

# Monthly Flash Estimates of

# Electric Power Data

Data for:  
June 2005

## Section 1. Commentary

Retail sales of electricity in June 2005 were 3.9 percent higher than June 2004. The increased demand for electricity is primarily driven by an increase of 25 percent in cooling degree days from June of last year, reflecting a relatively hot summer. Year-to-date retail sales are up 1.0 percent, driven by increases in both commercial and industrial sector sales. Year-to-date residential sales have declined 0.1 percent, consistent with a year-to-date decline in both heating and cooling degree days. The 25 percent increase in June cooling days were offset by the 35 percent decline in May cooling days. Average retail prices for the period of January through June continue to run ahead of 2004 prices by 4.2 percent, with higher fuel prices a contributing factor.

Electricity generation increased 5.1 percent from the previous June, and 15.0 percent from May 2005. However, year-to-date electricity generation was almost unchanged, increasing only 0.1 percent. The largest increase in generation from June 2004 to June 2005 was from natural gas-fired plants, which generated over 11 million more megawatthours, a 17.3 percent increase, partly due to new capacity coming on line. Hydroelectric generation continued to rebound, up 5.3 percent year-to-date, and up 5.4 percent from June 2004, as the drought conditions continued to subside.

Nuclear generation in June 2005 was up 5.0 percent from May 2005. However, nuclear generation continued to be lower year-to-date by 3.1 percent in 2005, compared to 2004, due to planned and forced outages earlier in the year, as well as derates (an "outage" is when a plant is completely shut down, while a "derate" is when a plant is running at less than full capacity).

In line with the increased summer demand for electricity, June generation by all fossil fuels rose from May 2005. Coal generation was up 13.2 percent, natural gas generation was up 37.4 percent and petroleum liquids generation was up 74.6 percent. As coal generation picked up momentum, seasonal rebuilding of coal stocks came to an end. Total coal stocks were down 4.4 million tons from May 2005 and down 5.0 million tons from June 2004. The lower levels are also partly due to the continuing constrained shipments from the Powder River Basin (PRB) in Wyoming caused by rail operation problems and related maintenance, which are expected to continue into the fall of 2005. Although both bituminous and sub-bituminous coal stocks were lower in June, sub-bituminous coal stocks saw a larger downturn as a result of the PRB shipment problems. (For more information on coal stocks related issues visit <http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.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 and Stock Trends	Page 5
6. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices	Page 6
7. Retail Sales Trends	Page 7
8. Average Retail Price Trends	Page 8
9. Heating and Cooling Degree Days	Page 9
10. Documentation	Page 10

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

Data for:  
June 2005

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
May 2005	15.0%	5.0%	-0.9%
June 2004	5.1%	-2.4%	5.4%
<b>Year to Date</b>	<b>0.1%</b>	<b>-3.1%</b>	<b>5.3%</b>
<b>Latest 12 Month Period*</b>	<b>0.4%</b>	<b>-0.4%</b>	<b>4.1%</b>

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
May 2005	37.4%	12.9%	-3.7%
June 2004	17.7%	3.9%	-4.2%
<b>Year to Date</b>	<b>1.8%</b>	<b>1.2%</b>	<b>n/a</b>
<b>Latest 12 Month Period*</b>	<b>3.1%</b>	<b>0.9%</b>	<b>n/a</b>

\* Change in total consumption or generation for the latest 12 month period (July 2004 to June 2005) compared to the prior 12 month period (July 2003 to June 2004).

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

Data for:  
June 2005

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	Jun-05	Jun-04	% Change	May-05	% Change
Coal	174,396	167,918	3.9%	154,061	13.2%
Petroleum Liquids	8,637	9,161	-5.7%	4,947	74.6%
Natural Gas	75,045	63,973	17.3%	54,631	37.4%
Nuclear	66,144	67,787	-2.4%	62,971	5.0%
Hydroelectric Conventional	26,607	25,248	5.4%	26,861	-0.9%
All Other	11,183	10,203	9.6%	11,308	-1.1%
Total (All Energy Sources)	362,013	344,290	5.1%	314,781	15.0%

### 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-05	Jun-04	% Change	May-05	% Change
Coal (Thousand Short Tons)	90,610	87,190	3.9%	80,279	12.9%
Petroleum Liquids (Thousand Barrels)	14,807	15,684	-5.6%	8,228	80.0%
Natural Gas (Million Cubic Feet)	649,468	551,883	17.7%	472,778	37.4%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	Jun-05	Jun-04	% Change	May-05	% Change
Coal (Thousand Short Tons)	115,652	120,698	-4.2%	120,052	-3.7%
Petroleum Liquids (Thousand Barrels)	41,928	44,362	-5.5%	43,699	-4.1%

#### Notes:

- **Coal consumption and generation** includes subbituminous coal, bituminous coal, anthracite, lignite, waste coal and synthetic coal (synfuel).
- **Coal stocks** includes the coal categories listed immediately above except for waste coal.
- **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 2005

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

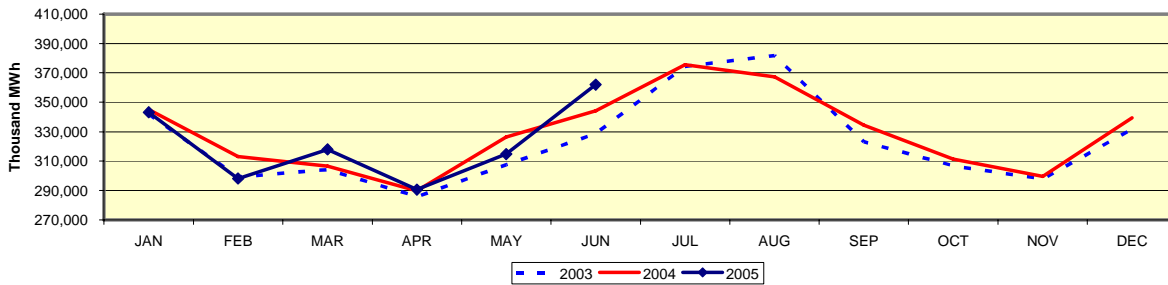
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2005	June 2005	968,468	40,894	331,703	377,566	144,753	63,530	1,926,914
<b>Prior Period</b>	January 2004	June 2004	962,512	53,512	322,303	389,496	137,479	60,059	1,925,361
<b>Percent Change</b>			0.6%	-23.6%	2.9%	-3.1%	5.3%	5.8%	0.1%

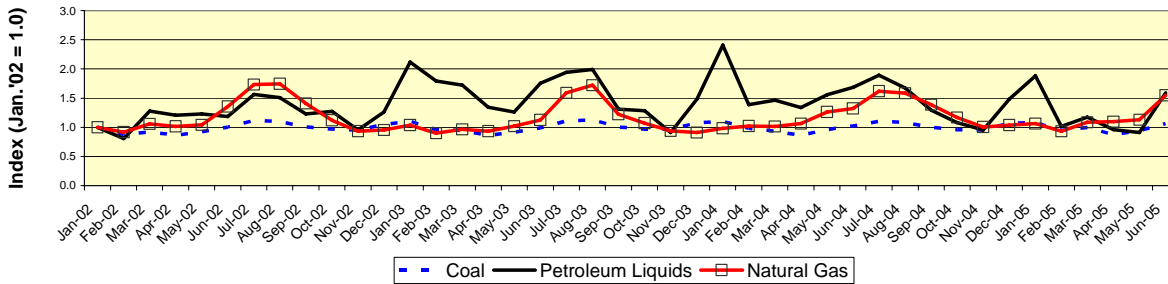
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	July 2004	June 2005	1,982,287	86,411	709,011	776,625	276,910	123,712	3,954,956
<b>Prior Period</b>	July 2003	June 2004	1,988,442	101,952	682,768	779,984	265,961	121,885	3,940,992
<b>Percent Change</b>			-0.3%	-15.2%	3.8%	-0.4%	4.1%	1.5%	0.4%

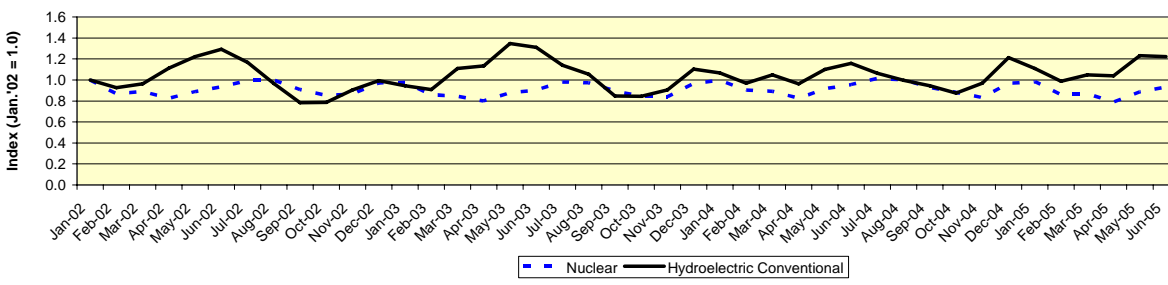
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2003, 2004, and 2005**



**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 and Stock Trends

Data for:  
June 2005

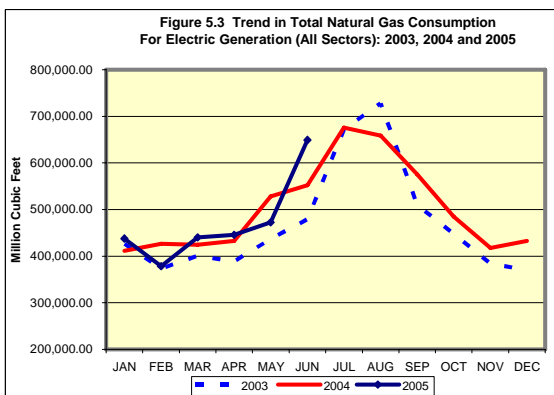
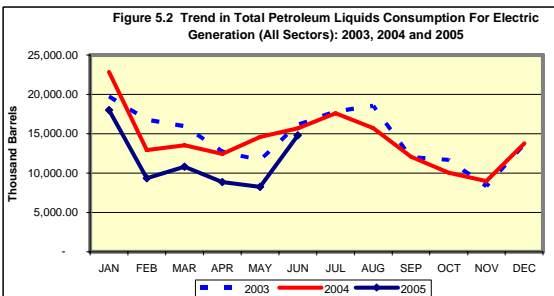
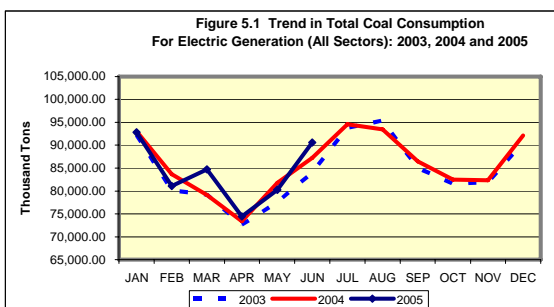
## Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

### Year-to-Date Comparison

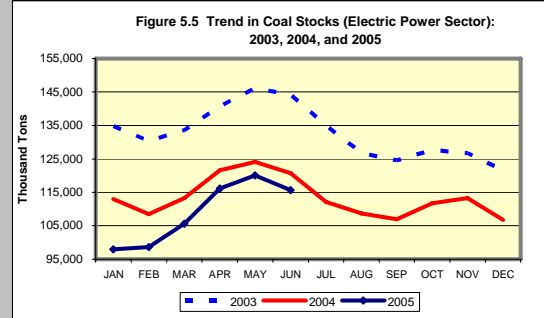
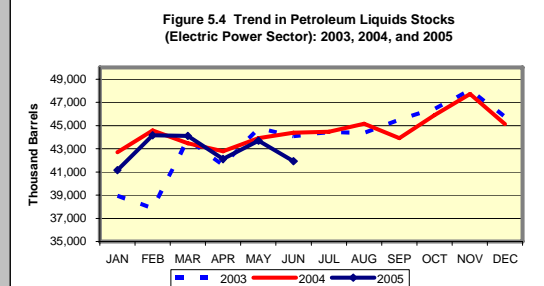
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
<b>Current Period</b>	January 2005	June 2005	503,938	70,045	2,824,625
<b>Prior Period</b>	January 2004	June 2004	498,096	92,020	2,775,112
<b>Percent Change</b>			1.2%	-23.9%	1.8%

### 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 2004	June 2005	1,035,405	148,272	6,069,846
<b>Prior Period</b>	July 2003	June 2004	1,026,367	174,111	5,886,062
<b>Percent Change</b>			0.9%	-14.8%	3.1%



## Stocks Trends



Note: the Stocks data table is on page 3 of the report.

## Section 6. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices

Data for:  
June 2005

### Retail Sales

**Table 6.1 Retail Sales (Million Kwh)**

Ultimate Customer	Jun-05	Jun-04	% Change	May-05	% Change
Residential	116,096	112,373	3.3%	86,919	33.6%
Commercial	114,103	107,855	5.8%	99,479	14.7%
Industrial	89,286	87,272	2.3%	87,158	2.4%
Transportation	672	621	8.2%	615	9.3%
All Sectors	320,157	308,121	3.9%	274,171	16.8%

### Average Retail Price

**Table 6.2 Average Retail Price (Cents/kWh)**

Ultimate Customer	Jun-05	Jun-04	% Change	May-05	% Change
Residential	9.75	9.25	5.4%	9.53	2.3%
Commercial	8.86	8.46	4.7%	8.39	5.6%
Industrial	5.72	5.28	8.3%	5.32	7.5%
Transportation	7.51	6.55	14.7%	7.24	3.7%
All Sectors	8.30	7.85	5.7%	7.77	6.8%

# Section 7. Retail Sales Trends

Data for:  
June 2005

**Table 7.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

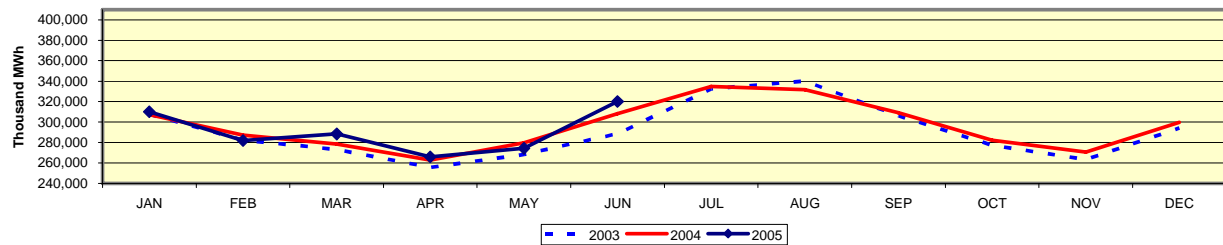
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2005	June 2005	627,169	601,705	507,516	4,111	1,740,501
<b>Prior Period</b>	January 2004	June 2004	627,559	589,813	501,863	3,782	1,723,017
<b>Percent Change</b>			-0.1%	2.0%	1.1%	8.7%	1.0%

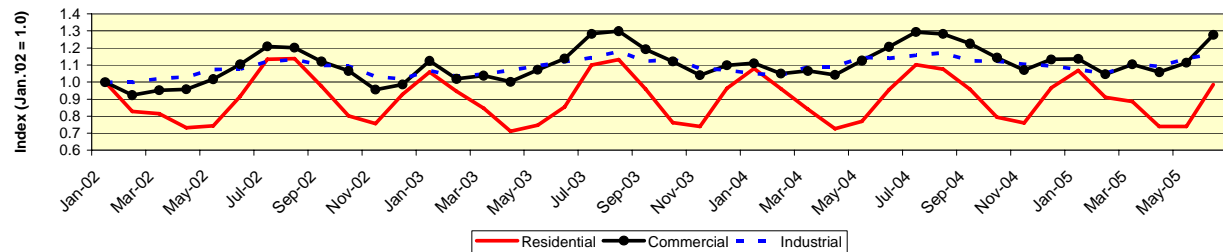
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	July 2004	June 2005	1,293,059	1,240,398	1,026,538	8,004	3,567,999
<b>Prior Period</b>	July 2003	June 2004	1,293,273	1,218,369	1,017,203	7,286	3,536,131
<b>Percent Change</b>			0.0%	1.8%	0.9%	9.9%	0.9%

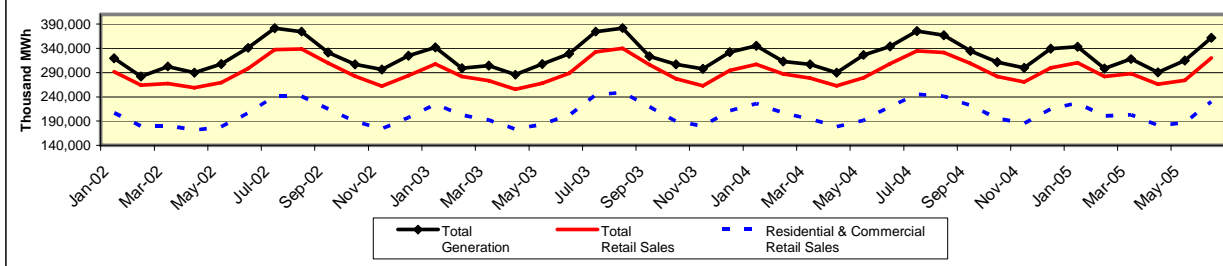
**Figure 7.1**  
Trends in Total Retail Sales of Electricity (All Sectors):  
2003, 2004, and 2005



**Figure 7.2**  
Retail Sales of Electricity Trends  
(Values as Indices, Jan. 2002 = 1.0)



**Figure 7.3**  
Trends in Total Generation and Retail Sales of Electricity



# Section 8. Average Retail Price Trends

Data for:  
June 2005

**Table 8.1 Trends in Average Retail Price of Electricity (All Sectors)  
Cents Per Kilowatthours**

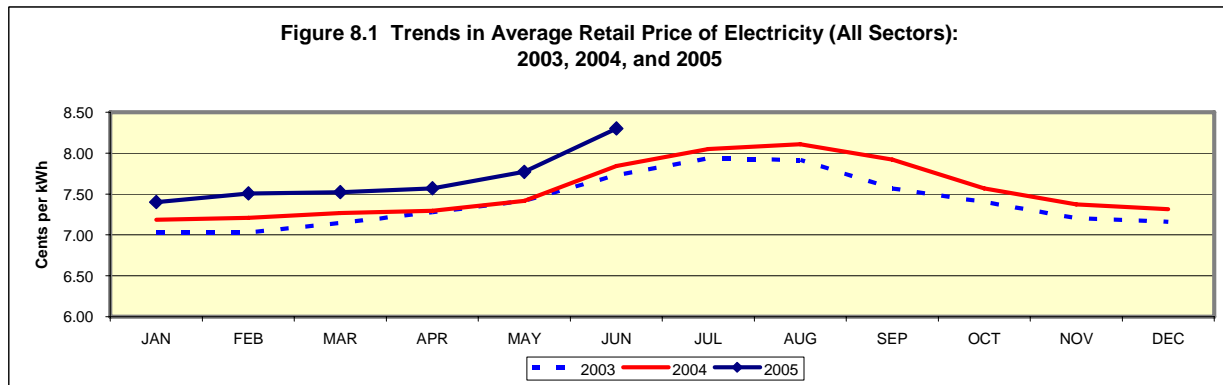
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2005	June 2005	9.06	8.30	5.27	7.16	7.69
<b>Prior Period</b>	January 2004	June 2004	8.71	7.98	5.00	6.29	7.38
<b>Percent Change</b>			4.0%	4.0%	5.4%	13.8%	4.2%

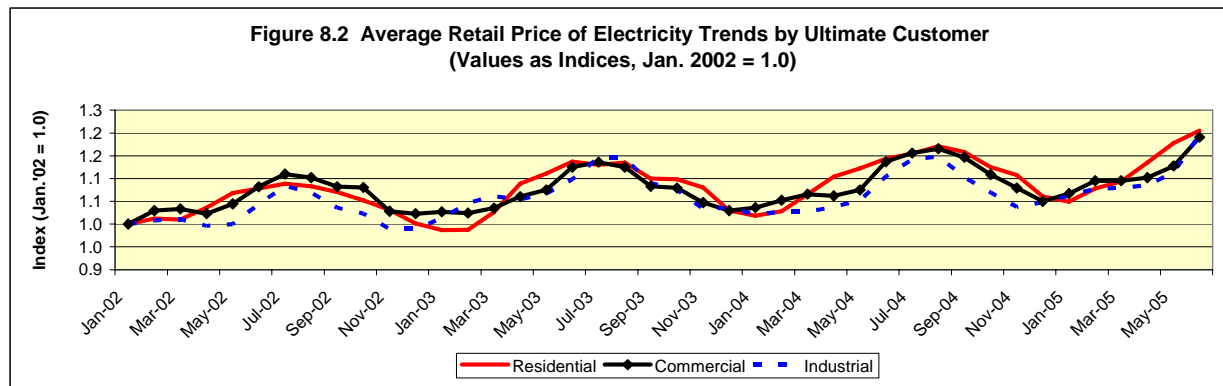
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	July 2004	June 2005	9.11	8.32	5.25	6.92	7.72
<b>Prior Period</b>	July 2003	June 2004	8.80	8.03	5.10	6.95	7.47
<b>Percent Change</b>			3.5%	3.6%	2.9%	-0.4%	3.3%

**Figure 8.1 Trends in Average Retail Price of Electricity (All Sectors):  
2003, 2004, and 2005**



**Figure 8.2 Average Retail Price of Electricity Trends by Ultimate Customer  
(Values as Indices, Jan. 2002 = 1.0)**





# Section 9. Heating and Cooling Degree Days

Data for:  
June 2005

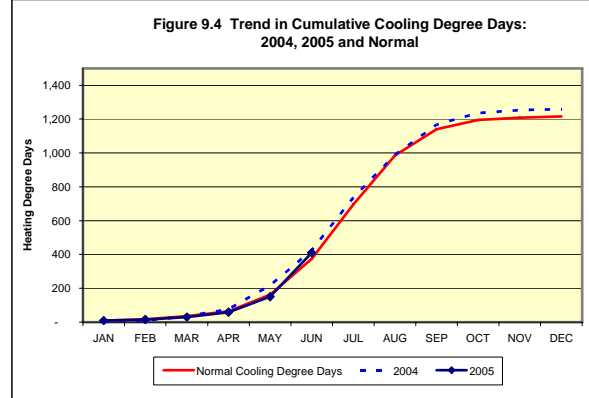
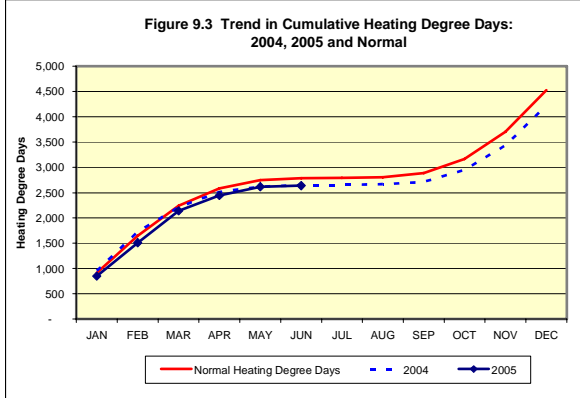
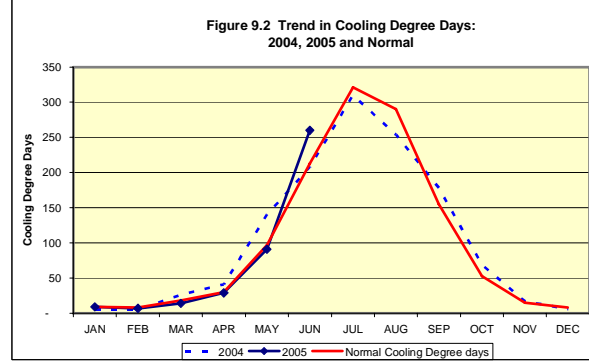
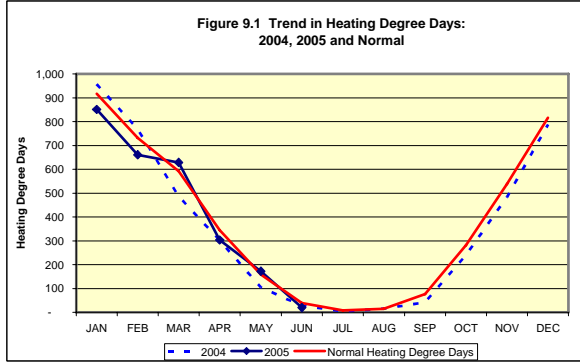
### Table 9.1 Degree Days

	Month	Heating Degree Days			Cooling Degree Days		
		Heating Degree Days	Normal Heating Degree Days	Deviation From the Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From the Normal
Current Period	June 2005	20	39	-19	260	213	47
Previous Period	June 2004	28	39	-11	208	213	-5
Percent Change		-28.6%			25.0%		

### Table 9.2 Trends in Heating and Cooling Degree Days

Year-to-Date Comparison				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	January 2005	June 2005	2,638	410
Prior Period	January 2004	June 2004	2,648	425
Percent Change			-0.4%	-3.5%

Comparison to Prior 12 Month Period				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	July 2004	June 2005	4,214	1,244
Prior Period	July 2003	June 2004	4,213	1,338
Percent Change			0.0%	-7.0%



**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).