

# Monthly Flash Estimates of Electric Power Data

Data for:  
June 2007

## Section 1. Commentary

The U.S. National Oceanic and Atmospheric Administration (NOAA) reports that warmer- and drier-than-average conditions dominated much of the United States during the first half of 2007. June 2007 was the 23rd warmest June on record, increasing the cooling needs of the residential and commercial customers in the Nation. Cooling degree days for June 2007 were 9.3 percent above the average, but unchanged from June 2006.

June 2007 electricity generation and retail sales of electricity were little changed from June 2006. Retail sales of electricity for the month of June 2007 increased only 0.2 percent compared to June 2006, while June 2007 generation for electric power was down 0.4 percent. The average U.S. retail price of electricity (all sectors) for June 2007 showed a 2.4-percent increase from June 2006 and a 5.3-percent increase from May 2007. In June 2007 the average U.S. residential retail price of electricity reached a historical high of 11.07 cents per kilowatthour, which was 2.0 percent higher than the average price in June 2006, but lower than the general rate of inflation.

The NOAA has reported that January-June was the second driest and April-June was the driest on record in the Southeast. It also reported that much of the West and the South have suffered from extreme drought conditions brought about by months of below average precipitation. Accordingly, conventional hydroelectric generation decreased by 21.9 percent from June 2006 and 11.6 percent from May 2007.

Petroleum liquids generation continued to increase in June 2007, and was 3.6 percent higher than in June 2006. Natural gas generation increased by only 0.5 percent from June 2006. June nuclear generation was little changed from June 2006.

Total coal stocks in the electric power sector for June 2007 decreased 0.5 percent from May 2007 in response to increased summer cooling demand. While bituminous coal stocks fell 2.6 percent from May 2007, subbituminous coal stocks continued their increase and were 1.7 percent above the May 2007 level. Year-over-year bituminous coal stocks increased 13.1 percent from June 2006, with subbituminous coal having the greatest percentage growth of 18.5 percent from June 2006 to June 2007. Petroleum liquids stocks were down 14.3 percent from June 2006 as a result of increased generation attributed to petroleum liquids.

References for weather data: <http://www.publicaffairs.noaa.gov/releases2007/jul07/noaa07-038.html>  
<http://www.ncdc.noaa.gov/oa/climate/research/2007/jun/jun07.html>

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

Data for:  
June 2007

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
<b>May 2007</b>	9.8%	6.6%	-11.6%
<b>June 2006</b>	-0.4%	0.1%	-21.9%
<b>Year to Date</b>	2.5%	1.7%	-14.4%
<b>Latest 12 Month Period*</b>	0.8%	0.2%	-8.7%

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
<b>May 2007</b>	21.3%	10.9%	-0.5%
<b>June 2006</b>	-0.9%	2.6%	15.4%
<b>Year to Date</b>	9.5%	2.1%	n/a
<b>Latest 12 Month Period*</b>	8.6%	0.6%	n/a

\* Change in total consumption or generation for the latest 12 month period (July 2006 to June 2007) compared to the prior 12 month period (July 2005 to June 2006).

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

Data for:  
June 2007

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Jun-07	Jun-06	% Change	May-07	% Change
Coal	173,598	169,306	2.5%	157,109	10.5%
Petroleum Liquids	4,141	3,999	3.6%	3,428	20.8%
Natural Gas	80,772	80,345	0.5%	66,792	20.9%
Nuclear	68,443	68,391	0.1%	64,200	6.6%
Hydroelectric Conventional	22,860	29,254	-21.9%	25,863	-11.6%
All Other	11,707	11,541	1.4%	11,754	-0.4%
Total (All Energy Sources)	361,522	362,837	-0.4%	329,147	9.8%

### 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-07	Jun-06	% Change	May-07	% Change
Coal (Thousand Short Tons)	90,269	87,963	2.6%	81,424	10.9%
Petroleum Liquids (Thousand Barrels)	7,197	6,887	4.5%	5,884	22.3%
Natural Gas (Million Cubic Feet)	682,516	688,771	-0.9%	562,545	21.3%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Jun-07	Jun-06	% Change	May-07	% Change
Coal (Thousand Short Tons)	156,079	135,234	15.4%	156,865	-0.5%
Petroleum Liquids (Thousand Barrels)	44,377	51,752	-14.3%	43,990	0.9%

#### 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:  
June 2007

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

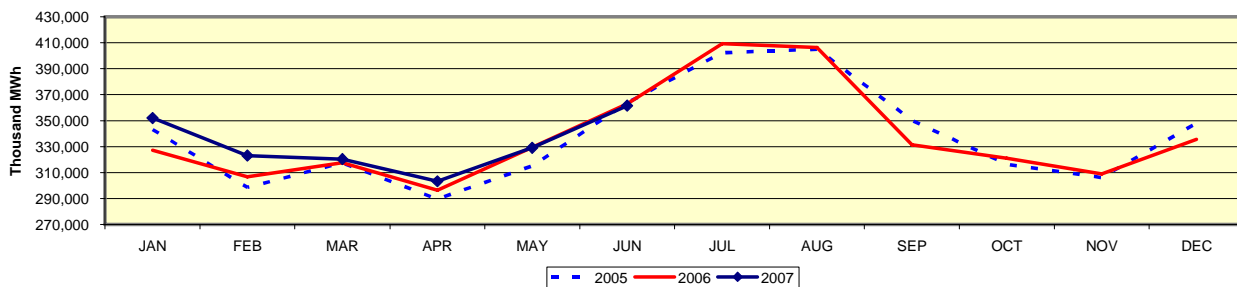
**Year-to-Date Comparison**

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2007	June 2007	974,759	27,335	381,895	393,480	141,597	70,278	1,989,344
<b>Prior Period</b>	January 2006	June 2006	955,419	19,323	343,315	386,982	165,383	70,047	1,940,469
<b>Percent Difference</b>			2.0%	41.5%	11.2%	1.7%	-14.4%	0.3%	2.5%

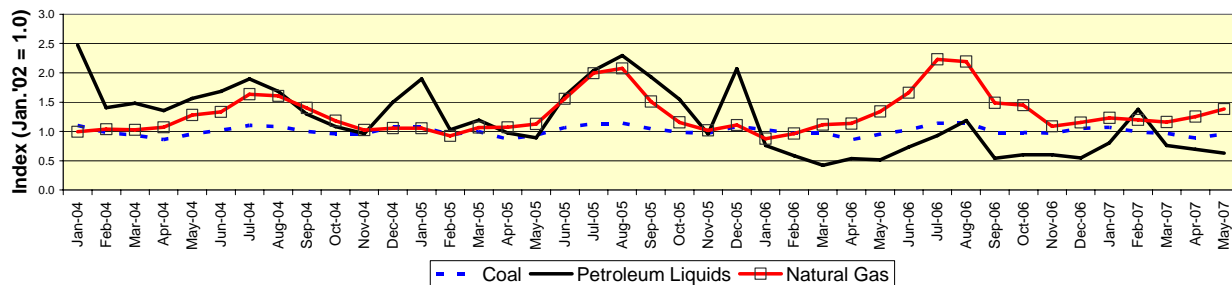
**Comparison to Prior Twelve-Month Period**

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	July 2006	June 2007	2,006,563	51,354	846,177	793,717	264,520	139,512	4,101,843
<b>Prior Period</b>	July 2005	June 2006	2,000,074	78,180	772,207	792,056	289,769	136,229	4,068,515
<b>Percent Difference</b>			0.3%	-34.3%	9.6%	0.2%	-8.7%	2.4%	0.8%

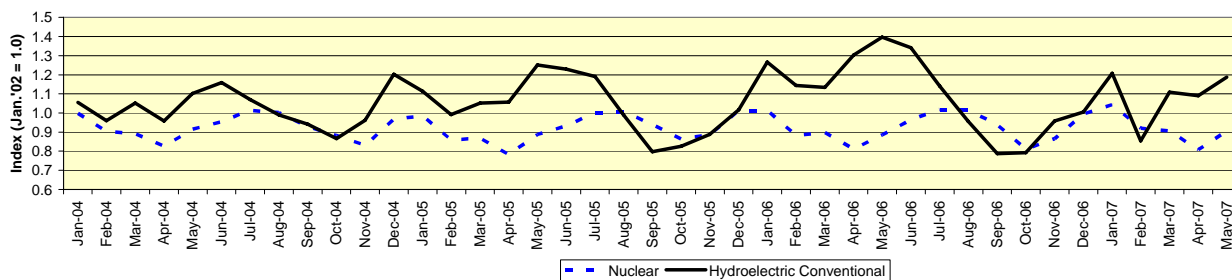
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2005, 2006, and 2007**



**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 2007

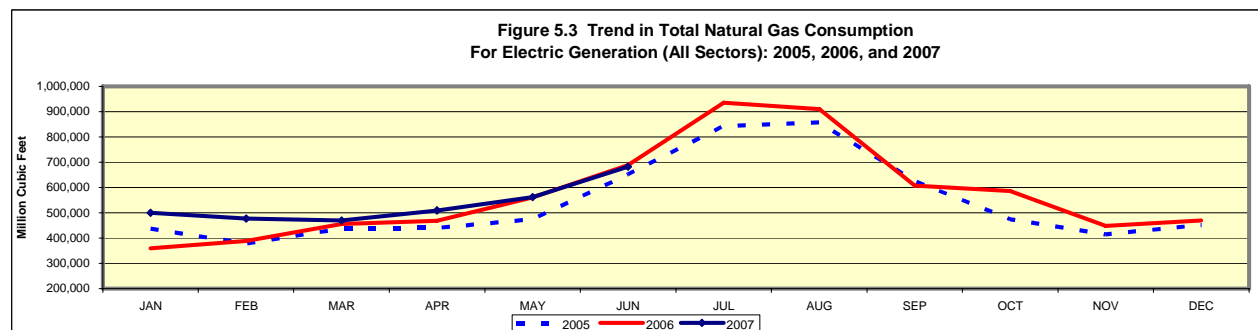
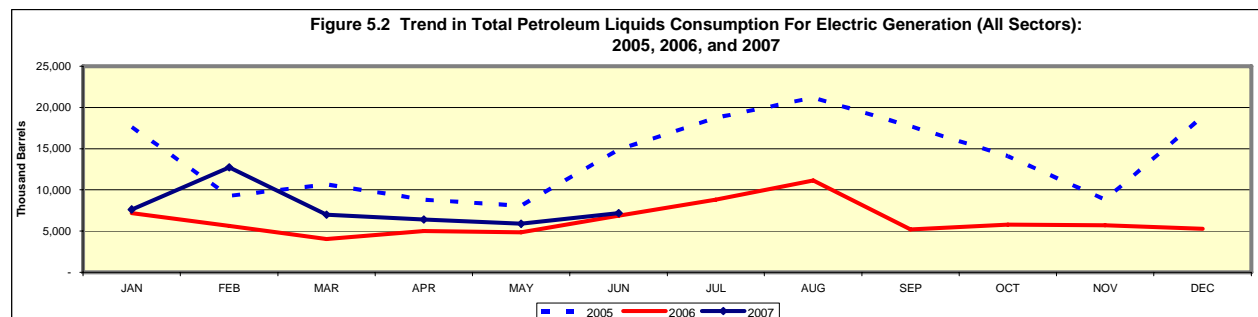
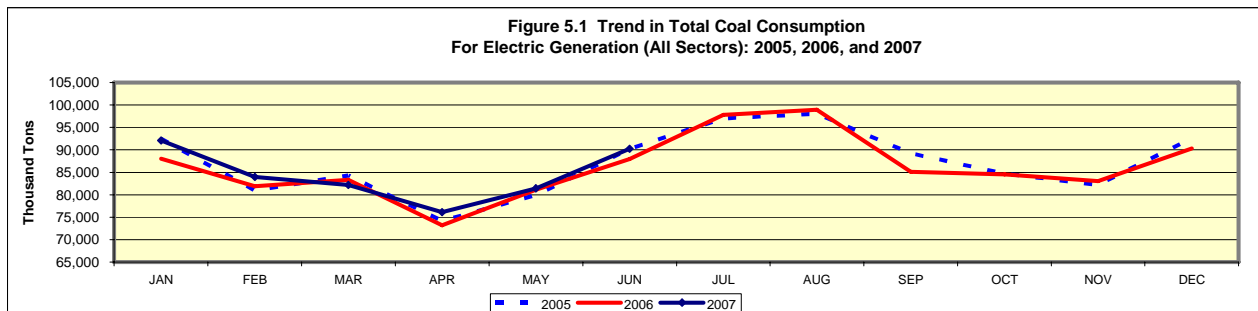
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

## 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 2007	June 2007	506,043	46,858	3,201,772
<b>Prior Period</b>	January 2006	June 2006	495,638	33,637	2,923,203
<b>Percent Difference</b>			2.1%	39.3%	9.5%

## 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>	July 2006	June 2007	1,045,874	88,855	7,156,655
<b>Prior Period</b>	July 2005	June 2006	1,039,453	132,996	6,590,225
<b>Percent Difference</b>			0.6%	-33.2%	8.6%

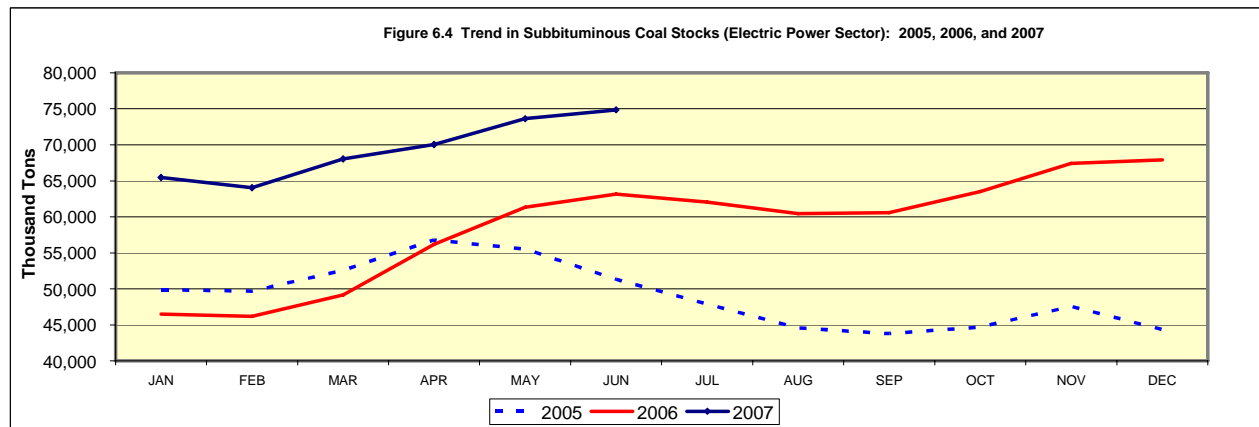
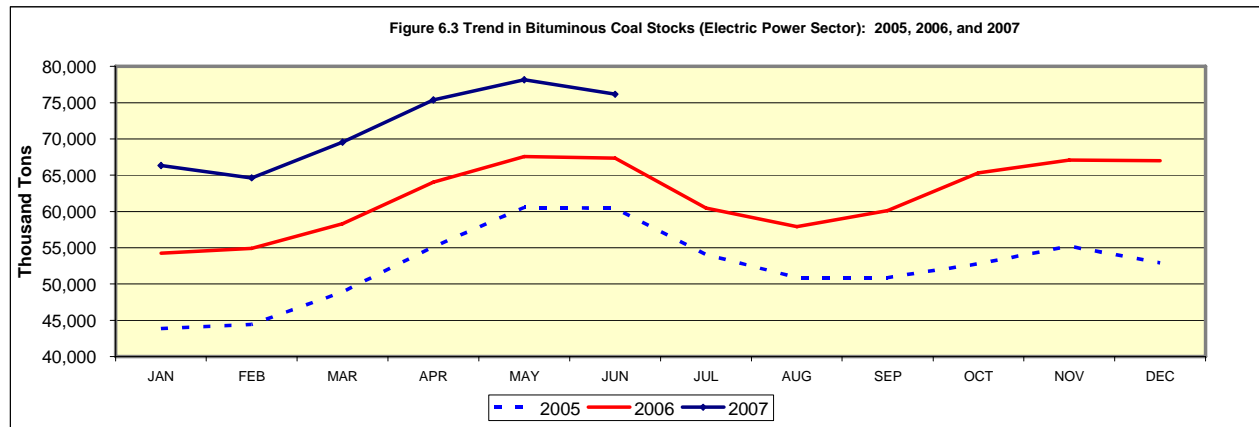
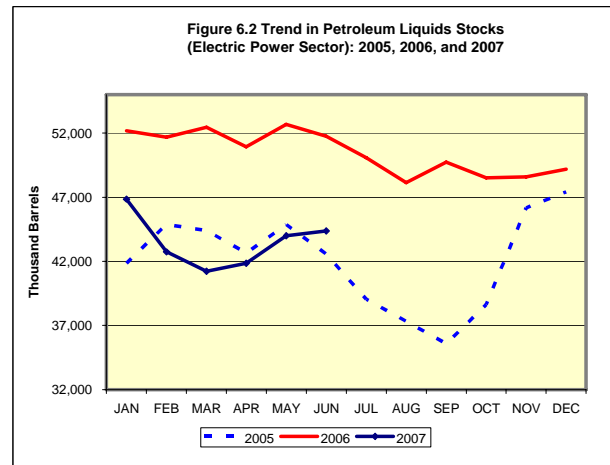
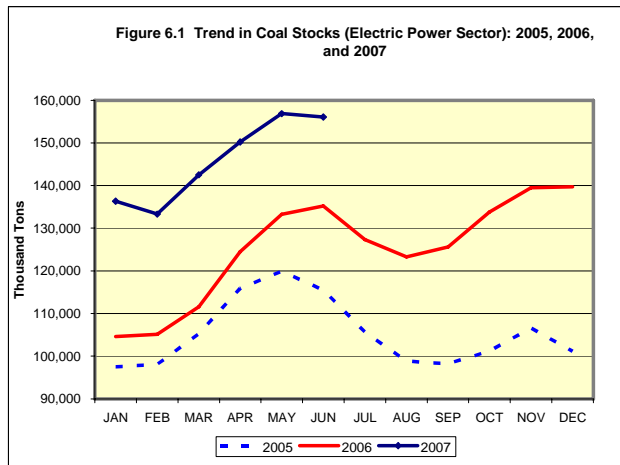


# Section 6. Fossil Fuel Stock Trends

Data for:  
June 2007

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

Fossil Fuel Stocks	Jun-07	Jun-06	% Change	May-07	% Change
<b>Coal, Total (Thousand Short Tons)</b>	156,079	135,234	15.4%	156,865	-0.5%
Bituminous (includes anthracite and coal synfuel)	76,151	67,354	13.1%	78,156	-2.6%
Subbituminous	74,854	63,153	18.5%	73,637	1.7%
Lignite	5,074	4,728	7.3%	5,073	0.0%
<b>Petroleum Liquids (Thousand Barrels)</b>	44,377	51,752	-14.3%	43,990	0.9%



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

Data for:  
June 2007

### Retail Sales

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

Ultimate Customer	Jun-07	Jun-06	% Change	May-07	% Change
Residential	117,673	118,972	-1.1%	96,902	21.4%
Commercial	119,676	115,886	3.3%	111,077	7.7%
Industrial	84,372	86,188	-2.1%	84,008	0.4%
Transportation	683	671	1.8%	658	3.8%
All Sectors	322,404	321,717	0.2%	292,645	10.2%

### Average Retail Price

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

Ultimate Customer	Jun-07	Jun-06	% Change	May-07	% Change
Residential	11.07	10.85	2.0%	10.76	2.9%
Commercial	9.89	9.74	1.5%	9.48	4.3%
Industrial	6.60	6.35	3.9%	6.25	5.6%
Transportation	10.03	9.24	8.5%	9.70	3.4%
All Sectors	9.46	9.24	2.4%	8.98	5.3%

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

Census Division	Residential			All Sectors		
	Jun-07	Jun-06	% Change	Jun-07	Jun-06	% Change
New England	16.75	16.38	2.3%	14.89	14.69	1.4%
Middle Atlantic	15.12	14.05	7.6%	13.13	11.98	9.6%
East North Central	10.33	9.60	7.6%	8.25	7.72	6.9%
West North Central	9.20	8.83	4.2%	7.55	7.30	3.4%
South Atlantic	10.28	9.98	3.0%	8.77	8.58	2.2%
East South Central	8.51	8.61	-1.2%	7.31	7.36	-0.7%
West South Central	11.47	11.91	-3.7%	9.53	9.79	-2.7%
Mountain	9.74	9.42	3.4%	8.01	7.81	2.6%
Pacific Contiguous	12.28	12.57	-2.3%	11.37	11.46	-0.8%
Pacific Noncontiguous	20.66	21.05	-1.9%	18.01	18.58	-3.1%
U.S. Total	11.07	10.85	2.0%	9.46	9.24	2.4%

# Section 8. Retail Sales Trends

Data for:  
June 2007

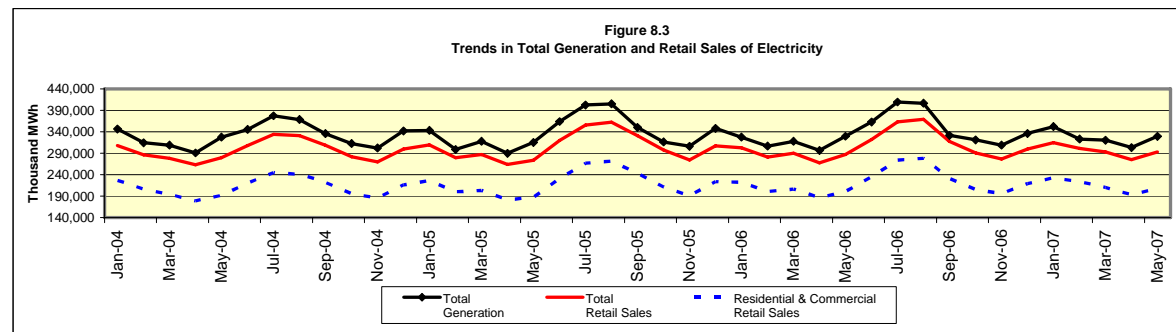
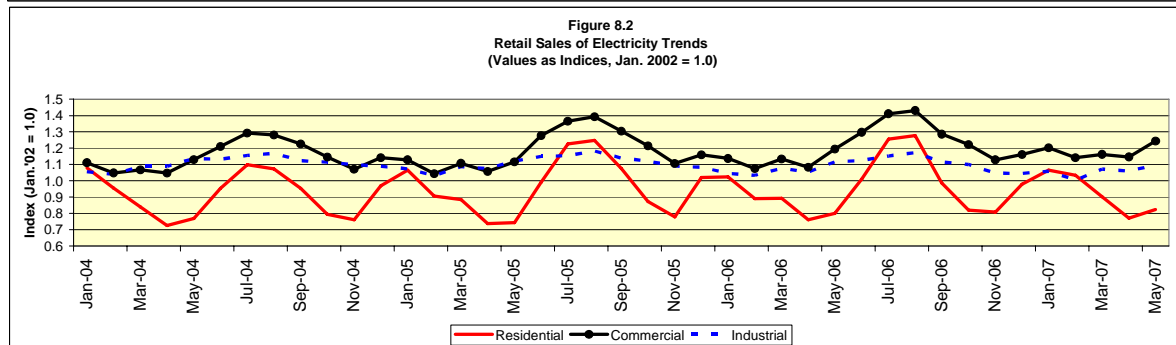
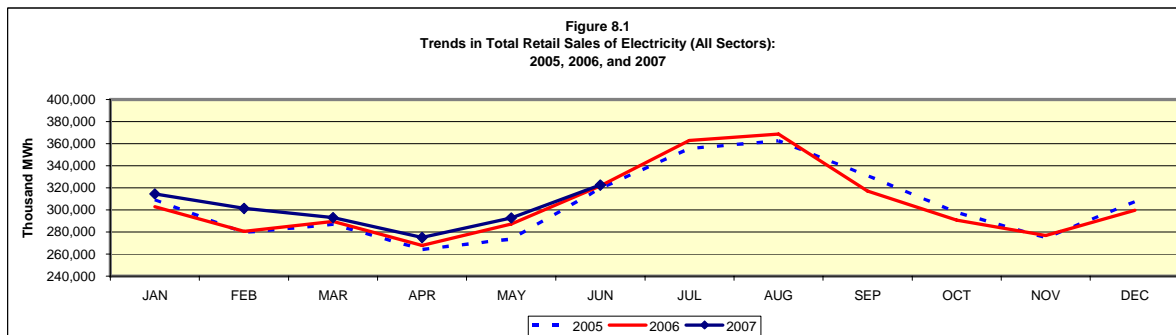
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2007	June 2007	658,276	646,449	489,585	4,203	1,798,512
<b>Prior Period</b>	January 2006	June 2006	633,141	618,176	494,048	4,058	1,749,423
<b>Percent Difference</b>			4.0%	4.6%	-0.9%	3.6%	2.8%

### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	July 2006	June 2007	1,379,368	1,329,124	997,466	8,231	3,714,188
<b>Prior Period</b>	July 2005	June 2006	1,365,587	1,291,971	1,012,568	7,832	3,677,959
<b>Percent Difference</b>			1.0%	2.9%	-1.5%	5.1%	1.0%





# Section 9. Average Retail Price Trends

Data for:  
June 2007

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

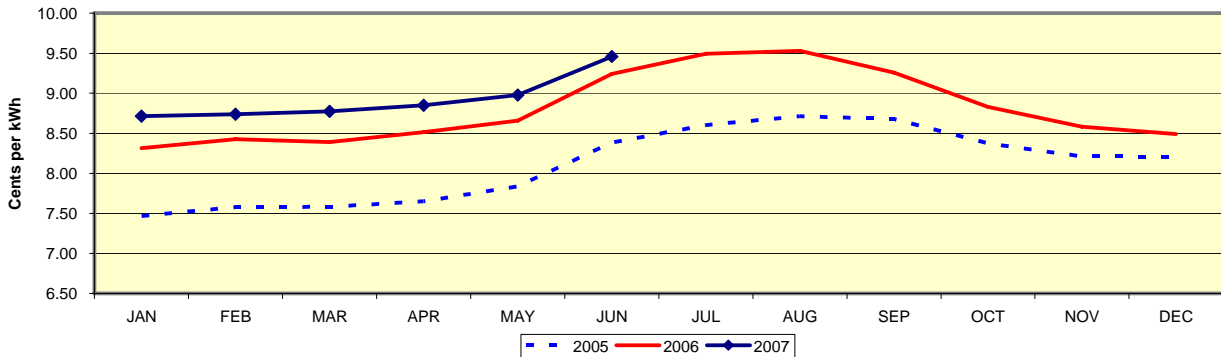
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2007	June 2007	10.42	9.43	6.25	9.71	8.93
<b>Prior Period</b>	January 2006	June 2006	10.15	9.15	5.94	8.68	8.60
<b>Percent Difference</b>			2.7%	3.1%	5.2%	11.9%	3.8%

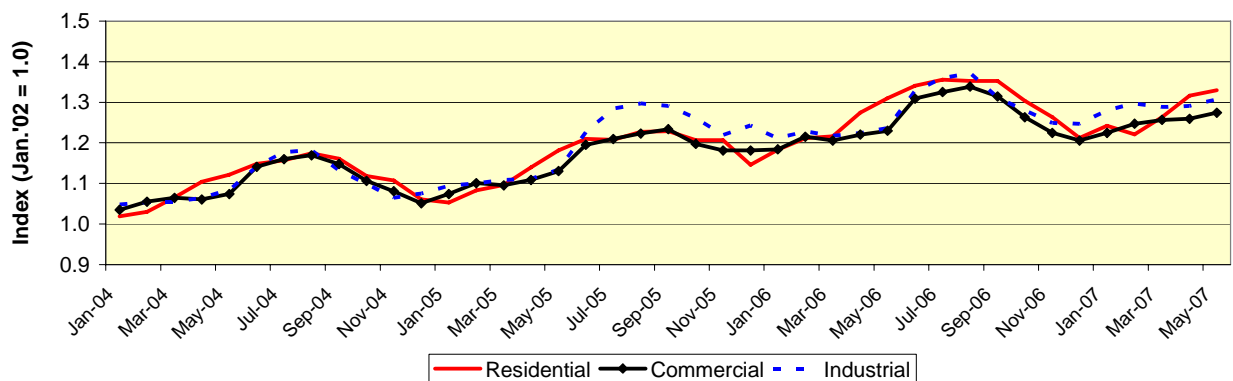
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	July 2006	June 2007	10.52	9.49	6.24	9.57	9.00
<b>Prior Period</b>	July 2005	June 2006	9.93	9.06	6.00	8.82	8.54
<b>Percent Difference</b>			5.9%	4.7%	4.0%	8.5%	5.4%

**Figure 9.1 Trends in Average Retail Price of Electricity (All Sectors):  
2005, 2006, and 2007**



**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 2007

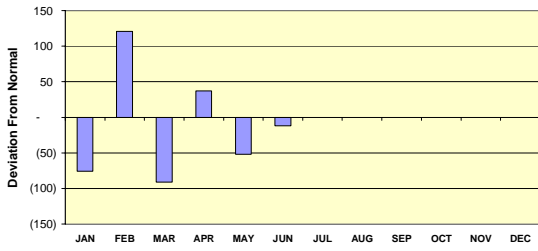
**Table 10.1 Degree Days**

		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 2007	27	39	-12	-30.8%	236	216	20	9.3%
<b>Prior Period</b>	June 2006	23	39	-16	-41.0%	236	216	20	9.3%
<b>Percent Difference</b>		17.4%				0.0%			

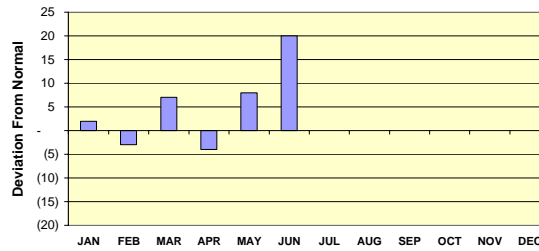
**Table 10.2 Trends in Heating and Cooling Degree Days**

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
<b>Current Period</b>	January 2007	June 2007	2,712	417	<b>Current Period</b>	July 2006	June 2007	4,266	1,351
<b>Prior Period</b>	January 2006	June 2006	2,442	434	<b>Prior Period</b>	July 2005	June 2006	4,058	1,446
<b>Percent Difference</b>			11.1%	-3.9%	<b>Percent Difference</b>			5.1%	-6.6%

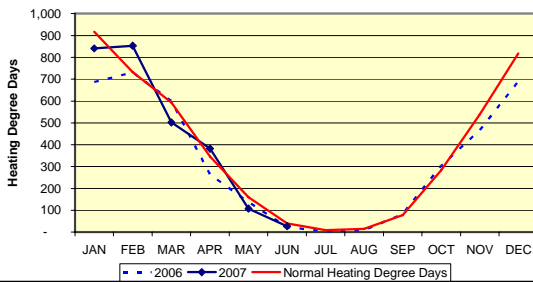
**Figure 10.1 Deviation From Normal: Heating Degree Days, 2007**



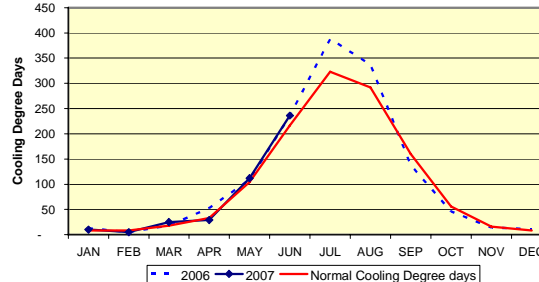
**Figure 10.2 Deviation From Normal: Cooling Degree Days, 2007**



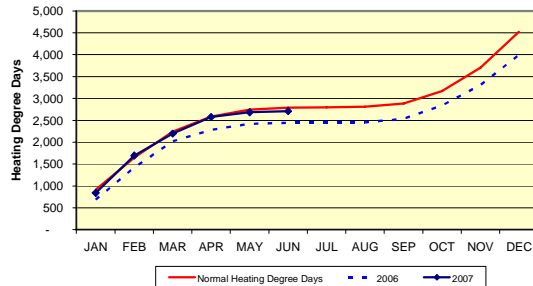
**Figure 10.3 Trend in Heating Degree Days: 2006, 2007, and Normal**



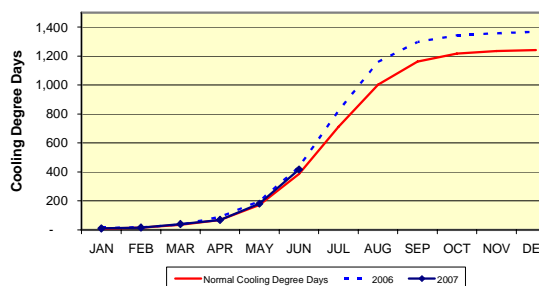
**Figure 10.4 Trend in Cooling Degree Days: 2006, 2007, and Normal**



**Figure 10.5 Trend in Cumulative Heating Degree Days: 2006, 2007, and Normal**



**Figure 10.6 Trend in Cumulative Cooling Degree Days: 2006, 2007, 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," Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant 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-920, approximately 300 combined heat and power (CHP) plants; and for the Form EIA-906, approximately 1,440 non-CHP 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).