# Monthly Flash Estimates of

# **Electric Power Data**

# Section 1. Commentary

According to the National Oceanic and Atmospheric Administration (NOAA) Climatic Data Center, after "the 11th record warmest December on record in 2006", more typical winter conditions returned, particularly in the Eastern United States, in the latter part of January 2007. For the month, heating degree days were 26.1 percent higher than January 2006, but still 8.9 percent lower than normal.

In January 2007, increased demand for winter heating, coupled with economic strength, as observed by growth in industrial production, resulted in a 7.7 percent growth in electricity generation compared to January 2006. (Industrial production increased 1.92 percent from January 2006 to January 2007.) January 2007 retail sales of electricity increased 3.7 percent when compared to January 2006. The lower growth rate for sales of electricity is influenced by the fact that the utility billing cycles tend to lag electricity production in many areas. These lags were significant this month, given the fact that the latter part of January 2007 was significantly colder than the first part of the month. The average U.S. retail price of electricity in January 2007 showed a 4.3 percent jump from January 2006, and a 2.2 percent increase from December 2006.

Electricity generation in January 2007 from all major fuel categories was up from January 2006, with the exception of hydroelectric generation, which was down by 4.7 percent due to lower than normal precipitation in the Northwestern region. Coal generation increased 4.2 percent, natural gas generation increased 41.3 percent, petroleum liquids generation increased 6.9 percent, and nuclear generation was up 2.9 percent. The lower natural gas prices in January 2007, which declined nearly one-third from January 2006, in addition to the colder weather resulted in an unusual surge of natural gas fired generation.

In January 2007 coal stocks were down 2.3 percent from the 2006 peak reached in December 2006. The December 2006 to January 2007 decline in coal stocks consisted of a 3.4 percent decline for subbituminous, and a 1.0 percent decline for bituminous. Year-overyear, however, January coal stocks were up 30.5 percent from the previous January. At the end of January 2007, bituminous stocks were 66.3 million tons and subbituminous stocks were 65.6 million tons. The January 2007 petroleum liquids stocks, at 46.9 million barrels, were 10.2 percent lower than in January 2006, reflecting continuing reduced demand for the fuel by electricity generators.

References:

Industrial production -http://www.federalreserve.gov/Releases/g17/Current/default.htm Weather data - http://www.noaanews.noaa.gov/stories2007/s2819.htm Natural gas prices - http://research.stlouisfed.org/fred2/data/GASPRICE.txt

### Table of Contents

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

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained herein should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy of th Department of Energy or any other organization. For additional information, contact Orhan Yildiz at 202-287-1586, or at Orhan.Yildiz@eia.doe.gov.

Table 2.1 Key Generation Indicators									
	TotalNuclearHydroelectricGenerationGenerationGeneration								
Total Change From:									
December 2006	5.0%	5.0%	20.0%						
January 2006	7.7%	2.9%	-4.7%						
Year to Date	7.7%	2.9%	-4.7%						
Latest 12 Month Period*	1.0%	0.7%	4.9%						

# Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks	
Total Change From:				
December 2006	7.6%	2.0%	-2.3%	
January 2006	39.5%	4.8%	30.5%	
Year to Date	39.5%	4.8%	n/a	
Latest 12 Month Period*	9.5%	-0.2%	n/a	

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

### Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)										
Net Generation (thousand megawatthours)	Jan-07	Jan-06	% Change	Dec-06	% Change					
Coal	176,097	169,024	4.2%	173,211	1.7%					
Petroleum Liquids	4,411	4,125	6.9%	2,994	47.3%					
Natural Gas	59,896	42,387	41.3%	55,503	7.9%					
Nuclear	74,006	71,912	2.9%	70,490	5.0%					
Hydroelectric Conventional	26,288	27,592	-4.7%	21,899	20.0%					
All Other	11,793	12,313	-4.2%	11,519	2.4%					
Total (All Energy Sources)	352,491	327,352	7.7%	335,614	5.0%					

## 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 Jan-07 Jan-06 % Change Dec-06 % Change										
Coal (Thousand Short Tons)	92,214	88,015	4.8%	90,375	2.0%					
Petroleum Liquids (Thousand Barrels) 7,644 7,170 6.6% 5,297 44.3										
Natural Gas (Million Cubic Feet)	Natural Gas (Million Cubic Feet)         502,162         359,884         39.5%         466,735         7.6%									

## Fossil Fuel Stocks (Electric Power Sector)

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)										
Fossil Fuel Stocks Jan-07 Jan-06 % Change Dec-06 % Change										
Coal (Thousand Short Tons)	136,450	104,582	30.5%	139,679	-2.3%					
Petroleum Liquids (Thousand Barrels) 46,850 52,195 -10.2% 49,189 -4.8%										

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: January 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		
Current Period	January 2007	January 2007	176,097	4,411	59,896	74,006	26,288	11,793	352,491		
Prior Period	January 2006	January 2006	169,024	4,125	42,387	71,912	27,592	12,312	327,352		
Percent Difference			4.2%	6.9%	41.3%	2.9%	-4.7%	-4.2%	7.7%		

#### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	February 2006	January 2007	1,994,297	43,629	825,105	789,313	287,002	138,761	4,078,107
Prior Period	February 2005	January 2006	2,005,167	93,917	749,313	784,070	273,641	133,546	4,039,654
Percent Difference			-0.5%	-53.5%	10.1%	0.7%	4.9%	3.9%	1.0%



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

Year-to-Date Comparison										
	1	1								
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)					
Current Period	January 2007	January 2007	92,214	7,644	502,162					
Prior Period	January 2006	January 2006	88,015	7,170	359,884					
Percent Difference			4.8%	6.6%	39.5%					

Comparison to Prior 12 Month Period										
		-								
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)					
Current Period	February 2006	January 2007	1,039,668	76,108	7,020,365					
Prior Period	February 2005	January 2006	1,041,438	158,243	6,409,701					
Percent Difference			-0.2%	-51.9%	9.5%					







### Section 6. Fossil Fuel Stock Trends

Table 6.1 Trends in Total Fossil Fuel Stocks (Electric Power Sector)											
Fossil Fuel Stocks Jan-07 Jan-06 % Change Dec-06 % Change											
Coal, Total (Thousand Short Tons)	136,450	104,582	30.5%	139,679	-2.3%						
Bituminous (includes anthracite and coal synfuel)	66,297	54,246	22.2%	66,968	-1.0%						
Subbituminous	65,598	46,506	41.1%	67,922	-3.4%						
Lignite	Lignite 4,556 3,831 18.9% 4,789 -4.9%										
Petroleum Liquids (Thousand Barrels)	46,850	52,195	-10.2%	49,189	-4.8%						







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

# **Retail Sales**

Table 7.1 Retail Sales (Million kWh)											
Ultimate Customer Jan-07 Jan-06 % Change Dec-06 % Change											
Residential	125,386	120,527	4.0%	115,225	8.8%						
Commercial	106,849	101,590	5.2%	103,776	3.0%						
Industrial	81,050	80,072	1.2%	80,002	1.3%						
Transportation	Transportation 705 724 -2.6% 674 4.6%										
All Sectors	313,990	302,913	3.7%	299,678	4.8%						

# **Average Retail Price**

Table 7.2 Average Retail Price (Cents/kWh) U.S. Total									
Ultimate Customer	Jan-07	Jan-06	% Change	Dec-06	% Change				
Residential	10.05	9.57	5.0%	9.81	2.4%				
Commercial	9.07	8.81	3.0%	8.97	1.1%				
Industrial	6.03	5.79	4.1%	5.96	1.2%				
Transportation	9.50	8.32	14.2%	9.26	2.6%				
All Sectors	8.68	8.32	4.3%	8.49	2.2%				

Table 7.3 Average Retail Price (Cents/kWh) by Census Division										
Census Division		Residential		All Sectors						
	Jan-07	Jan-06	% Change	Jan-07	Jan-06	% Change				
New England	16.92	15.63	8.3%	15.54	14.24	9.1%				
Middle Atlantic	12.82	12.41	3.3%	11.12	10.72	3.7%				
East North Central	9.28	8.39	10.6%	7.75	7.08	9.5%				
West North Central	7.47	7.26	2.9%	6.22	6.08	2.3%				
South Atlantic	9.37	8.99	4.2%	8.22	7.93	3.7%				
East South Central	7.82	7.47	4.7%	6.60	6.26	5.4%				
West South Central	10.47	10.66	-1.8%	8.93	9.09	-1.8%				
Mountain	8.33	8.26	0.8%	7.09	7.03	0.9%				
Pacific Contiguous	11.55	10.40	11.1%	10.24	9.37	9.3%				
Pacific Noncontiguous	18.52	18.76	-1.3%	16.51	17.04	-3.1%				
U.S. Total	10.05	9.57	5.0%	8.68	8.32	4.3%				

### Section 8. Retail Sales Trends

# 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)			
Current Period	January 2007	January 2007	125,386	106,849	81,050	705	313,990			
Prior Period	January 2006	January 2006	120,527	101,590	80,072	724	302,913			
Percent Difference			4.0%	5.2%	1.2%	-2.6%	3.7%			

#### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)
Current Period	February 2006	January 2007	1,359,091	1,306,109	1,002,908	8,067	3,676,175
Prior Period	February 2005	January 2006	1,354,467	1,275,807	1,016,986	7,543	3,654,803
Percent Difference			0.3%	2.4%	-1.4%	6.9%	0.6%





# Section 9. Average Retail Price Trends

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

Year-to-Date Comparison									
							1		
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)		
Current Period	January 2007	January 2007	10.05	9.07	6.03	9.50	8.68		
Prior Period	January 2006	January 2006	9.57	8.81	5.79	8.32	8.32		
Percent Difference			5.0%	3.0%	4.1%	14.2%	4.3%		

Comparison to Prior 12 Month Period									
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)		
Current Period	February 2006	January 2007	10.44	9.38	6.11	9.16	8.88		
Prior Period	February 2005	January 2006	9.54	8.73	5.78	8.60	8.21		
Percent Difference			9.4%	7.4%	5.7%	6.5%	8.2%		





### Section 10. Heating and Cooling Degree Days

Data for: January 2007

### Table 10.1 Degree Days

		Heating Degree Days				Cooling Degree Days				
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From Normal	Pecent Difference From Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From Normal	Pecent Difference From Normal	
Current Period	January 2007	835	917	-82	-8.9%	7	8	-1	-12.5%	
Prior Period	January 2006	662	917	-255	-27.8%	8	9	-1	-11.1%	
Percent Difference		26.1%				-12.5%				

#### 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
	Current Period	January 2007	January 2007	835	7	Current Period	February 2006	January 2007	4,096	1,408
	Prior Period	January 2006	January 2006	662	8	Prior Period	February 2005	January 2006	4,040	1,444
	Percent Difference			26.1%	-12.5%	Percent Difference	e		1.4%	-2.5%





# Section 11. Documentation

**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).