

# Monthly Flash Estimates of Electric Power Data

Data for:  
July 2006

## Section 1. Commentary

According to the National Climatic Data Center, the United States had its second hottest July on record due to a blistering heat wave throughout the country. The first seven months of 2006 was also the warmest on record in the Nation since recordkeeping began in 1895. July 2006 cooling degree days were near their historical high and more than 21 percent above normal. Year-to-date cooling degree days through July 2006 were 9.1 percent higher than in 2005.

In July 2006 net generation, retail sales and retail prices of electricity all reached new highs. Year-to-date net generation for July 2006 was up 1.3 percent compared to July 2005. Comparing month-to-month, July 2006 net generation was 4.3 percent higher than July 2005, and 14.4 percent higher than June 2006. The increase in net generation was influenced by continued economic growth and near record-breaking hot July weather. The index of industrial production increased 0.4 percent between June 2006 and July 2006 and was 5.2 percent higher comparing July 2006 to July 2005.

The average retail price of electricity for July 2006 was 9.47 cents per kilowatthour. Comparing year-to-date July 2006 and July 2005, retail sales of electricity were up 1.2 percent; and the average retail price of electricity was up 11.1 percent, due to higher fuel costs as well as higher demand for electricity, which requires power generation facilities to make more use of expensive-to-operate peaking units.

Comparing July 2006 to July 2005, generation by all fuel sources was up, except for petroleum liquids. July coal generation was 0.6 percent higher than in July 2005. Natural gas-fired generation reached record levels during July 2006 to meet summer cooling demand and was up a significant 20.7 percent from July 2005. Benefiting from continued moderation in natural gas prices, through July 2006 natural gas-fired generation was up a strong 8.3 percent year-to-date. In July 2006, the electric power industry consumed a record 1,013 billion cubic feet of natural gas. As a consequence of high global oil prices, petroleum liquid fired generation declined 52.9 percent year-to-date and dropped by 54.1 percent comparing July 2005 to July 2006.

Comparing year-to-date July 2006 to July 2005, nuclear generation, which continues to experience fewer days lost to planned and forced maintenance, was 2.7 percent higher. Similarly, hydroelectric generation was 11.8 percent higher. Although July 2006 hydroelectric generation saw a seasonal decrease of 10.9 percent from June 2006, it was 0.7 percent higher than in July 2005. The strong increase in hydroelectric output year-to-date reflects heavy precipitation which has put water supplies at or above normal in the northwestern States and California, the largest hydroelectric production region.

Bituminous and subbituminous coal stocks were respectively 11.9 percent and 29.8 percent higher comparing July 2005 and 2006, as subbituminous coal stocks have essentially recovered from last summer's rail delivery constraints. Subbituminous stocks exceeded 62 million tons, the highest level for July since 2003. As expected to meet the high summer demand for generation, coal and petroleum liquids stockpiles in the electric power sector were drawn down, resulting in a 5.7-percent decrease in coal inventories from June 2006. Petroleum liquids inventories were 28.4 percent higher than in July 2005, but were down 3.2 percent from June 2006.

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

Data for:  
July 2006

### Table 2.1 Key Generation Indicators

|                                | Total Generation | Nuclear Generation | Hydroelectric Generation |
|--------------------------------|------------------|--------------------|--------------------------|
| <b>Total Change From:</b>      |                  |                    |                          |
| June 2006                      | 14.4%            | 5.5%               | -10.9%                   |
| July 2005                      | 4.3%             | 2.1%               | 0.7%                     |
| <b>Year to Date</b>            | <b>1.3%</b>      | <b>2.7%</b>        | <b>11.8%</b>             |
| <b>Latest 12 Month Period*</b> | <b>2.2%</b>      | <b>2.4%</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>      |                         |                  |             |
| June 2006                      | 43.7%                   | 11.2%            | -5.7%       |
| July 2005                      | 20.9%                   | 0.5%             | 20.8%       |
| <b>Year to Date</b>            | <b>7.8%</b>             | <b>-1.2%</b>     | <b>n/a</b>  |
| <b>Latest 12 Month Period*</b> | <b>7.5%</b>             | <b>0.5%</b>      | <b>n/a</b>  |

\* Change in total consumption or generation for the latest 12 month period (August 2005 to July 2006) compared to the prior 12 month period (August 2004 to July 2005).

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

Data for:  
July 2006

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

| Net Generation (thousand megawatthours) | Jul-06  | Jul-05  | % Change | Jun-06  | % Change |
|---|---------|---------|----------|---------|----------|
| Coal                                    | 187,143 | 186,056 | 0.6%     | 169,062 | 10.7%    |
| Petroleum Liquids                       | 5,058   | 11,013  | -54.1%   | 4,078   | 24.0%    |
| Natural Gas                             | 114,645 | 94,949  | 20.7%    | 82,375  | 39.2%    |
| Nuclear                                 | 72,186  | 70,703  | 2.1%     | 68,391  | 5.5%     |
| Hydroelectric Conventional              | 25,697  | 25,514  | 0.7%     | 28,830  | -10.9%   |
| All Other                               | 11,706  | 11,017  | 6.3%     | 11,286  | 3.7%     |
| Total (All Energy Sources)              | 416,436 | 399,252 | 4.3%     | 364,022 | 14.4%    |

### 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          | Jul-06    | Jul-05  | % Change | Jun-06  | % Change |
|--------------------------------------|-----------|---------|----------|---------|----------|
| Coal (Thousand Short Tons)           | 97,896    | 97,412  | 0.5%     | 88,056  | 11.2%    |
| Petroleum Liquids (Thousand Barrels) | 8,911     | 18,931  | -52.9%   | 6,998   | 27.3%    |
| Natural Gas (Million Cubic Feet)     | 1,012,762 | 837,604 | 20.9%    | 704,720 | 43.7%    |

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

| Fossil Fuel Stocks                   | Jul-06  | Jul-05  | % Change | Jun-06  | % Change |
|--------------------------------------|---------|---------|----------|---------|----------|
| Coal (Thousand Short Tons)           | 127,464 | 105,556 | 20.8%    | 135,112 | -5.7%    |
| Petroleum Liquids (Thousand Barrels) | 50,847  | 39,614  | 28.4%    | 52,551  | -3.2%    |

#### 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:  
July 2006

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

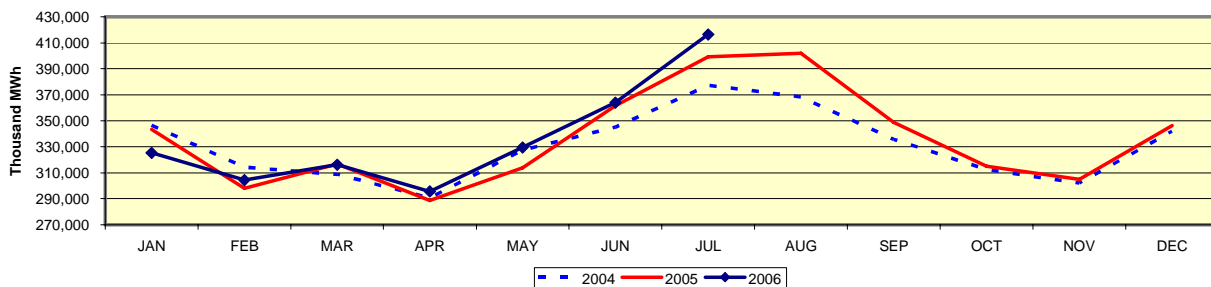
### Year-to-Date Comparison

|                           | Starting Month | Ending Month | Coal      | Petroleum Liquids | Natural Gas | Nuclear | Hydroelectric Conventional | All Other | Total     |
|---------------------------|----------------|--------------|-----------|-------------------|-------------|---------|----------------------------|-----------|-----------|
| <b>Current Period</b>     | January 2006   | July 2006    | 1,141,635 | 24,674            | 459,147     | 459,169 | 188,377                    | 78,442    | 2,351,444 |
| <b>Prior Period</b>       | January 2005   | July 2005    | 1,155,264 | 52,407            | 424,003     | 446,880 | 168,549                    | 73,908    | 2,321,011 |
| <b>Percent Difference</b> |                |              | -1.2%     | -52.9%            | 8.3%        | 2.7%    | 11.8%                      | 6.1%      | 1.3%      |

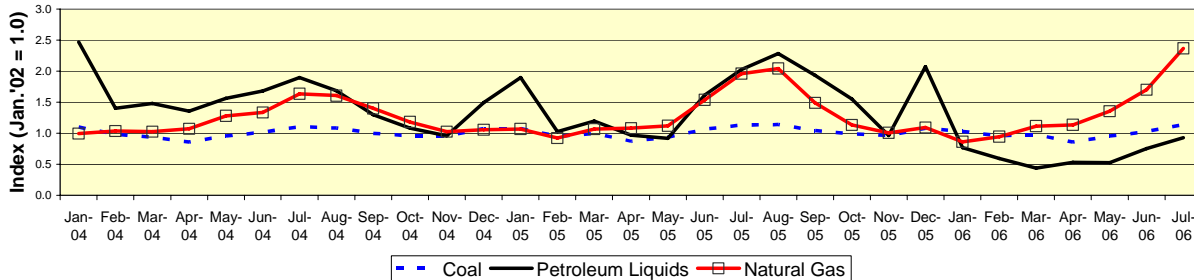
### Comparison to Prior Twelve-Month Period

|                           | Starting Month | Ending Month | Coal      | Petroleum Liquids | Natural Gas | Nuclear | Hydroelectric Conventional | All Other | Total     |
|---------------------------|----------------|--------------|-----------|-------------------|-------------|---------|----------------------------|-----------|-----------|
| <b>Current Period</b>     | August 2005    | July 2006    | 2,000,544 | 72,549            | 786,693     | 792,754 | 284,906                    | 130,975   | 4,068,421 |
| <b>Prior Period</b>       | August 2004    | July 2005    | 1,989,612 | 87,868            | 727,537     | 773,968 | 276,676                    | 125,911   | 3,981,572 |
| <b>Percent Difference</b> |                |              | 0.5%      | -17.4%            | 8.1%        | 2.4%    | 3.0%                       | 4.0%      | 2.2%      |

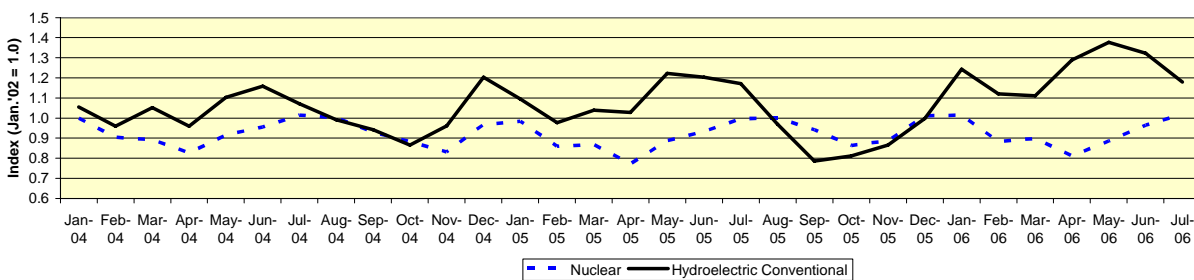
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2004, 2005, and 2006**



**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:  
July 2006

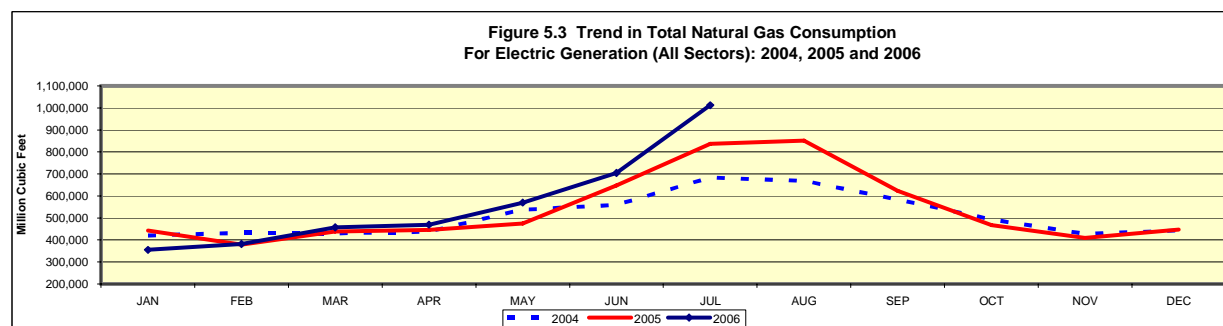
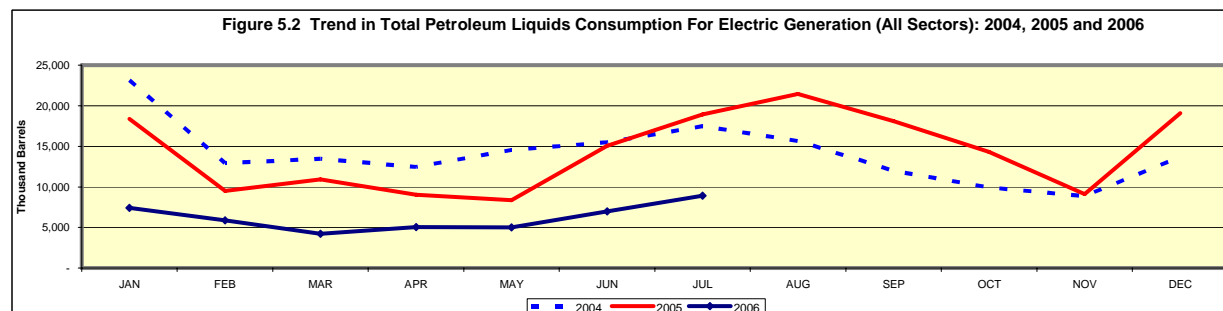
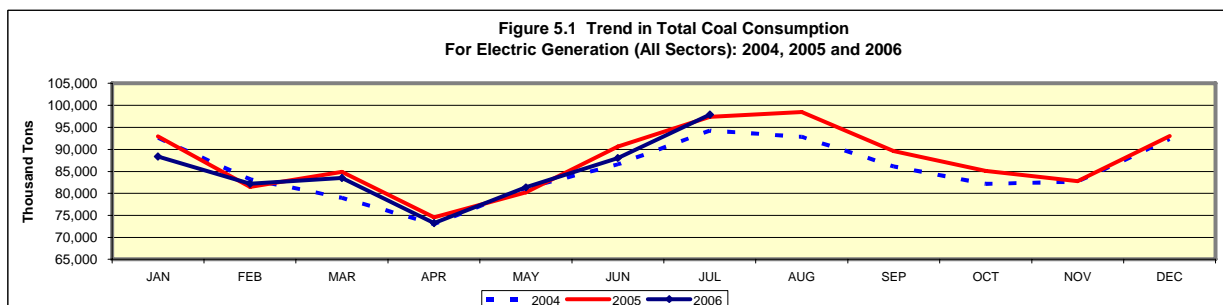
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

### Year-to-Date Comparison

|                           | Starting Month | Ending Month | Coal<br>(Thousand Tons) | Petroleum Liquids<br>(Thousand Barrels) | Natural Gas<br>(Million Cubic Feet) |
|---------------------------|----------------|--------------|-------------------------|---|-------------------------------------|
| <b>Current Period</b>     | January 2006   | July 2006    | 594,654                 | 43,498                                  | 3,951,785                           |
| <b>Prior Period</b>       | January 2005   | July 2005    | 602,170                 | 90,292                                  | 3,666,524                           |
| <b>Percent Difference</b> |                |              | -1.2%                   | -51.8%                                  | 7.8%                                |

### Comparison to Prior 12 Month Period

|                           | Starting Month | Ending Month | Coal<br>(Thousand Tons) | Petroleum Liquids<br>(Thousand Barrels) | Natural Gas<br>(Million Cubic Feet) |
|---------------------------|----------------|--------------|-------------------------|---|-------------------------------------|
| <b>Current Period</b>     | August 2005    | July 2006    | 1,043,661               | 125,613                                 | 6,751,233                           |
| <b>Prior Period</b>       | August 2004    | July 2005    | 1,038,290               | 150,505                                 | 6,280,348                           |
| <b>Percent Difference</b> |                |              | 0.5%                    | -16.5%                                  | 7.5%                                |

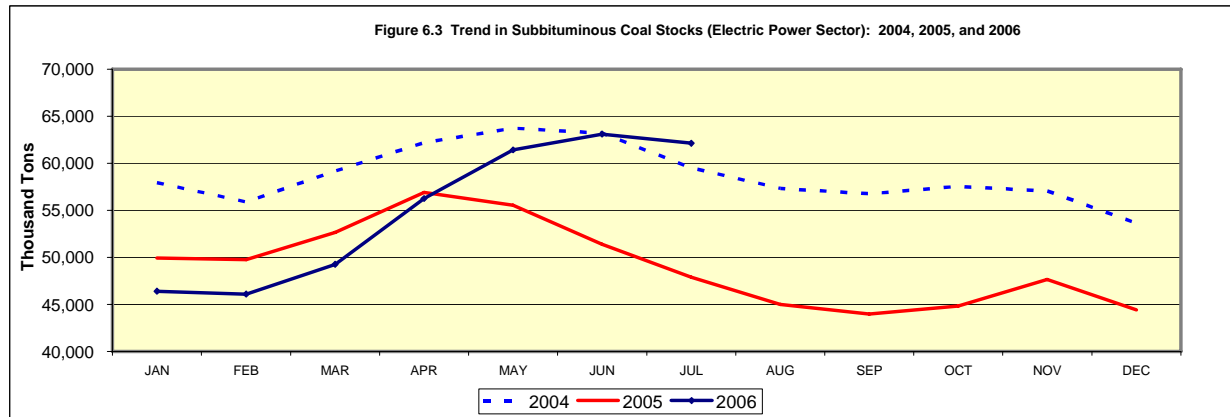
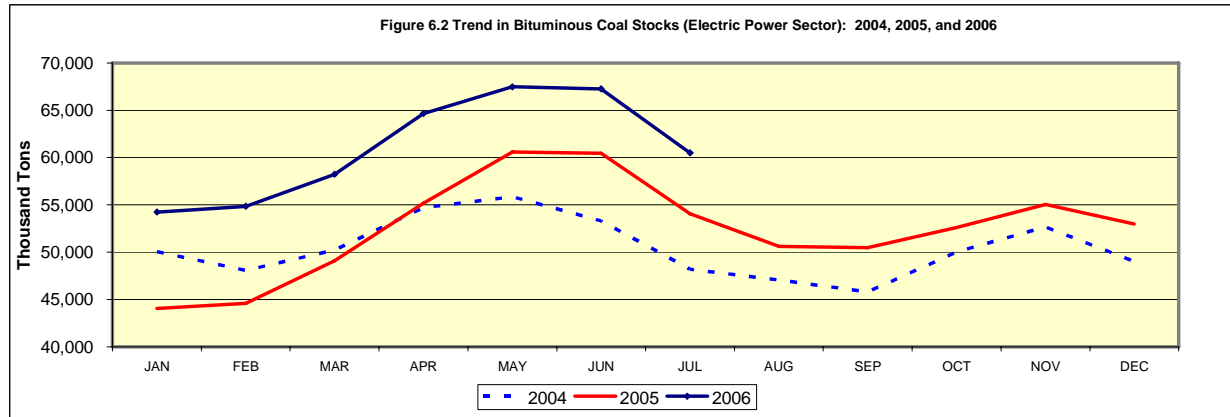
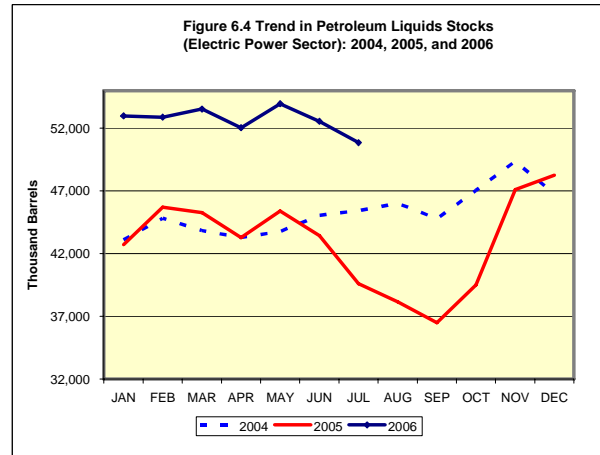
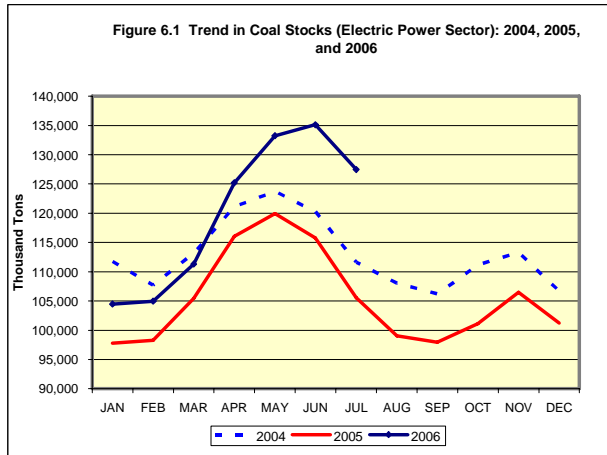


# Section 6. Fossil Fuel Stock Trends

Data for:  
July 2006

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

| Fossil Fuel Stocks                                | Jul-06  | Jul-05  | % Change | Jun-06  | % Change |
|---|---------|---------|----------|---------|----------|
| <b>Coal, Total (Thousand Short Tons)</b>          | 127,464 | 105,556 | 20.8%    | 135,112 | -5.7%    |
| Bituminous (includes anthracite and coal synfuel) | 60,485  | 54,059  | 11.9%    | 67,266  | -10.1%   |
| Subbituminous                                     | 62,127  | 47,875  | 29.8%    | 63,115  | -1.6%    |
| Lignite   | 4,852   | 3,622   | 34.0%    | 4,731   | 2.6%     |
| <b>Petroleum Liquids (Thousand Barrels)</b>       | 50,847  | 39,614  | 28.4%    | 52,551  | -3.2%    |



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

Data for:  
July 2006

### Retail Sales

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

| Ultimate Customer | Jul-06  | Jul-05  | % Change | Jun-06  | % Change |
|-------------------|---------|---------|----------|---------|----------|
| Residential       | 148,054 | 144,945 | 2.1%     | 119,168 | 24.2%    |
| Commercial        | 125,479 | 120,772 | 3.9%     | 115,402 | 8.7%     |
| Industrial        | 89,412  | 88,303  | 1.3%     | 87,215  | 2.5%     |
| Transportation    | 690     | 684     | 0.9%     | 671     | 2.8%     |
| All Sectors       | 363,635 | 354,705 | 2.5%     | 322,457 | 12.8%    |

### Average Retail Price

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

| Ultimate Customer | Jul-06 | Jul-05 | % Change | Jun-06 | % Change |
|-------------------|--------|--------|----------|--------|----------|
| Residential       | 10.96  | 9.75   | 12.4%    | 10.84  | 1.1%     |
| Commercial        | 9.90   | 9.07   | 9.2%     | 9.77   | 1.3%     |
| Industrial        | 6.39   | 5.95   | 7.4%     | 6.24   | 2.4%     |
| Transportation    | 8.39   | 8.07   | 4.0%     | 8.05   | 4.2%     |
| All Sectors       | 9.47   | 8.57   | 10.5%    | 9.21   | 2.8%     |

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

| Census Division       | Residential |        |          | All Sectors |        |          |
|-----------------------|-------------|--------|----------|-------------|--------|----------|
|                       | Jul-06      | Jul-05 | % Change | Jul-06      | Jul-05 | % Change |
| New England           | 15.89       | 13.34  | 19.1%    | 14.27       | 11.97  | 19.2%    |
| Middle Atlantic       | 14.25       | 12.98  | 9.8%     | 12.47       | 11.51  | 8.3%     |
| East North Central    | 9.64        | 8.82   | 9.3%     | 7.99        | 7.43   | 7.5%     |
| West North Central    | 8.99        | 8.55   | 5.1%     | 7.57        | 7.19   | 5.3%     |
| South Atlantic        | 10.12       | 9.08   | 11.5%    | 8.76        | 7.86   | 11.5%    |
| East South Central    | 8.34        | 7.50   | 11.2%    | 7.28        | 6.53   | 11.5%    |
| West South Central    | 11.70       | 10.32  | 13.4%    | 9.81        | 8.80   | 11.5%    |
| Mountain              | 9.41        | 9.04   | 4.1%     | 7.90        | 7.74   | 2.1%     |
| Pacific Contiguous    | 14.05       | 10.98  | 28.0%    | 12.43       | 10.70  | 16.2%    |
| Pacific Noncontiguous | 21.62       | 18.37  | 17.7%    | 18.99       | 16.28  | 16.6%    |
| U.S. Total            | 10.96       | 9.75   | 12.4%    | 9.47        | 8.57   | 10.5%    |

# Section 8. Retail Sales Trends

Data for:  
July 2006

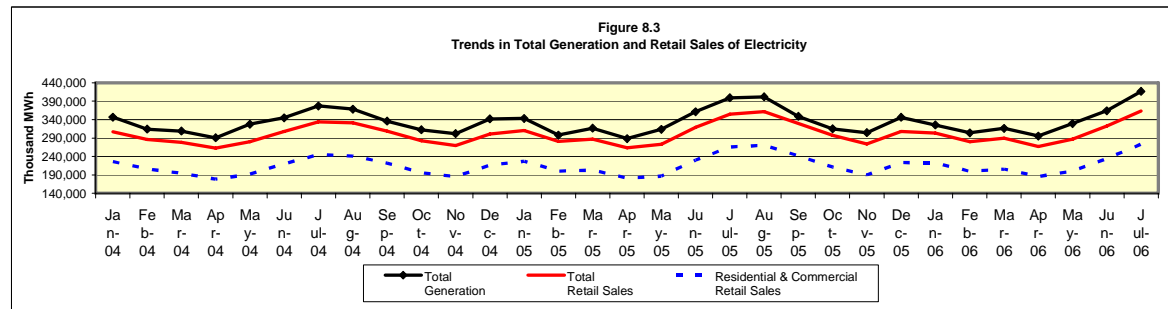
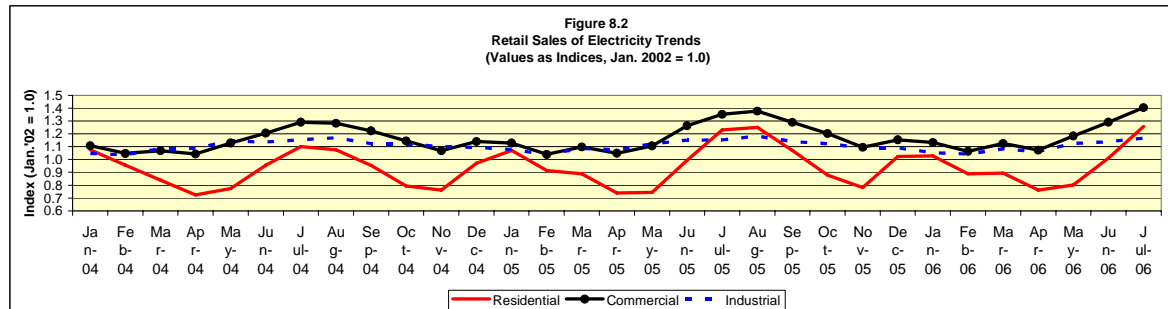
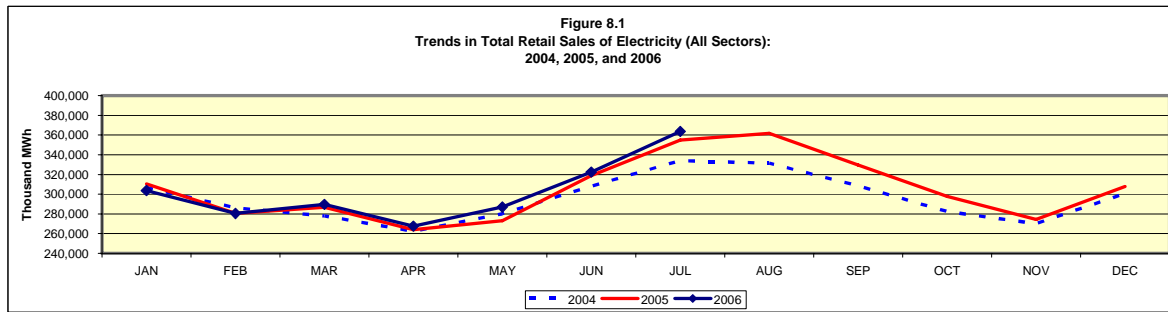
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

### Year-to-Date Comparison

|                           | Starting Month | Ending Month | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|--------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | January 2006   | July 2006    | 782,213     | 739,560    | 587,782    | 4,749          | 2,114,305           |
| <b>Prior Period</b>       | January 2005   | July 2005    | 775,101     | 718,342    | 590,209    | 4,792          | 2,088,444           |
| <b>Percent Difference</b> |                |              | 0.9%        | 3.0%       | -0.4%      | -0.9%          | 1.2%                |

### Comparison to Prior Twelve-Month Period

|                           | Starting Month | Ending Month | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|--------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | August 2005    | July 2006    | 1,371,900   | 1,286,373  | 1,018,886  | 8,229          | 3,685,388           |
| <b>Prior Period</b>       | August 2004    | July 2005    | 1,311,683   | 1,242,060  | 1,019,738  | 7,786          | 3,581,267           |
| <b>Percent Difference</b> |                |              | 4.6%        | 3.6%       | -0.1%      | 5.7%           | 2.9%                |





# Section 9. Average Retail Price Trends

Data for:  
July 2006

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

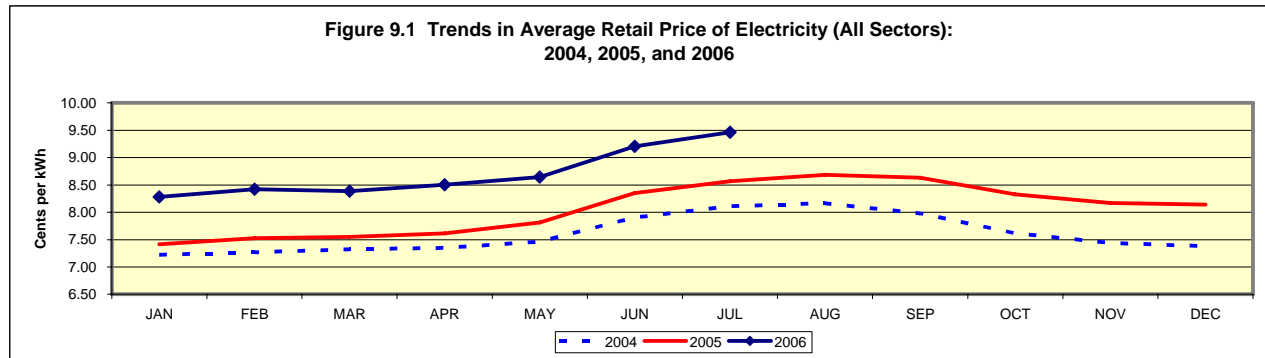
### Year-to-Date Comparison

|                           | Starting Month | Ending Month | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|--------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | January 2006   | July 2006    | 10.30       | 9.31       | 5.94       | 7.62           | 8.74                |
| <b>Prior Period</b>       | January 2005   | July 2005    | 9.21        | 8.49       | 5.35       | 7.23           | 7.87                |
| <b>Percent Difference</b> |                |              | 11.8%       | 9.7%       | 11.0%      | 5.4%           | 11.1%               |

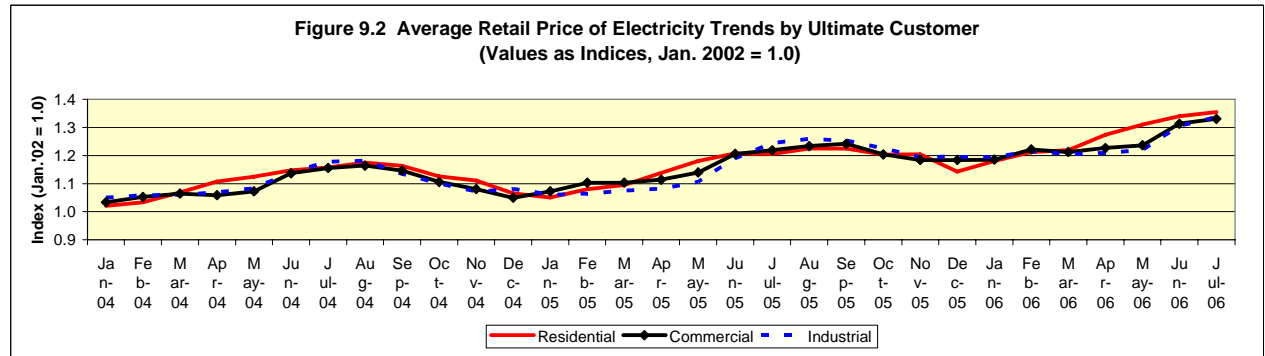
### Comparison to Prior 12 Month Period

|                           | Starting Month | Ending Month | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|--------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | August 2005    | July 2006    | 10.05       | 9.18       | 5.91       | 7.64           | 8.60                |
| <b>Prior Period</b>       | August 2004    | July 2005    | 9.18        | 8.40       | 5.34       | 7.24           | 7.81                |
| <b>Percent Difference</b> |                |              | 9.5%        | 9.3%       | 10.7%      | 5.5%           | 10.1%               |

**Figure 9.1 Trends in Average Retail Price of Electricity (All Sectors):  
2004, 2005, and 2006**



**Figure 9.2 Average Retail Price of Electricity Trends by Ultimate Customer  
(Values as Indices, Jan. 2002 = 1.0)**



# Section 10. Heating and Cooling Degree Days

Data for:  
July 2006

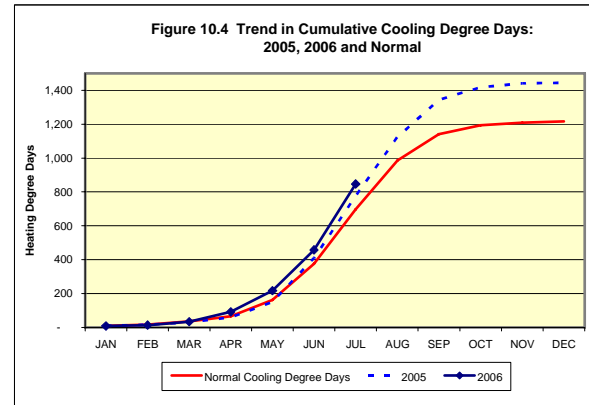
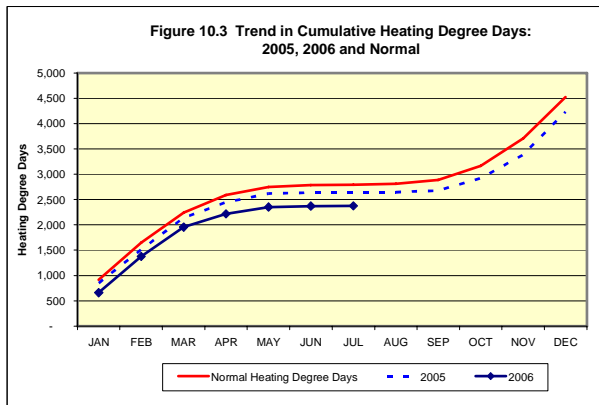
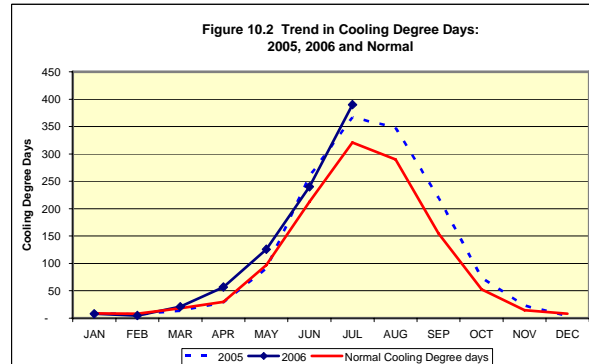
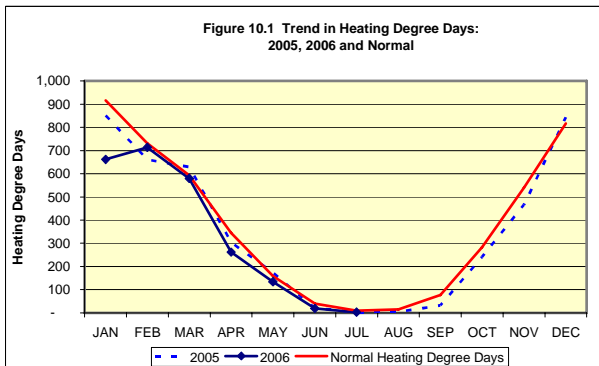
## Table 10.1 Degree Days

|                    | 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     | July 2006 | 3                   | 9                          | -6                        | 390                 | 321                        | 69                        |
| Previous Period    | July 2005 | 3                   | 9                          | -6                        | 367                 | 321                        | 46                        |
| Percent Difference |           | 0.0%                |                            |                           | 6.3%                |                            |                           |

## Table 10.2 Trends in Heating and Cooling Degree Days

| Year-to-Date Comparison |                |              |                     |                     |
|-------------------------|----------------|--------------|---------------------|---------------------|
|                         | Starting Month | Ending Month | Heating Degree Days | Cooling Degree Days |
| Current Period          | January 2006   | July 2006    | 2,374               | 847                 |
| Prior Period            | January 2005   | July 2005    | 2,642               | 776                 |
| Percent Difference      |                |              | -10.1%              | 9.1%                |

| Comparison to Prior 12 Month Period |                |              |                     |                     |
|-------------------------------------|----------------|--------------|---------------------|---------------------|
|                                     | Starting Month | Ending Month | Heating Degree Days | Cooling Degree Days |
| Current Period                      | August 2005    | July 2006    | 3,961               | 1,516               |
| Prior Period                        | August 2004    | July 2005    | 4,213               | 1,300               |
| Percent Difference                  |                |              | -6.0%               | 16.6%               |



**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).