

Monthly Flash Estimates of Electric Power Data

Data for:
July 2009

Section 1. Commentary

In July 2009, the contiguous United States as a whole experienced temperatures that were below normal. This occurred because many States in the central and eastern part of the country set new records for the coolest July ever in 115 years of record. Accordingly, cooling degree days for the contiguous United States were 8.4 percent below the average for the month of July and 12.0 percent below a warmer July 2008.

Retail sales of electricity decreased 6.5 percent in July 2009 compared to July 2008. This decrease in retail sales was caused in part by the significant decline in industrial activity as observed by the 12.5-percent decrease in industrial retail sales over the same period. The average U.S. retail price of electricity decreased 2.9 percent in July 2009 compared to the previous year. This decrease in price can in part be attributed to lower demand caused by cooler summer temperatures experienced across the contiguous United States, as well as lower fuel costs for natural gas used for electricity generation.

Total electric power generation in the United States decreased 7.4 percent from July 2008. Over the same period, coal generation decreased by 14.8 percent as a result of 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 July 2009 increased by 1.8 percent compared to July 2008. Petroleum liquids generation had the largest percentage decline over the same period, decreasing 28.2 percent as a result of the cooler weather and decreased need for peaking generation in July 2009. Conventional hydroelectric generation was 6.4 percent lower than July 2008 and 19.5 percent lower than June 2009.

Total coal stocks in the Electric Power Sector remained at a historically high level in July 2009 and only decreased slightly by 1.0 percent from the previous month. The June 2009 to July 2009 change in coal stocks consisted of a 1.2-percent decrease in bituminous coal and a 1.0-percent decrease in subbituminous coal. Petroleum liquids stocks decreased 0.6 percent from June 2009.

References for weather data:

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

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Section 2. Key Indicators of Generation, Consumption & Stocks

Data for:
July 2009

Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
Total Change From:			
June 2009	7.3%	4.1%	-19.5%
July 2008	-7.4%	-2.7%	-6.4%
Year to Date	-5.4%	0.7%	5.1%
Latest 12 Month Period*	-4.9%	0.4%	4.9%

Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
June 2009	20.5%	7.2%	-1.0%
July 2008	0.5%	-13.6%	36.0%
Year to Date	1.0%	-11.5%	--
Latest 12 Month Period*	-4.9%	-7.8%	--

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

Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Jul-09	Jul-08	% Change	Jun-09	% Change
Coal	159,825	187,613	-14.8%	149,156	7.2%
Petroleum Liquids	2,109	2,938	-28.2%	2,092	0.8%
Natural Gas	101,537	99,781	1.8%	84,098	20.7%
Nuclear	72,310	74,318	-2.7%	69,435	4.1%
Hydroelectric Conventional	23,225	24,811	-6.4%	28,866	-19.5%
All Other	13,330	12,627	5.6%	13,422	-0.7%
Total (All Energy Sources)	372,337	402,088	-7.4%	347,069	7.3%

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	Jul-09	Jul-08	% Change	Jun-09	% Change
Coal (Thousand Short Tons)	84,895	98,234	-13.6%	79,198	7.2%
Petroleum Liquids (Thousand Barrels)	3,629	5,022	-27.7%	3,524	3.0%
Natural Gas (Million Cubic Feet)	802,423	798,340	0.5%	665,641	20.5%

Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Jul-09	Jul-08	% Change	Jun-09	% Change
Coal (Thousand Short Tons)	196,162	144,231	36.0%	198,215	-1.0%
Petroleum Liquids (Thousand Barrels)	43,487	44,006	-1.2%	43,733	-0.6%

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:
July 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	July 2009	1,020,102	16,996	510,935	470,728	169,032	96,416	2,284,209
Prior Period	January 2008	July 2008	1,173,748	18,600	501,709	467,379	160,872	91,495	2,413,803
Percent Difference			-13.1%	-8.6%	1.8%	0.7%	5.1%	5.4%	-5.4%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	August 2008	July 2009	1,840,738	29,557	886,174	809,532	256,246	158,419	3,980,666
Prior Period	August 2007	July 2008	2,028,721	36,312	917,382	806,280	244,375	150,932	4,184,002
Percent Difference			-9.3%	-18.6%	-3.4%	0.4%	4.9%	5.0%	-4.9%

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

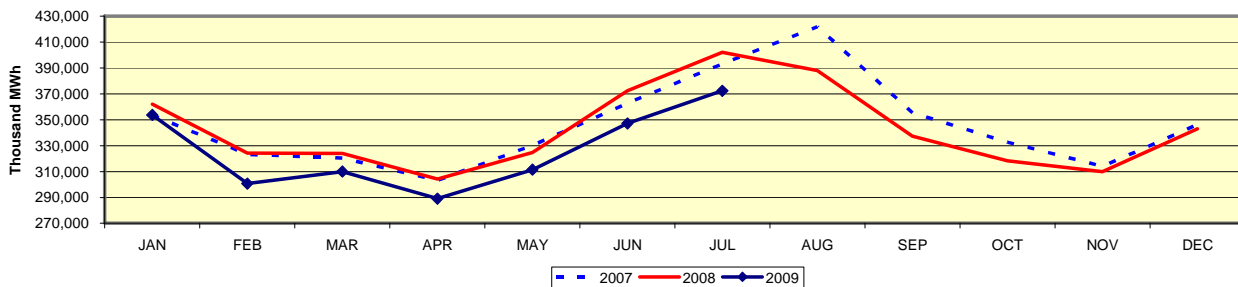


Figure 4.2 Fossil Fuel Generation Trends (Values as Indices, Jan. 2002 = 1.0)

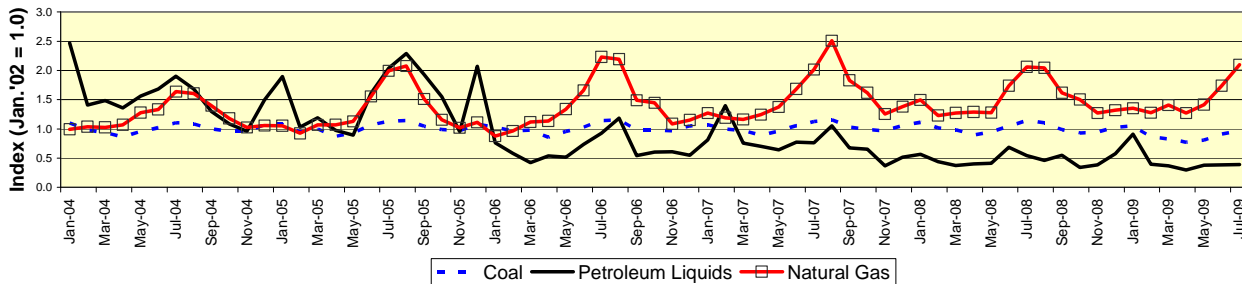
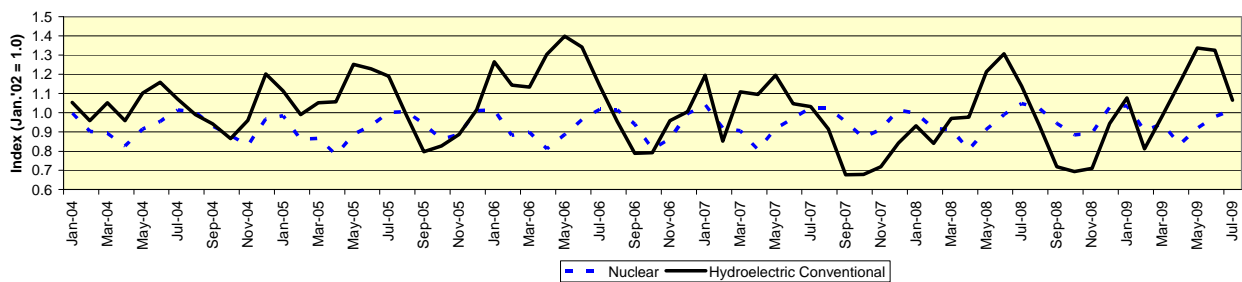


Figure 4.3 Nuclear and Hydroelectric Generation Trends (Values as Indices, Jan. 2002 = 1.0)



Section 5. Fossil Fuel Consumption Trends

Data for:
July 2009

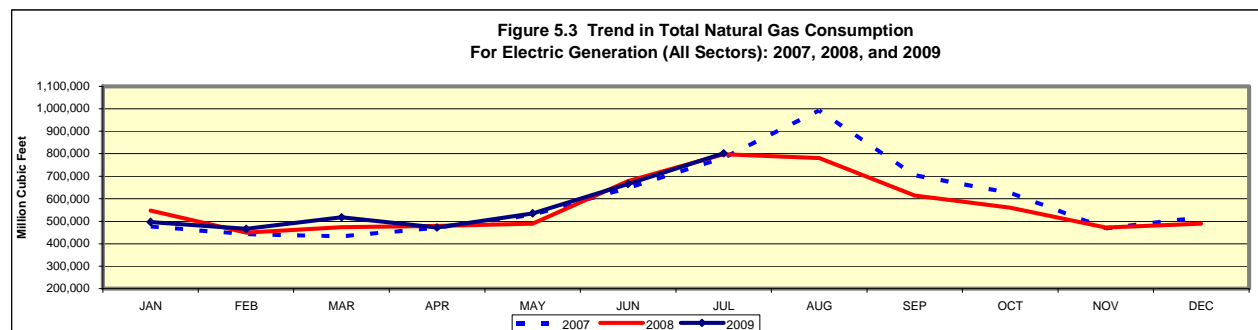
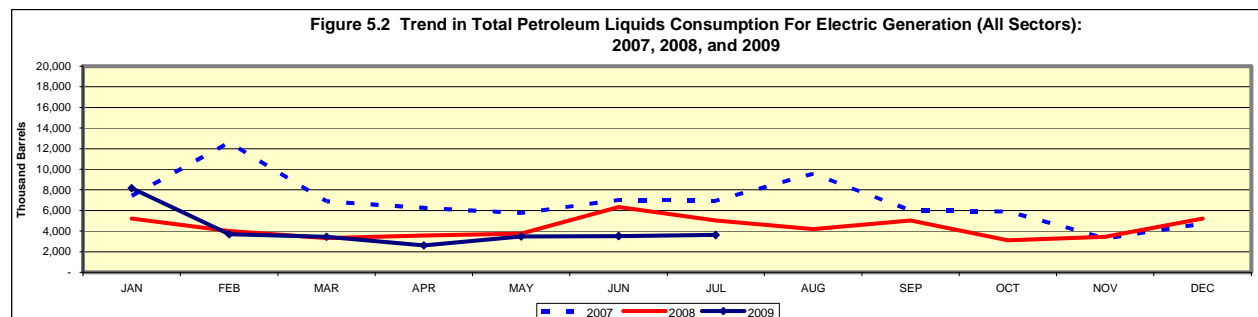
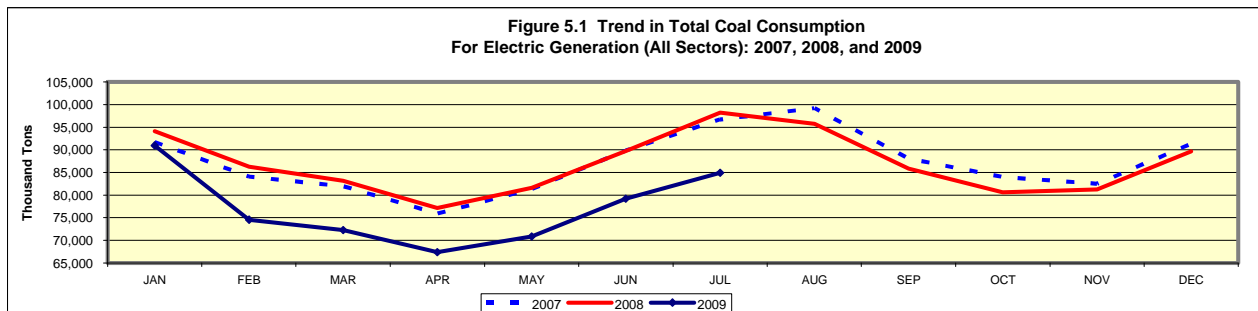
Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	January 2009	July 2009	540,133	28,611	3,954,504
Prior Period	January 2008	July 2008	610,378	31,270	3,916,199
Percent Difference			-11.5%	-8.5%	1.0%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	August 2008	July 2009	973,344	49,609	6,871,703
Prior Period	August 2007	July 2008	1,055,565	60,802	7,225,329
Percent Difference			-7.8%	-18.4%	-4.9%

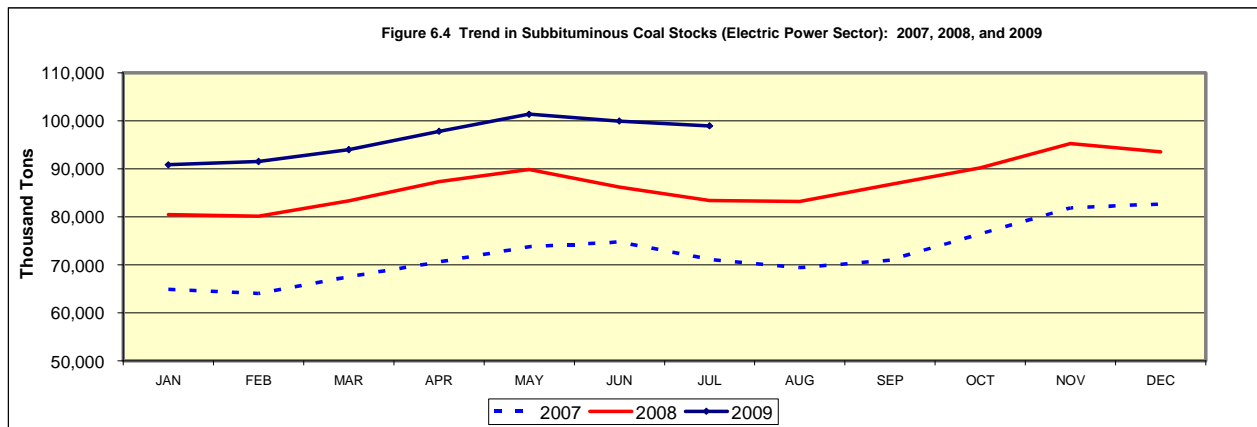
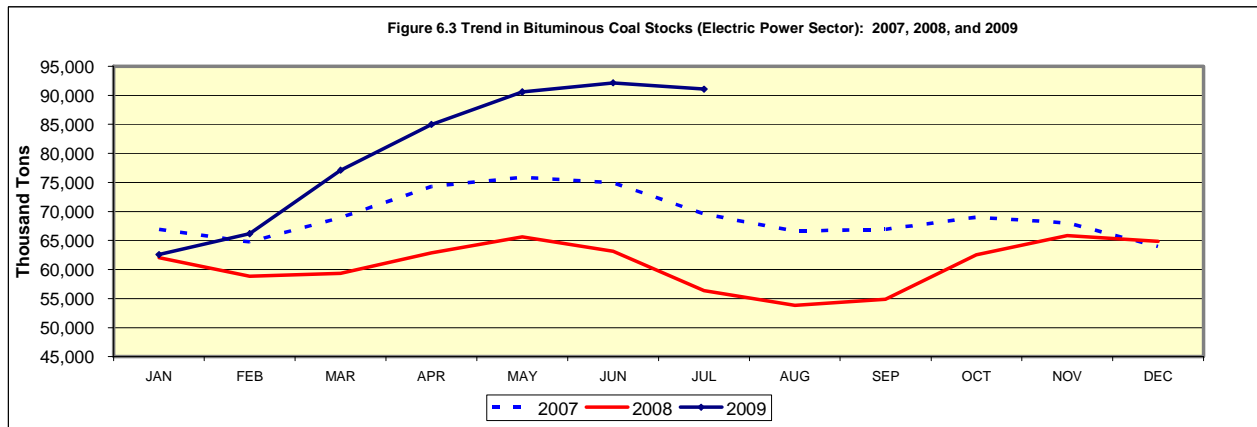
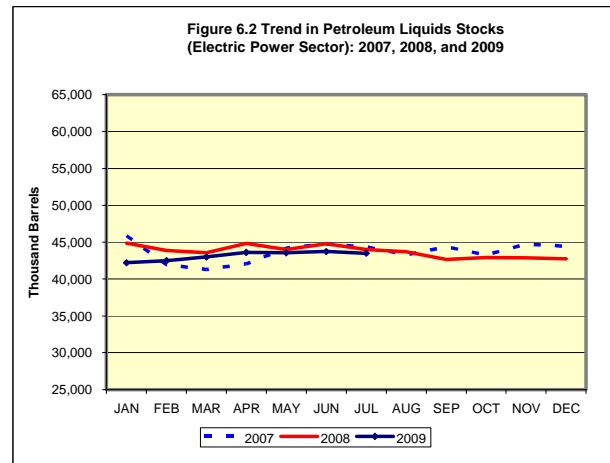
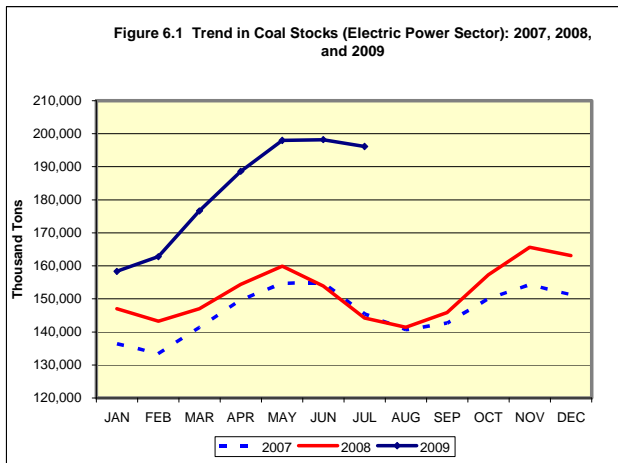


Section 6. Fossil Fuel Stock Trends

Data for:
July 2009

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

Fossil Fuel Stocks	Jul-09	Jul-08	% Change	Jun-09	% Change
Coal, Total (Thousand Short Tons)	196,162	144,231	36.0%	198,215	-1.0%
Bituminous (includes anthracite and coal synfuel)	91,066	56,349	61.6%	92,170	-1.2%
Subbituminous	98,949	83,405	18.6%	99,971	-1.0%
Lignite	6,147	4,477	37.3%	6,074	1.2%
Petroleum Liquids (Thousand Barrels)	43,487	44,006	-1.2%	43,733	-0.6%



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

Data for:
July 2009

Retail Sales

Table 7.1 Retail Sales (Million kWh)

Ultimate Customer	Jul-09	Jul-08	% Change	Jun-09	% Change
Residential	137,443	143,203	-4.0%	114,115	20.4%
Commercial	122,889	129,661	-5.2%	115,946	6.0%
Industrial	75,096	85,846	-12.5%	72,432	3.7%
Transportation	653	644	1.3%	602	8.5%
All Sectors	336,081	359,355	-6.5%	303,095	10.9%

Average Retail Price

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

Ultimate Customer	Jul-09	Jul-08	% Change	Jun-09	% Change
Residential	11.96	12.14	-1.5%	11.91	0.4%
Commercial	10.72	11.11	-3.5%	10.51	2.0%
Industrial	7.12	7.78	-8.5%	7.18	-0.8%
Transportation	11.72	12.28	-4.6%	11.43	2.5%
All Sectors	10.42	10.73	-2.9%	10.24	1.8%

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

Census Division	Residential			All Sectors		
	Jul-09	Jul-08	% Change	Jul-09	Jul-08	% Change
New England	17.27	17.76	-2.8%	15.36	16.48	-6.8%
Middle Atlantic	16.52	16.66	-0.8%	14.18	15.18	-6.6%
East North Central	11.22	10.98	2.2%	9.24	9.14	1.1%
West North Central	10.09	9.83	2.6%	8.52	8.20	3.9%
South Atlantic	11.61	11.28	2.9%	10.19	10.01	1.8%
East South Central	9.59	9.76	-1.7%	8.36	8.50	-1.6%
West South Central	11.37	12.84	-11.4%	9.46	11.33	-16.5%
Mountain	10.87	10.59	2.6%	9.21	9.00	2.3%
Pacific Contiguous	13.58	12.98	4.6%	12.76	11.93	7.0%
Pacific Noncontiguous	21.15	28.94	-26.9%	18.47	26.10	-29.2%
U.S. Total	11.96	12.14	-1.5%	10.42	10.73	-2.9%

Section 8. Retail Sales Trends

Data for:
July 2009

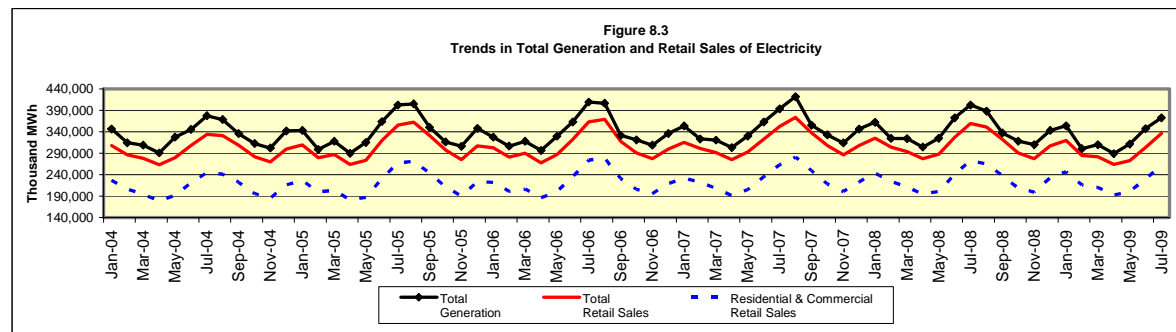
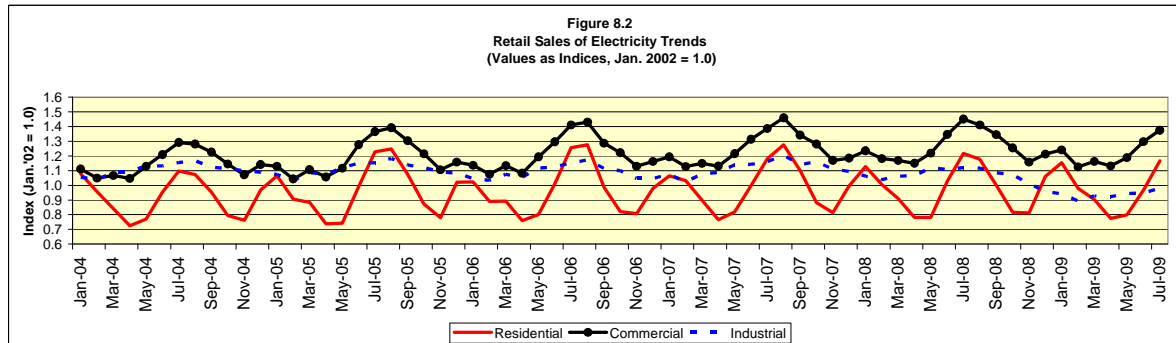
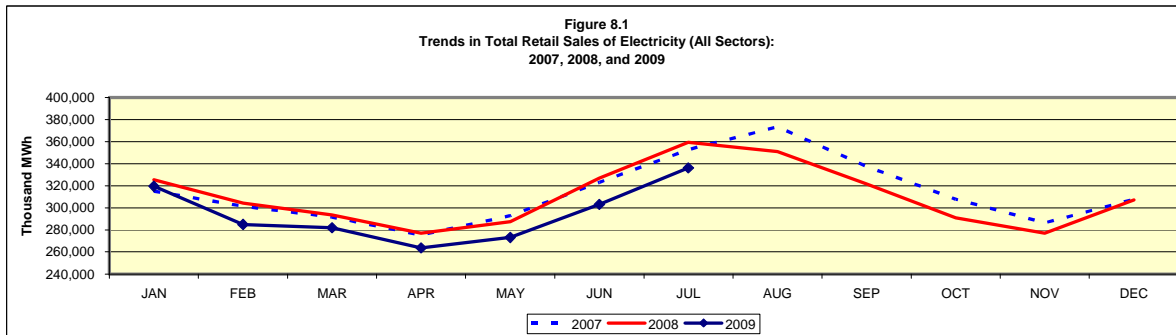
Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)
Millions of Kilowatthours

Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2009	July 2009	794,363	761,398	502,143	4,443	2,062,347
Prior Period	January 2008	July 2008	806,639	782,148	580,361	4,476	2,173,624
Percent Difference			-1.5%	-2.7%	-13.5%	-0.7%	-5.1%

Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	August 2008	July 2009	1,367,031	1,331,703	903,932	7,619	3,610,285
Prior Period	August 2007	July 2008	1,403,319	1,357,514	1,017,642	7,824	3,786,299
Percent Difference			-2.6%	-1.9%	-11.2%	-2.6%	-4.6%



Section 9. Average Retail Price Trends

Data for:
July 2009

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

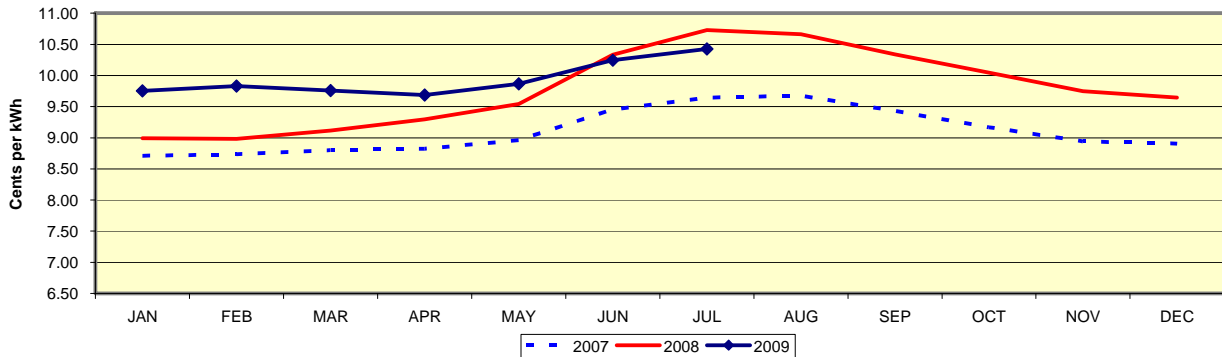
Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	January 2009	July 2009	11.55	10.25	6.96	11.51	9.95
Prior Period	January 2008	July 2008	11.10	10.10	6.86	10.90	9.61
Percent Difference			4.1%	1.5%	1.5%	5.6%	3.5%

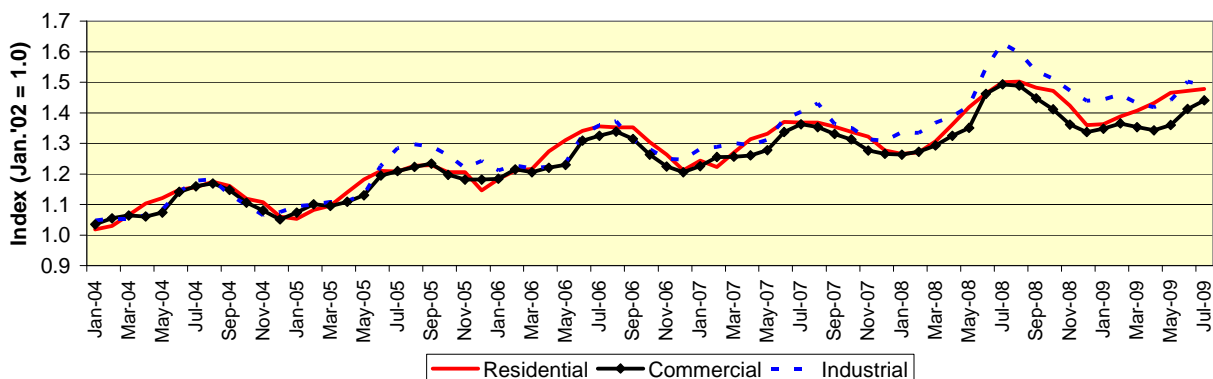
Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	August 2008	July 2009	11.62	10.36	7.08	11.64	10.02
Prior Period	August 2007	July 2008	10.97	9.95	6.69	10.29	9.46
Percent Difference			5.9%	4.1%	5.8%	13.1%	5.9%

**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:
July 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	July 2009	15	9	6	66.7%	294	321	-27	-8.4%
Prior Period	July 2008	5	9	-4	-44.4%	334	321	13	4.0%
Percent Difference		200.0%				-12.0%			

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	July 2009	2,771	685	Current Period	August 2008	July 2009	4,482	1,207
Prior Period	January 2008	July 2008	2,783	755	Prior Period	August 2007	July 2008	4,330	1,422
Percent Difference			-0.4%	-9.3%	Percent Difference			3.5%	-15.1%

Figure 10.1 Deviation From Normal: Heating Degree Days, 2009

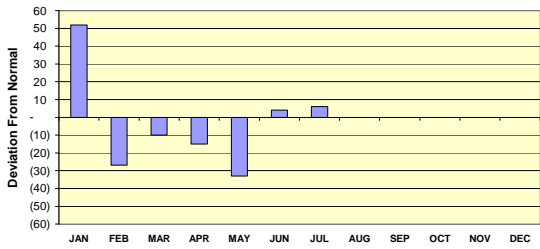


Figure 10.2 Deviation From Normal: Cooling Degree Days, 2009

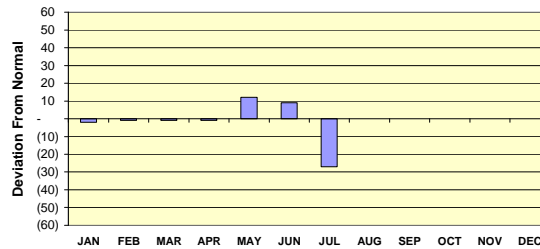


Figure 10.3 Trend in Heating Degree Days: 2008, 2009, and Normal

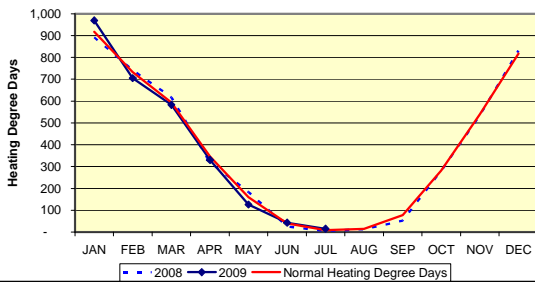


Figure 10.4 Trend in Cooling Degree Days: 2008, 2009, and Normal

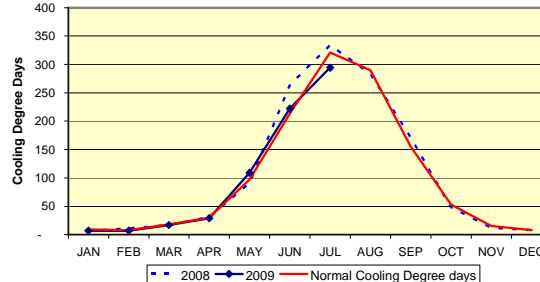


Figure 10.5 Trend in Cumulative Heating Degree Days: 2008, 2009, and Normal

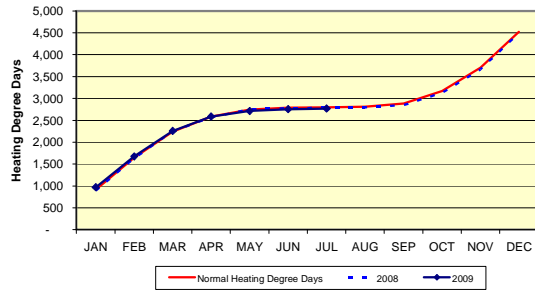
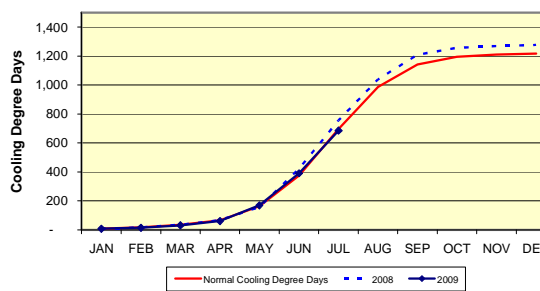


Figure 10.6 Trend in Cumulative Cooling Degree Days: 2008, 2009, and Normal



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).