

# Monthly Flash Estimates of Electric Power Data

Data for:  
January 2010

## Section 1. Commentary

In January 2010, the contiguous United States as a whole experienced temperatures that were near average. This occurred because the cold, arctic air that dominated the country in late 2009, moderated by the middle of January 2010. Accordingly, total population-weighted heating degree days for the United States were 1.5 percent above the average for the month of January.

Retail sales of electricity increased 3.5 percent compared to January 2009. The average U.S. retail price of electricity decreased 3.9 percent in January 2010 compared to the previous year. For the 12-month period ending January 2010, the U.S. average retail price of electricity increased by 0.4 percent over the previous 12-month period ending January 2009.

Total electric power generation in the United States increased 1.3 percent from January 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 0.5 percent, while natural gas generation increased 11.2 percent. Petroleum liquids generation had the largest percentage decline, 32.3 percent from the previous year, as a result of the increased cost of petroleum liquids as a fuel used in electricity generation. For the 12-month period ending January 2010, the contiguous United States experienced above average precipitation. As a result, conventional hydroelectric generation increased 4.9 percent over the previous 12-month period ending January 2009.

Total coal stocks in the Electric Power Sector continued to recede from historically high levels set the previous year, decreasing 7.5 percent from December 2009. The December 2009 to January 2010 change in coal stocks consisted of a 9.1-percent decrease in bituminous coal and a 6.0-percent decrease in subbituminous coal. Petroleum liquid stocks decreased 4.8 percent from December 2009.

References for weather data:

<http://www.ncdc.noaa.gov/oa/climate/research/2010/jan/national.html>

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

Data for:  
January 2010

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
December 2009	2.6%	3.0%	-10.6%
January 2009	1.3%	-1.3%	-7.0%
<b>Year to Date</b>	1.3%	-1.3%	-7.0%
<b>Latest 12 Month Period*</b>	-3.8%	-1.6%	4.9%

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
December 2009	3.6%	2.3%	-7.5%
January 2009	12.5%	-0.5%	12.5%
<b>Year to Date</b>	12.5%	-0.5%	--
<b>Latest 12 Month Period*</b>	4.7%	-9.7%	--

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

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

Data for:  
January 2010

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Jan-10	Jan-09	% Change	Dec-09	% Change
Coal	173,421	172,498	0.5%	167,241	3.7%
Petroleum Liquids	3,294	4,862	-32.3%	1,451	127.0%
Natural Gas	73,349	65,991	11.2%	71,570	2.5%
Nuclear	72,534	73,479	-1.3%	70,441	3.0%
Hydroelectric Conventional	22,161	23,829	-7.0%	24,792	-10.6%
All Other	14,760	14,097	4.7%	14,883	-0.8%
Total (All Energy Sources)	359,519	354,756	1.3%	350,378	2.6%

### 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	Jan-10	Jan-09	% Change	Dec-09	% Change
Coal (Thousand Short Tons)	90,594	91,018	-0.5%	88,572	2.3%
Petroleum Liquids (Thousand Barrels)	5,790	8,146	-28.9%	2,453	136.0%
Natural Gas (Million Cubic Feet)	563,027	500,496	12.5%	543,464	3.6%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Jan-10	Jan-09	% Change	Dec-09	% Change
Coal (Thousand Short Tons)	175,748	156,194	12.5%	189,971	-7.5%
Petroleum Liquids (Thousand Barrels)	36,857	39,965	-7.8%	38,699	-4.8%

#### 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:  
January 2010

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

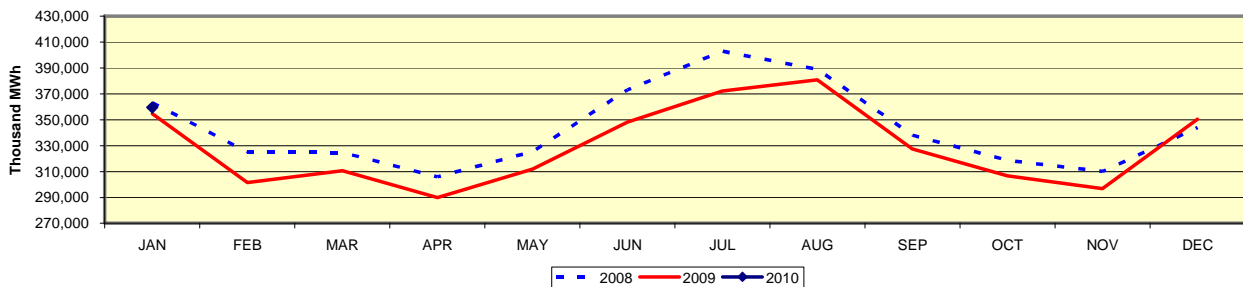
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2010	January 2010	173,421	3,294	73,349	72,534	22,161	14,760	359,519
<b>Prior Period</b>	January 2009	January 2009	172,498	4,862	65,991	73,479	23,829	14,097	354,756
<b>Percent Difference</b>			0.5%	-32.3%	11.2%	-1.3%	-7.0%	4.7%	1.3%

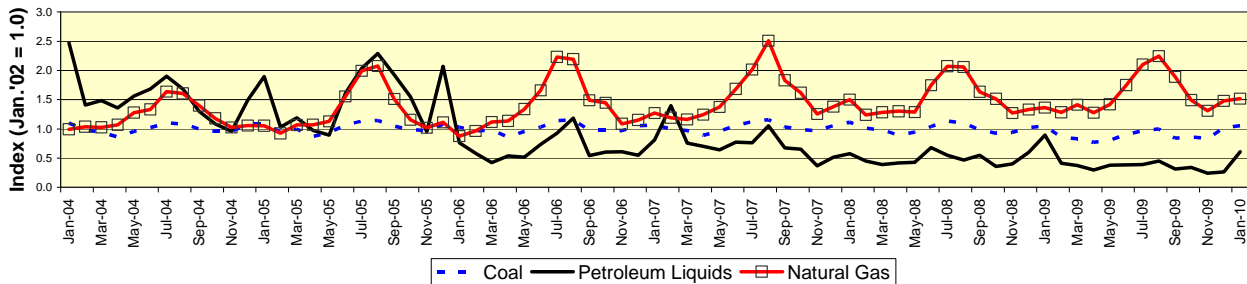
### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	February 2009	January 2010	1,765,408	24,224	927,735	795,807	270,463	172,243	3,955,880
<b>Prior Period</b>	February 2008	January 2009	1,975,424	33,648	876,372	808,953	257,881	158,867	4,111,145
<b>Percent Difference</b>			-10.6%	-28.0%	5.9%	-1.6%	4.9%	8.4%	-3.8%

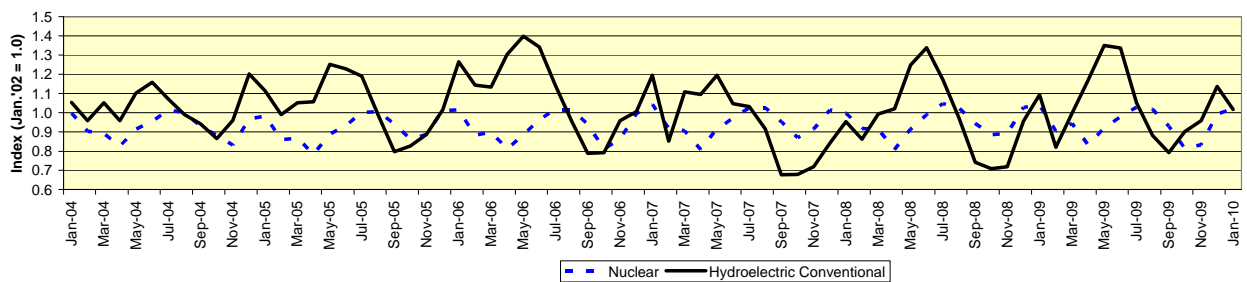
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2008, 2009, and 2010**



**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:  
January 2010

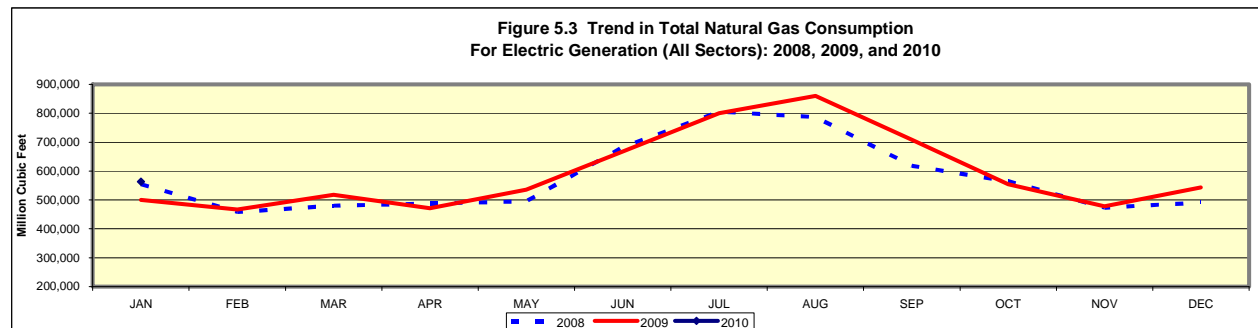
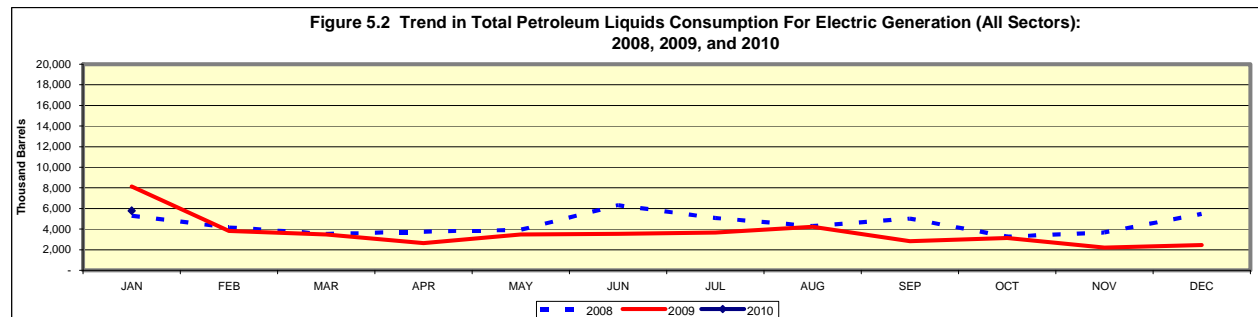
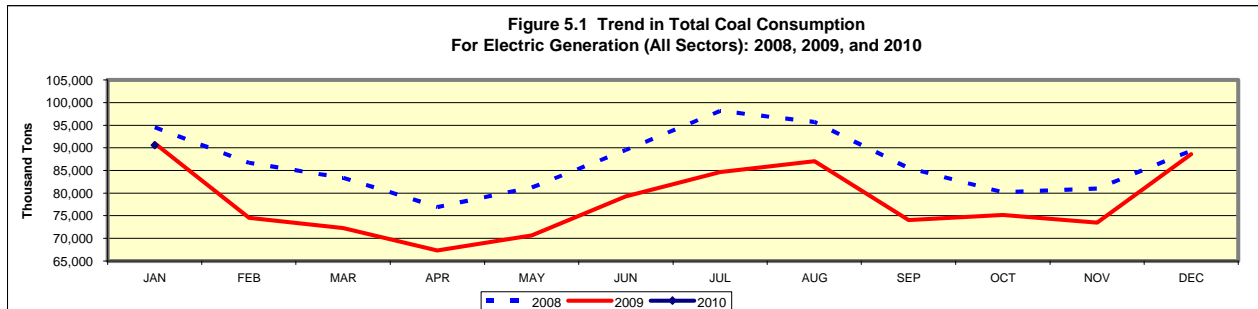
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

## 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	January 2010	90,594	5,790	563,027
<b>Prior Period</b>	January 2009	January 2009	91,018	8,146	500,496
<b>Percent Difference</b>			-0.5%	-28.9%	12.5%

## 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>	February 2009	January 2010	937,636	41,316	7,167,130
<b>Prior Period</b>	February 2008	January 2009	1,038,821	56,700	6,842,140
<b>Percent Difference</b>			-9.7%	-27.1%	4.7%

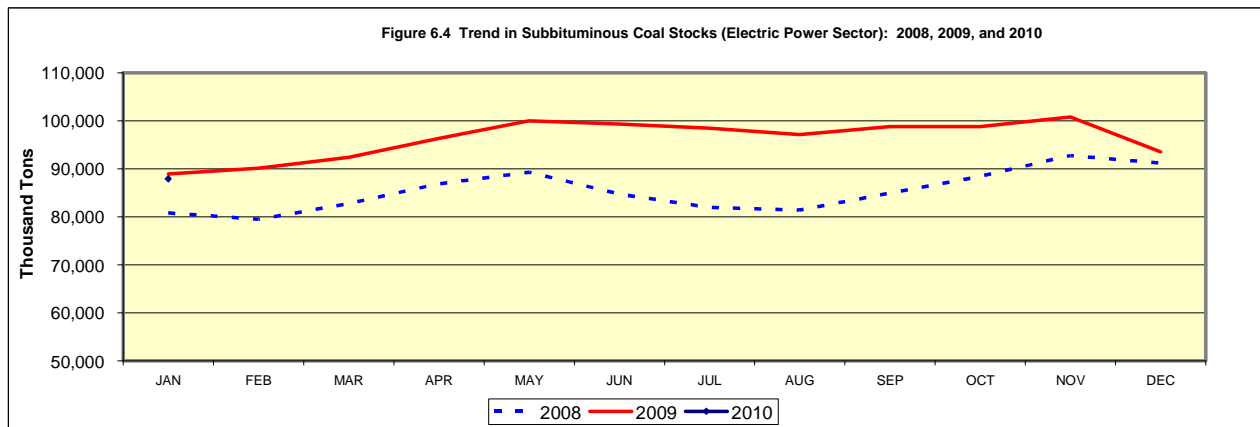
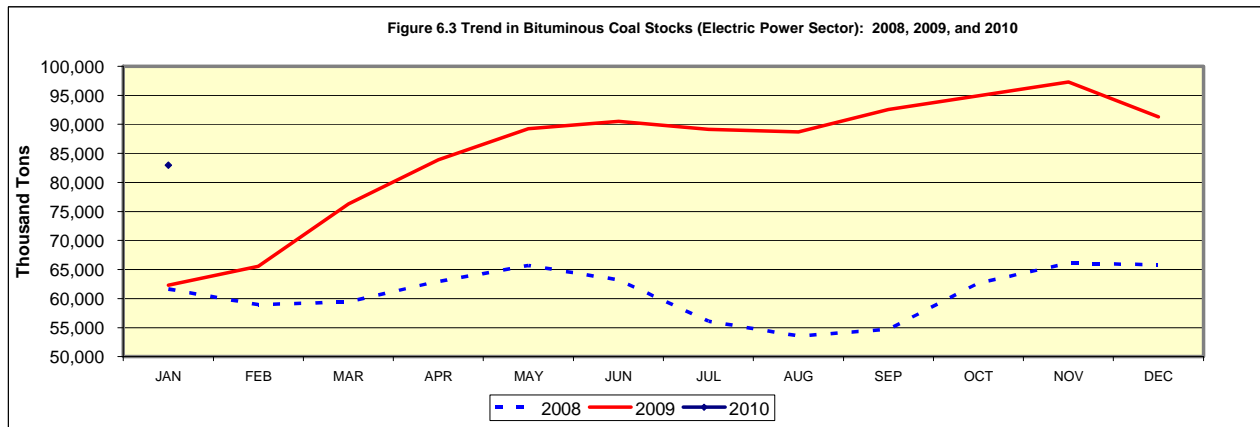
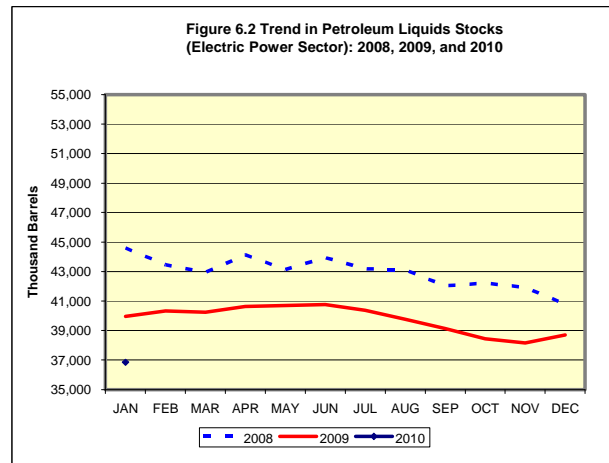
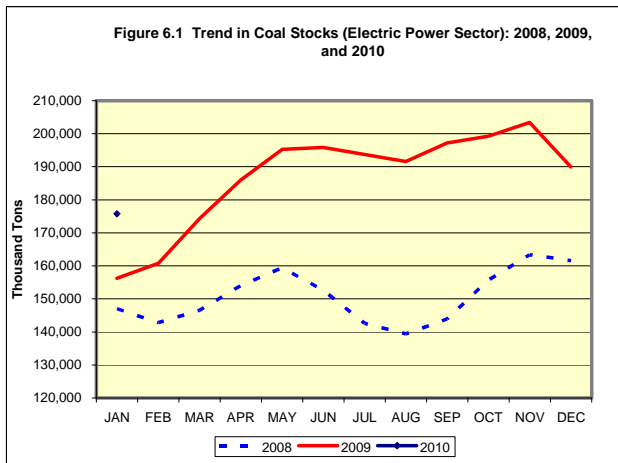


# Section 6. Fossil Fuel Stock Trends

Data for:  
January 2010

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

Fossil Fuel Stocks	Jan-10	Jan-09	% Change	Dec-09	% Change
<b>Coal, Total (Thousand Short Tons)</b>	175,748	156,194	12.5%	189,971	-7.5%
Bituminous (includes anthracite and coal synfuel)	82,966	62,328	33.1%	91,283	-9.1%
Subbituminous	87,939	88,929	-1.1%	93,572	-6.0%
Lignite	4,842	4,937	-1.9%	5,116	-5.4%
<b>Petroleum Liquids (Thousand Barrels)</b>	36,857	39,965	-7.8%	38,699	-4.8%



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

Data for:  
January 2010

### Retail Sales

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

Ultimate Customer	Jan-10	Jan-09	% Change	Dec-09	% Change
Residential	147,848	135,904	8.8%	123,423	19.8%
Commercial	109,594	111,126	-1.4%	109,370	0.2%
Industrial	72,744	72,088	0.9%	74,252	-2.0%
Transportation	732	746	-2.0%	701	4.4%
All Sectors	330,918	319,865	3.5%	307,745	7.5%

### Average Retail Price

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

Ultimate Customer	Jan-10	Jan-09	% Change	Dec-09	% Change
Residential	10.53	10.99	-4.2%	10.93	-3.7%
Commercial	9.58	10.03	-4.5%	9.73	-1.5%
Industrial	6.53	6.83	-4.4%	6.52	0.2%
Transportation	10.96	11.19	-2.1%	11.01	-0.5%
All Sectors	9.34	9.72	-3.9%	9.44	-1.1%

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

Census Division	Residential			All Sectors		
	Jan-10	Jan-09	% Change	Jan-10	Jan-09	% Change
New England	16.47	17.92	-8.1%	15.13	16.27	-7.0%
Middle Atlantic	14.45	14.00	3.2%	12.86	12.70	1.3%
East North Central	10.09	10.13	-0.4%	8.61	8.80	-2.2%
West North Central	7.93	7.89	0.5%	6.96	6.84	1.8%
South Atlantic	9.81	10.72	-8.5%	8.93	9.69	-7.8%
East South Central	8.60	9.41	-8.6%	7.60	8.28	-8.2%
West South Central	10.30	11.21	-8.1%	8.85	9.60	-7.8%
Mountain	9.53	9.19	3.7%	7.95	7.67	3.7%
Pacific Contiguous	12.15	11.75	3.4%	10.69	10.43	2.5%
Pacific Noncontiguous	21.83	21.71	0.6%	20.02	19.59	2.2%
U.S. Total	10.53	10.99	-4.2%	9.34	9.72	-3.9%

# Section 8. Retail Sales Trends

Data for:  
January 2010

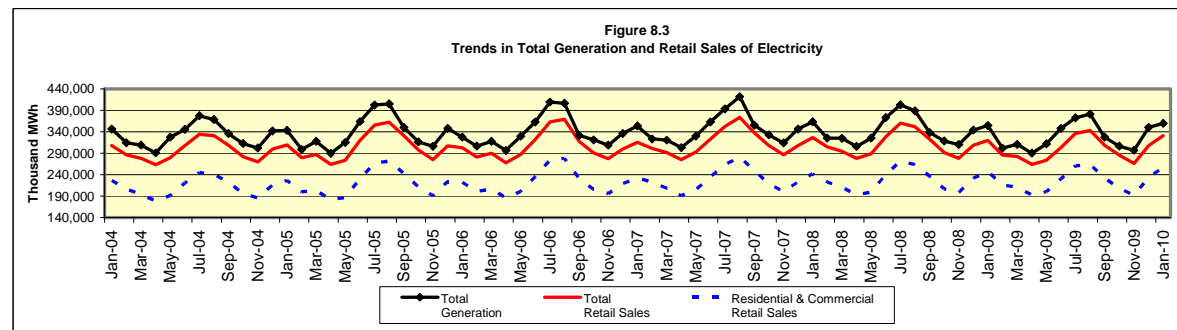
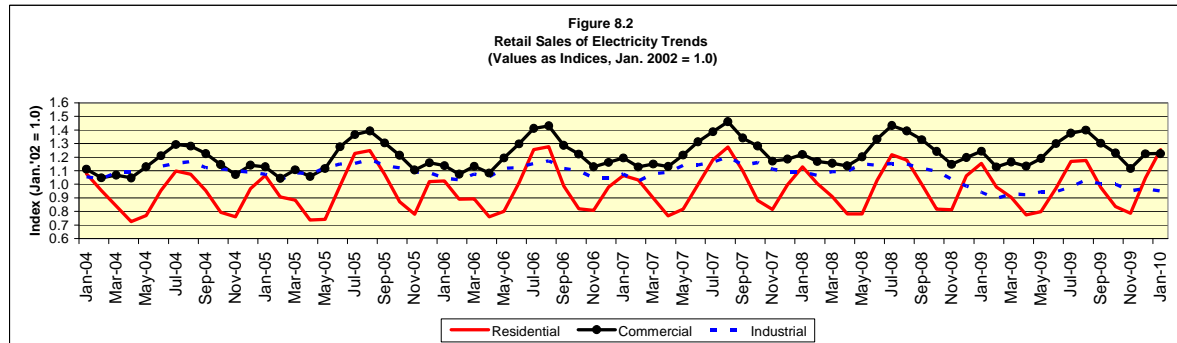
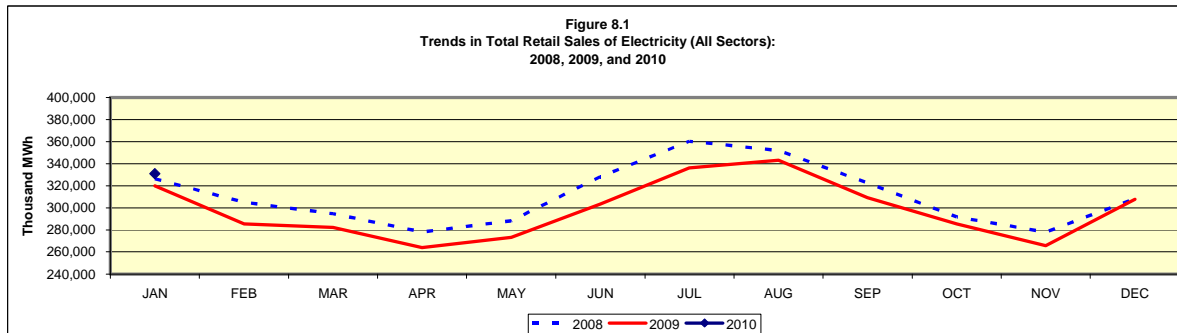
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2010	January 2010	147,848	109,594	72,744	732	330,918
<b>Prior Period</b>	January 2009	January 2009	135,904	111,126	72,088	746	319,865
<b>Percent Difference</b>			8.8%	-1.4%	0.9%	-1.9%	3.5%

### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	February 2009	January 2010	1,374,813	1,321,457	882,559	7,674	3,586,503
<b>Prior Period</b>	February 2008	January 2009	1,382,947	1,338,079	997,806	7,732	3,726,564
<b>Percent Difference</b>			-0.6%	-1.2%	-11.6%	-0.8%	-3.8%





# Section 9. Average Retail Price Trends

Data for:  
January 2010

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

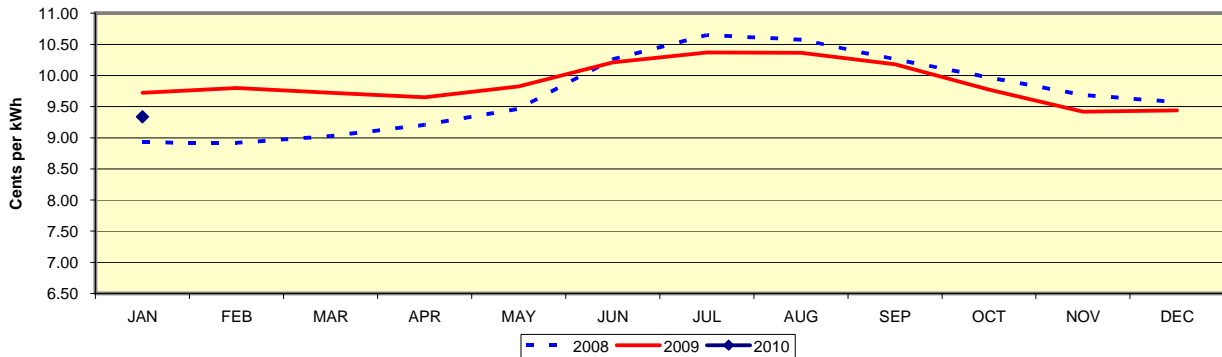
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2010	January 2010	10.53	9.58	6.53	10.96	9.34
<b>Prior Period</b>	January 2009	January 2009	10.99	10.03	6.83	11.19	9.72
<b>Percent Difference</b>			-4.2%	-4.5%	-4.4%	-2.1%	-3.9%

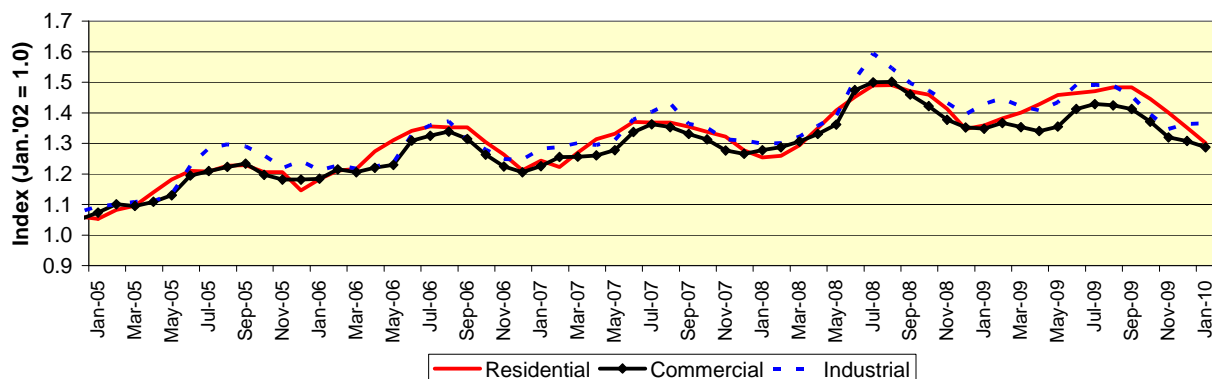
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	February 2009	January 2010	11.49	10.17	6.82	11.15	9.85
<b>Prior Period</b>	February 2008	January 2009	11.34	10.41	6.88	10.91	9.81
<b>Percent Difference</b>			1.3%	-2.3%	-0.9%	2.2%	0.4%

**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:  
January 2010

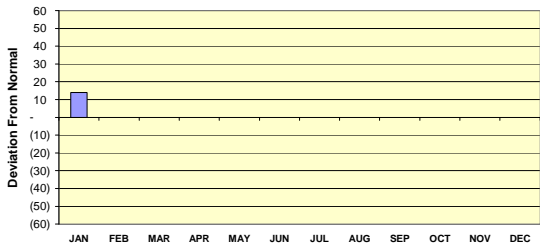
**Table 10.1 Degree Days**

		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>	January 2010	931	917	14	1.5%	3	9	-6	-66.7%
<b>Prior Period</b>	January 2009	969	917	52	5.7%	7	9	-2	-22.2%
<b>Percent Difference</b>				-3.9%		-57.1%			

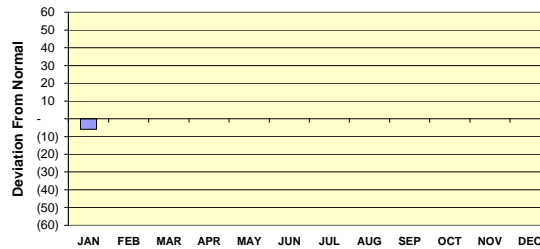
**Table 10.2 Trends in Heating and Cooling Degree Days**

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	January 2010	931	3	<b>Current Period</b>	February 2009	January 2010	4,446	1,223
<b>Prior Period</b>	January 2009	January 2009	969	7	<b>Prior Period</b>	February 2008	January 2009	4,571	1,277
<b>Percent Difference</b>			-3.9%	-57.1%	<b>Percent Difference</b>			-2.7%	-4.2%

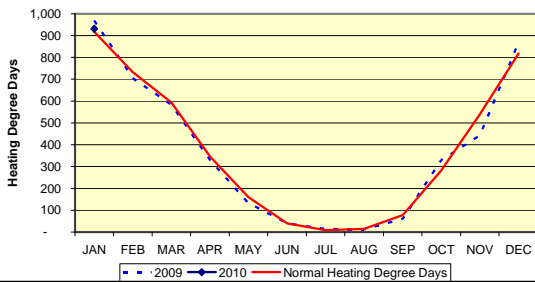
**Figure 10.1 Deviation From Normal: Heating Degree Days, 2010**



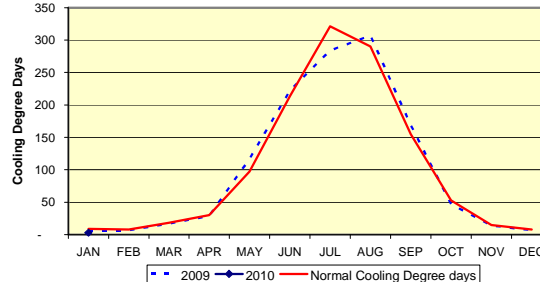
**Figure 10.2 Deviation From Normal: Cooling Degree Days, 2010**



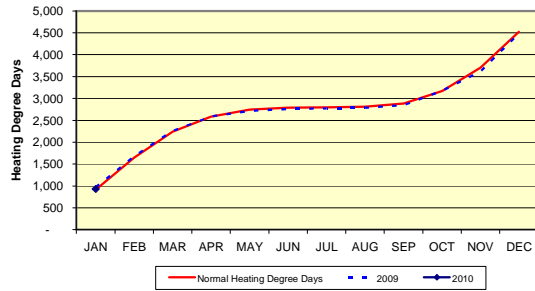
**Figure 10.3 Trend in Heating Degree Days: 2009, 2010, and Normal**



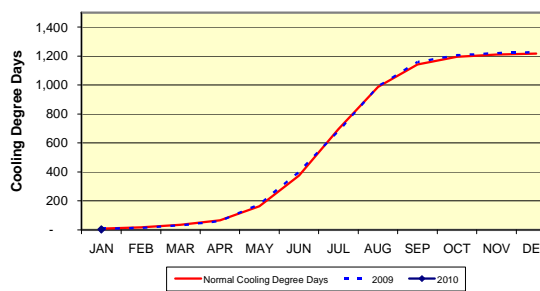
**Figure 10.4 Trend in Cooling Degree Days: 2009, 2010, and Normal**



**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).