

# Monthly Flash Estimates of Electric Power Data

Data for:  
April 2007

## Section 1. Commentary

The overall temperature for the contiguous U.S. during April 2007 was 0.3°F (0.2°C) below the average temperature observed for the month of April over the 1971-2000 time period. A record cold outbreak was observed from April 4th to April 10th as record low temperatures were set in 1,200 locations across the contiguous U.S. before warmer weather returned later in the month. This cold snap was evident in the fact that heating degree days were 10.7 percent higher than normal as observed over the 1971-2000 time period, and 44.7 percent higher than what was recorded in April 2006.

Consequently, retail sales of electricity for the month of April 2007 increased 2.7 percent compared to April 2006, while April 2007 generation of electric power increased 2.1 percent over April 2006. The average U.S. retail price of electricity for April 2007 showed a 3.9-percent increase from April 2006 and a 0.9-percent increase from March 2007. A majority of the increase from March 2007 is due to the 4.2-percent increase in the residential sector. For the 12-month period ending April 2007, the U.S. average retail price increased by 6.7 percent over the previous 12-month period ending April 2006.

Electricity generation in April 2007 increased from 12 months before for all major fuel categories with the exception of nuclear, which decreased 0.5 percent, and conventional hydroelectric, which decreased 16.4 percent. Conventional hydroelectric generation decreased by a significant amount due to the drier than average conditions that have persisted throughout most of the northwestern United States and the Tennessee Valley. Petroleum liquids generation increased 30.2 percent in April 2007 and natural gas generation increased 9.3 percent from April 2006 as both are mainly utilized for peak load generation. Coal generation, normally used to satisfy baseload energy requirements, increased 3.5 percent in April 2007 when compared to April 2006. Electricity generation from March 2007 to April 2007 decreased in all major fuel categories with the exception of natural gas, which increased 6.9 percent. This increase in natural gas generation from March 2007 to April 2007 can be attributed to nuclear outages and derates due to planned maintenance, and a decreased amount of conventional hydroelectric generation because of lower than expected precipitation.

In April 2007, coal stocks in the electric power sector increased 5.5 percent from March 2007. The March 2007-to-April 2007 increase in coal stocks consisted of a 2.9-percent increase for subbituminous, an 8.5-percent increase in bituminous, and a 2.6-percent decrease in lignite. Total year-over-year coal stocks continued to show a greater percentage growth, increasing 20.7 percent from April 2006. These increases in coal stocks can be attributed to the seasonal build-up beginning in March. Petroleum liquids stocks continued to decrease, falling 17.9 percent from April 2006 as a result of the increased generation attributed to petroleum liquids.

### References:

Weather data - <http://www.publicaffairs.noaa.gov/releases2007/may07/noaa07-029.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 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 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:  
April 2007

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
March 2007	-5.5%	-10.9%	-1.7%
April 2006	2.1%	-0.5%	-16.4%
<b>Year to Date</b>	<b>4.0%</b>	<b>2.0%</b>	<b>-12.1%</b>
<b>Latest 12 Month Period*</b>	<b>1.2%</b>	<b>0.3%</b>	<b>-3.0%</b>

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
March 2007	7.3%	-7.4%	5.5%
April 2006	7.5%	3.9%	20.7%
<b>Year to Date</b>	<b>16.6%</b>	<b>2.4%</b>	<b>n/a</b>
<b>Latest 12 Month Period*</b>	<b>10.6%</b>	<b>0.3%</b>	<b>n/a</b>

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

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

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

Net Generation (thousand megawatthours)	Apr-07	Apr-06	% Change	Mar-07	% Change
Coal	145,959	141,026	3.5%	159,432	-8.5%
Petroleum Liquids	3,799	2,918	30.2%	4,127	-7.9%
Natural Gas	60,063	54,956	9.3%	56,200	6.9%
Nuclear	57,301	57,567	-0.5%	64,305	-10.9%
Hydroelectric Conventional	23,761	28,425	-16.4%	24,167	-1.7%
All Other	11,800	11,511	2.5%	12,111	-2.6%
Total (All Energy Sources)	302,684	296,404	2.1%	320,342	-5.5%

**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	Apr-07	Apr-06	% Change	Mar-07	% Change
Coal (Thousand Short Tons)	76,097	73,240	3.9%	82,178	-7.4%
Petroleum Liquids (Thousand Barrels)	6,430	5,029	27.9%	6,996	-8.1%
Natural Gas (Million Cubic Feet)	503,848	468,784	7.5%	469,671	7.3%

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

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

Fossil Fuel Stocks	Apr-07	Apr-06	% Change	Mar-07	% Change
Coal (Thousand Short Tons)	150,308	124,499	20.7%	142,515	5.5%
Petroleum Liquids (Thousand Barrels)	41,812	50,946	-17.9%	41,228	1.4%

**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:  
April 2007

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

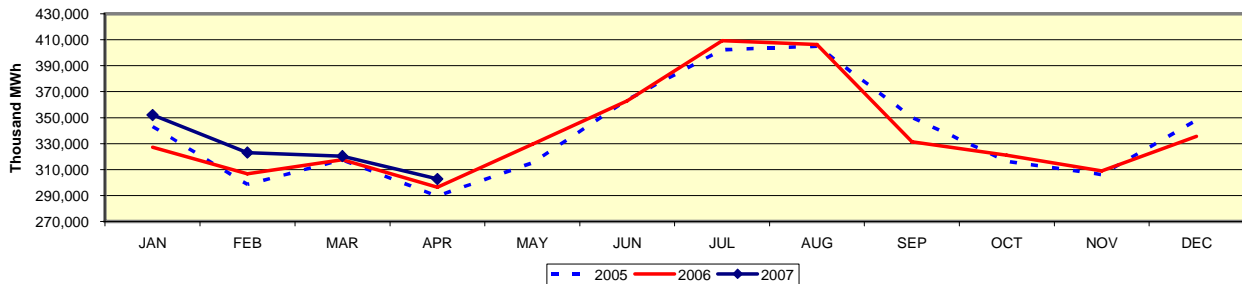
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2007	April 2007	644,082	19,768	233,708	260,838	92,873	46,790	1,298,059
<b>Prior Period</b>	January 2006	April 2006	629,323	12,530	198,110	255,815	105,662	46,719	1,248,159
<b>Percent Difference</b>			2.3%	57.8%	18.0%	2.0%	-12.1%	0.2%	4.0%

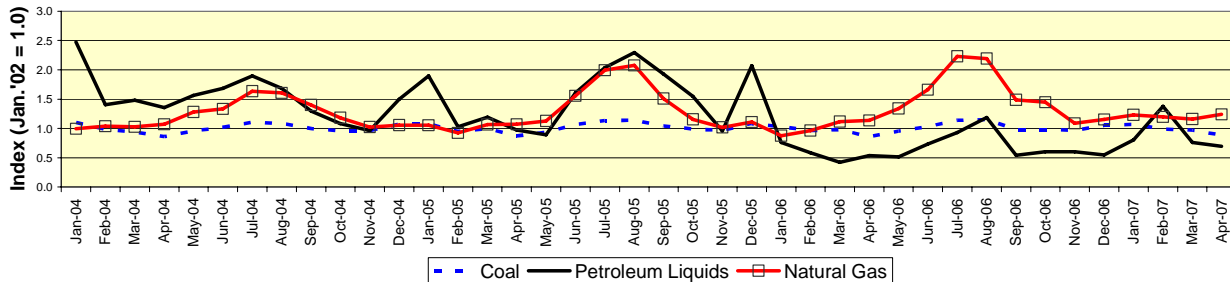
### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	May 2006	April 2007	2,001,983	50,581	843,195	792,241	275,517	139,351	4,102,868
<b>Prior Period</b>	May 2005	April 2006	2,002,837	84,973	756,861	790,004	284,110	136,154	4,054,939
<b>Percent Difference</b>			0.0%	-40.5%	11.4%	0.3%	-3.0%	2.3%	1.2%

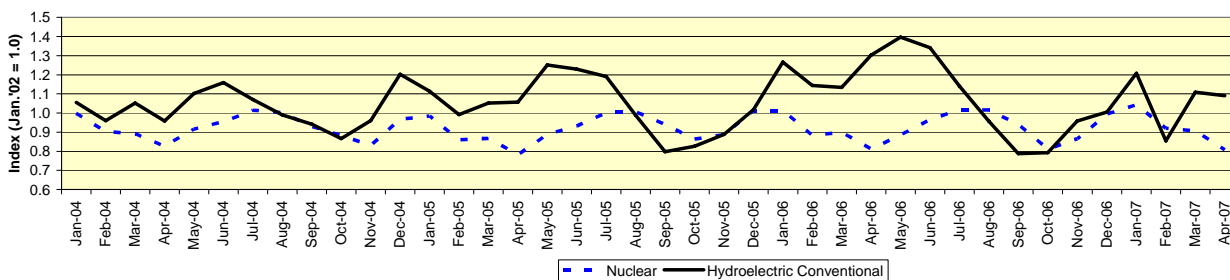
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2005, 2006, and 2007**



**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:  
April 2007

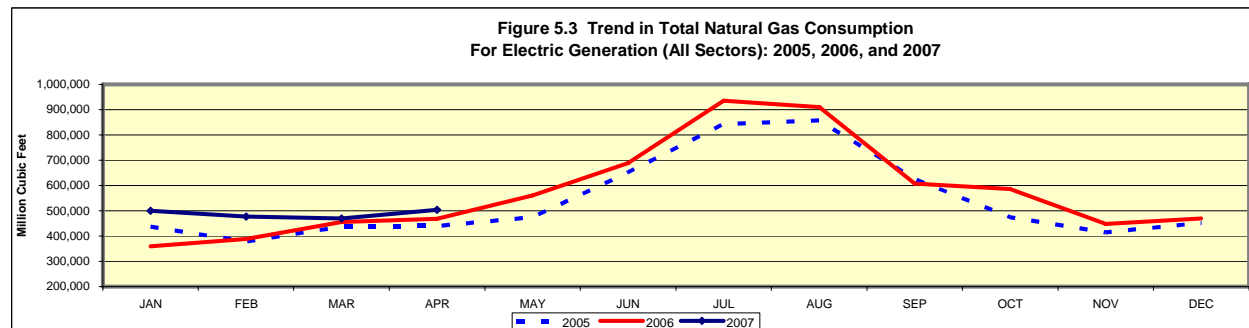
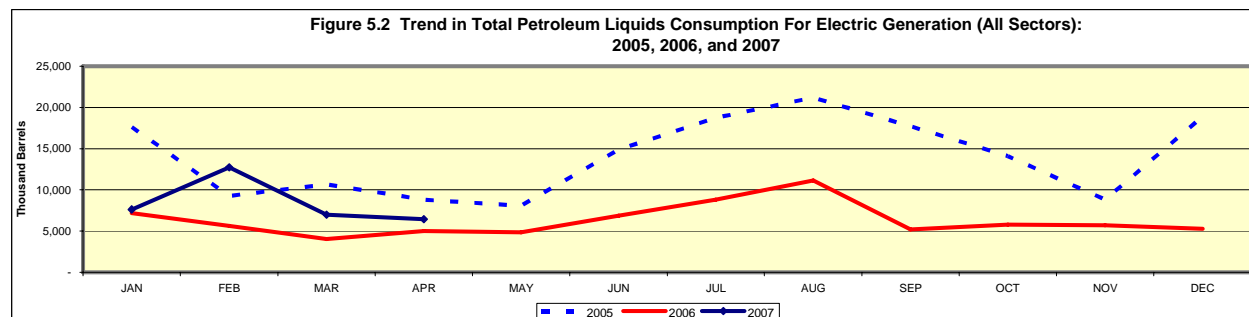
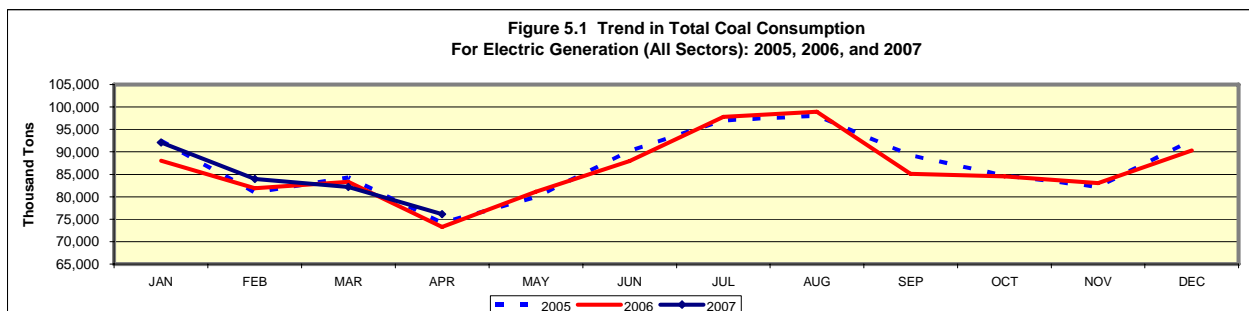
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

### 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	April 2007	334,348	33,779	1,951,183
<b>Prior Period</b>	January 2006	April 2006	326,529	21,893	1,673,978
<b>Percent Difference</b>			2.4%	54.3%	16.6%

### 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>	May 2006	April 2007	1,043,288	87,519	7,155,291
<b>Prior Period</b>	May 2005	April 2006	1,040,476	144,218	6,467,607
<b>Percent Difference</b>			0.3%	-39.3%	10.6%

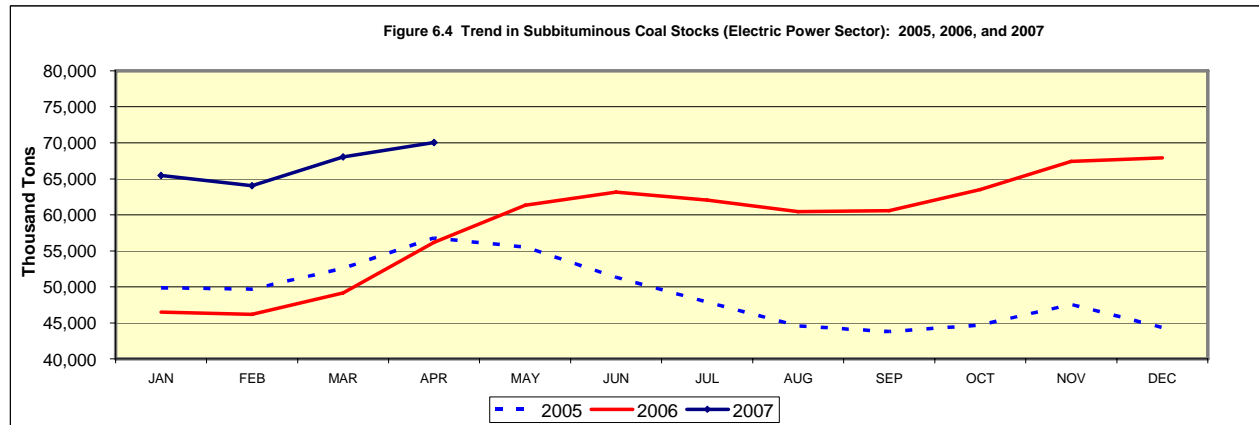
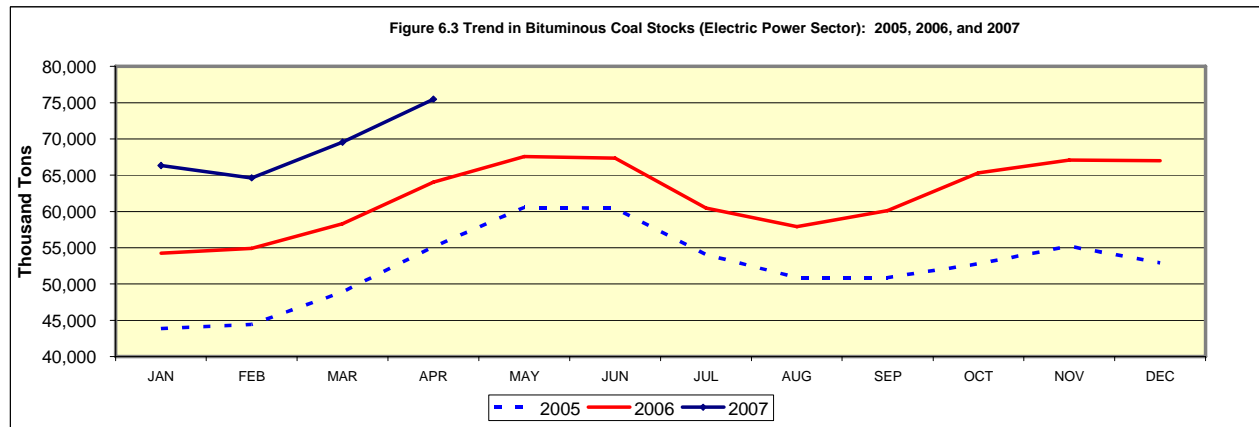
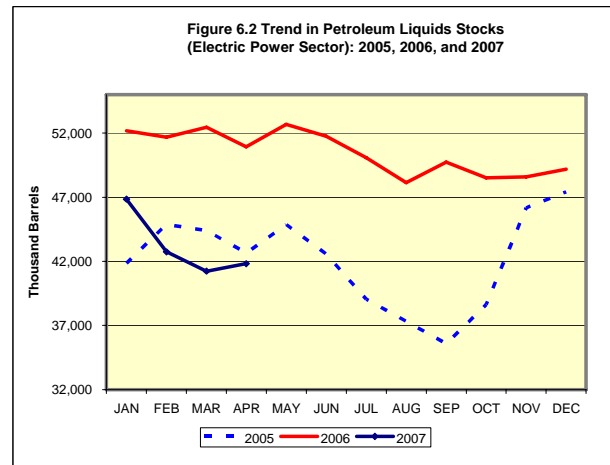
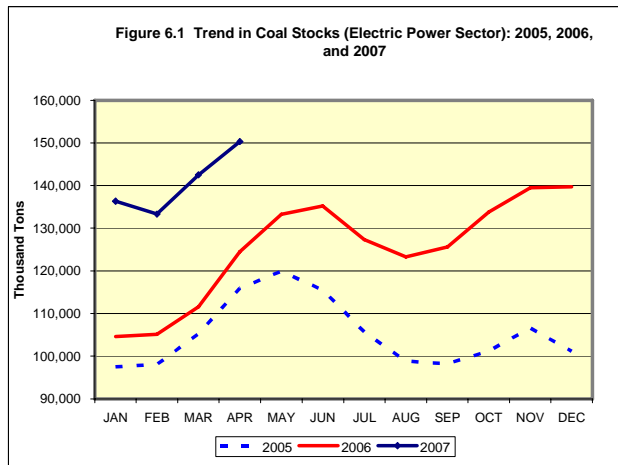


# Section 6. Fossil Fuel Stock Trends

Data for:  
April 2007

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

Fossil Fuel Stocks	Apr-07	Apr-06	% Change	Mar-07	% Change
<b>Coal, Total (Thousand Short Tons)</b>	150,308	124,499	20.7%	142,515	5.5%
Bituminous (includes anthracite and coal synfuel)	75,476	64,027	17.9%	69,549	8.5%
Subbituminous	70,044	56,167	24.7%	68,050	2.9%
Lignite	4,789	4,305	11.2%	4,916	-2.6%
<b>Petroleum Liquids (Thousand Barrels)</b>	41,812	50,946	-17.9%	41,228	1.4%



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

Data for:  
April 2007

### Retail Sales

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

Ultimate Customer	Apr-07	Apr-06	% Change	Mar-07	% Change
Residential	90,531	89,500	1.2%	106,124	-14.7%
Commercial	102,447	96,734	5.9%	103,877	-1.4%
Industrial	81,136	80,751	0.5%	82,135	-1.2%
Transportation	670	641	4.4%	751	-10.8%
All Sectors	274,783	267,626	2.7%	292,888	-6.2%

### Average Retail Price

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

Ultimate Customer	Apr-07	Apr-06	% Change	Mar-07	% Change
Residential	10.65	10.31	3.3%	10.22	4.2%
Commercial	9.37	9.08	3.2%	9.35	0.2%
Industrial	6.17	5.85	5.5%	6.16	0.2%
Transportation	9.54	8.66	10.2%	9.81	-2.8%
All Sectors	8.85	8.52	3.9%	8.77	0.9%

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

Census Division	Residential			All Sectors		
	Apr-07	Apr-06	% Change	Apr-07	Apr-06	% Change
New England	16.70	16.61	0.5%	14.80	14.36	3.1%
Middle Atlantic	13.46	12.85	4.7%	11.74	10.73	9.4%
East North Central	9.83	9.46	3.9%	7.79	7.43	4.8%
West North Central	8.27	7.91	4.6%	6.55	6.21	5.5%
South Atlantic	9.88	9.68	2.1%	8.36	8.12	3.0%
East South Central	8.48	8.42	0.7%	6.85	6.72	1.9%
West South Central	11.39	11.13	2.3%	9.21	9.04	1.9%
Mountain	8.96	8.67	3.3%	7.30	7.14	2.2%
Pacific Contiguous	11.54	10.97	5.2%	10.05	9.87	1.8%
Pacific Noncontiguous	19.17	19.67	-2.5%	16.86	17.63	-4.4%
U.S. Total	10.65	10.31	3.3%	8.85	8.52	3.9%

# Section 8. Retail Sales Trends

Data for:  
April 2007

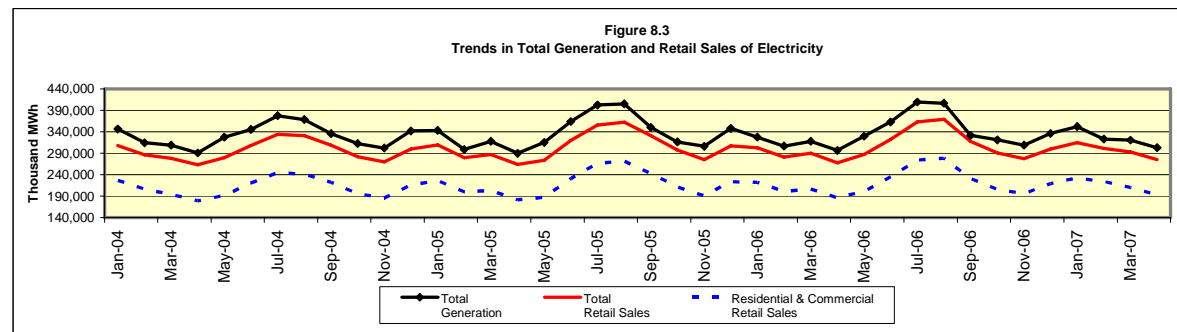
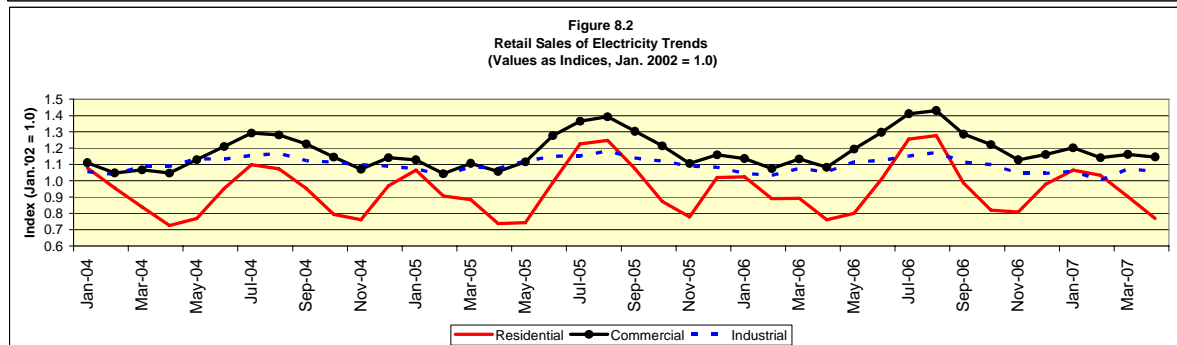
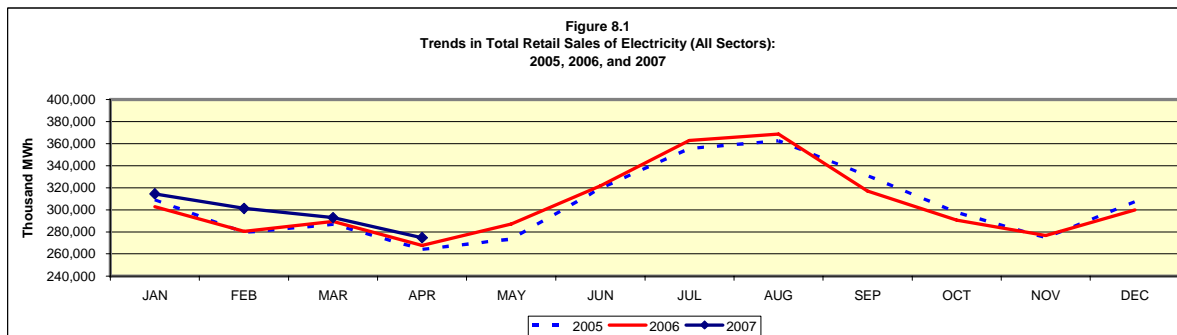
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

**Year-to-Date Comparison**

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2007	April 2007	443,572	415,729	321,231	2,862	1,183,393
<b>Prior Period</b>	January 2006	April 2006	419,956	395,607	322,313	2,756	1,140,632
<b>Percent Difference</b>			5.6%	5.1%	-0.3%	3.8%	3.7%

**Comparison to Prior Twelve-Month Period**

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	May 2006	April 2007	1,377,849	1,320,973	1,000,847	8,191	3,707,860
<b>Prior Period</b>	May 2005	April 2006	1,356,414	1,283,204	1,014,718	7,713	3,662,048
<b>Percent Difference</b>			1.6%	2.9%	-1.4%	6.2%	1.3%





# Section 9. Average Retail Price Trends

Data for:  
April 2007

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

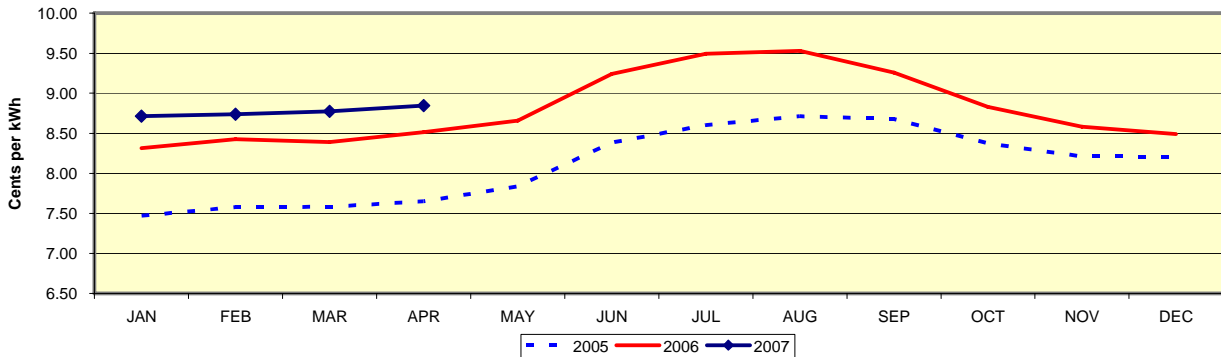
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2007	April 2007	10.65	9.37	6.17	9.54	8.85
<b>Prior Period</b>	January 2006	April 2006	9.85	8.97	5.83	8.51	8.41
<b>Percent Difference</b>			8.1%	4.5%	5.8%	12.1%	5.2%

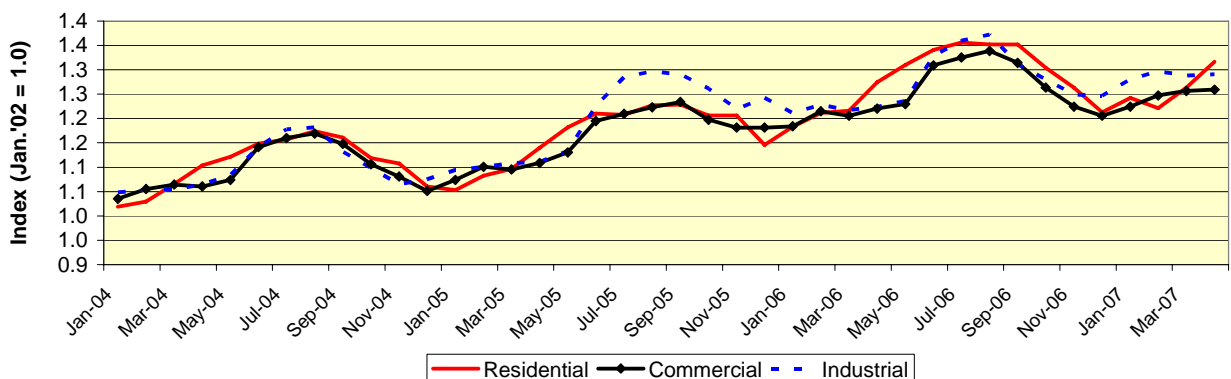
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	May 2006	April 2007	10.49	9.45	6.20	9.44	8.96
<b>Prior Period</b>	May 2005	April 2006	9.77	8.92	5.91	8.71	8.40
<b>Percent Difference</b>			7.4%	5.9%	4.9%	8.4%	6.7%

**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:  
April 2007

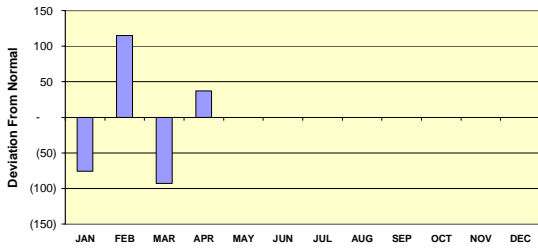
**Table 10.1 Degree Days**

		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>	April 2007	382	345	37	10.7%	29	33	-4	-12.1%
<b>Prior Period</b>	April 2006	264	345	-81	-23.5%	53	33	20	60.6%
<b>Percent Difference</b>		44.7%				-45.3%			

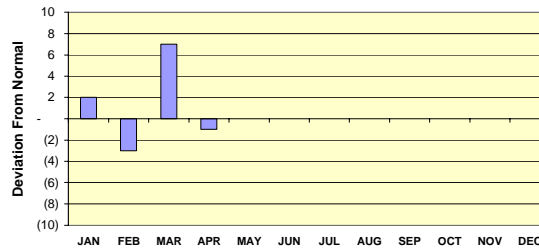
**Table 10.2 Trends in Heating and Cooling Degree Days**

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	April 2007	2,570	69	<b>Current Period</b>	May 2006	April 2007	4,284	1,348
<b>Prior Period</b>	January 2006	April 2006	2,282	89	<b>Prior Period</b>	May 2005	April 2006	4,109	1,433
<b>Percent Difference</b>			12.6%	-22.5%	<b>Percent Difference</b>			4.3%	-5.9%

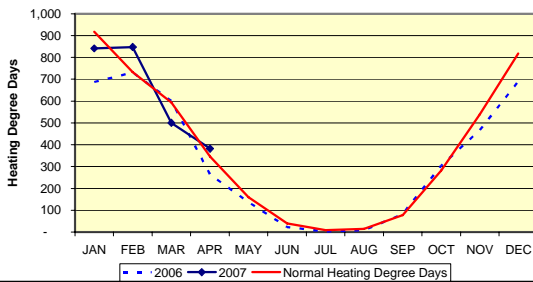
**Figure 10.1 Deviation From Normal: Heating Degree Days, 2007**



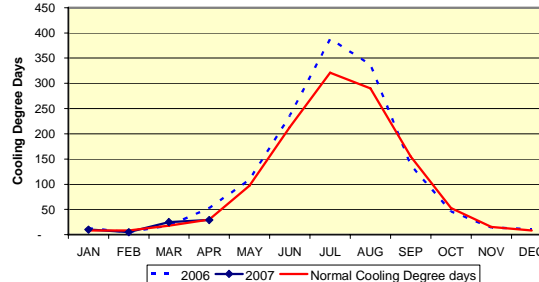
**Figure 10.2 Deviation From Normal: Cooling Degree Days, 2007**



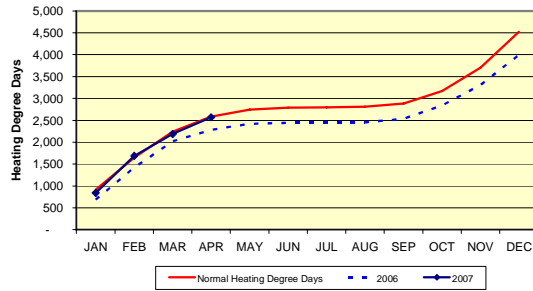
**Figure 10.3 Trend in Heating Degree Days: 2006, 2007, and Normal**



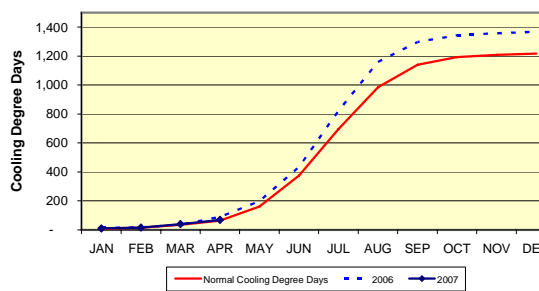
**Figure 10.4 Trend in Cooling Degree Days: 2006, 2007, and Normal**



**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).