

# *Monthly Flash Estimates of* **Electric Power Data**

**Data for:  
November 2007**

## **Section 1. Commentary**

According to the National Oceanic and Atmospheric Administration, November 2007 was the twenty-fifth warmest November over the 1895-2007 time period. Heating degree days were 3.3 percent below the average for the month of November, but 11.6 percent higher than what was recorded in a fairly mild November 2006.

In November 2007, electricity generation was 1.4 percent higher than what was observed in November 2006, while retail sales of electricity increased 2.6 percent when compared to November 2006. The higher growth rate for sales of electricity relative to generation is influenced by the fact that the utility billing cycles tend to lag electricity production in many areas. The average U.S. retail price of electricity for November 2007 was 4.1 percent higher than November 2006 and 2.2 percent lower than the previous month.

Severe drought conditions continued to affect many parts of the U.S. in November 2007. Accordingly, conventional hydroelectric generation was 23.5 percent lower than November 2006. Natural gas generation was up 13.7 percent while petroleum liquids generation was down 17.1 percent when compared to November 2006. Nuclear generation showed a 5.8 percent increase and generation from coal decreased 0.6 percent when compared to November 2006.

Total coal stocks in the electric power sector were up 2.6 percent from the previous month. The October 2007-to-November 2007 change in coal stocks consisted of a 1.2-percent decrease for bituminous and 6.5-percent increase for subbituminous coal. Petroleum liquids stocks were 9.9 percent lower than November 2006 as a result of increased generation attributed to petroleum liquids in the first half of 2007.

References for weather data:

<http://www.ncdc.noaa.gov/oa/climate/research/2007/nov/national.html>

## **Table of Contents**

|                                                                                      |                |
|--------------------------------------------------------------------------------------|----------------|
| <b>1. Commentary</b>                                                                 | <b>Page 1</b>  |
| <b>2. Key Indicators of Generation, Consumption &amp; Stocks</b>                     | <b>Page 2</b>  |
| <b>3. Month-to-Month Comparisons: Generation, Consumption and Stocks (Total)</b>     | <b>Page 3</b>  |
| <b>4. Net Generation Trends</b>                                                      | <b>Page 4</b>  |
| <b>5. Fossil Fuel Consumption Trends</b>                                             | <b>Page 5</b>  |
| <b>6. Fossil Fuel Stock Trends</b>                                                   | <b>Page 6</b>  |
| <b>7. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices</b> | <b>Page 7</b>  |
| <b>8. Retail Sales Trends</b>                                                        | <b>Page 8</b>  |
| <b>9. Average Retail Price Trends</b>                                                | <b>Page 9</b>  |
| <b>10. Heating and Cooling Degree Days</b>                                           | <b>Page 10</b> |
| <b>11. Documentation</b>                                                             | <b>Page 11</b> |

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

Data for:  
November 2007

### Table 2.1 Key Generation Indicators

|                                | Total Generation | Nuclear Generation | Hydroelectric Generation |
|--------------------------------|------------------|--------------------|--------------------------|
| <b>Total Change From:</b>      |                  |                    |                          |
| October 2007                   | -5.8%            | 5.3%               | 4.5%                     |
| November 2006                  | 1.4%             | 5.8%               | -23.5%                   |
| <b>Year to Date</b>            | <b>2.3%</b>      | <b>2.5%</b>        | <b>-14.2%</b>            |
| <b>Latest 12 Month Period*</b> | <b>1.8%</b>      | <b>2.1%</b>        | <b>-13.3%</b>            |

### Table 2.2 Key Consumption and Stocks Indicators

|                                | Natural Gas Consumption | Coal Consumption | Coal Stocks |
|--------------------------------|-------------------------|------------------|-------------|
| <b>Total Change From:</b>      |                         |                  |             |
| October 2007                   | -24.0%                  | -2.7%            | 2.6%        |
| November 2006                  | 12.5%                   | -0.6%            | 10.3%       |
| <b>Year to Date</b>            | <b>8.8%</b>             | <b>1.7%</b>      | <b>n/a</b>  |
| <b>Latest 12 Month Period*</b> | <b>8.5%</b>             | <b>1.3%</b>      | <b>n/a</b>  |

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

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

Data for:  
November 2007

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)

| Net Generation (thousand megawatthours) | Nov-07  | Nov-06  | % Change | Oct-07  | % Change |
|-----------------------------------------|---------|---------|----------|---------|----------|
| Coal                                    | 158,443 | 159,472 | -0.6%    | 162,642 | -2.6%    |
| Petroleum Liquids                       | 2,790   | 3,366   | -17.1%   | 3,551   | -21.4%   |
| Natural Gas                             | 60,470  | 53,161  | 13.7%    | 78,321  | -22.8%   |
| Nuclear                                 | 64,969  | 61,392  | 5.8%     | 61,690  | 5.3%     |
| Hydroelectric Conventional              | 15,499  | 20,272  | -23.5%   | 14,826  | 4.5%     |
| All Other                               | 11,217  | 11,495  | -2.4%    | 11,579  | -3.1%    |
| Total (All Energy Sources)              | 313,387 | 309,159 | 1.4%     | 332,609 | -5.8%    |

### 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          | Nov-07  | Nov-06  | % Change | Oct-07  | % Change |
|--------------------------------------|---------|---------|----------|---------|----------|
| Coal (Thousand Short Tons)           | 82,411  | 82,938  | -0.6%    | 84,679  | -2.7%    |
| Petroleum Liquids (Thousand Barrels) | 4,887   | 5,769   | -15.3%   | 6,176   | -20.9%   |
| Natural Gas (Million Cubic Feet)     | 504,410 | 448,459 | 12.5%    | 663,528 | -24.0%   |

### Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)

| Fossil Fuel Stocks                   | Nov-07  | Nov-06  | % Change | Oct-07  | % Change |
|--------------------------------------|---------|---------|----------|---------|----------|
| Coal (Thousand Short Tons)           | 154,881 | 140,442 | 10.3%    | 150,942 | 2.6%     |
| Petroleum Liquids (Thousand Barrels) | 42,888  | 47,615  | -9.9%    | 42,185  | 1.7%     |

#### 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:  
November 2007

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

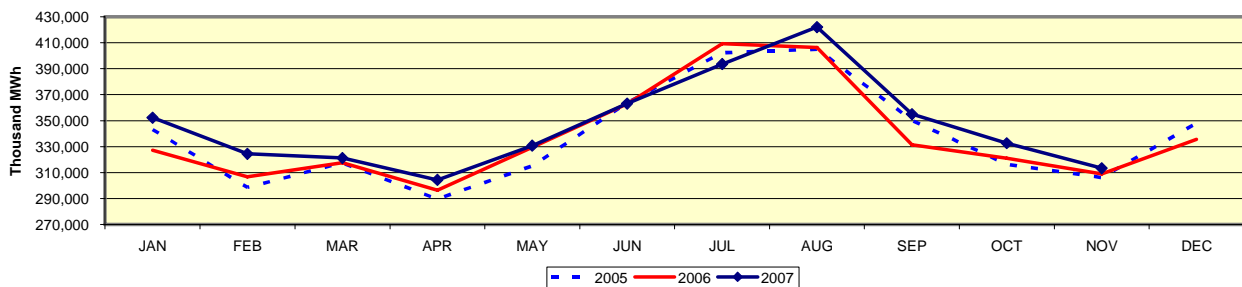
**Year-to-Date Comparison**

|                           | Starting Month | Ending Month  | Coal      | Petroleum Liquids | Natural Gas | Nuclear | Hydroelectric Conventional | All Other | Total     |
|---------------------------|----------------|---------------|-----------|-------------------|-------------|---------|----------------------------|-----------|-----------|
| <b>Current Period</b>     | January 2007   | November 2007 | 1,844,799 | 48,012            | 826,826     | 734,504 | 229,585                    | 128,883   | 3,812,609 |
| <b>Prior Period</b>       | January 2006   | November 2006 | 1,817,379 | 41,538            | 757,215     | 716,729 | 267,650                    | 127,908   | 3,728,419 |
| <b>Percent Difference</b> |                |               | 1.5%      | 15.6%             | 9.2%        | 2.5%    | -14.2%                     | 0.8%      | 2.3%      |

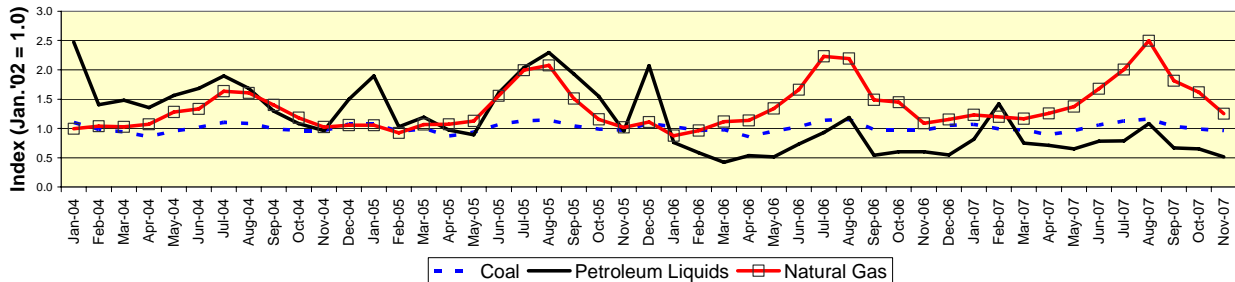
**Comparison to Prior Twelve-Month Period**

|                           | Starting Month | Ending Month  | Coal      | Petroleum Liquids | Natural Gas | Nuclear | Hydroelectric Conventional | All Other | Total     |
|---------------------------|----------------|---------------|-----------|-------------------|-------------|---------|----------------------------|-----------|-----------|
| <b>Current Period</b>     | December 2006  | November 2007 | 2,018,346 | 51,128            | 882,655     | 804,994 | 251,181                    | 140,588   | 4,148,892 |
| <b>Prior Period</b>       | December 2005  | November 2006 | 1,995,365 | 52,780            | 810,953     | 788,464 | 289,792                    | 139,166   | 4,076,520 |
| <b>Percent Difference</b> |                |               | 1.2%      | -3.1%             | 8.8%        | 2.1%    | -13.3%                     | 1.0%      | 1.8%      |

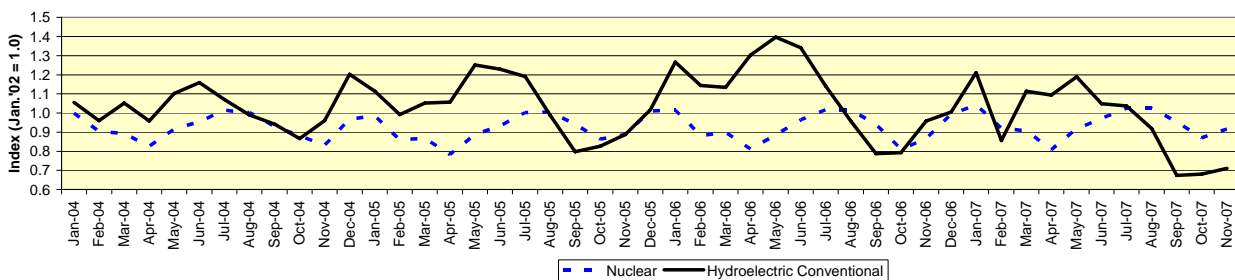
**Figure 4.1 Trends in Total Net Generation (All Sectors): 2005, 2006, and 2007**



**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:  
November 2007

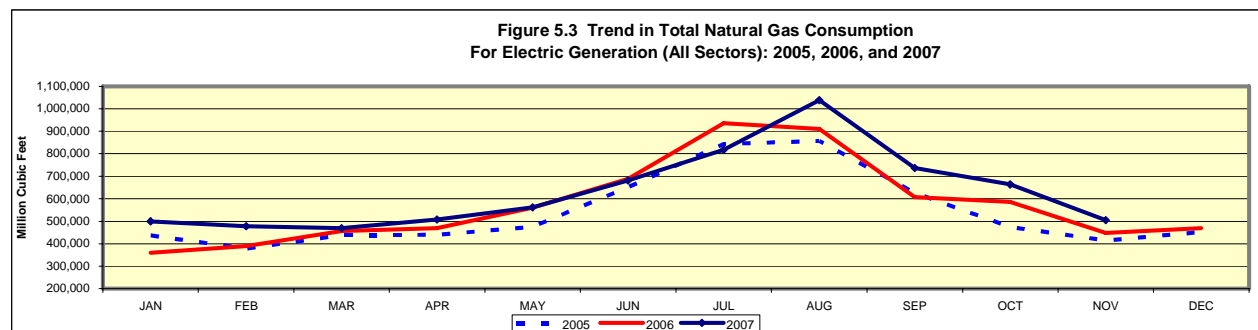
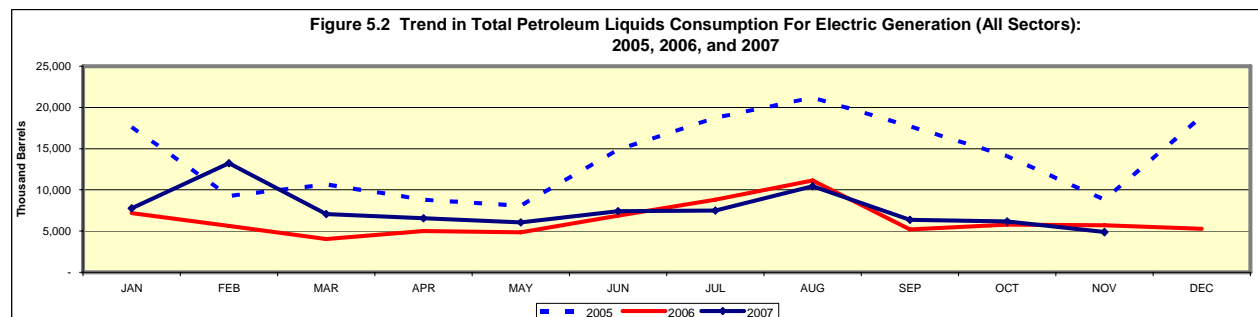
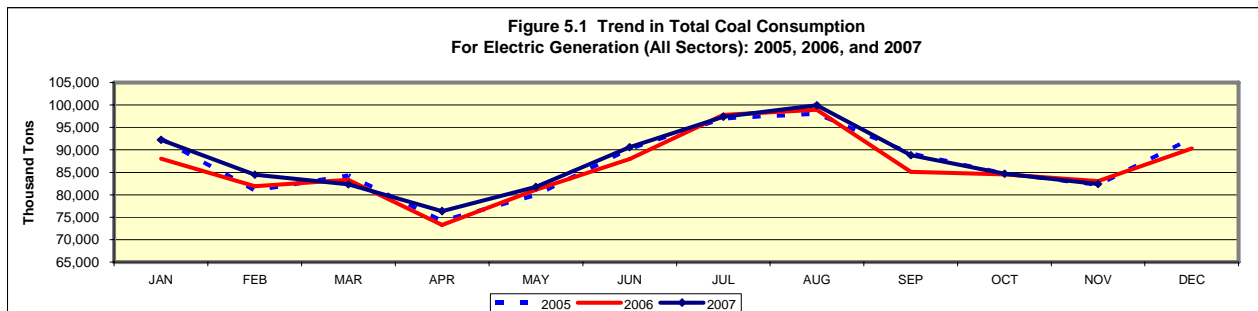
**Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)**

### 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 2007   | November 2007 | 961,024                 | 83,463                                  | 6,958,000                           |
| <b>Prior Period</b>       | January 2006   | November 2006 | 944,931                 | 71,580                                  | 6,398,058                           |
| <b>Percent Difference</b> |                |               | 1.7%                    | 16.6%                                   | 8.8%                                |

### 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>     | December 2006  | November 2007 | 1,051,439               | 88,885                                  | 7,429,565                           |
| <b>Prior Period</b>       | December 2005  | November 2006 | 1,037,508               | 90,467                                  | 6,850,054                           |
| <b>Percent Difference</b> |                |               | 1.3%                    | -1.7%                                   | 8.5%                                |

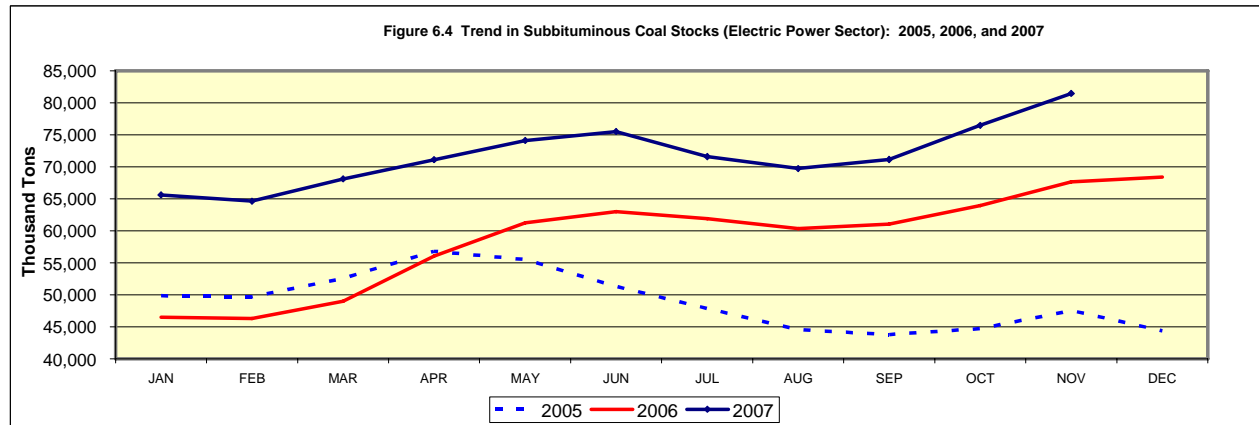
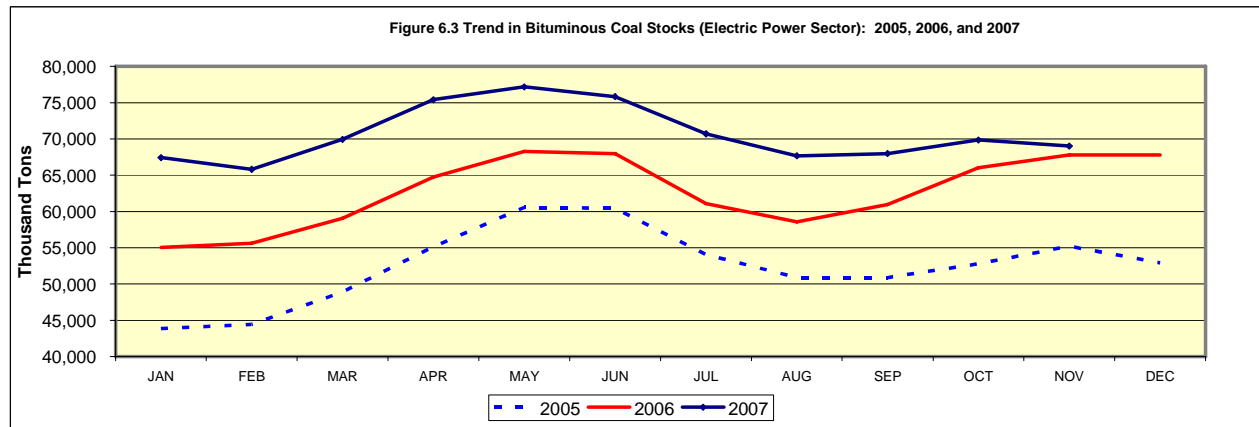
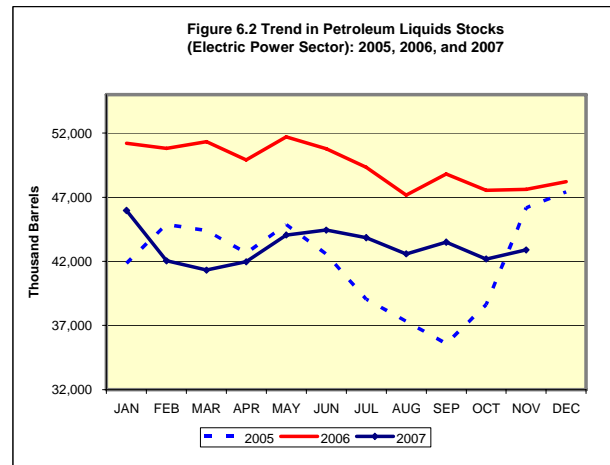
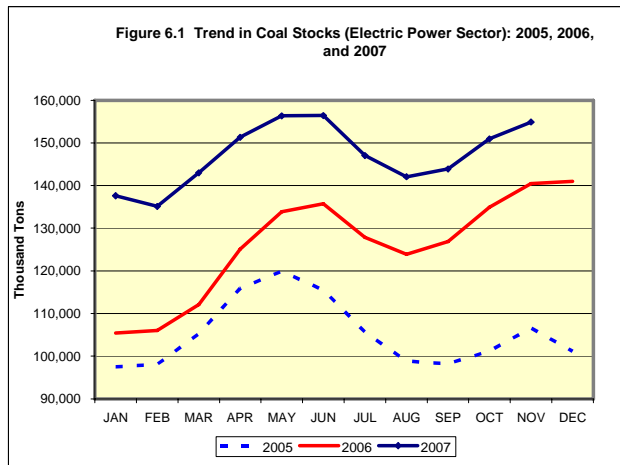


# Section 6. Fossil Fuel Stock Trends

Data for:  
November 2007

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

| Fossil Fuel Stocks                                | Nov-07  | Nov-06  | % Change | Oct-07  | % Change |
|---------------------------------------------------|---------|---------|----------|---------|----------|
| <b>Coal, Total (Thousand Short Tons)</b>          | 154,881 | 140,442 | 10.3%    | 150,942 | 2.6%     |
| Bituminous (includes anthracite and coal synfuel) | 69,006  | 67,797  | 1.8%     | 69,829  | -1.2%    |
| Subbituminous                                     | 81,463  | 67,662  | 20.4%    | 76,487  | 6.5%     |
| Lignite                                           | 4,411   | 4,983   | -11.5%   | 4,626   | -4.6%    |
| <b>Petroleum Liquids (Thousand Barrels)</b>       | 42,888  | 47,615  | -9.9%    | 42,185  | 1.7%     |



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

Data for:  
November 2007

### Retail Sales

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

| Ultimate Customer | Nov-07  | Nov-06  | % Change | Oct-07  | % Change |
|-------------------|---------|---------|----------|---------|----------|
| Residential       | 95,854  | 94,843  | 1.1%     | 103,770 | -7.6%    |
| Commercial        | 104,648 | 101,104 | 3.5%     | 115,095 | -9.1%    |
| Industrial        | 83,212  | 80,653  | 3.2%     | 87,330  | -4.7%    |
| Transportation    | 637     | 582     | 9.4%     | 617     | 3.2%     |
| All Sectors       | 284,351 | 277,182 | 2.6%     | 306,812 | -7.3%    |

### Average Retail Price

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

| Ultimate Customer | Nov-07 | Nov-06 | % Change | Oct-07 | % Change |
|-------------------|--------|--------|----------|--------|----------|
| Residential       | 10.69  | 10.18  | 5.0%     | 10.81  | -1.1%    |
| Commercial        | 9.60   | 9.24   | 3.9%     | 9.79   | -1.9%    |
| Industrial        | 6.22   | 6.04   | 3.0%     | 6.44   | -3.4%    |
| Transportation    | 9.46   | 9.40   | 0.6%     | 10.46  | -9.6%    |
| All Sectors       | 8.98   | 8.63   | 4.1%     | 9.18   | -2.2%    |

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

| Census Division       | Residential |        |          | All Sectors |        |          |
|-----------------------|-------------|--------|----------|-------------|--------|----------|
|                       | Nov-07      | Nov-06 | % Change | Nov-07      | Nov-06 | % Change |
| New England           | 16.18       | 15.58  | 3.9%     | 14.61       | 13.97  | 4.6%     |
| Middle Atlantic       | 13.94       | 12.89  | 8.1%     | 12.11       | 11.58  | 4.6%     |
| East North Central    | 9.99        | 8.86   | 12.8%    | 8.07        | 7.26   | 11.2%    |
| West North Central    | 7.98        | 7.69   | 3.8%     | 6.34        | 6.20   | 2.3%     |
| South Atlantic        | 10.10       | 9.75   | 3.6%     | 8.60        | 8.40   | 2.4%     |
| East South Central    | 8.59        | 7.98   | 7.6%     | 6.91        | 6.46   | 7.0%     |
| West South Central    | 11.00       | 11.13  | -1.2%    | 9.02        | 8.93   | 1.0%     |
| Mountain              | 8.94        | 8.47   | 5.5%     | 7.37        | 6.99   | 5.4%     |
| Pacific Contiguous    | 11.60       | 11.53  | 0.6%     | 10.36       | 10.42  | -0.6%    |
| Pacific Noncontiguous | 21.76       | 19.46  | 11.8%    | 19.61       | 17.31  | 13.3%    |
| U.S. Total            | 10.69       | 10.18  | 5.0%     | 8.98        | 8.63   | 4.1%     |

# Section 8. Retail Sales Trends

Data for:  
November 2007

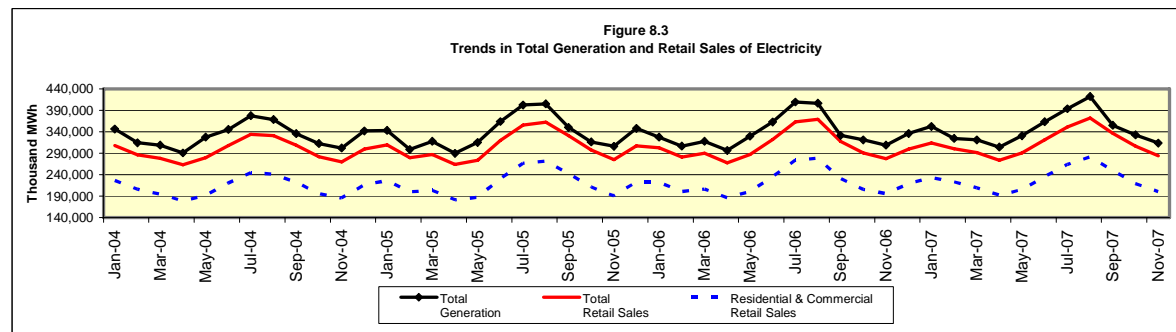
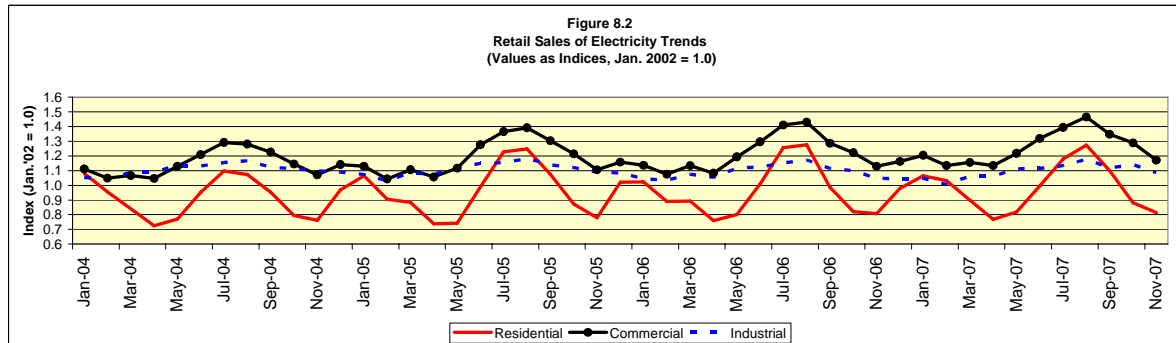
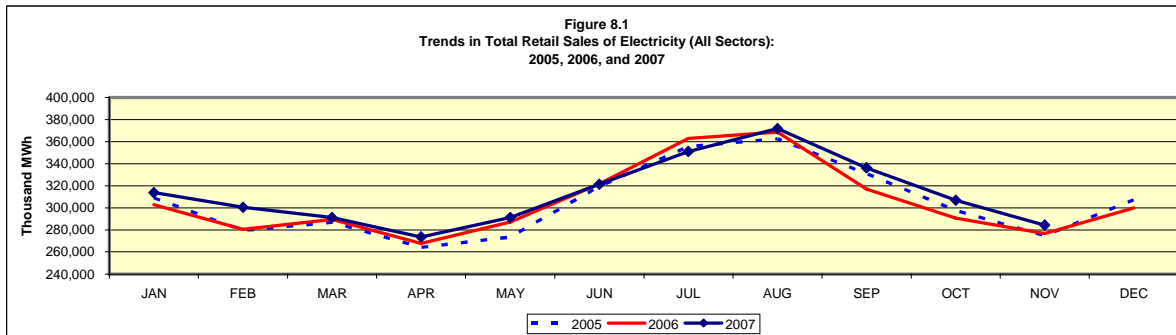
**Table 8.1 Trends in Total Retail Sales of Electricity (All Sectors)**  
Millions of Kilowatthours

### Year-to-Date Comparison

|                           | Starting Month | Ending Month  | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|---------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | January 2007   | November 2007 | 1,274,506   | 1,236,345  | 923,833    | 7,118          | 3,441,802           |
| <b>Prior Period</b>       | January 2006   | November 2006 | 1,236,638   | 1,195,071  | 931,360    | 6,730          | 3,369,800           |
| <b>Percent Difference</b> |                |               | 3.1%        | 3.5%       | -0.8%      | 5.8%           | 2.1%                |

### Comparison to Prior Twelve-Month Period

|                           | Starting Month | Ending Month  | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|---------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | December 2006  | November 2007 | 1,389,388   | 1,341,018  | 1,003,770  | 7,746          | 3,741,921           |
| <b>Prior Period</b>       | December 2005  | November 2006 | 1,356,816   | 1,298,602  | 1,014,335  | 7,390          | 3,677,142           |
| <b>Percent Difference</b> |                |               | 2.4%        | 3.3%       | -1.0%      | 4.8%           | 1.8%                |





# Section 9. Average Retail Price Trends

Data for:  
November 2007

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

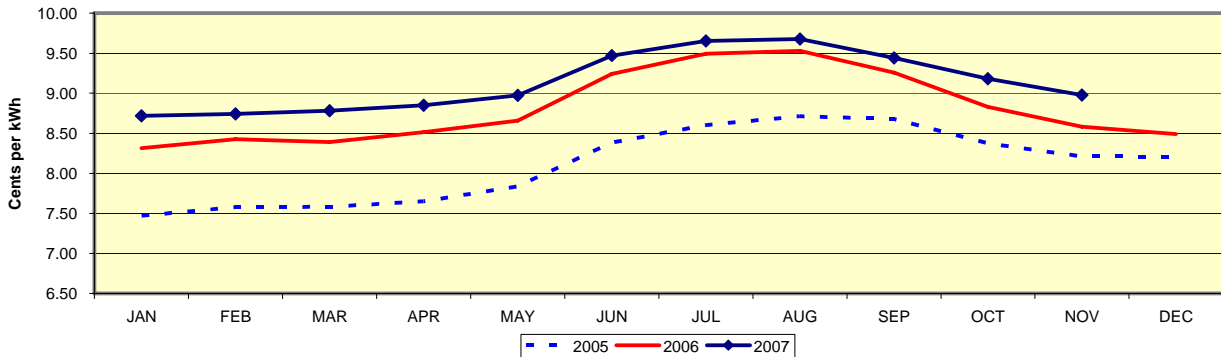
### Year-to-Date Comparison

|                           | Starting Month | Ending Month  | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|---------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | January 2007   | November 2007 | 10.66       | 9.69       | 6.37       | 10.43          | 9.16                |
| <b>Prior Period</b>       | January 2006   | November 2006 | 10.45       | 9.49       | 6.18       | 9.54           | 8.93                |
| <b>Percent Difference</b> |                |               | 2.0%        | 2.1%       | 3.1%       | 9.3%           | 2.6%                |

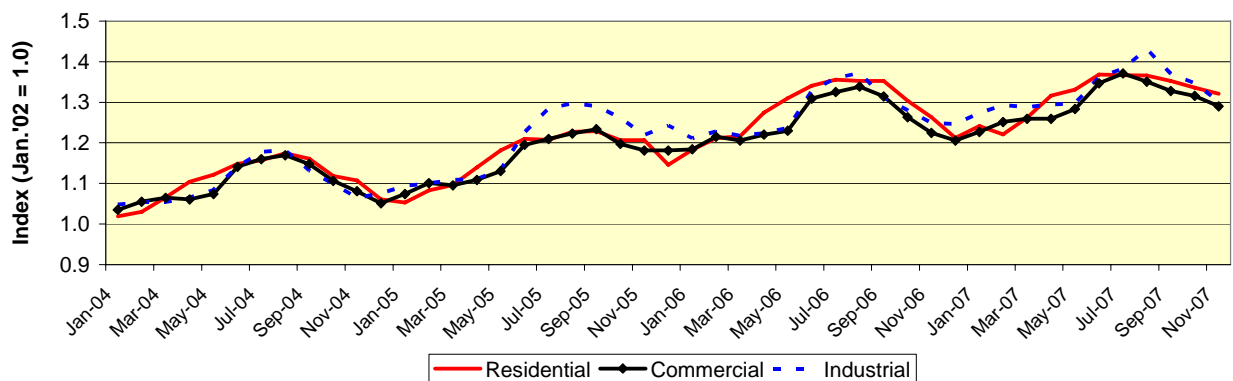
### Comparison to Prior 12 Month Period

|                           | Starting Month | Ending Month  | Residential | Commercial | Industrial | Transportation | Total (All Sectors) |
|---------------------------|----------------|---------------|-------------|------------|------------|----------------|---------------------|
| <b>Current Period</b>     | December 2006  | November 2007 | 10.60       | 9.64       | 6.34       | 10.36          | 9.11                |
| <b>Prior Period</b>       | December 2005  | November 2006 | 10.35       | 9.43       | 6.16       | 9.42           | 8.87                |
| <b>Percent Difference</b> |                |               | 2.4%        | 2.2%       | 2.9%       | 10.0%          | 2.7%                |

**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:  
November 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>     | November 2007 | 521                 | 539                        | -18                   | -3.3%                          | 17                  | 16                         | 1                     | 6.3%                           |
| <b>Prior Period</b>       | November 2006 | 467                 | 539                        | -72                   | -13.4%                         | 14                  | 16                         | -2                    | -12.5%                         |
| <b>Percent Difference</b> |               | 11.6%               |                            |                       |                                | 21.4%               |                            |                       |                                |

## 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   | November 2007 | 3,471               | 1,389               | <b>Current Period</b>               | December 2006  | November 2007 | 4,161               | 1,400               |
| <b>Prior Period</b>       | January 2006   | November 2006 | 3,306               | 1,357               | <b>Prior Period</b>                 | December 2005  | November 2006 | 4,172               | 1,361               |
| <b>Percent Difference</b> |                |               | 5.0%                | 2.4%                | <b>Percent Difference</b>           |                |               | -0.3%               | 2.9%                |

Figure 10.1 Deviation From Normal: Heating Degree Days, 2007

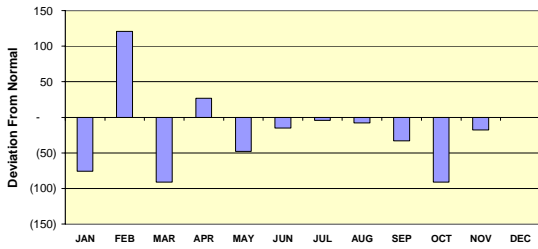


Figure 10.2 Deviation From Normal Cooling Degree Days, 2007

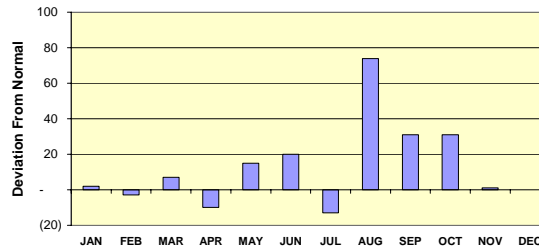


Figure 10.3 Trend in Heating Degree Days: 2006, 2007, and Normal

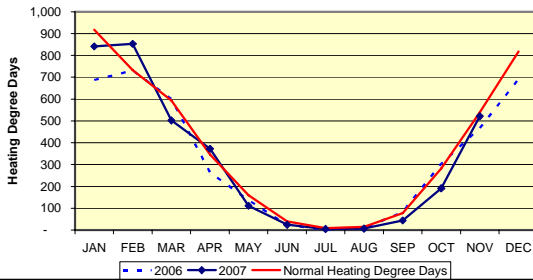


Figure 10.4 Trend in Cooling Degree Days: 2006, 2007, and Normal

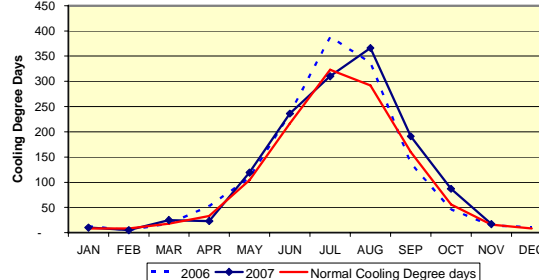


Figure 10.5 Trend in Cumulative Heating Degree Days: 2006, 2007, and Normal

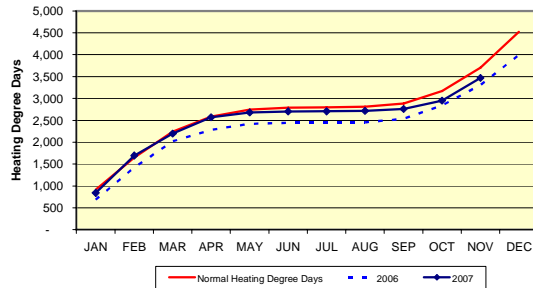
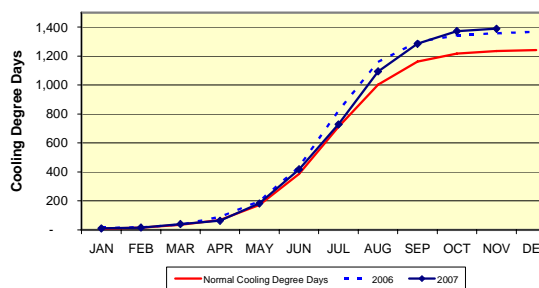


Figure 10.6 Trend in Cumulative Cooling Degree Days: 2006, 2007, and Normal



**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).