

# Monthly Flash Estimates of Electric Power Data

Data for:  
June 2010

## Section 1. Commentary

In June 2010, the contiguous United States as a whole experienced temperatures that were significantly above average. Accordingly, the total population-weighted cooling degree days for the United States were 31.0 percent above the June normal.

Retail sales of electricity increased 8.0 percent compared to June 2009. Over the same period, the average U.S. retail price of electricity remained relatively unchanged. For the 12-month period ending June 2010, the U.S. average retail price of electricity decreased by 1.9 percent over the previous 12-month period ending June 2009.

Total electric power generation in the United States increased 7.9 percent compared to June 2009. Over the same period, coal generation increased 12.2 percent, and natural gas generation increased 8.7 percent. Petroleum liquids generation increased 20.1 percent as a result of a much warmer June 2010 leading to an increased need for peaking generation. Nuclear generation decreased 2.1 percent compared to June 2009 mainly because of refueling outages that occurred in June 2010 at the Davis Besse, Crystal River, and H B Robinson nuclear plants.

Consistent with the year-over-year increase in coal generation, the consumption of coal to produce electricity increased 10.8 percent when compared to June 2009. Over the same time period, petroleum liquids consumption increased 19.7 percent, while natural gas consumption increased 9.5 percent.

In June 2010, total coal stocks decreased 5.9 percent from the previous month. The month-to-month change in total coal stocks observed over the first half of 2010 is an indication that Electric Power sector coal stocks are assuming a seasonal pattern that more closely resembles what was observed prior to 2009.

References for weather data:

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

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

**Data for:  
June 2010**

**Table 2.1 Key Generation Indicators**

	<b>Total Generation</b>	<b>Nuclear Generation</b>	<b>Hydroelectric Generation</b>
<b>Total Change From:</b>			
<b>May 2010</b>	<b>14.6%</b>	<b>2.5%</b>	<b>18.1%</b>
<b>June 2009</b>	<b>7.9%</b>	<b>-2.1%</b>	<b>0.5%</b>
<b>Year to Date</b>	<b>3.4%</b>	<b>-1.3%</b>	<b>-7.9%</b>
<b>Latest 12 Month Period*</b>	<b>-0.1%</b>	<b>-2.4%</b>	<b>-0.7%</b>

**Table 2.2 Key Consumption and Stocks Indicators**

	<b>Natural Gas Consumption</b>	<b>Coal Consumption</b>	<b>Coal Stocks</b>
<b>Total Change From:</b>			
<b>May 2010</b>	<b>25.5%</b>	<b>15.2%</b>	<b>-5.9%</b>
<b>June 2009</b>	<b>9.5%</b>	<b>10.8%</b>	<b>-9.0%</b>
<b>Year to Date</b>	<b>5.7%</b>	<b>5.3%</b>	<b>--</b>
<b>Latest 12 Month Period*</b>	<b>5.6%</b>	<b>-2.3%</b>	<b>--</b>

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

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

**Data for:  
June 2010**

**Net Generation (Total, All Sectors)**

**Table 3.1 Total Net Generation (All Sectors)**

Net Generation (thousand megawatthours)	Jun-10	Jun-09	% Change	May-10	% Change
Coal	166,778	148,679	12.2%	144,019	15.8%
Petroleum Liquids	2,515	2,094	20.1%	1,851	35.9%
Natural Gas	92,073	84,703	8.7%	73,590	25.1%
Nuclear	68,301	69,735	-2.1%	66,658	2.5%
Hydroelectric Conventional	29,288	29,130	0.5%	24,793	18.1%
All Other	17,086	14,039	21.7%	17,281	-1.1%
Total (All Energy Sources)	376,041	348,379	7.9%	328,193	14.6%

**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	Jun-10	Jun-09	% Change	May-10	% Change
Coal (Thousand Short Tons)	87,860	79,264	10.8%	76,249	15.2%
Petroleum Liquids (Thousand Barrels)	4,235	3,538	19.7%	3,143	34.7%
Natural Gas (Million Cubic Feet)	730,458	667,155	9.5%	581,833	25.5%

**Fossil Fuel Stocks (Electric Power Sector)**

**Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)**

Fossil Fuel Stocks	Jun-10	Jun-09	% Change	May-10	% Change
Coal (Thousand Short Tons)	178,273	195,887	-9.0%	189,381	-5.9%
Petroleum Liquids (Thousand Barrels)	36,660	40,767	-10.1%	37,063	-1.1%

**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.
- 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

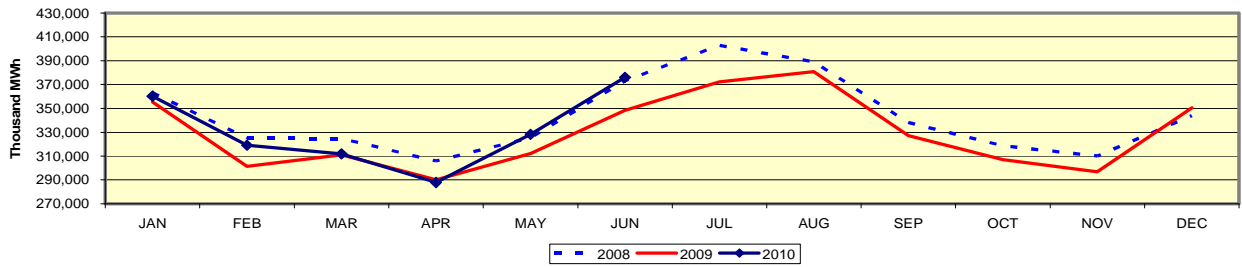
Data for:  
June 2010

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

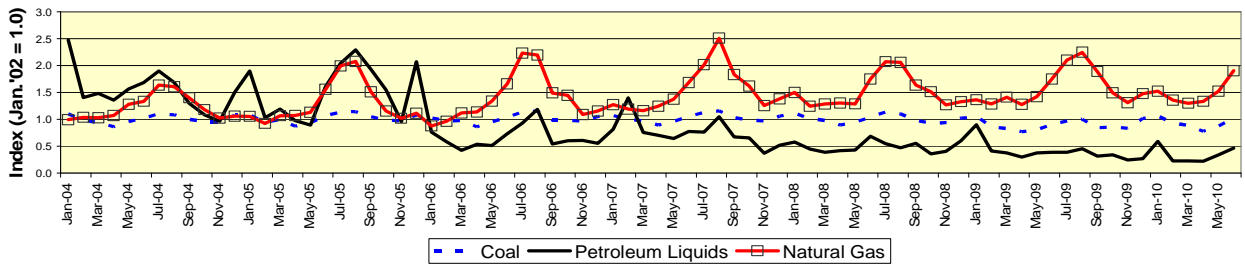
Year-to-Date Comparison									
	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2010	June 2010	911,169	11,205	432,411	394,992	135,717	97,890	1,983,384
<b>Prior Period</b>	January 2009	June 2009	857,582	14,863	411,573	400,089	147,374	86,778	1,918,259
<b>Percent Difference</b>			6.2%	-24.6%	5.1%	-1.3%	-7.9%	12.8%	3.4%

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>	July 2009	June 2010	1,818,073	22,134	941,217	793,647	260,474	182,691	4,018,236
<b>Prior Period</b>	July 2008	June 2009	1,860,156	30,774	889,804	813,238	262,336	164,386	4,020,694
<b>Percent Difference</b>			-2.3%	-28.1%	5.8%	-2.4%	-0.7%	11.1%	-0.1%

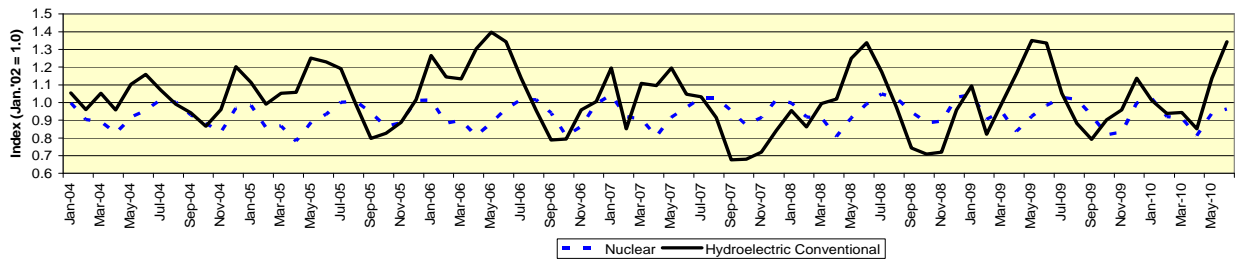
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2008, 2009, and 2010**



**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)**



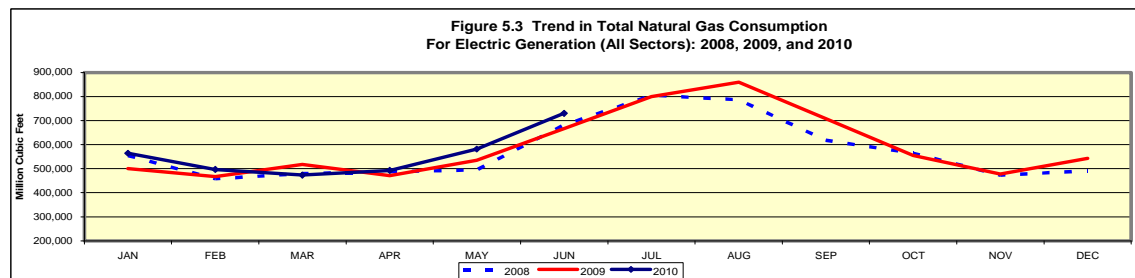
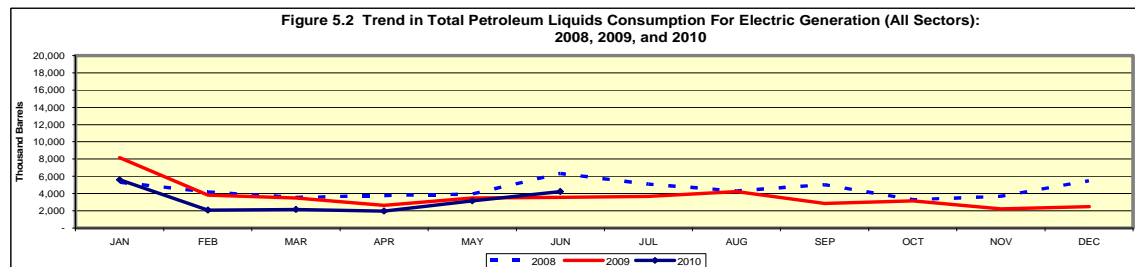
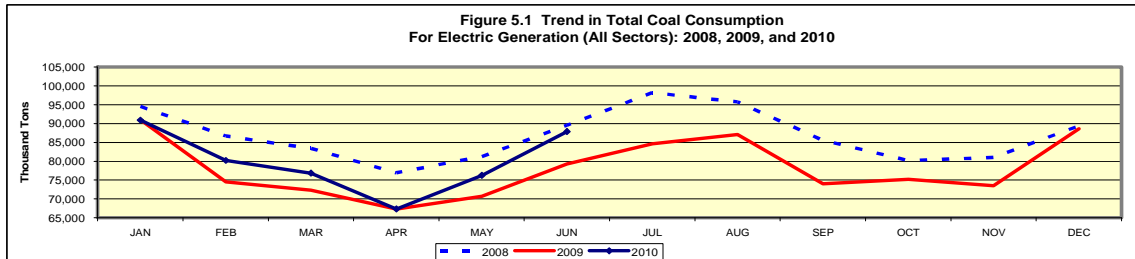
# Section 5. Fossil Fuel Consumption Trends

Data for:  
June 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	June 2010	479,438	19,173	3,340,682
<b>Prior Period</b>	January 2009	June 2009	455,117	25,139	3,160,424
<b>Percent Difference</b>			5.3%	-23.7%	5.7%

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>	July 2009	June 2010	962,380	37,706	7,284,857
<b>Prior Period</b>	July 2008	June 2009	985,140	51,991	6,899,355
<b>Percent Difference</b>			-2.3%	-27.5%	5.6%

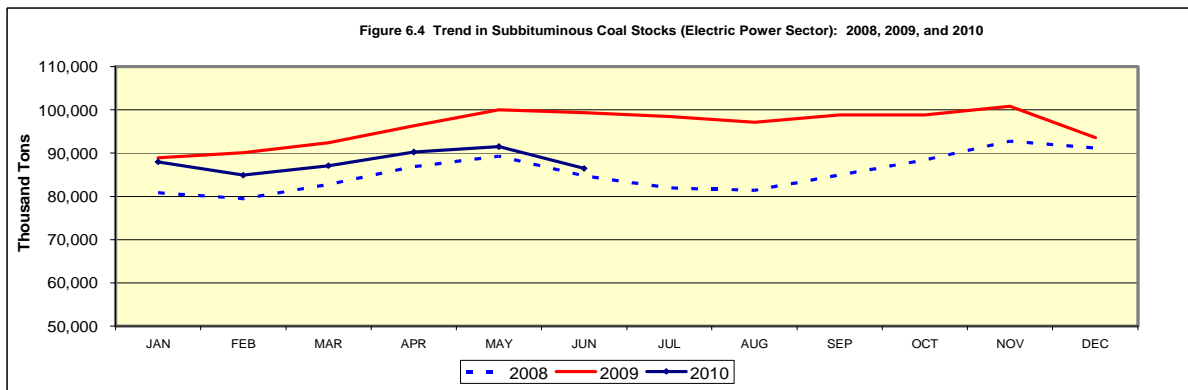
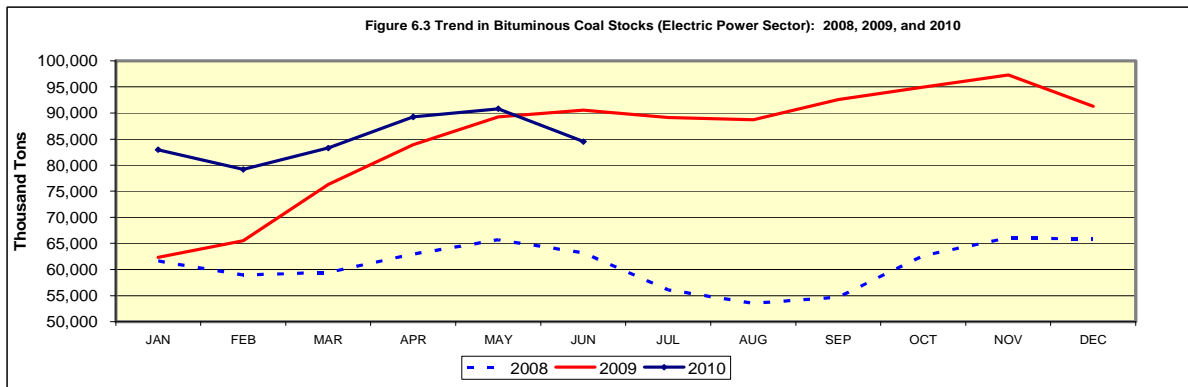
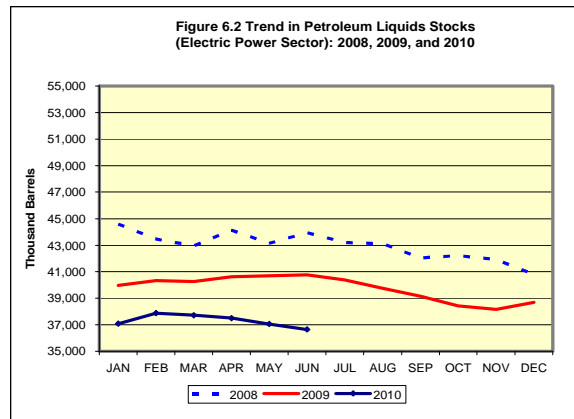
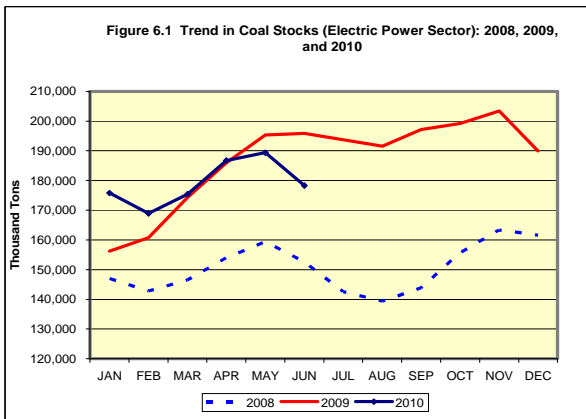


## Section 6. Fossil Fuel Stock Trends

Data for:  
June 2010

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

Fossil Fuel Stocks	Jun-10	Jun-09	% Change	May-10	% Change
<b>Coal, Total (Thousand Short Tons)</b>	178,273	195,887	-9.0%	189,381	-5.9%
Bituminous (includes anthracite and coal synfuel)	84,513	90,542	-6.7%	90,790	-6.9%
Subbituminous	86,455	99,314	-12.9%	91,498	-5.5%
Lignite	7,305	6,031	21.1%	7,094	3.0%
<b>Petroleum Liquids (Thousand Barrels)</b>	36,660	40,767	-10.1%	37,063	-1.1%



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

Data for:  
June 2010

### Retail Sales

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

Ultimate Customer	Jun-10	Jun-09	% Change	May-10	% Change
Residential	126,971	114,178	11.2%	94,777	34.0%
Commercial	120,257	116,139	3.5%	107,239	12.1%
Industrial	79,841	72,425	10.2%	79,227	0.8%
Transportation	672	605	11.1%	607	10.7%
All Sectors	327,742	303,347	8.0%	281,850	16.3%

### Average Retail Price

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

Ultimate Customer	Jun-10	Jun-09	% Change	May-10	% Change
Residential	11.92	11.85	0.6%	11.96	-0.3%
Commercial	10.46	10.51	-0.5%	10.19	2.6%
Industrial	7.01	7.13	-1.7%	6.69	4.8%
Transportation	11.48	11.36	1.1%	10.85	5.8%
All Sectors	10.19	10.21	-0.2%	9.80	4.0%

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

Census Division	Residential			All Sectors		
	Jun-10	Jun-09	% Change	Jun-10	Jun-09	% Change
New England	16.30	18.19	-10.4%	14.94	15.99	-6.6%
Middle Atlantic	16.29	15.74	3.5%	14.17	13.67	3.7%
East North Central	11.89	11.37	4.6%	9.32	9.23	1.0%
West North Central	10.27	10.02	2.5%	8.48	8.27	2.5%
South Atlantic	11.30	11.45	-1.3%	9.81	9.96	-1.5%
East South Central	9.73	9.88	-1.5%	8.40	8.57	-2.0%
West South Central	11.12	11.42	-2.6%	9.09	9.37	-3.0%
Mountain	11.26	10.61	6.1%	9.24	8.76	5.5%
Pacific Contiguous	13.00	12.78	1.7%	11.85	12.01	-1.3%
Pacific Noncontiguous	24.18	20.62	17.3%	21.77	17.87	21.8%
U.S. Total	11.92	11.85	0.6%	10.19	10.21	-0.2%

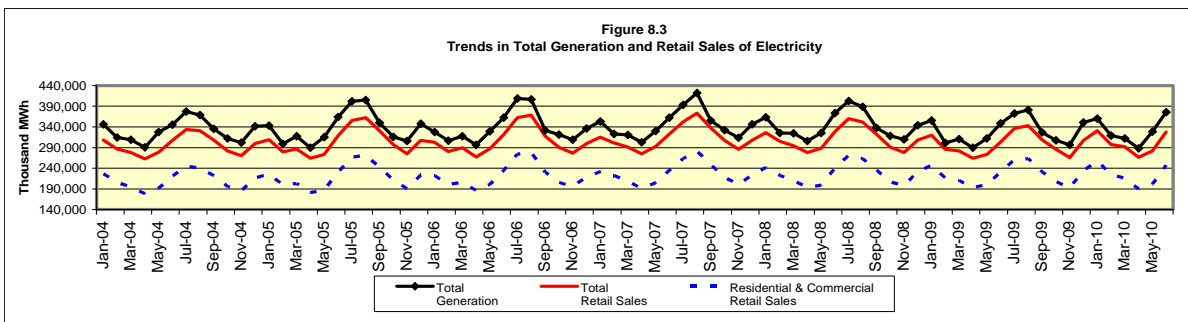
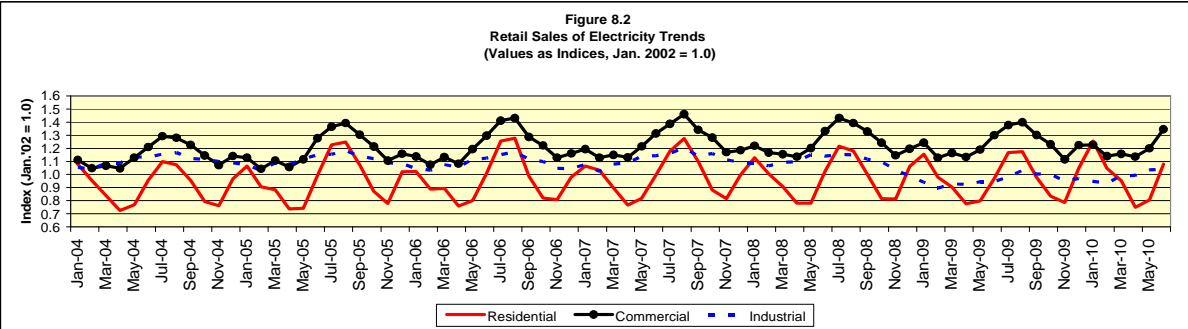
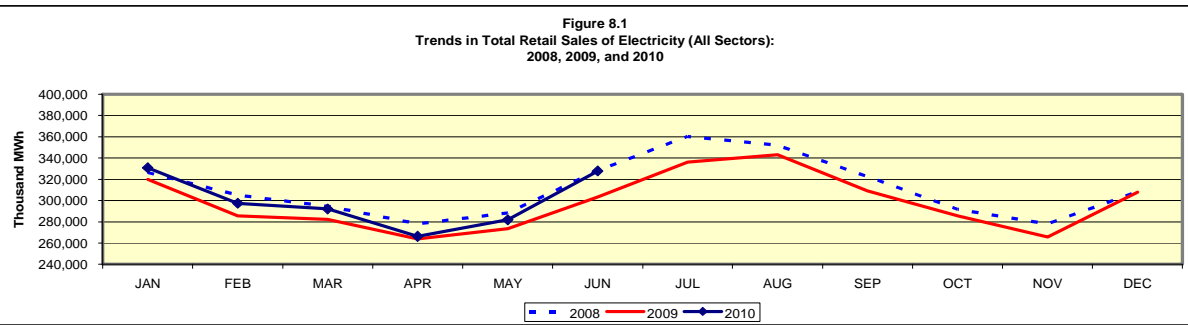
# Section 8. Retail Sales Trends

Data for:  
June 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	June 2010	693,095	643,948	455,061	3,953	1,796,058
Prior Period	January 2009	June 2009	657,460	639,756	427,218	3,862	1,728,296
Percent Difference			5.4%	0.7%	6.5%	2.4%	3.9%

Comparison to Prior Twelve-Month Period							
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	July 2009	June 2010	1,398,505	1,327,182	909,746	7,780	3,643,212
Prior Period	July 2008	June 2009	1,373,844	1,331,238	928,108	7,710	3,640,901
Percent Difference			1.8%	-0.3%	-2.0%	0.9%	0.1%





## Section 9. Average Retail Price Trends

Data for:  
June 2010

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

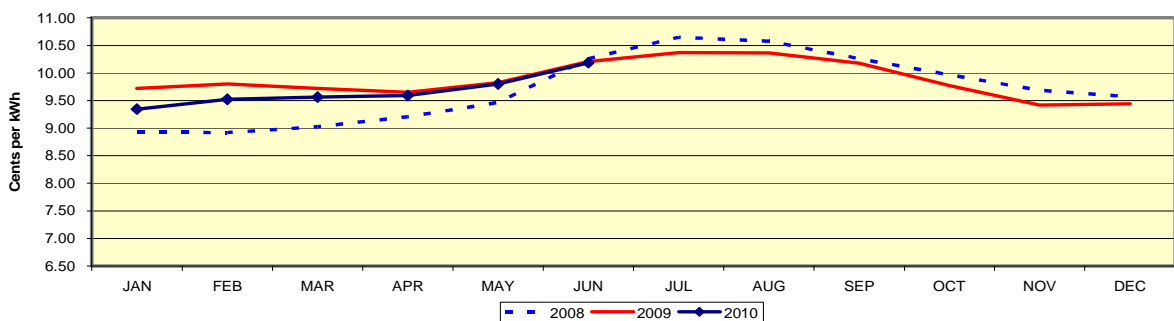
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2010	June 2010	11.32	10.03	6.65	11.05	9.67
<b>Prior Period</b>	January 2009	June 2009	11.42	10.15	6.88	11.36	9.83
<b>Percent Difference</b>			-0.9%	-1.2%	-3.3%	-2.7%	-1.6%

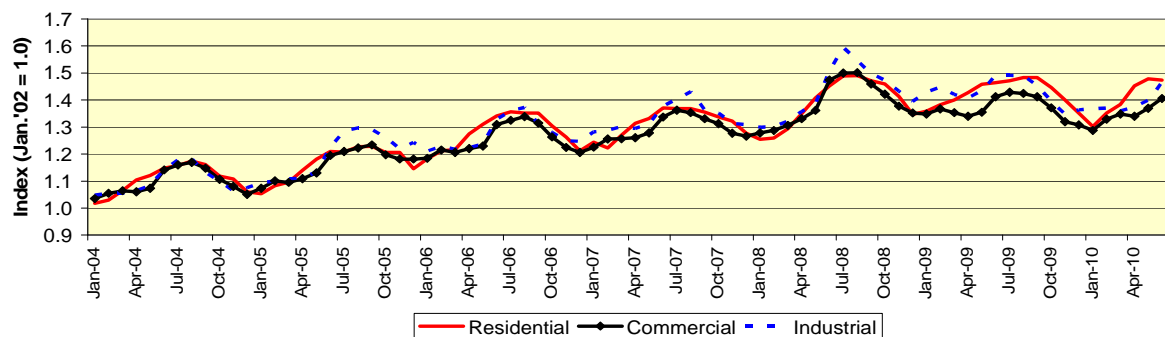
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	July 2009	June 2010	11.49	10.15	6.73	11.02	9.81
<b>Prior Period</b>	July 2008	June 2009	11.57	10.44	7.02	11.26	10.00
<b>Percent Difference</b>			-0.7%	-2.8%	-4.1%	-2.1%	-1.9%

**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

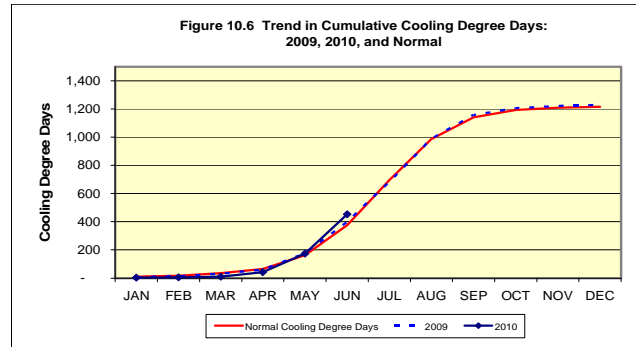
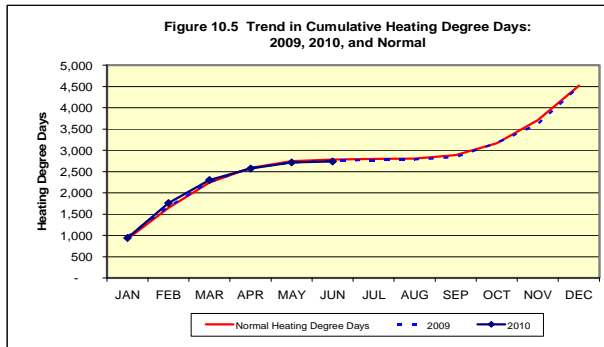
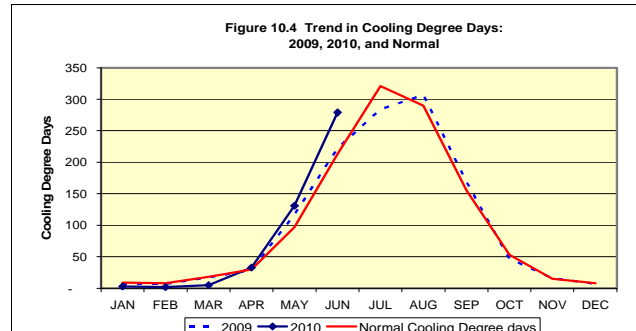
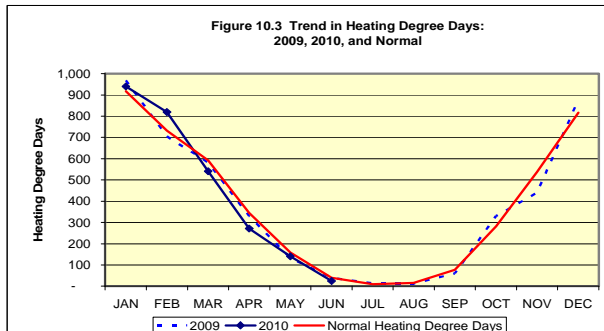
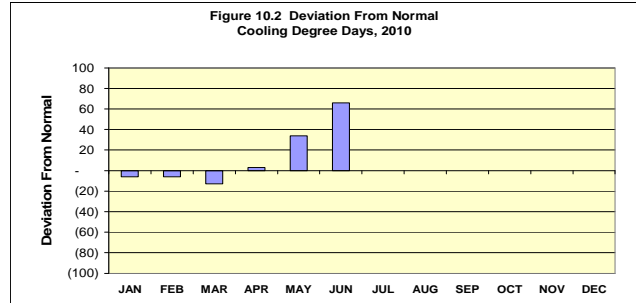
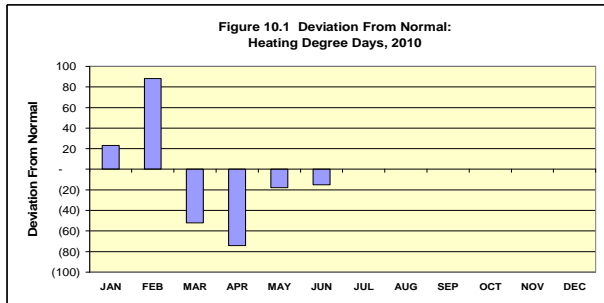
Data for:  
June 2010

**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>	June 2010	24	39	-15	-38.5%	279	213	66	31.0%
<b>Prior Period</b>	June 2009	40	39	1	2.6%	222	213	9	4.2%
<b>Percent Difference</b>		-40.0%				25.7%			

**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	June 2010	2,737	453	<b>Current Period</b>	July 2009	June 2010	4,471	1,283
<b>Prior Period</b>	January 2009	June 2009	2,759	399	<b>Prior Period</b>	July 2008	June 2009	4,475	1,255
<b>Percent Difference</b>			-0.8%	13.5%	<b>Percent Difference</b>			-0.1%	2.2%



## Section 11. Documentation

Data for:  
June 2010

**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: U.S. Energy Information Administration, Form EIA-826, "Monthly Electric Utility Sales and Revenues with State Distributions Report," and U.S. Energy Information Administration, 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.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 releases 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).