

# Monthly Flash Estimates of Electric Power Data

Data for:  
March 2009

## Section 1. Commentary

In March 2009, the contiguous United States experienced slightly above average temperatures. However, regional differences in temperature occurred as the Northwest experienced below average temperatures while the Southwest and Central regions observed above average temperatures. Heating degree days for the contiguous United States as a whole were 1.9 percent below the average for the month of March and 5.7 percent below a colder March 2008.

Retail sales of electricity in March 2009 decreased 3.9 percent compared to March 2008. This decrease in March 2008-to-March 2009 retail sales was caused by the warmer weather observed in March 2009 and by the significant decline in industrial consumption as observed by the 12.7 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 March 2009 from the previous year, increasing 7.1 percent from March 2008. This increase in average U.S. retail price from March 2008 can be attributed to the higher cost of coal used in electricity generation and the expiration of price caps observed in several deregulated States.

Total electric power generation in the United States decreased 6.6 percent from March 2008. Coal generation in the contiguous United States decreased 16.1 percent when compared to March 2008. This drop in March 2008-to-March 2009 coal generation was caused by the warmer weather in March 2009, 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 U.S. Natural gas generation in March 2009 increased 4.5 percent compared to March 2008. This increase in natural gas generation is due to the year-over-year decrease in the cost of natural gas as a fuel used in electricity generation. Petroleum liquids generation decreased 12.9 percent when compared to March 2008. Conventional hydroelectric generation was 1.2 percent higher than March 2008 and 21.0 percent higher than February 2009 as a majority of the contiguous United States, particularly areas of the Northwest, experienced above normal precipitation during March 2009.

Following the year-over-year decrease in coal generation, the consumption of coal to produce electricity decreased 14.5 percent when compared to March 2008. Over the same time period, natural gas consumption increased 5.0 percent, while petroleum liquids consumption decreased 4.8 percent.

In March 2009, total coal stocks in the Electric Power Sector increased 7.6 percent from the previous month. The February 2009-to-March 2009 change in coal stocks consisted of a 13.8-percent increase in bituminous coal and a 2.4-percent increase in subbituminous coal. Petroleum liquids stocks were 1.2 percent higher than February 2009.

References for weather data:

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

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## Section 2. Key Indicators of Generation, Consumption & Stocks

Data for:  
March 2009

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
February 2009	0.6%	1.1%	21.0%
March 2008	-6.6%	0.3%	1.2%
<b>Year to Date</b>	<b>-5.3%</b>	<b>1.0%</b>	<b>4.6%</b>
<b>Latest 12 Month Period*</b>	<b>-2.7%</b>	<b>0.6%</b>	<b>5.2%</b>

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
February 2009	7.1%	-4.6%	7.6%
March 2008	5.0%	-14.5%	19.2%
<b>Year to Date</b>	<b>-0.8%</b>	<b>-10.2%</b>	<b>--</b>
<b>Latest 12 Month Period*</b>	<b>-5.4%</b>	<b>-3.4%</b>	<b>--</b>

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

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

Data for:  
March 2009

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Mar-09	Mar-08	% Change	Feb-09	% Change
Coal	135,351	161,281	-16.1%	142,007	-4.7%
Petroleum Liquids	1,777	2,040	-12.9%	2,162	-17.8%
Natural Gas	64,435	61,654	4.5%	61,826	4.2%
Nuclear	64,905	64,716	0.3%	64,227	1.1%
Hydroelectric Conventional	21,423	21,160	1.2%	17,705	21.0%
All Other	14,537	13,080	11.1%	12,685	14.6%
Total (All Energy Sources)	302,428	323,932	-6.6%	300,613	0.6%

### 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	Mar-09	Mar-08	% Change	Feb-09	% Change
Coal (Thousand Short Tons)	71,122	83,185	-14.5%	74,574	-4.6%
Petroleum Liquids (Thousand Barrels)	3,166	3,324	-4.8%	3,713	-14.7%
Natural Gas (Million Cubic Feet)	498,358	474,421	5.0%	465,517	7.1%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Mar-09	Mar-08	% Change	Feb-09	% Change
Coal (Thousand Short Tons)	175,210	147,002	19.2%	162,799	7.6%
Petroleum Liquids (Thousand Barrels)	42,981	43,561	-1.3%	42,482	1.2%

#### 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:  
March 2009

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

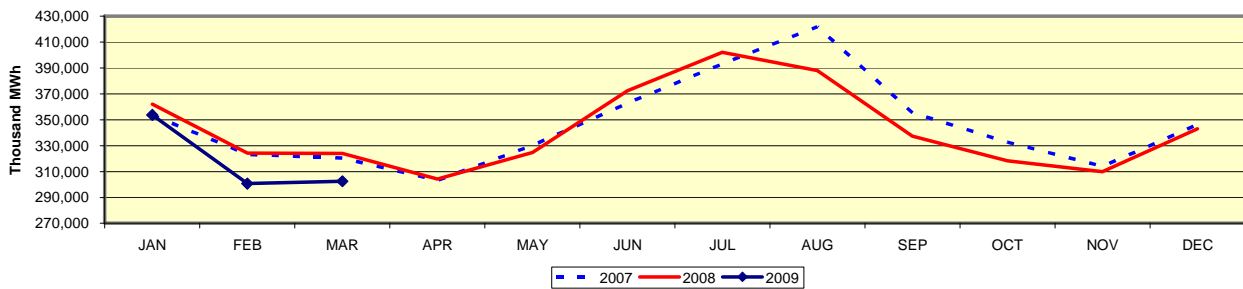
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2009	March 2009	450,283	8,892	191,735	202,611	62,604	40,607	956,732
<b>Prior Period</b>	January 2008	March 2008	511,359	7,501	193,511	200,582	59,824	37,572	1,010,349
<b>Percent Difference</b>			-11.9%	18.5%	-0.9%	1.0%	4.6%	8.1%	-5.3%

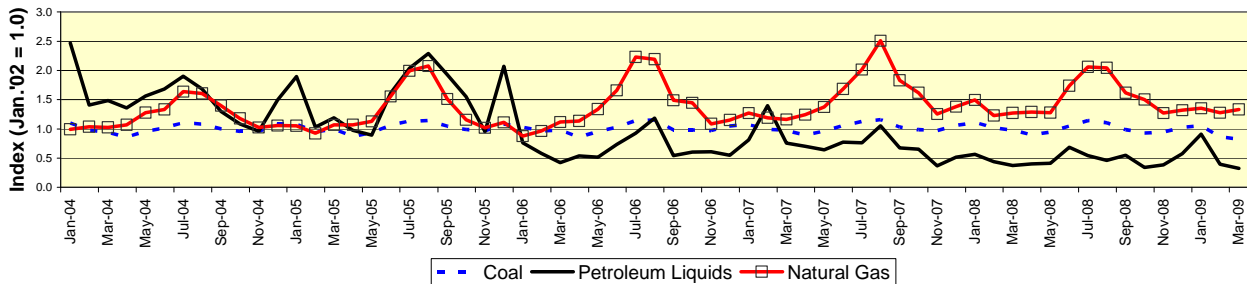
### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	April 2008	March 2009	1,933,309	32,553	875,171	808,210	250,865	156,534	4,056,642
<b>Prior Period</b>	April 2007	March 2008	2,028,661	40,871	914,800	803,471	238,559	143,499	4,169,861
<b>Percent Difference</b>			-4.7%	-20.4%	-4.3%	0.6%	5.2%	9.1%	-2.7%

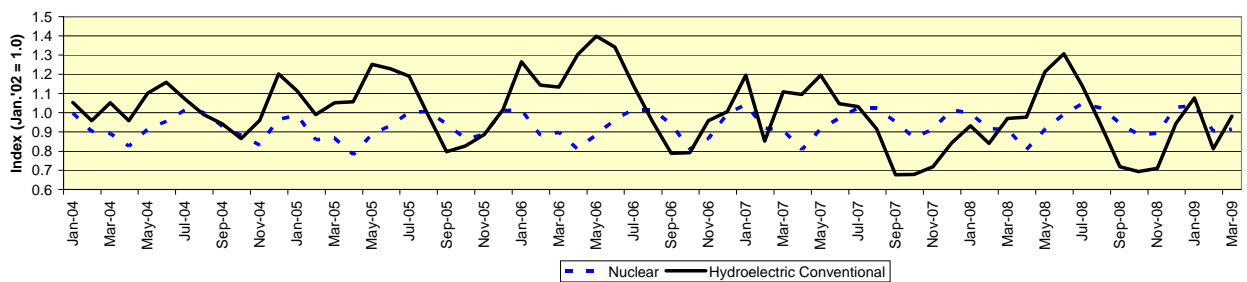
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2007, 2008, and 2009**



**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:  
March 2009

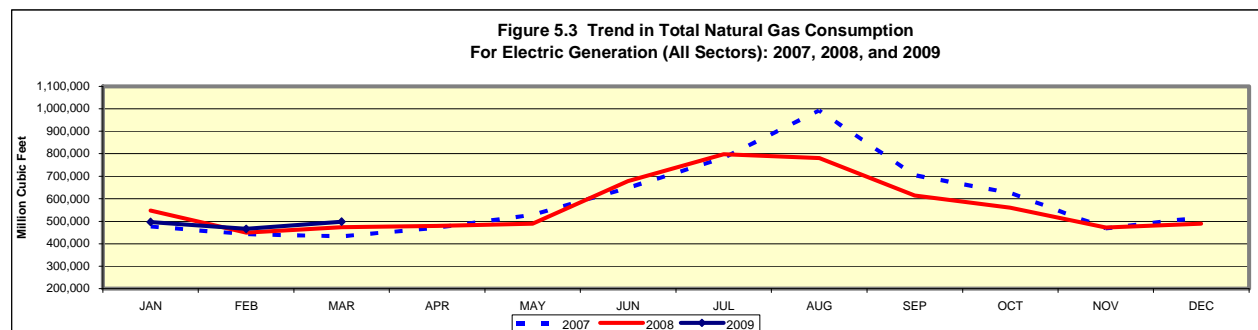
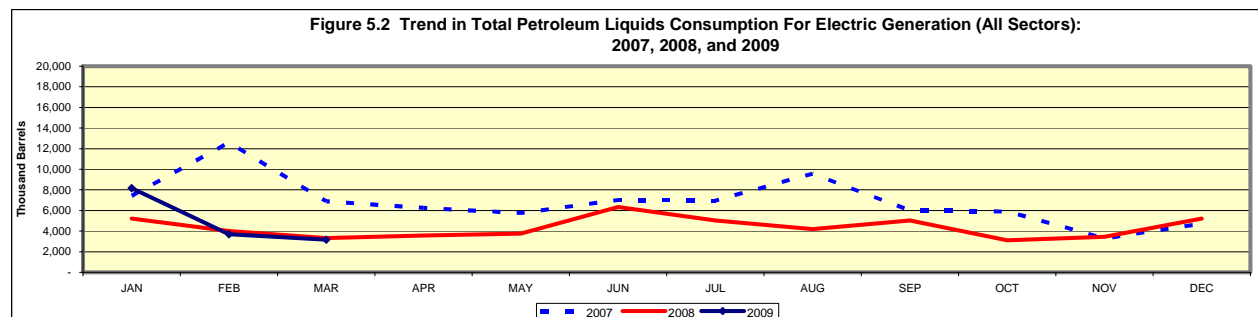
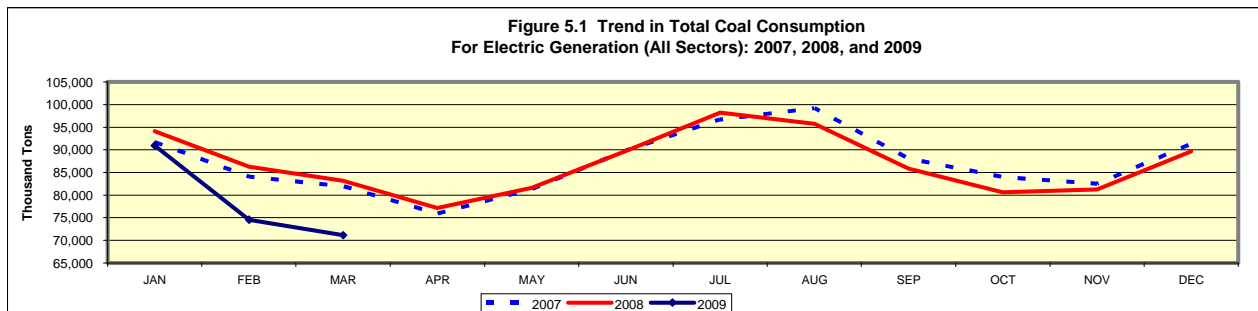
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

### Year-to-Date Comparison

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
<b>Current Period</b>	January 2009	March 2009	236,681	15,042	1,460,469
<b>Prior Period</b>	January 2008	March 2008	263,648	12,565	1,472,338
<b>Percent Difference</b>			-10.2%	19.7%	-0.8%

### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
<b>Current Period</b>	April 2008	March 2009	1,016,623	54,745	6,821,529
<b>Prior Period</b>	April 2007	March 2008	1,052,635	68,096	7,210,307
<b>Percent Difference</b>			-3.4%	-19.6%	-5.4%

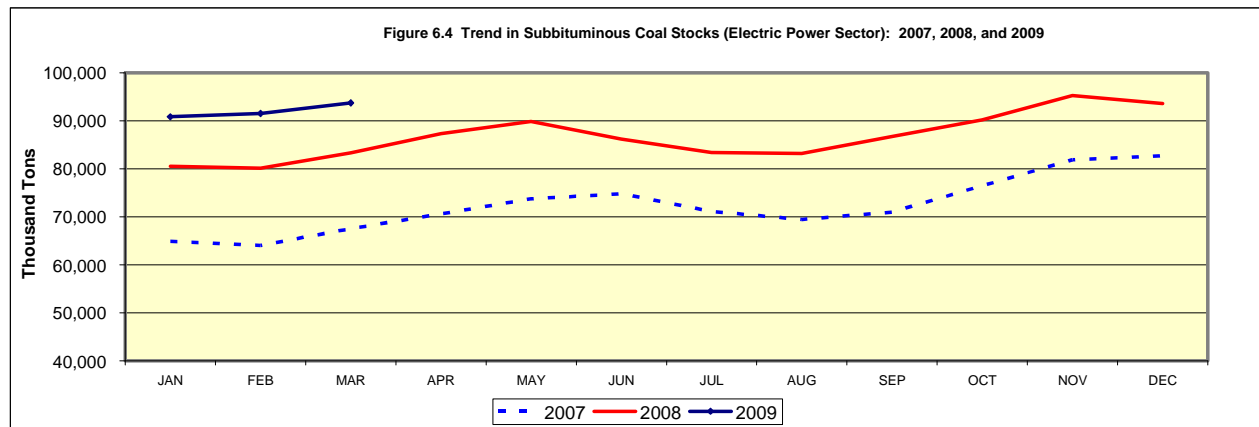
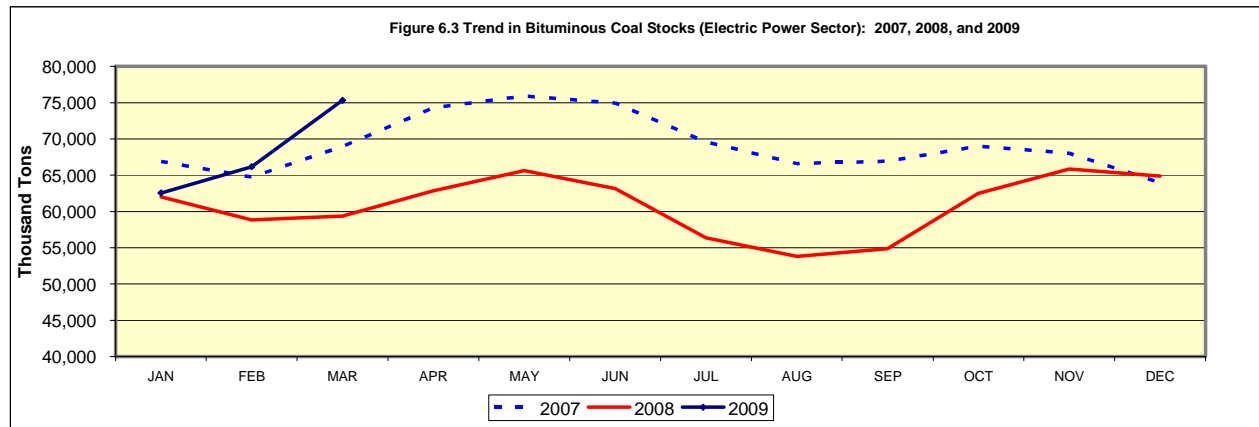
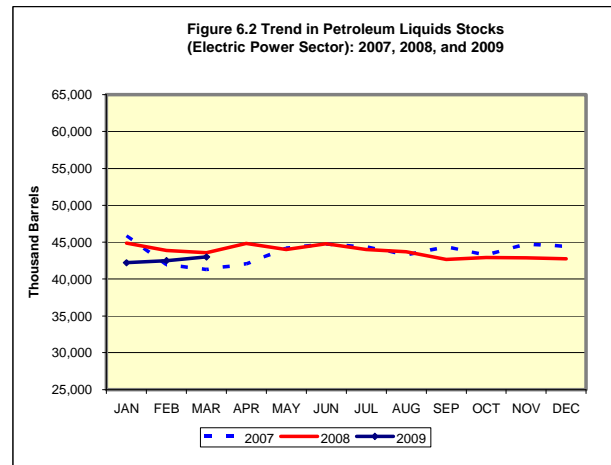
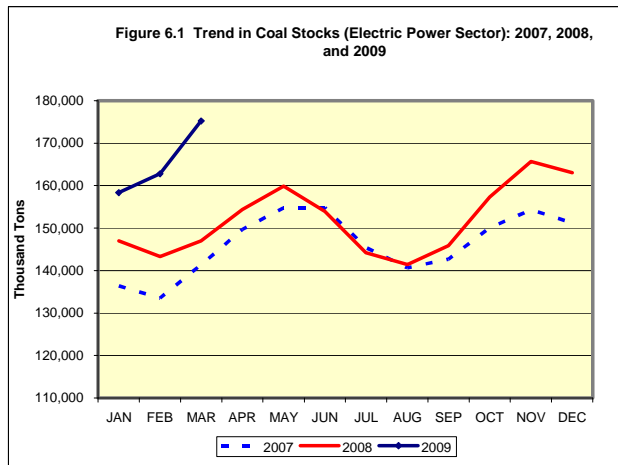


# Section 6. Fossil Fuel Stock Trends

Data for:  
March 2009

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

Fossil Fuel Stocks	Mar-09	Mar-08	% Change	Feb-09	% Change
<b>Coal, Total (Thousand Short Tons)</b>	175,210	147,002	19.2%	162,799	7.6%
Bituminous (includes anthracite and coal synfuel)	75,315	59,347	26.9%	66,176	13.8%
Subbituminous	93,720	83,315	12.5%	91,532	2.4%
Lignite	6,175	4,340	42.3%	5,092	21.3%
<b>Petroleum Liquids (Thousand Barrels)</b>	42,981	43,561	-1.3%	42,482	1.2%



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

Data for:  
March 2009

### Retail Sales

Table 7.1 Retail Sales (Million kWh)

Ultimate Customer	Mar-09	Mar-08	% Change	Feb-09	% Change
Residential	106,368	107,007	-0.6%	115,318	-7.8%
Commercial	103,818	104,469	-0.6%	100,540	3.3%
Industrial	71,053	81,372	-12.7%	68,499	3.7%
Transportation	652	635	2.8%	636	2.5%
All Sectors	281,891	293,483	-3.9%	284,993	-1.1%

### Average Retail Price

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

Ultimate Customer	Mar-09	Mar-08	% Change	Feb-09	% Change
Residential	11.38	10.57	7.7%	11.23	1.3%
Commercial	10.07	9.62	4.7%	10.16	-0.9%
Industrial	6.85	6.54	4.7%	6.98	-1.9%
Transportation	12.07	10.70	12.8%	11.13	8.4%
All Sectors	9.76	9.11	7.1%	9.83	-0.7%

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

Census Division	Residential			All Sectors		
	Mar-09	Mar-08	% Change	Mar-09	Mar-08	% Change
New England	17.57	16.89	4.0%	15.53	15.17	2.4%
Middle Atlantic	14.37	13.86	3.7%	12.65	12.30	2.8%
East North Central	10.82	9.72	11.3%	8.89	8.09	9.9%
West North Central	8.72	7.92	10.1%	7.35	6.63	10.9%
South Atlantic	11.16	10.13	10.2%	9.91	8.81	12.5%
East South Central	9.62	8.33	15.5%	8.12	6.93	17.2%
West South Central	11.60	10.84	7.0%	9.38	9.33	0.5%
Mountain	9.50	9.14	3.9%	7.82	7.55	3.6%
Pacific Contiguous	11.44	11.09	3.2%	10.39	9.99	4.0%
Pacific Noncontiguous	19.68	23.89	-17.6%	17.38	22.01	-21.0%
U.S. Total	11.38	10.57	7.7%	9.76	9.11	7.1%

# Section 8. Retail Sales Trends

Data for:  
March 2009

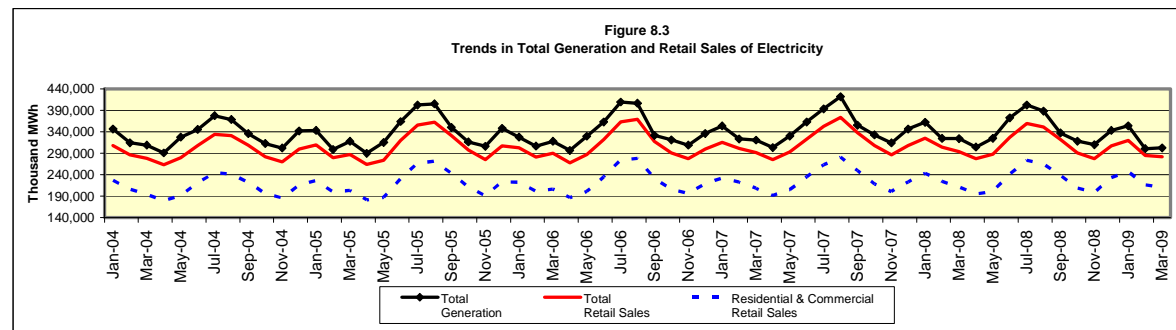
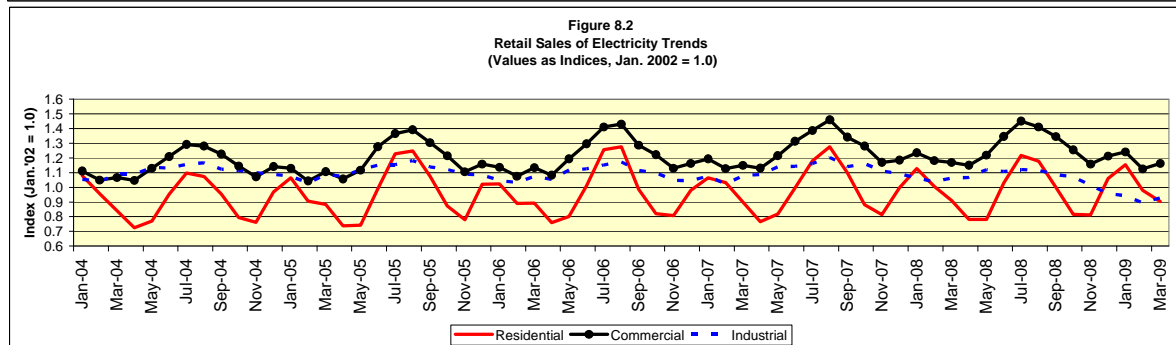
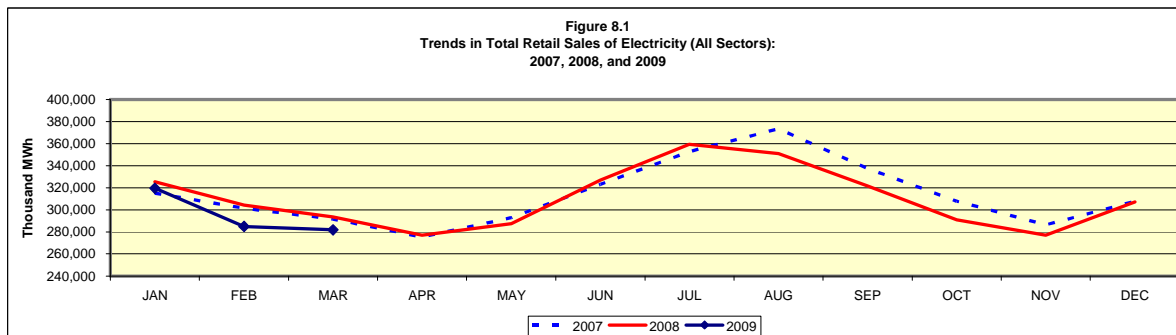
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2009	March 2009	357,473	315,228	211,668	2,023	886,391
<b>Prior Period</b>	January 2008	March 2008	358,369	320,416	242,131	2,001	922,918
<b>Percent Difference</b>			-0.3%	-1.6%	-12.6%	1.1%	-4.0%

### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	April 2008	March 2009	1,378,411	1,347,265	951,687	7,673	3,685,036
<b>Prior Period</b>	April 2007	March 2008	1,398,165	1,346,667	1,026,605	7,946	3,779,383
<b>Percent Difference</b>			-1.4%	0.0%	-7.3%	-3.4%	-2.5%





# Section 9. Average Retail Price Trends

Data for:  
March 2009

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

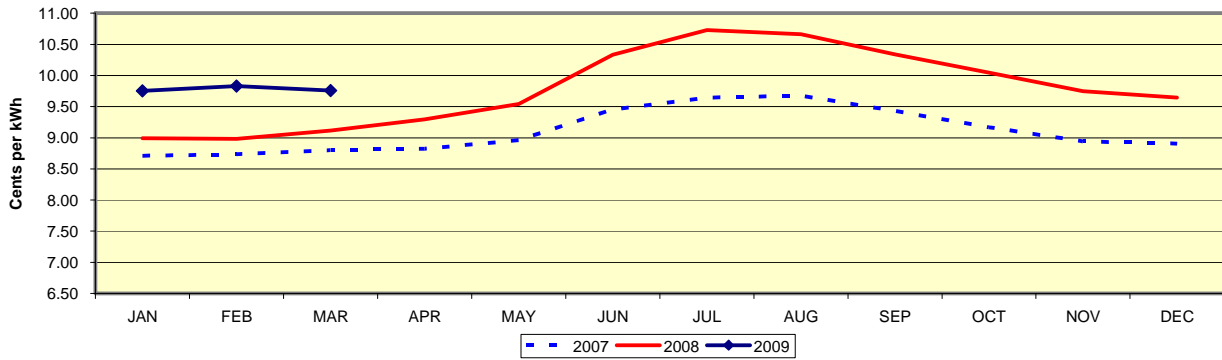
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2009	March 2009	11.20	10.08	6.91	11.50	9.78
<b>Prior Period</b>	January 2008	March 2008	10.35	9.49	6.44	10.25	9.03
<b>Percent Difference</b>			8.2%	6.2%	7.3%	12.2%	8.3%

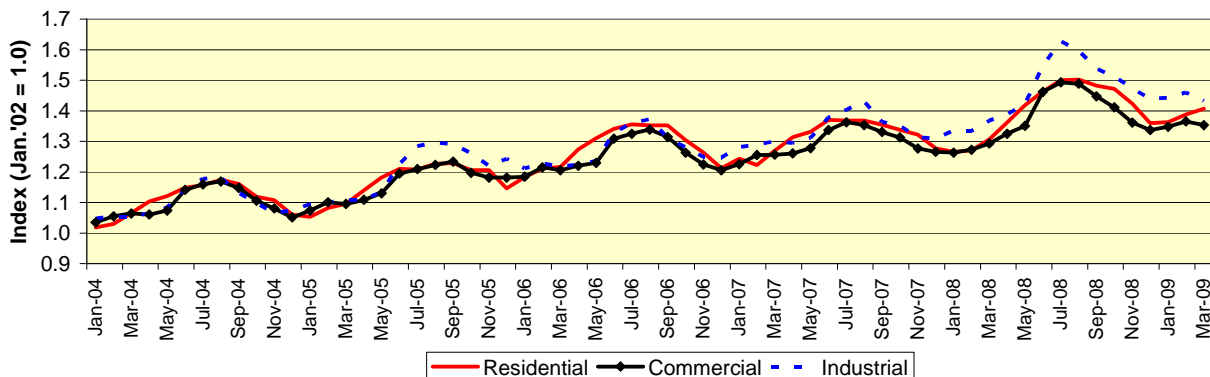
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	April 2008	March 2009	11.58	10.42	7.14	11.61	10.01
<b>Prior Period</b>	April 2007	March 2008	10.72	9.70	6.46	9.81	9.20
<b>Percent Difference</b>			8.0%	7.4%	10.5%	18.3%	8.8%

**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:  
March 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
<b>Current Period</b>	March 2009	582	593	-11	-1.9%	18	18	0	0.0%
<b>Prior Period</b>	March 2008	617	593	24	4.0%	17	18	-1	-5.6%
<b>Percent Difference</b>				-5.7%					5.9%

### 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
<b>Current Period</b>	January 2009	March 2009	2,236	28	<b>Current Period</b>	April 2008	March 2009	4,480	1,270
<b>Prior Period</b>	January 2008	March 2008	2,250	35	<b>Prior Period</b>	April 2007	March 2008	4,309	1,390
<b>Percent Difference</b>			-0.6%	-20.0%	<b>Percent Difference</b>			4.0%	-8.6%

Figure 10.1 Deviation From Normal: Heating Degree Days, 2009

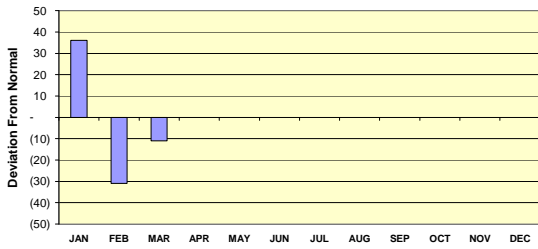


Figure 10.2 Deviation From Normal Cooling Degree Days, 2009

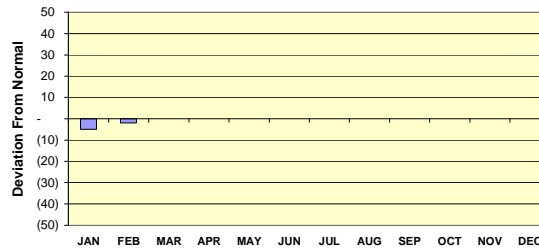


Figure 10.3 Trend in Heating Degree Days: 2008, 2009, and Normal

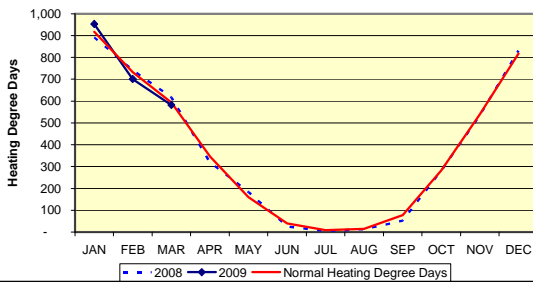


Figure 10.4 Trend in Cooling Degree Days: 2008, 2009, and Normal

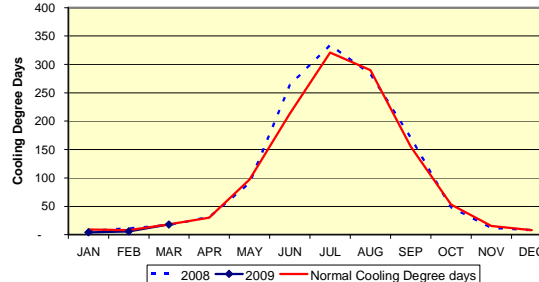


Figure 10.5 Trend in Cumulative Heating Degree Days: 2008, 2009, and Normal

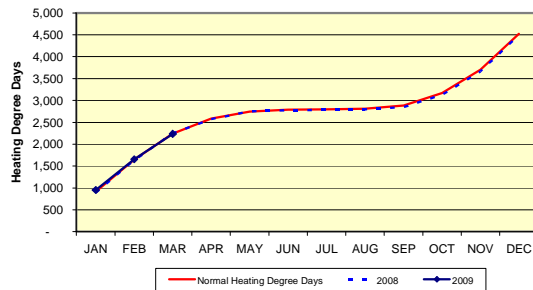
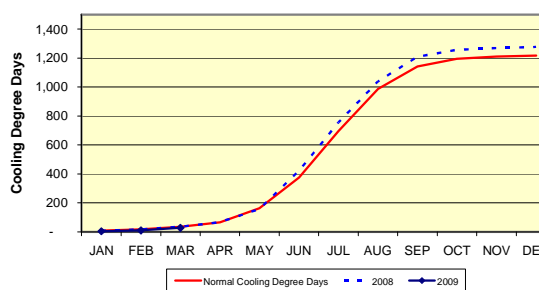


Figure 10.6 Trend in Cumulative Cooling Degree Days: 2008, 2009, and Normal



**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).