

# Monthly Flash Estimates of Electric Power Data

Data for:  
March 2010

## Section 1. Commentary

In March 2010, the contiguous United States as a whole experienced temperatures that were above average. This occurred because almost all States in the Northeast, New England, and Upper Midwest experienced significantly above average temperatures. Accordingly, total population-weighted heating degree days for the United States were 8.8 percent below the average for the month of March.

Retail sales of electricity increased 3.9 percent compared to March 2009. Over the same period, the average U.S. retail price of electricity decreased 2.0 percent. For the 12-month period ending March 2010, the U.S. average retail price of electricity decreased by 1.2 percent over the previous 12-month period ending March 2009.

Total electric power generation in the United States remained relatively unchanged compared to March 2009 (the change in electric power generation does not necessarily coincide with the change in retail sales of electricity because utility billing cycles tend to lag electricity production in many areas). Over the same period, coal generation increased 6.0 percent, while natural gas generation decreased 8.0 percent. Petroleum liquids generation had the largest percentage decline, 39.0 percent from the previous year, as a result of the increased cost of petroleum liquids as a fuel used in electricity generation. March 2010 electricity generation from conventional hydroelectric sources decreased 5.3 percent compared to March 2009. This decrease in conventional hydroelectric generation occurred as a result of below average precipitation observed across the Northwest in March 2010.

Following the year-over-year increase in coal generation, the consumption of coal to produce electricity increased 6.5 percent when compared to March 2009. Over the same time period, petroleum liquids consumption decreased 36.7 percent, while natural gas consumption decreased 6.7 percent.

In March 2010, total coal stocks in the Electric Power Sector increased 3.7 percent from the previous month. The February 2010 to March 2010 change in coal stocks consisted of a 4.5-percent increase in bituminous coal and a 2.9-percent increase in subbituminous coal. Petroleum liquid stocks decreased 0.4 percent from February 2010.

References for weather data:

<http://www.ncdc.noaa.gov/oa/climate/research/2010/mar/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

This report was prepared by the U.S. 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 U.S. 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 Chris Cassar at 202-586-5448, or at [Christopher.Cassar@eia.doe.gov](mailto:Christopher.Cassar@eia.doe.gov).



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

Data for:  
March 2010

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
February 2010	-2.4%	-2.1%	0.5%
March 2009	0.2%	-5.0%	-5.3%
<b>Year to Date</b>	<b>2.4%</b>	<b>-1.9%</b>	<b>-0.5%</b>
<b>Latest 12 Month Period*</b>	<b>-2.4%</b>	<b>-2.0%</b>	<b>5.8%</b>

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
February 2010	-2.8%	-4.1%	3.7%
March 2009	-6.7%	6.5%	0.5%
<b>Year to Date</b>	<b>4.0%</b>	<b>4.3%</b>	<b>--</b>
<b>Latest 12 Month Period*</b>	<b>4.0%</b>	<b>-6.6%</b>	<b>--</b>

\* Change in total consumption or generation for the latest 12 month period (April 2009 to March 2010) compared to the prior 12 month period (April 2008 to March 2009).

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

Data for:  
March 2010

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Mar-10	Mar-09	% Change	Feb-10	% Change
Coal	144,341	136,167	6.0%	153,388	-5.9%
Petroleum Liquids	1,233	2,022	-39.0%	1,212	1.7%
Natural Gas	62,846	68,308	-8.0%	65,587	-4.2%
Nuclear	63,857	67,241	-5.0%	65,247	-2.1%
Hydroelectric Conventional	20,544	21,692	-5.3%	20,448	0.5%
All Other	18,786	15,511	21.1%	13,259	41.7%
Total (All Energy Sources)	311,607	310,941	0.2%	319,142	-2.4%

### 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-10	Mar-09	% Change	Feb-10	% Change
Coal (Thousand Short Tons)	76,950	72,264	6.5%	80,231	-4.1%
Petroleum Liquids (Thousand Barrels)	2,207	3,484	-36.7%	2,086	5.8%
Natural Gas (Million Cubic Feet)	483,344	518,143	-6.7%	497,038	-2.8%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Mar-10	Mar-09	% Change	Feb-10	% Change
Coal (Thousand Short Tons)	175,105	174,264	0.5%	168,902	3.7%
Petroleum Liquids (Thousand Barrels)	37,739	40,259	-6.3%	37,880	-0.4%

#### Notes:

- Coal consumption and generation includes subbituminous coal, bituminous coal, anthracite, lignite, and waste coal.
- 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, only waste oil is excluded.
- 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 2010

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

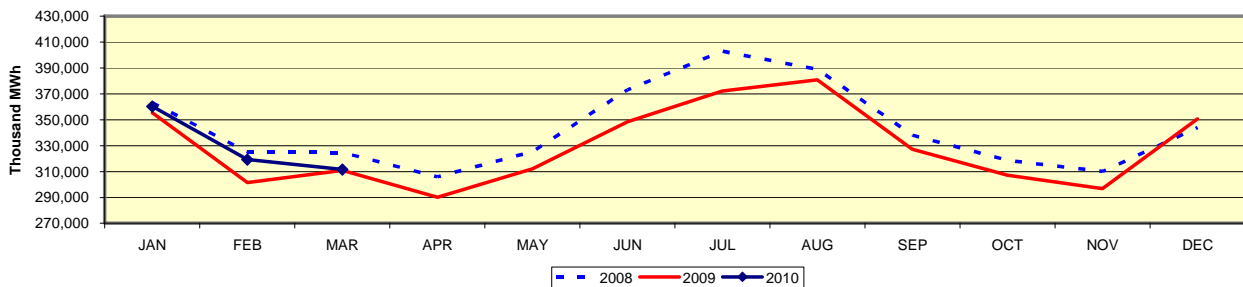
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2010	March 2010	471,693	5,637	202,118	201,639	63,063	46,901	991,051
<b>Prior Period</b>	January 2009	March 2009	450,239	9,110	196,403	205,570	63,407	43,034	967,763
<b>Percent Difference</b>			4.8%	-38.1%	2.9%	-1.9%	-0.5%	9.0%	2.4%

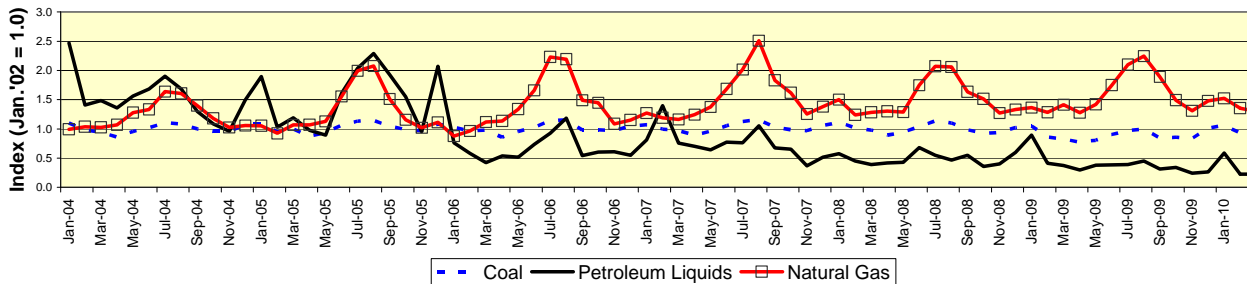
### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	April 2009	March 2010	1,785,940	22,319	926,093	794,813	271,787	175,447	3,976,399
<b>Prior Period</b>	April 2008	March 2009	1,925,755	33,345	884,571	811,197	257,002	162,547	4,074,417
<b>Percent Difference</b>			-7.3%	-33.1%	4.7%	-2.0%	5.8%	7.9%	-2.4%

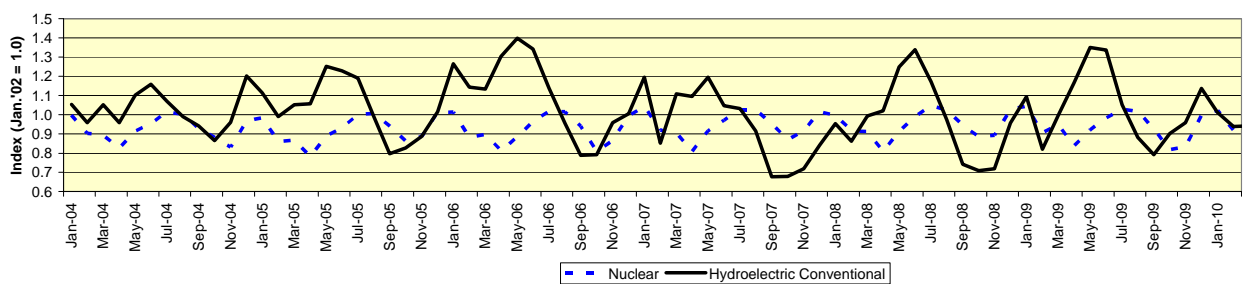
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2008, 2009, and 2010**



**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 2010

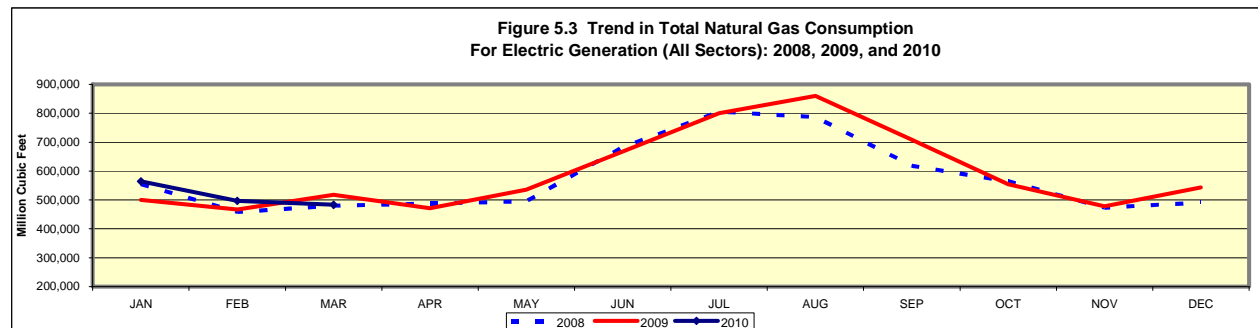
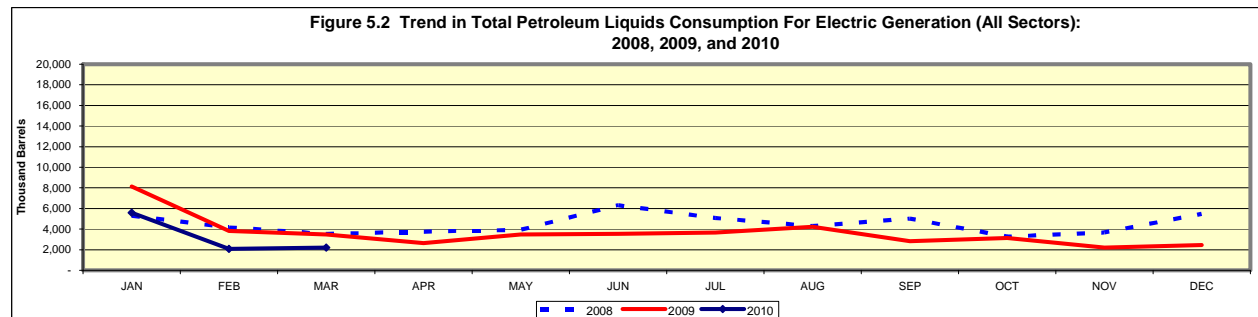
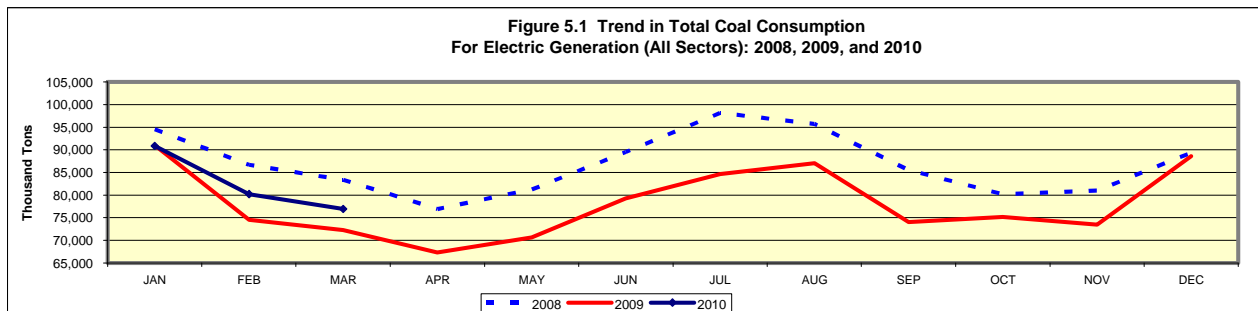
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

## 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 2010	March 2010	248,095	9,891	1,544,788
<b>Prior Period</b>	January 2009	March 2009	237,860	15,459	1,485,918
<b>Percent Difference</b>			4.3%	-36.0%	4.0%

## 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 2009	March 2010	948,295	38,103	7,163,470
<b>Prior Period</b>	April 2008	March 2009	1,015,587	56,314	6,889,169
<b>Percent Difference</b>			-6.6%	-32.3%	4.0%

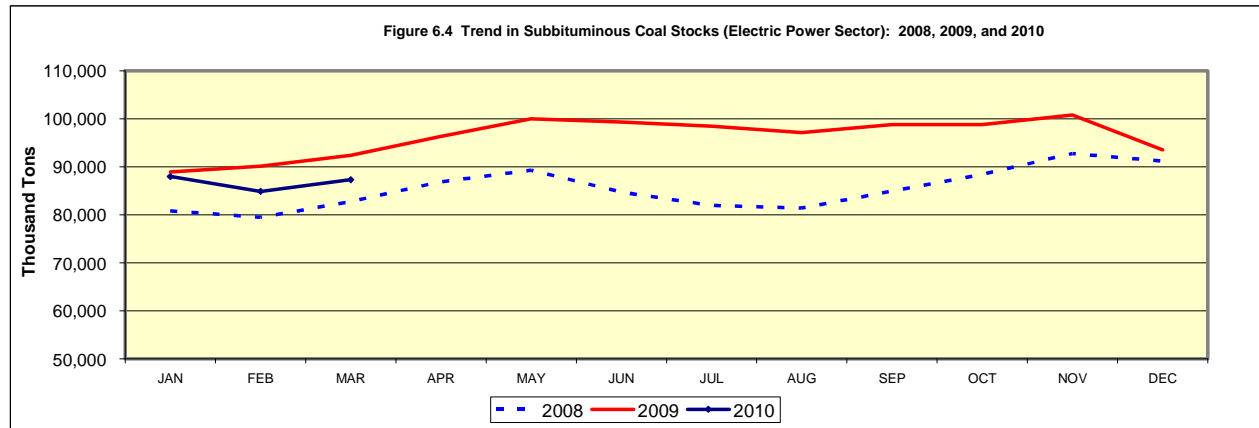
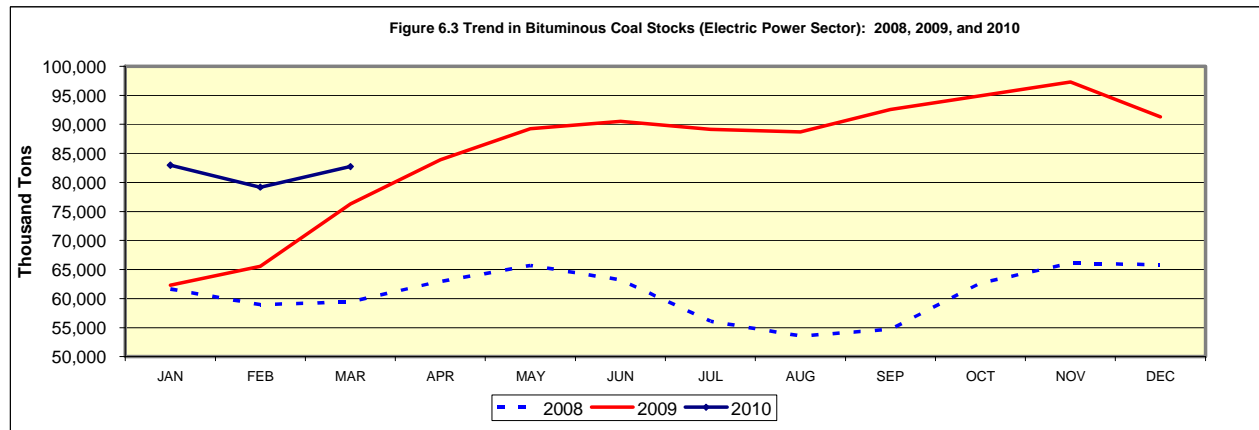
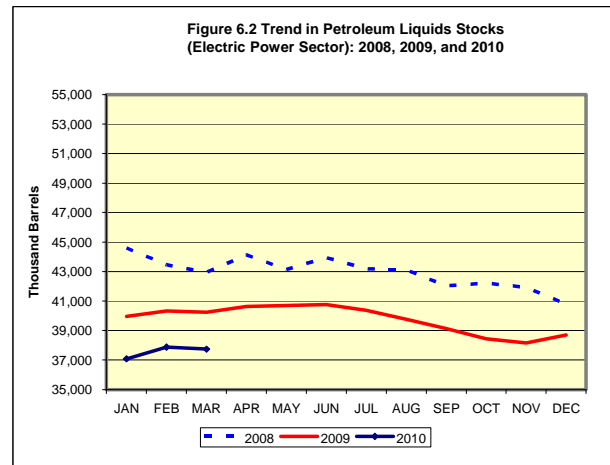
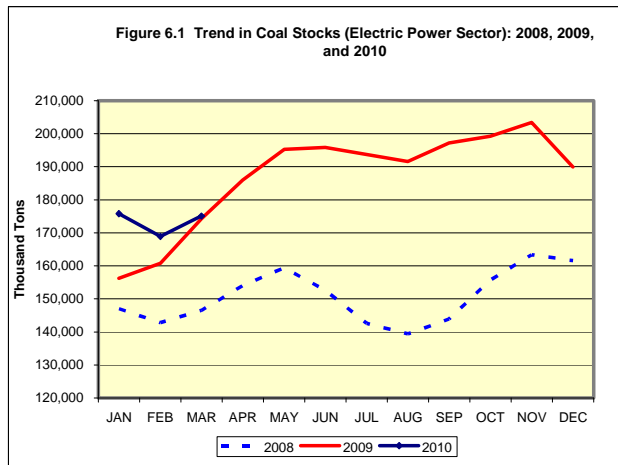


# Section 6. Fossil Fuel Stock Trends

Data for:  
March 2010

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

Fossil Fuel Stocks	Mar-10	Mar-09	% Change	Feb-10	% Change
<b>Coal, Total (Thousand Short Tons)</b>	175,105	174,264	0.5%	168,902	3.7%
Bituminous (includes anthracite and coal synfuel)	82,743	76,305	8.4%	79,174	4.5%
Subbituminous	87,313	92,423	-5.5%	84,883	2.9%
Lignite	5,049	5,536	-8.8%	4,844	4.2%
<b>Petroleum Liquids (Thousand Barrels)</b>	37,739	40,259	-6.3%	37,880	-0.4%



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

Data for:  
March 2010

### Retail Sales

**Table 7.1 Retail Sales (Million kWh)**

Ultimate Customer	Mar-10	Mar-09	% Change	Feb-10	% Change
Residential	113,009	106,467	6.1%	123,330	-8.4%
Commercial	103,838	104,015	-0.2%	101,901	1.9%
Industrial	75,870	71,105	6.7%	71,420	6.2%
Transportation	653	664	-1.7%	694	-5.9%
All Sectors	293,370	282,252	3.9%	297,344	-1.3%

### Average Retail Price

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

Ultimate Customer	Mar-10	Mar-09	% Change	Feb-10	% Change
Residential	11.13	11.33	-1.8%	10.93	1.8%
Commercial	10.00	10.07	-0.7%	9.89	1.1%
Industrial	6.50	6.79	-4.3%	6.55	-0.8%
Transportation	11.14	11.85	-6.0%	10.87	2.5%
All Sectors	9.53	9.72	-2.0%	9.52	0.1%

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

Census Division	Residential			All Sectors		
	Mar-10	Mar-09	% Change	Mar-10	Mar-09	% Change
New England	16.82	17.65	-4.7%	15.19	15.93	-4.6%
Middle Atlantic	15.19	14.17	7.2%	12.99	12.46	4.3%
East North Central	10.78	10.78	0.0%	8.69	8.87	-2.0%
West North Central	8.60	8.68	-0.9%	7.22	7.32	-1.4%
South Atlantic	10.46	11.08	-5.6%	9.33	9.82	-5.0%
East South Central	8.92	9.68	-7.9%	7.48	8.19	-8.7%
West South Central	10.80	11.59	-6.8%	8.95	9.39	-4.7%
Mountain	9.90	9.49	4.3%	8.09	7.85	3.1%
Pacific Contiguous	12.25	11.43	7.2%	10.77	10.35	4.1%
Pacific Noncontiguous	22.73	19.75	15.1%	20.93	17.46	19.9%
U.S. Total	11.13	11.33	-1.8%	9.53	9.72	-2.0%

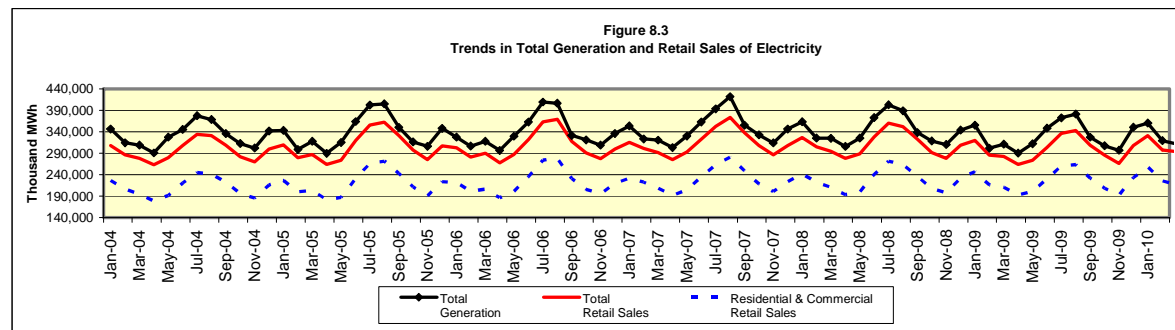
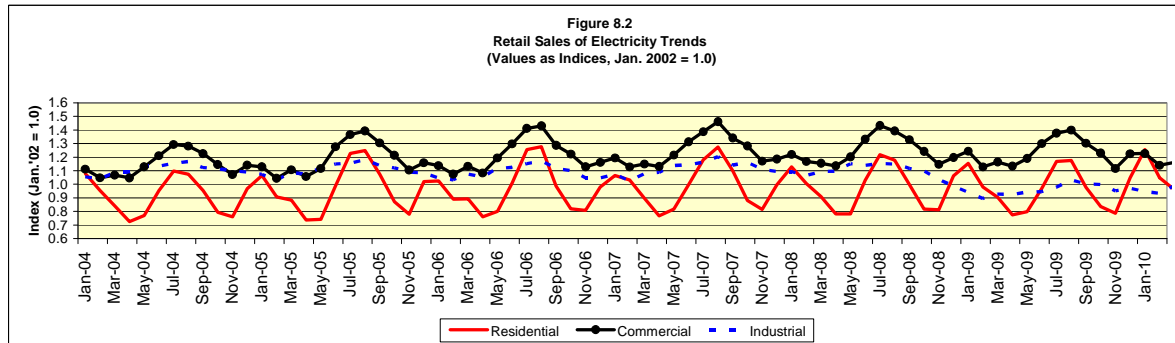
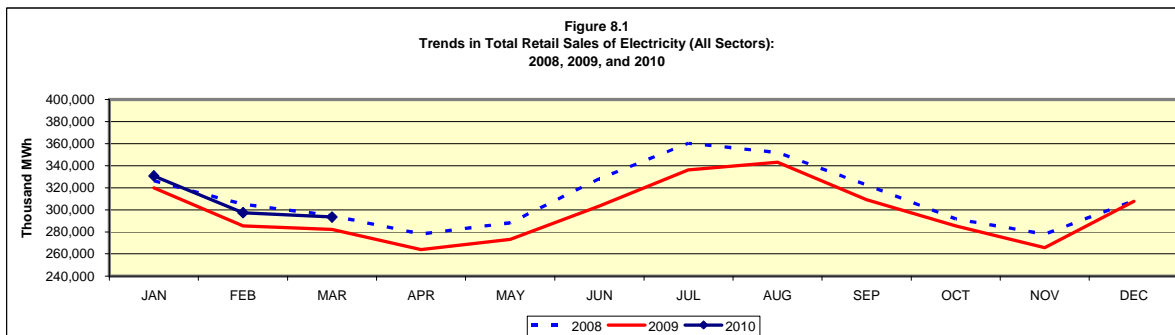
# Section 8. Retail Sales Trends

Data for:  
March 2010

**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 2010	March 2010	384,187	315,378	219,874	2,078	921,518
Prior Period	January 2009	March 2009	357,803	315,914	211,796	2,065	887,578
Percent Difference			7.4%	-0.2%	3.8%	0.6%	3.8%

Comparison to Prior Twelve-Month Period							
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	April 2009	March 2010	1,389,253	1,322,454	889,981	7,701	3,609,390
Prior Period	April 2008	March 2009	1,379,319	1,335,339	972,197	7,754	3,694,609
Percent Difference			0.7%	-1.0%	-8.5%	-0.7%	-2.3%





# Section 9. Average Retail Price Trends

Data for:  
March 2010

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

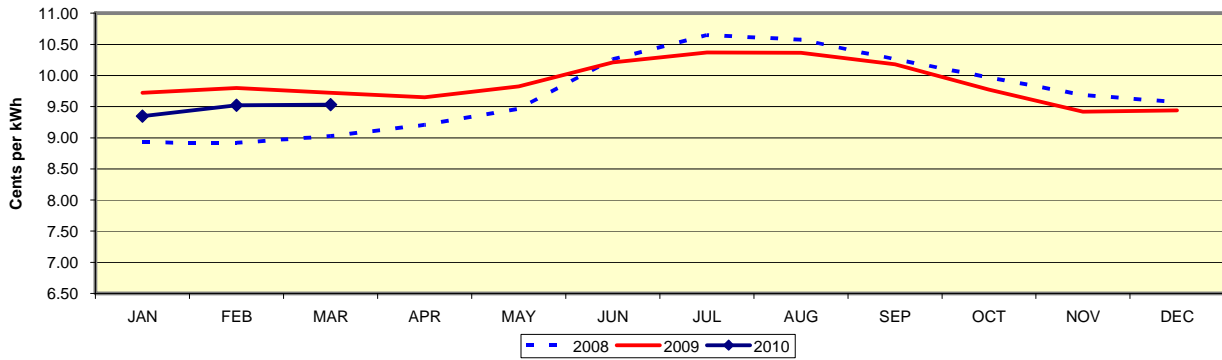
**Year-to-Date Comparison**

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2010	March 2010	10.84	9.82	6.53	10.92	9.46
<b>Prior Period</b>	January 2009	March 2009	11.15	10.09	6.84	11.32	9.75
<b>Percent Difference</b>			-2.8%	-2.7%	-4.5%	-3.5%	-3.0%

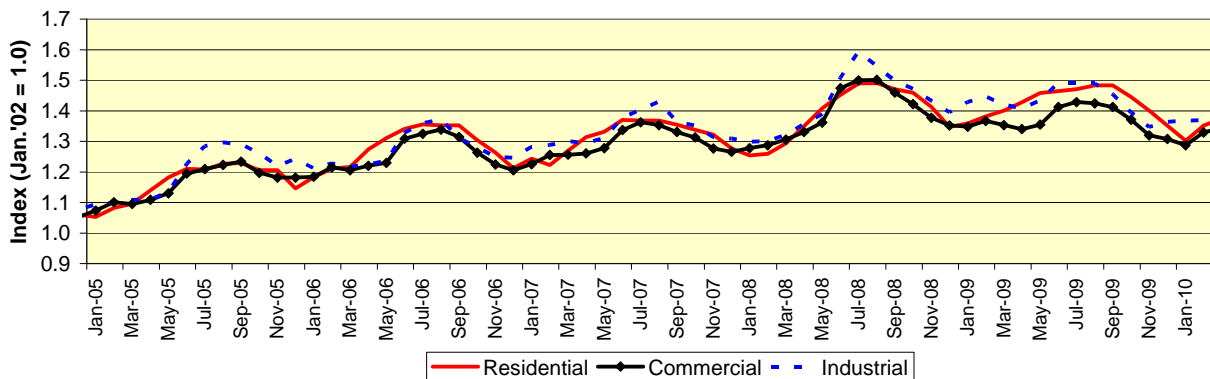
**Comparison to Prior 12 Month Period**

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	April 2009	March 2010	11.45	10.15	6.76	11.06	9.82
<b>Prior Period</b>	April 2008	March 2009	11.50	10.48	6.98	11.13	9.94
<b>Percent Difference</b>			-0.4%	-3.1%	-3.2%	-0.6%	-1.2%

**Figure 9.1 Trends in Average Retail Price of Electricity (All Sectors):  
2008, 2009, and 2010**



**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 2010

## 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 2010	541	593	-52	-8.8%	5	18	-13	-72.2%
<b>Prior Period</b>	March 2009	583	593	-10	-1.7%	17	18	-1	-5.6%
<b>Percent Difference</b>		-7.2%				-70.6%			

## 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 2010	March 2010	2,282	9	<b>Current Period</b>	April 2009	March 2010	4,518	1,207
<b>Prior Period</b>	January 2009	March 2009	2,257	31	<b>Prior Period</b>	April 2008	March 2009	4,501	1,273
<b>Percent Difference</b>			1.1%	-71.0%	<b>Percent Difference</b>			0.4%	-5.2%

Figure 10.1 Deviation From Normal: Heating Degree Days, 2010

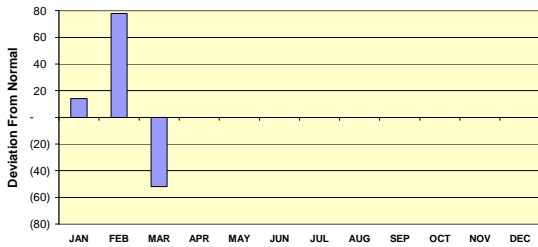


Figure 10.2 Deviation From Normal: Cooling Degree Days, 2010

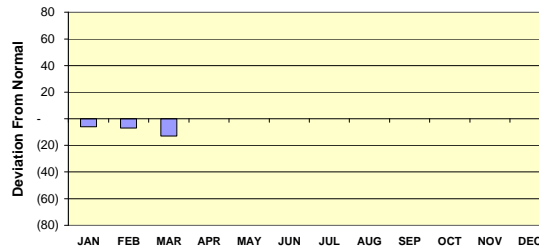


Figure 10.3 Trend in Heating Degree Days: 2009, 2010, and Normal

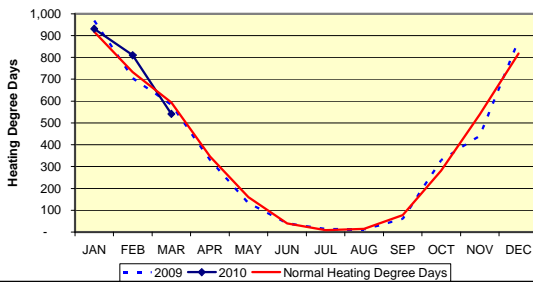


Figure 10.4 Trend in Cooling Degree Days: 2009, 2010, and Normal

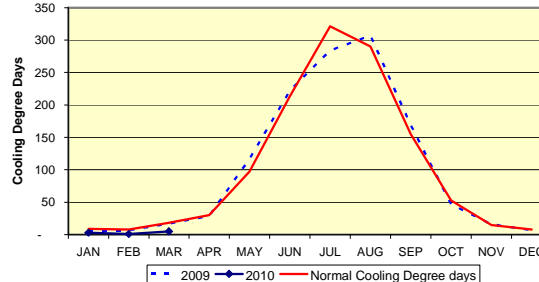


Figure 10.5 Trend in Cumulative Heating Degree Days: 2009, 2010, and Normal

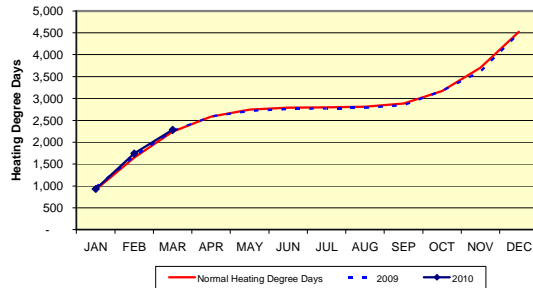
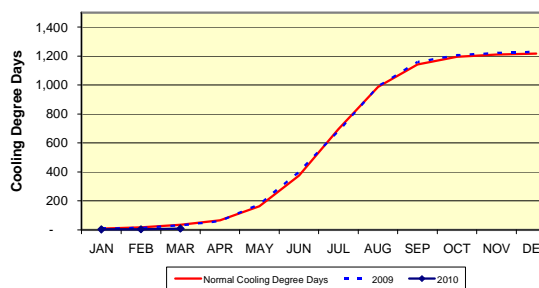


Figure 10.6 Trend in Cumulative Cooling Degree Days: 2009, 2010, and Normal



**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, U.S. 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 are collected monthly using multiple-attribute cutoff sampling of power plants and electric retailers for the purpose of estimation for various data elements (generation, stocks, revenue, etc.), for various categories, such as geographic regions. (The data elements and categories are "attributes.") 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. Regression-based (i.e., "prediction") methodologies are used to estimate totals from the sample. Essentially complete samples are collected for the Electric Power Monthly (EPM), which includes State-level values. The Flash Estimates is based on an incomplete sample and includes only national-level estimates. Using 'prediction,' it is generally possible to make estimates based on the incomplete EPM sample, and still estimate variances.

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 the additional data collection and data revisions that may occur between the release of these two publications. 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).