

# Monthly Flash Estimates of

# Electric Power Data

Data for:  
May 2005

## Section 1. Commentary

Retail sales of electricity in May 2005 declined by 3.5 percent compared to May 2004. The driving factor appears to have been mild weather, as cooling degree days in May 2005 were 35 percent lower than last year. Year-to-date, retail sales are almost unchanged from 2004, up only 0.1 percent, consistent with weather trends. Heating degree days are almost unchanged from 2004, and although cooling degree days are down 31 percent year-to-date, this early in the year cooling load is not a primary driver of total sales. Average retail prices continue to run ahead of 2004, up 3.7 percent year-to-date, apparently due to high fuel prices.

The 3.5 percent drop in retail sales for May 2005 from the prior year was closely matched by a 3.1 percent decline in generation. As expected, the incremental generating fuels, natural gas and petroleum, experienced the largest percentage drops, respectively 9.6 percent and 37.2 percent. However, baseload coal generation (down 1.6 percent) and nuclear generation (down 3.2 percent) were also lower than in May 2004. Hydroelectric generation continued to rebound, up 12.1 percent from May 2004 and 5.3 percent year-to-date, due to some easing of drought conditions.

Nuclear generation is now off 3.2 percent comparing year-to-date 2004 and 2005. As reported in the last issue of the *Flash Estimates*, in April 2005 the nuclear sector had significantly more capacity unavailable due to planned or forced outages and temporary derates than in April 2004. (An "outage" is when a plant is completely shut-down. A "derate" is when a plant is operating at reduced capacity.) This trend continued into May. A review of Nuclear Regulatory Commission daily plant status report data indicates that capacity lost to outages or derates during May 2005 was about 2000 MW (16 percent) higher than in May 2004. However, a day-by-day review of the data shows that by the end of May the difference in daily MW lost between 2004 and 2005 had closed, and the data for June 2005 shows slightly less capacity lost than in 2004. This suggests that nuclear output may show a rebound in the June 2004 generation data (now being collected by EIA).

The decline in coal generation contributed to the continuing rebuilding of coal stocks, which grew almost 3 percent in May. However, the growth in stocks was not uniform. Shipments of subbituminous coal from the Powder River Basin have been reduced due to rail operations problems and related maintenance expected to continue into the fall (for details see: <http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html>). As a consequence, the increase in national coal stocks was driven entirely by bituminous coal, while subbituminous stocks actually decreased by about 1.2 million tons from April 2005. From a regional standpoint, subbituminous stocks grew slightly in the western U.S Census region but dropped in the Midwest and South. This data suggests that compared to last year, when concern over coal stocks was widespread, inventory issues this summer may be more localized by region and coal type.

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

Data for:  
May 2005

### Table 2.1 Key Generation Indicators

	Total Generation	Nuclear Generation	Hydroelectric Generation
<b>Total Change From:</b>			
April 2005	8.8%	11.9%	18.4%
May 2004	-3.1%	-3.2%	12.1%
<b>Year to Date</b>	<b>-0.9%</b>	<b>-3.2%</b>	<b>5.3%</b>
<b>Latest 12 Month Period*</b>	<b>0.3%</b>	<b>0.2%</b>	<b>2.3%</b>

### Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
<b>Total Change From:</b>			
April 2005	6.7%	8.4%	2.9%
May 2004	-9.8%	-1.4%	-3.6%
<b>Year to Date</b>	<b>-2.0%</b>	<b>0.7%</b>	<b>n/a</b>
<b>Latest 12 Month Period*</b>	<b>2.8%</b>	<b>0.9%</b>	<b>n/a</b>

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

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

Data for:  
May 2005

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

Net Generation (thousand megawatthours)	May-05	May-04	% Change	Apr-05	% Change
Coal	154,802	157,397	-1.6%	143,154	8.1%
Petroleum Liquids	5,315	8,459	-37.2%	5,197	2.3%
Natural Gas	55,196	61,075	-9.6%	53,056	4.0%
Nuclear	62,817	64,917	-3.2%	56,137	11.9%
Hydroelectric Conventional	26,854	23,949	12.1%	22,685	18.4%
All Other	11,333	10,604	6.9%	10,480	8.1%
Total (All Energy Sources)	316,315	326,403	-3.1%	290,710	8.8%

### 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	May-05	May-04	% Change	Apr-05	% Change
Coal (Thousand Short Tons)	80,647	81,761	-1.4%	74,430	8.4%
Petroleum Liquids (Thousand Barrels)	8,849	14,591	-39.4%	8,851	0.0%
Natural Gas (Million Cubic Feet)	475,965	527,961	-9.8%	445,965	6.7%

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

Fossil Fuel Stocks	May-05	May-04	% Change	Apr-05	% Change
Coal (Thousand Short Tons)	119,538	124,066	-3.6%	116,118	2.9%
Petroleum Liquids (Thousand Barrels)	43,575	43,899	-0.7%	42,105	3.5%

#### 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:  
May 2005

**Table 4.1 Trends in Total Generation by Fuel (All Sectors)**  
Millions of Kilowatt-hours

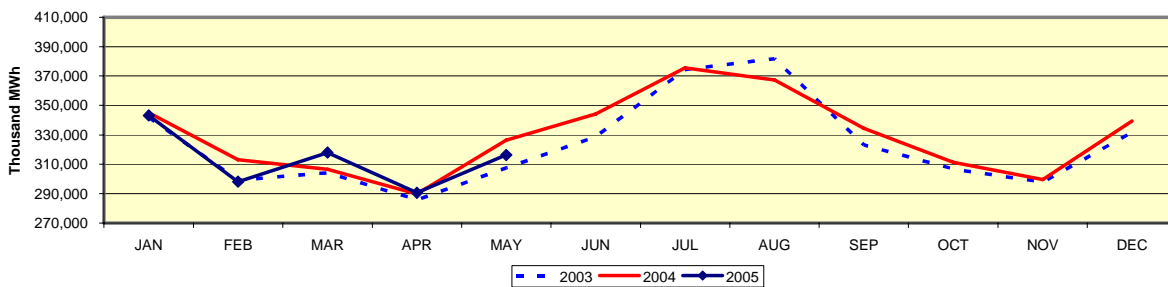
### Year-to-Date Comparison

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	January 2005	May 2005	794,812	32,625	257,223	311,268	118,139	52,369	1,566,436
<b>Prior Period</b>	January 2004	May 2004	794,594	44,350	258,330	321,709	112,231	49,857	1,581,071
<b>Percent Change</b>			0.0%	-26.4%	-0.4%	-3.2%	5.3%	5.0%	-0.9%

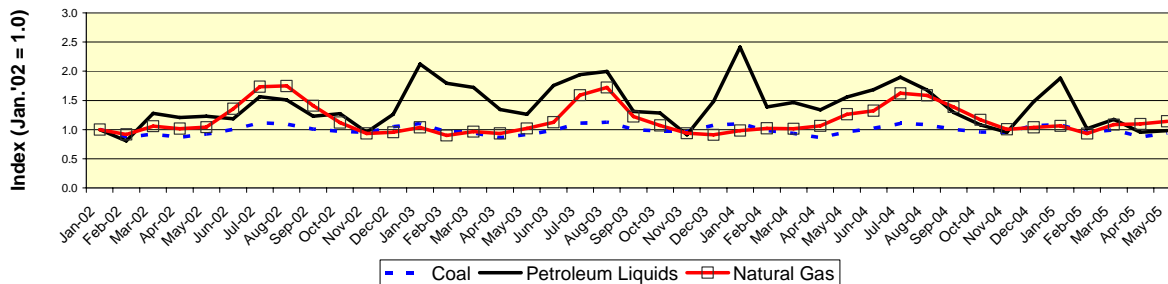
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
<b>Current Period</b>	June 2004	May 2005	1,976,550	87,303	698,504	778,114	275,544	122,757	3,938,772
<b>Prior Period</b>	June 2003	May 2004	1,982,809	102,325	673,248	776,378	269,299	121,337	3,925,396
<b>Percent Change</b>			-0.3%	-14.7%	3.8%	0.2%	2.3%	1.2%	0.3%

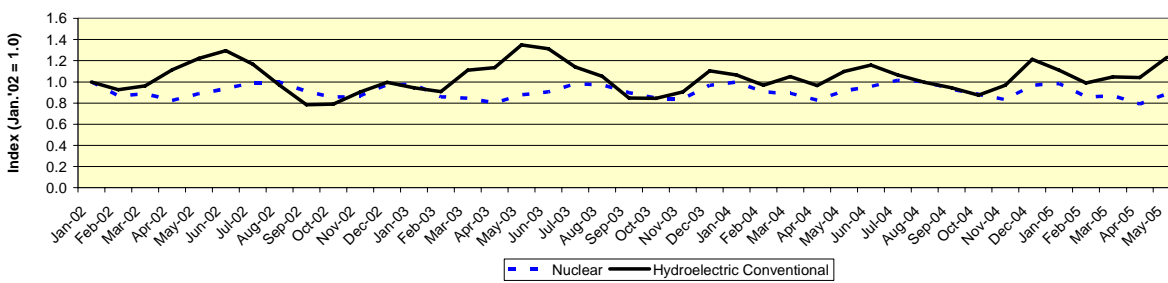
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2003, 2004, and 2005**



**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:  
May 2005

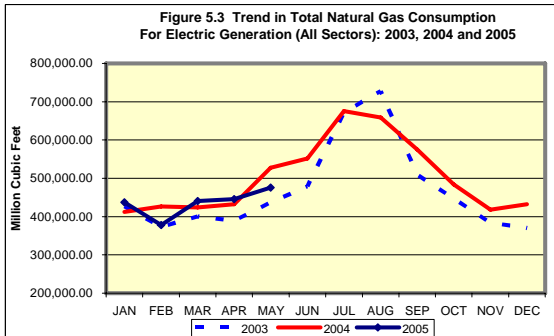
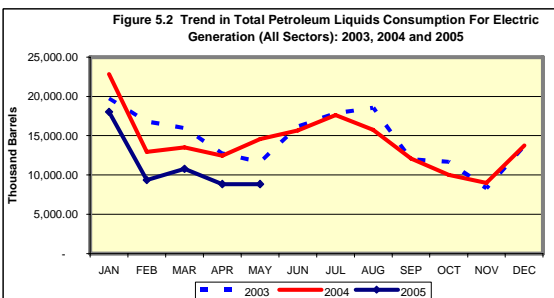
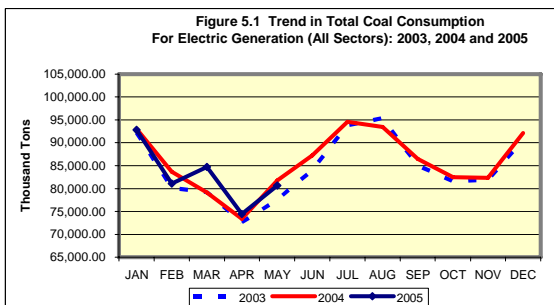
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

### Year-to-Date Comparison

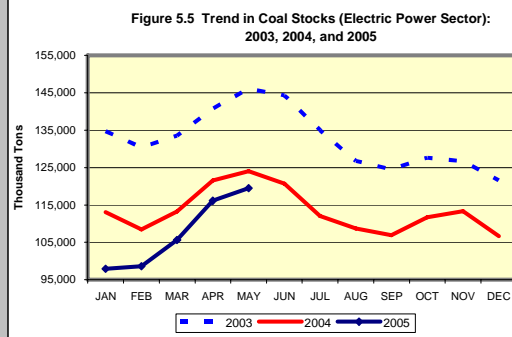
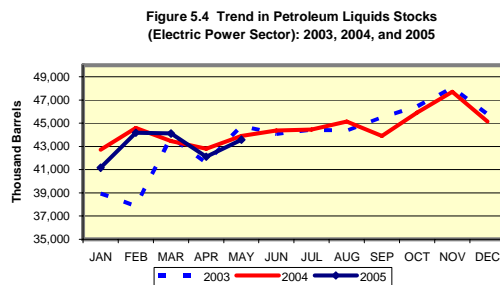
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
<b>Current Period</b>	January 2005	May 2005	413,696	55,859	2,178,344
<b>Prior Period</b>	January 2004	May 2004	410,906	76,336	2,223,229
<b>Percent Change</b>			0.7%	-26.8%	-2.0%

### 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>	June 2004	May 2005	1,032,353	149,770	5,975,448
<b>Prior Period</b>	June 2003	May 2004	1,023,237	174,576	5,813,040
<b>Percent Change</b>			0.9%	-14.2%	2.8%



## 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:  
May 2005

### Retail Sales

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

Ultimate Customer	May-05	May-04	% Change	Apr-05	% Change
Residential	85,756	90,660	-5.4%	87,057	-1.5%
Commercial	96,807	100,600	-3.8%	94,543	2.4%
Industrial	86,558	87,704	-1.3%	83,665	3.5%
Transportation	573	603	-5.0%	649	-11.7%
All Sectors	269,693	279,567	-3.5%	265,914	1.4%

### Average Retail Price

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

Ultimate Customer	May-05	May-04	% Change	Apr-05	% Change
Residential	9.41	9.08	3.6%	9.18	2.5%
Commercial	8.31	8.00	3.9%	8.20	1.3%
Industrial	5.30	5.03	5.4%	5.19	2.1%
Transportation	7.49	6.22	20.4%	7.23	3.6%
All Sectors	7.69	7.41	3.8%	7.57	1.6%

# Section 7. Retail Sales Trends

Data for:  
May 2005

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

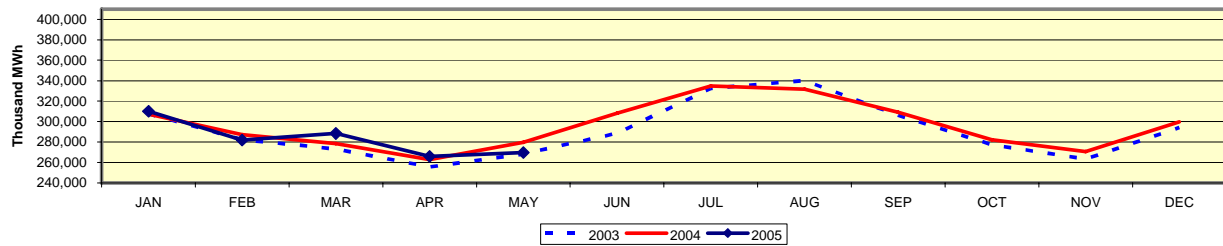
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2005	May 2005	509,910	484,930	417,630	3,397	1,415,867
<b>Prior Period</b>	January 2004	May 2004	515,186	481,958	414,591	3,161	1,414,896
<b>Percent Change</b>			-1.0%	0.6%	0.7%	7.5%	0.1%

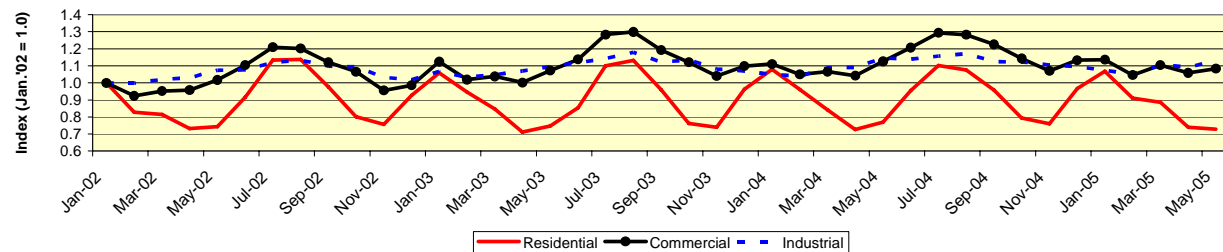
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	June 2004	May 2005	1,288,173	1,231,478	1,023,924	7,911	3,551,486
<b>Prior Period</b>	June 2003	May 2004	1,281,305	1,212,249	1,015,641	7,239	3,516,434
<b>Percent Change</b>			0.5%	1.6%	0.8%	9.3%	1.0%

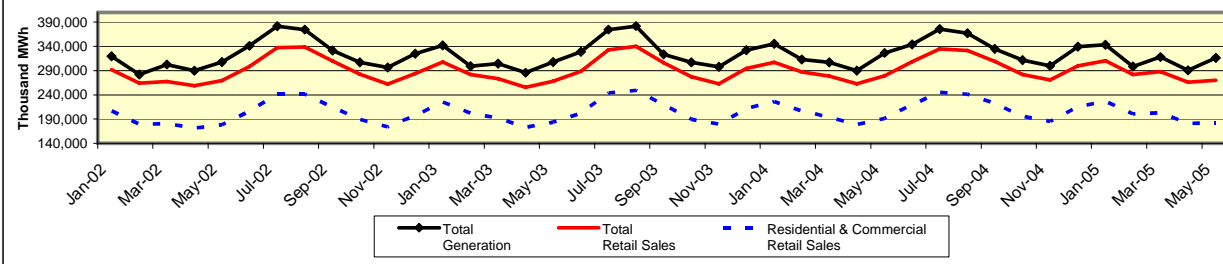
**Figure 7.1**  
Trends in Total Retail Sales of Electricity (All Sectors):  
2003, 2004, and 2005



**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:  
May 2005

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

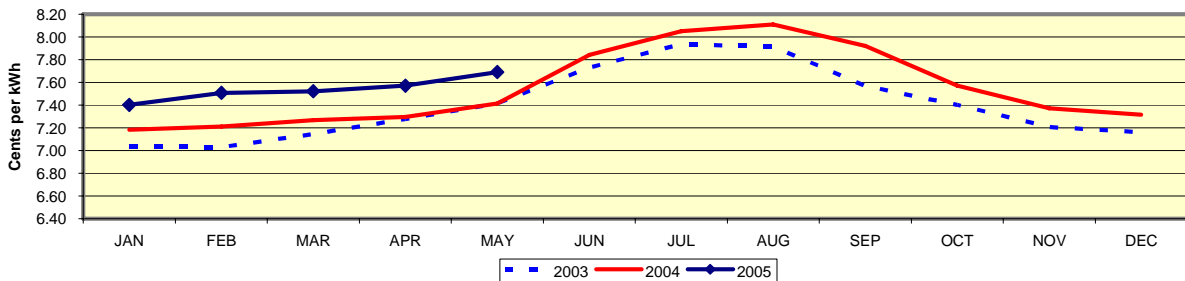
### Year-to-Date Comparison

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	January 2005	May 2005	8.89	8.15	5.18	7.13	7.54
<b>Prior Period</b>	January 2004	May 2004	8.59	7.88	4.94	6.24	7.27
<b>Percent Change</b>			3.5%	3.4%	4.9%	14.3%	3.7%

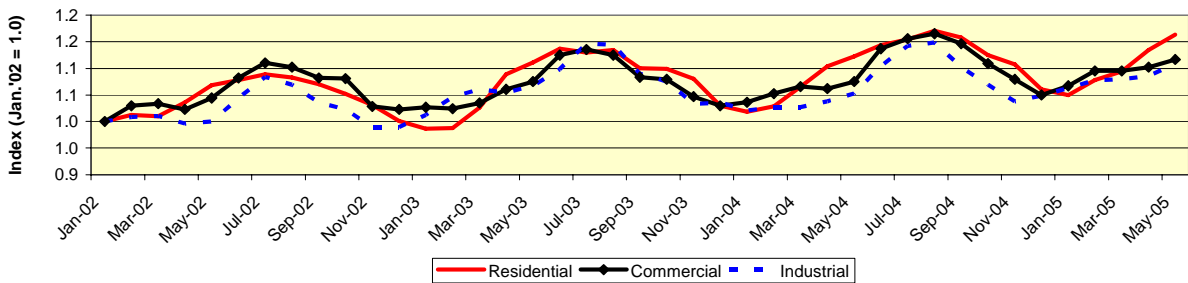
### Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
<b>Current Period</b>	June 2004	May 2005	9.06	8.27	5.21	6.86	7.67
<b>Prior Period</b>	June 2003	May 2004	8.79	8.02	5.10	7.05	7.46
<b>Percent Change</b>			3.1%	3.1%	2.2%	-2.7%	2.8%

**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:  
May 2005

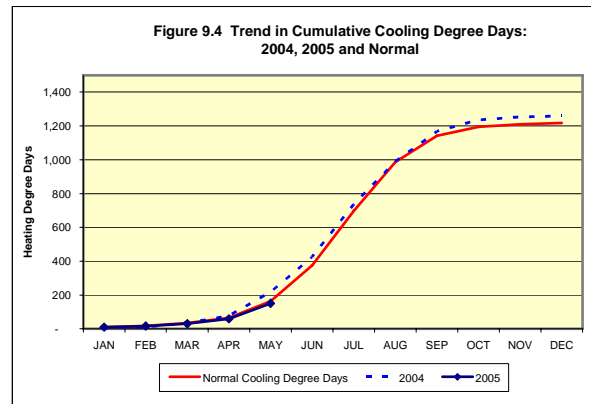
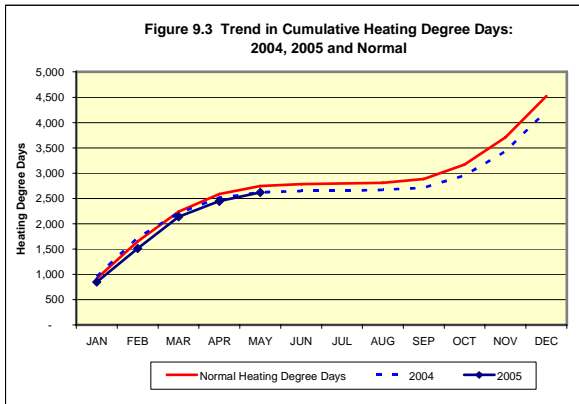
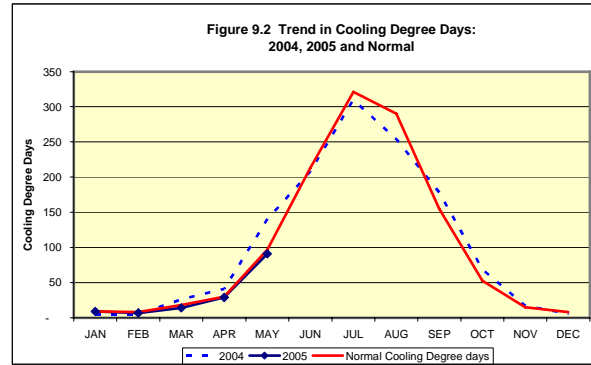
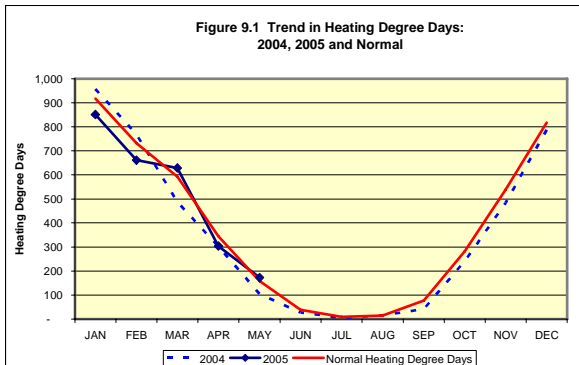
### Table 9.1 Degree Days

	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	May 2005	173	159	14	91	97	-6
Previous Period	May 2004	105	159	-54	140	97	43
Percent Change		64.8%			-35.0%		

### 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	May 2005	2,618	150
Prior Period	January 2004	May 2004	2,620	217
Percent Change			-0.1%	-30.9%

Comparison to Prior 12 Month Period				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	June 2004	May 2005	4,222	1,192
Prior Period	June 2003	May 2004	4,224	1,326
Percent Change			0.0%	-10.1%



**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).