumption & Stocks	Page 2
3. Month-to-Month Comparisons: Generation, Consumption and Stocks (Total)	Page 3
4. Net Generation Trends	Page 4
5. Fossil Fuel Consumption Trends	Page 5
6. Fossil Fuel Stock Trends	Page 6
7. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices	Page 7
8. Retail Sales Trends	Page 8
9. Average Retail Price Trends	Page 9
10. Heating and Cooling Degree Days	Page 10
11. Documentation	Page 11

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Section 2. Key Indicators of Generation, Consumption & Stocks

Data for:
May 2009

Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
Total Change From:			
April 2009	7.6%	10.3%	15.5%
May 2008	-4.2%	0.6%	10.2%
Year to Date	-4.6%	1.9%	8.7%
Latest 12 Month Period*	-3.1%	1.1%	8.9%

Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
April 2009	13.4%	4.6%	5.0%
May 2008	9.3%	-13.6%	23.9%
Year to Date	1.9%	-11.1%	--
Latest 12 Month Period*	-4.2%	-5.4%	--

* Change in total consumption or generation for the latest 12 month period (June 2008 to May 2009) compared to the prior 12 month period (June 2007 to May 2008).

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

Data for:
May 2009

Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	May-09	May-08	% Change	Apr-09	% Change
Coal	132,776	155,703	-14.7%	126,840	4.7%
Petroleum Liquids	2,101	2,247	-6.5%	1,603	31.1%
Natural Gas	67,915	61,888	9.7%	61,446	10.5%
Nuclear	65,229	64,826	0.6%	59,129	10.3%
Hydroelectric Conventional	29,142	26,437	10.2%	25,224	15.5%
All Other	13,912	13,488	3.1%	14,823	-6.1%
Total (All Energy Sources)	311,075	324,589	-4.2%	289,065	7.6%

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	May-09	May-08	% Change	Apr-09	% Change
Coal (Thousand Short Tons)	70,466	81,572	-13.6%	67,370	4.6%
Petroleum Liquids (Thousand Barrels)	3,576	3,760	-4.9%	2,619	36.5%
Natural Gas (Million Cubic Feet)	534,620	488,933	9.3%	471,505	13.4%

Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	May-09	May-08	% Change	Apr-09	% Change
Coal (Thousand Short Tons)	198,117	159,926	23.9%	188,618	5.0%
Petroleum Liquids (Thousand Barrels)	43,487	43,989	-1.1%	43,597	-0.3%

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:
May 2009

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 2009	May 2009	711,173	12,835	324,744	328,984	116,941	69,791	1,564,468
Prior Period	January 2008	May 2008	814,452	11,930	317,806	322,741	107,567	64,776	1,639,272
Percent Difference			-12.7%	7.6%	2.2%	1.9%	8.7%	7.7%	-4.6%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	June 2008	May 2009	1,891,105	32,067	883,886	812,425	257,459	158,513	4,035,455
Prior Period	June 2007	May 2008	2,027,992	37,980	912,473	803,304	236,365	147,338	4,165,452
Percent Difference			-6.7%	-15.6%	-3.1%	1.1%	8.9%	7.6%	-3.1%

Figure 4.1 Trends in Total Net Generation (All Sectors): 2007, 2008, and 2009

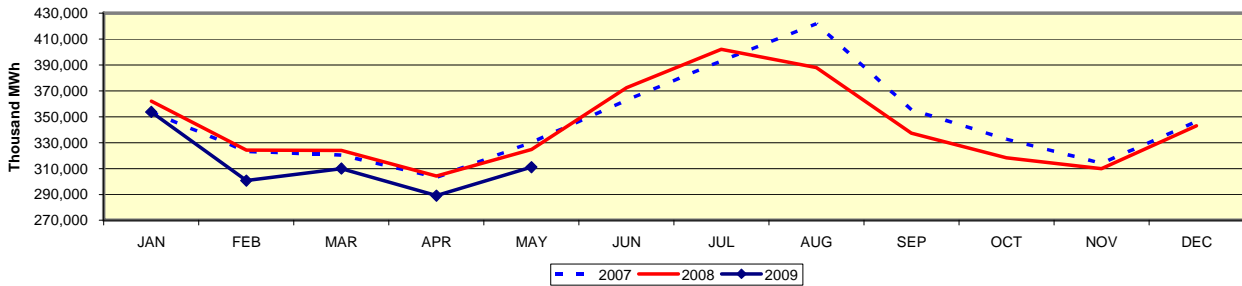


Figure 4.2 Fossil Fuel Generation Trends (Values as Indices, Jan. 2002 = 1.0)

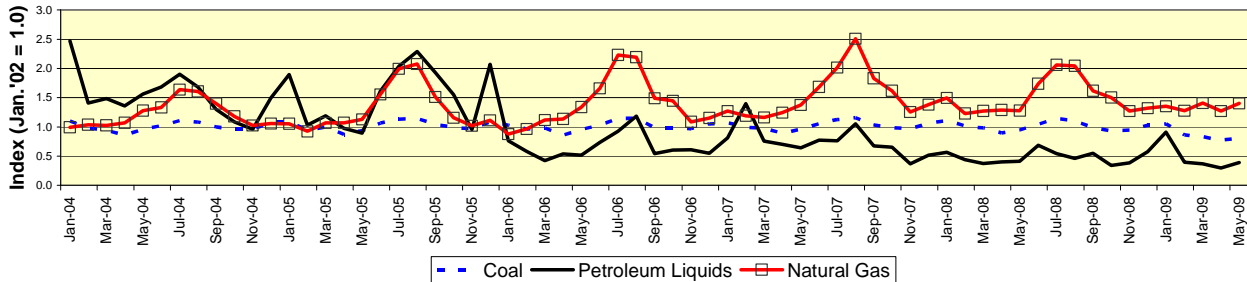
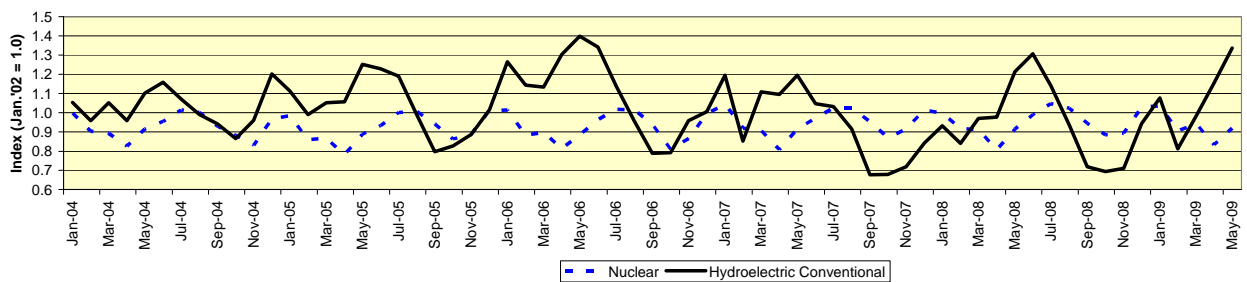


Figure 4.3 Nuclear and Hydroelectric Generation Trends (Values as Indices, Jan. 2002 = 1.0)



Section 5. Fossil Fuel Consumption Trends

Data for:
May 2009

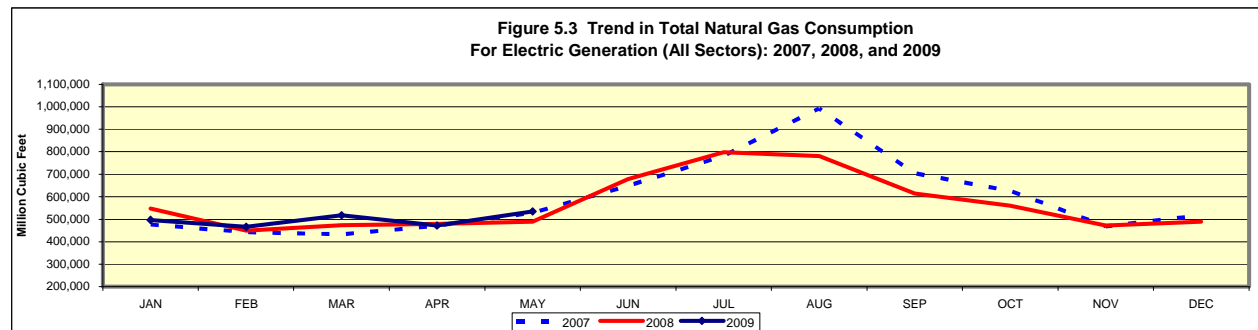
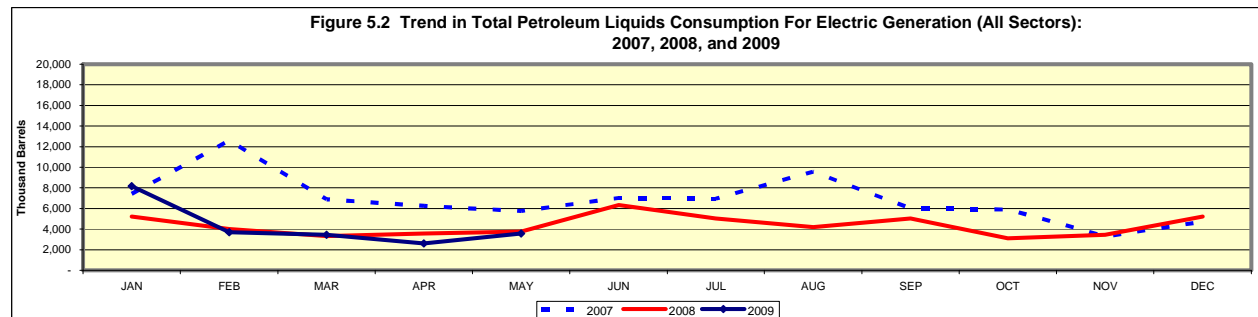
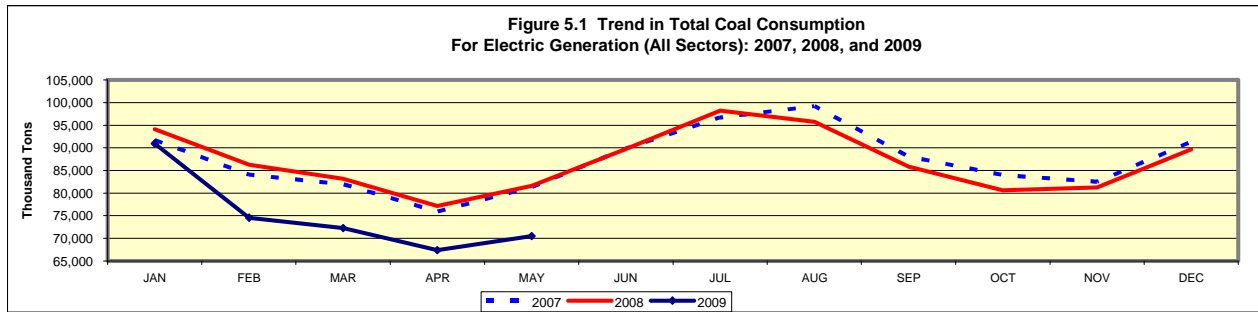
Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	January 2009	May 2009	375,663	21,536	2,485,734
Prior Period	January 2008	May 2008	422,359	19,907	2,440,158
Percent Difference			-11.1%	8.2%	1.9%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	June 2008	May 2009	996,893	53,898	6,878,973
Prior Period	June 2007	May 2008	1,054,120	63,424	7,178,974
Percent Difference			-5.4%	-15.0%	-4.2%

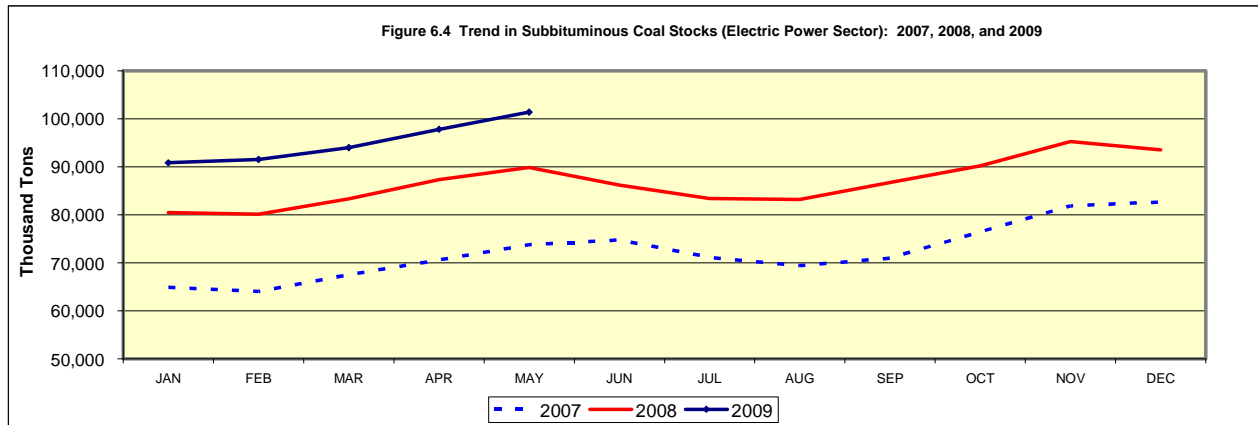
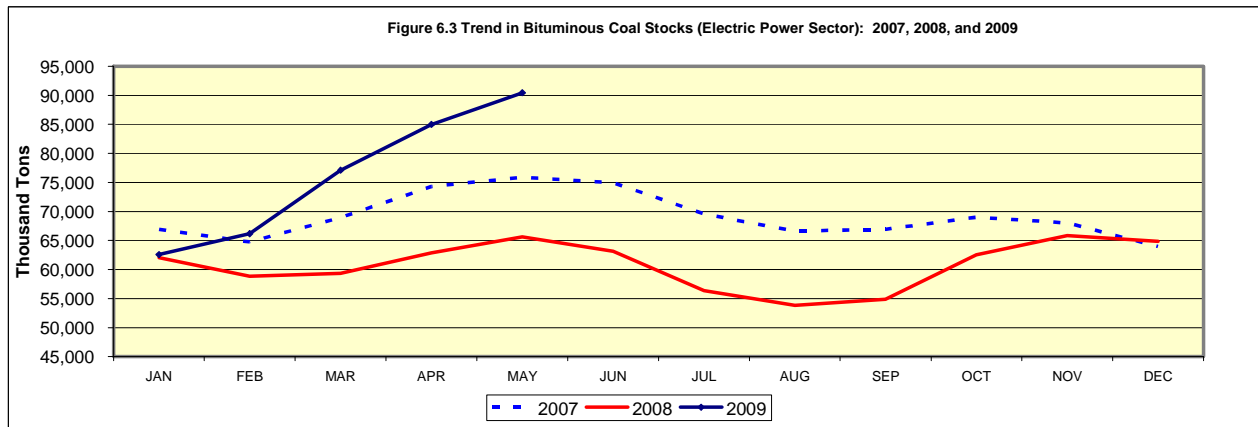
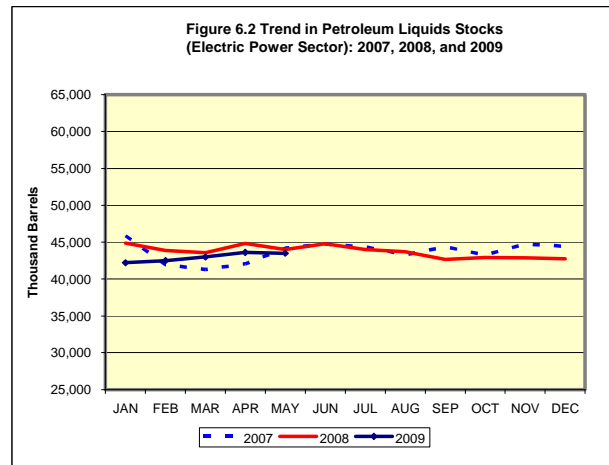
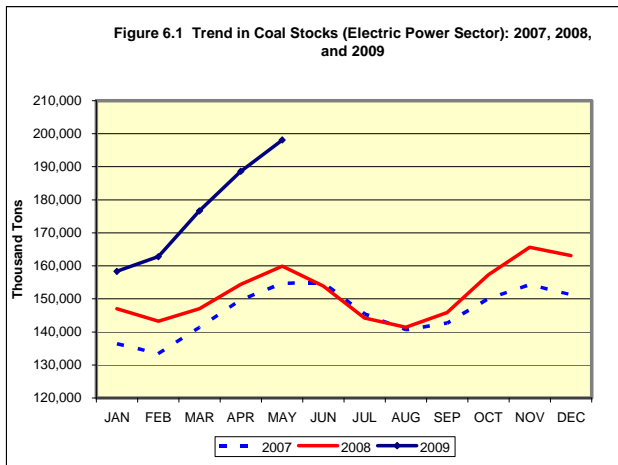


Section 6. Fossil Fuel Stock Trends

Data for:
May 2009

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

Fossil Fuel Stocks	May-09	May-08	% Change	Apr-09	% Change
Coal, Total (Thousand Short Tons)	198,117	159,926	23.9%	188,618	5.0%
Bituminous (includes anthracite and coal synfuel)	90,440	65,622	37.8%	84,992	6.4%
Subbituminous	101,399	89,862	12.8%	97,806	3.7%
Lignite	6,278	4,442	41.3%	5,820	7.9%
Petroleum Liquids (Thousand Barrels)	43,487	43,989	-1.1%	43,597	-0.3%



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

Data for:
May 2009

Retail Sales

Table 7.1 Retail Sales (Million kWh)

Ultimate Customer	May-09	May-08	% Change	Apr-09	% Change
Residential	93,956	91,995	2.1%	91,305	2.9%
Commercial	106,228	108,926	-2.5%	101,136	5.0%
Industrial	72,159	85,817	-15.9%	70,618	2.2%
Transportation	577	595	-2.9%	589	-2.0%
All Sectors	272,920	287,332	-5.0%	263,648	3.5%

Average Retail Price

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

Ultimate Customer	May-09	May-08	% Change	Apr-09	% Change
Residential	11.85	11.48	3.2%	11.59	2.2%
Commercial	10.10	10.05	0.5%	9.99	1.1%
Industrial	6.91	6.80	1.6%	6.78	1.9%
Transportation	11.42	11.10	2.9%	11.36	0.5%
All Sectors	9.86	9.54	3.4%	9.69	1.8%

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

Census Division	Residential			All Sectors		
	May-09	May-08	% Change	May-09	May-08	% Change
New England	17.93	17.92	0.1%	15.45	16.02	-3.6%
Middle Atlantic	15.17	15.36	-1.2%	12.83	13.12	-2.2%
East North Central	11.53	10.89	5.9%	9.08	8.38	8.4%
West North Central	9.62	9.19	4.7%	7.61	7.13	6.7%
South Atlantic	11.42	10.68	6.9%	9.81	8.97	9.4%
East South Central	9.73	9.33	4.3%	8.02	7.38	8.7%
West South Central	11.66	11.85	-1.6%	9.21	9.88	-6.8%
Mountain	10.37	10.24	1.3%	8.35	8.21	1.7%
Pacific Contiguous	12.49	11.54	8.2%	11.19	10.42	7.4%
Pacific Noncontiguous	20.34	26.18	-22.3%	17.56	23.46	-25.1%
U.S. Total	11.85	11.48	3.2%	9.86	9.54	3.4%

Section 8. Retail Sales Trends

Data for:
May 2009

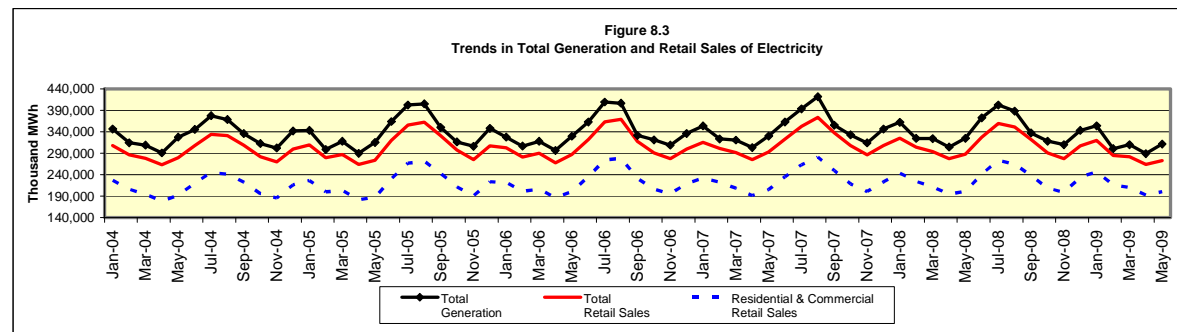
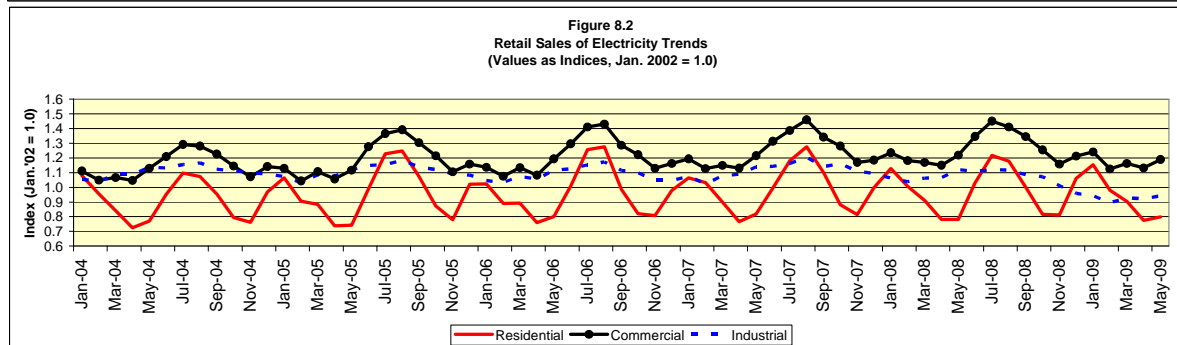
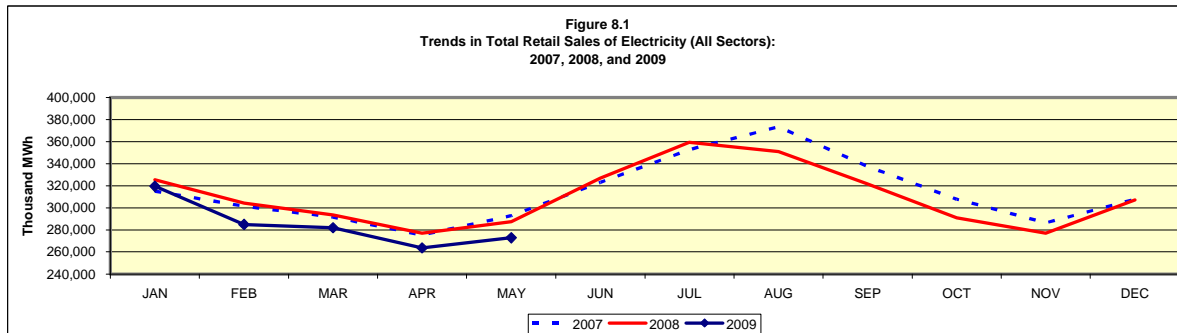
Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)
Millions of Kilowatthours

Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2009	May 2009	542,733	522,592	354,454	3,189	1,422,968
Prior Period	January 2008	May 2008	542,343	532,138	409,659	3,210	1,487,350
Percent Difference			0.1%	-1.8%	-13.5%	-0.7%	-4.3%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	June 2008	May 2009	1,379,697	1,342,907	926,945	7,631	3,657,180
Prior Period	June 2007	May 2008	1,395,468	1,348,779	1,023,530	7,897	3,775,674
Percent Difference			-1.1%	-0.4%	-9.4%	-3.4%	-3.1%



Section 9. Average Retail Price Trends

Data for:
May 2009

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

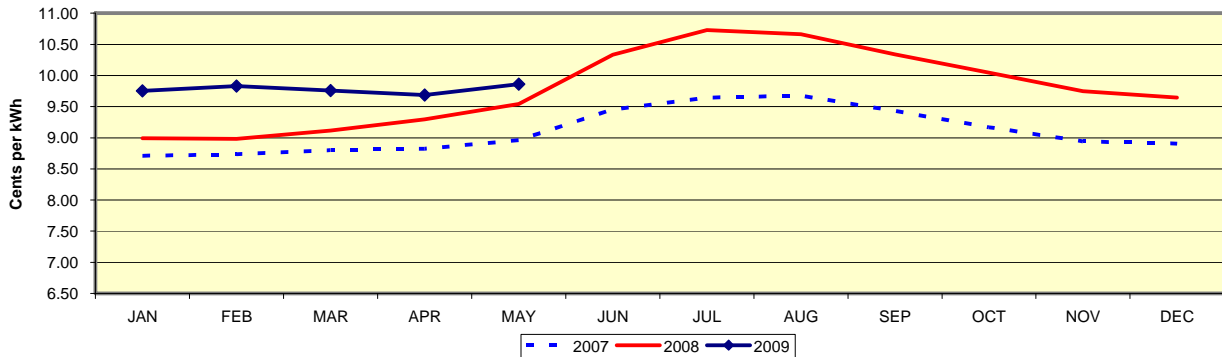
Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2009	May 2009	11.38	10.07	6.88	11.45	9.78
Prior Period	January 2008	May 2008	10.66	9.68	6.55	10.45	9.18
Percent Difference			6.8%	4.0%	5.0%	9.6%	6.5%

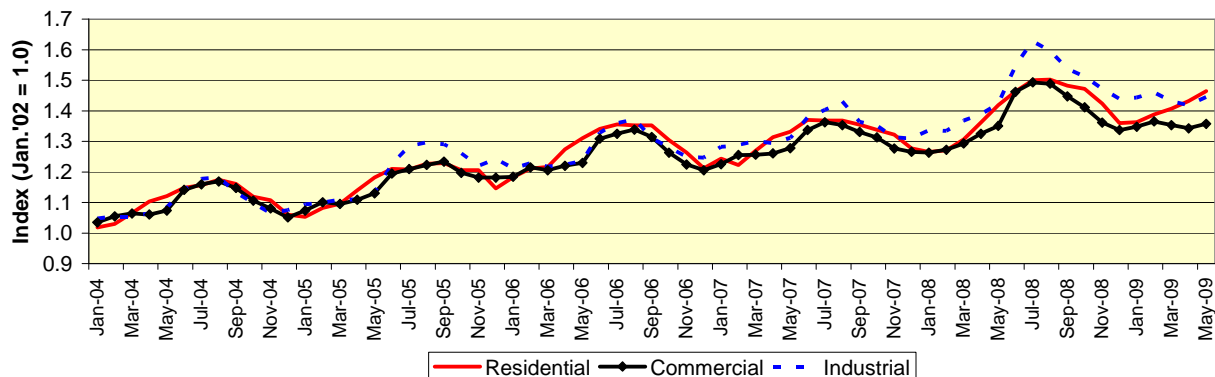
Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	June 2008	May 2009	11.64	10.43	7.17	11.70	10.06
Prior Period	June 2007	May 2008	10.79	9.78	6.54	9.99	9.28
Percent Difference			7.9%	6.6%	9.6%	17.1%	8.4%

**Figure 9.1 Trends in Average Retail Price of Electricity (All Sectors):
2007, 2008, and 2009**



**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:
May 2009

Table 10.1 Degree Days

		Heating Degree Days				Cooling Degree Days			
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From Normal	Percent Difference From Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From Normal	Percent Difference From Normal
Current Period	May 2009	126	159	-33	-20.8%	109	97	12	12.4%
Prior Period	May 2008	183	159	24	15.1%	91	97	-6	-6.2%
Percent Difference				-31.1%		19.8%			

Table 10.2 Trends in Heating and Cooling Degree Days

Year-to-Date Comparison					Comparison to Prior 12 Month Period				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days		Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	January 2009	May 2009	2,728	182	Current Period	June 2008	May 2009	4,470	1,302
Prior Period	January 2008	May 2008	2,752	157	Prior Period	June 2007	May 2008	4,328	1,370
Percent Difference			-0.9%	15.9%	Percent Difference			3.3%	-5.0%

Figure 10.1 Deviation From Normal: Heating Degree Days, 2009

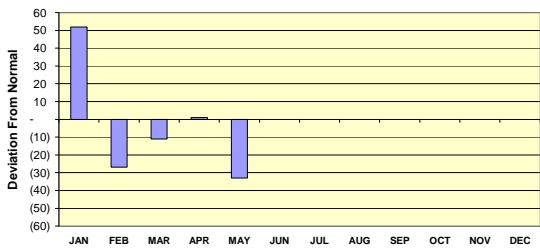


Figure 10.2 Deviation From Normal: Cooling Degree Days, 2009

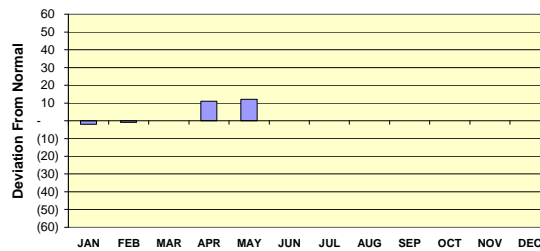


Figure 10.3 Trend in Heating Degree Days: 2008, 2009, and Normal

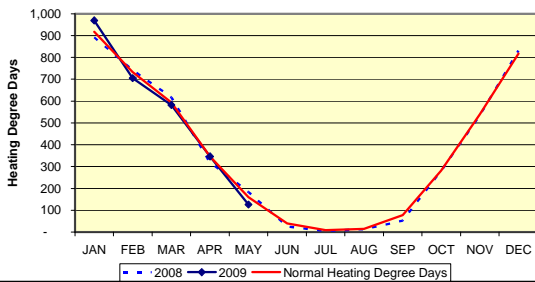


Figure 10.4 Trend in Cooling Degree Days: 2008, 2009, and Normal

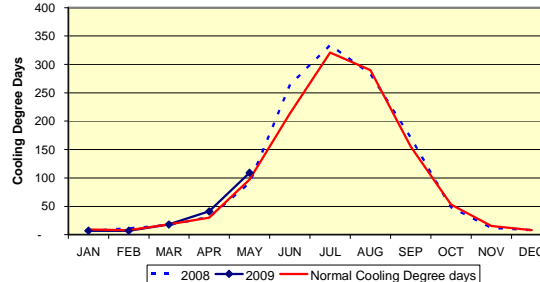


Figure 10.5 Trend in Cumulative Heating Degree Days: 2008, 2009, and Normal

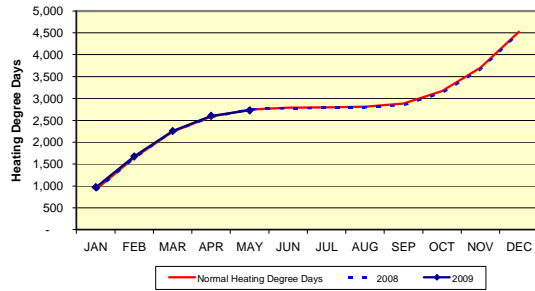
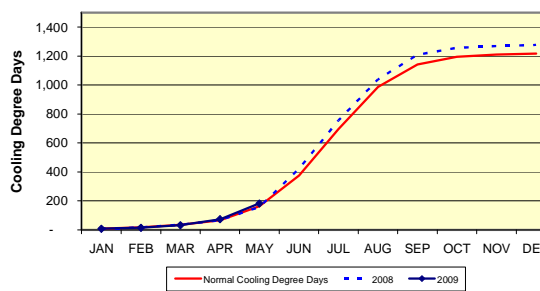


Figure 10.6 Trend in Cumulative Cooling Degree Days: 2008, 2009, and Normal



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," and Form EIA-923, "Power Plant Operations 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-923, approximately 1590 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).