

Monthly Flash Estimates of **Electric Power Data**

**Data for:
December
2004**

Table 1. Key Indicators

Change From:	Total Generation	Nuclear Generation	Hydroelectric Generation
November 2004	12.7%	16.4%	23.6%
December 2003	1.8%	0.0%	8.5%
Year to Date:	1.8%	3.2%	-2.4%
Latest 12 Month Period*	1.8%	3.2%	-2.4%
Change From:	Natural Gas Consumption	Coal Consumption	Coal Stocks
November 2004	2.1%	11.4%	-5.5%
December 2003	15.3%	1.2%	-12.0%
Year to Date:	7.1%	1.5%	n/a
Latest 12 Month Period*	7.1%	1.5%	n/a

* Change in total consumption or generation for the latest 12 month period (January 2004 to December 2004) compared to the prior 12 month period (January 2003 to December 2003). For December reports, year to date and latest 12 months are the same time periods.

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 the Department of Energy or any other organization. For additional information, contact Stan Kaplan at 202-287-1586, or at stan.kaplan@eia.doe.gov.



Month-to-Month Comparisons: Generation, Consumption & Stocks

Net Generation (Total, All Sectors)

Table 2. Net Generation Total (All Sectors)					
Net Generation (Million kWh)	Dec-04	Dec-03	% Change	Nov-04	% Change
Coal	175,017	176,291	-0.7%	156,427	11.9%
Petroleum Liquids	8,168	8,040	1.6%	5,177	57.8%
Natural Gas	49,597	44,035	12.6%	48,559	2.1%
Nuclear	68,617	68,612	0.0%	58,941	16.4%
Hydroelectric Conventional	26,080	24,044	8.5%	21,106	23.6%
All Other	10,268	10,659	-3.7%	9,395	9.3%
Total (All Energy Sources)	337,747	331,681	1.8%	299,605	12.7%

Fossil Fuel Consumption for Electric Generation (Total, All Sectors)

Table 3. Consumption of Fossil Fuels for Electric Generation Total (All Sectors)					
	Dec-04	Dec-03	% Change	Nov-04	% Change
Coal (Thousand Short Tons)	91,688	90,560	1.2%	82,326	11.4%
Petroleum Liquids (Thousand Barrels)	14,011	13,703	2.2%	8,984	56.0%
Natural Gas (Million Cubic Feet)	426,958	370,243	15.3%	417,972	2.1%

Fossil Fuel Stocks (Electric Power Sector)

Table 4. Fossil Fuel Stocks (Total, Electric Power Sector)					
	Dec-04	Dec-03	% Change	Nov-04	% Change
Coal (Thousand Short Tons)	107,016	121,567	-12.0%	113,301	-5.5%
Petroleum Liquids (Thousand Barrels)	45,033	45,753	-1.6%	47,707	-5.6%

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.

Month-to-Month Comparisons: Electric Power Sales and Prices

Retail Sales

Table 5. Retail Sales (Million Kwh)					
	Dec-04	Dec-03	% Change	Nov-04	% Change
Residential	113,632	113,331	0.3%	89,537	26.9%
Commercial	101,037	98,177	2.9%	95,617	5.7%
Industrial	83,845	81,964	2.3%	84,637	-0.9%
Transportation	684	548	24.8%	601	13.8%
All Sectors	299,198	294,021	1.8%	270,392	10.7%

Average Retail Price

Table 6. Average Retail Price (Cents/kWh)					
	Dec-04	Dec-03	% Change	Nov-04	% Change
Residential	8.6	8.3	2.8%	9.0	-4.5%
Commercial	7.8	7.7	2.0%	8.0	-2.7%
Industrial	5.0	5.0	1.2%	5.0	1.0%
Transportation	6.5	6.8	-4.5%	6.5	0.0%
All Sectors	7.3	7.2	2.1%	7.4	-0.8%

Commentary

Generation in December 2004 was an estimated 12.7 percent higher than in December 2003, capping off a relatively strong year of growth in electric power generation. For the full year 2004, generation and electric power sales both increased by 1.8 percent. The 2004 annual growth rate for generation triples the 0.6 percent growth experienced in 2003. Heating and cooling degree days both decreased in 2004 compared to 2003, indicating that the growth in generation and sales has been driven primarily by economic factors.

The performance of gas-fired generation was particularly strong. After a decrease in generation and consumption in 2003, and in the midst of continued high natural gas prices, gas generation and consumption were up by 7.6 and 7.1 percent, respectively, in 2004. Coal generation was static in 2004 (total growth of 0.1 percent from 2003) although consumption increased by 1.5 percent. The increase in coal consumption compared to generation appears to be indicative of a continuing shift to lower heat content coal. The increase in consumption was met in part by a drawdown of stocks at power plants, which dropped 12 percent from December 2003.

The low rate of growth in coal generation for the year may be attributable in part to the strong 3.2 percent growth in nuclear generation, which competes with coal for baseload demand. Hydroelectric generation was down 2.4 percent for the year, but generation in December 2004 was 8.5 percent higher than in December 2003. This is the 4th consecutive month in which hydro generation has increased compared to 2003.

Net Generation Trends

Table 7. Trends in Generation by Fuel (Total, 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 2004	December 2004	1,975,370	99,141	699,040	788,554	269,288	120,209	3,951,602
Prior Period	January 2003	December 2003	1,973,736	102,735	649,908	763,734	275,804	117,268	3,883,185
Percent Change			0.1%	-3.5%	7.6%	3.2%	-2.4%	2.5%	1.8%

Comparison to Prior 12 Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	January 2004	December 2004	1,975,370	99,141	699,040	788,554	269,288	120,209	3,951,602
Prior Period	January 2003	December 2003	1,973,736	102,735	649,908	763,734	275,804	117,268	3,883,185
Percent Change			0.1%	-3.5%	7.6%	3.2%	-2.4%	2.5%	1.8%

Figure 1. Trend in Total Net Generation (All Sectors):
2002, 2003, and 2004

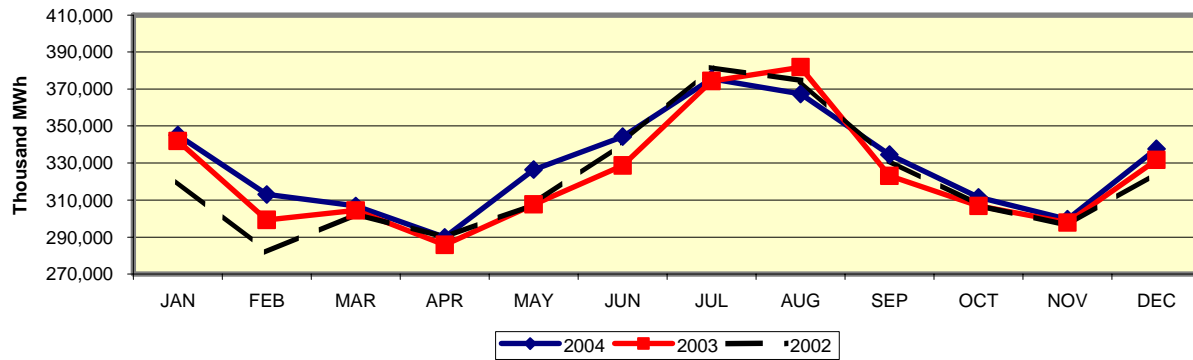


Figure 2. Fossil Fuel Generation Trends
(Values as Indices, Jan. 2002 = 1.0)

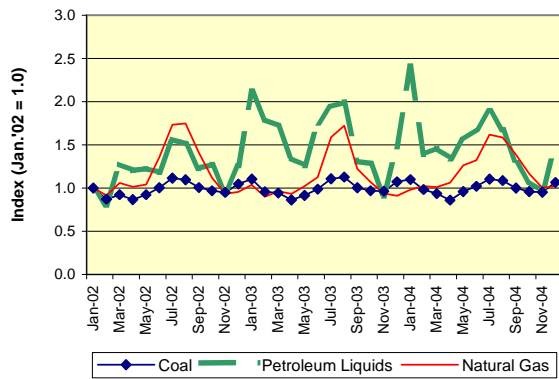
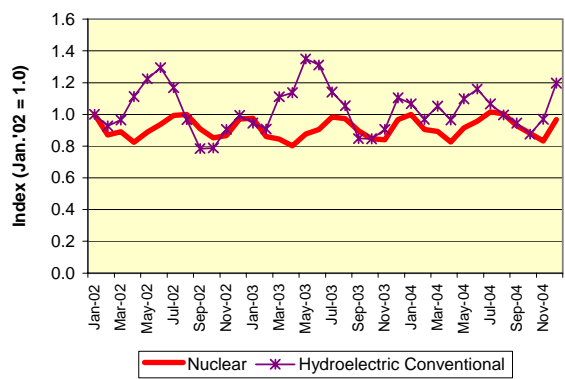


Figure 3. Nuclear and Hydroelectric Generation Trends
(Values as Indices, Jan. 2002 = 1.0)



Fossil Fuel Consumption Trends

Table 8. Trends in Fossil Fuel Consumption (Total, All Sectors)

Year-to-Date Comparison					
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	January 2004	December 2004	1,029,120	170,477	6,014,409
Prior Period	January 2003	December 2003	1,014,058	175,136	5,616,136
Percent Change			1.5%	-2.7%	7.1%
Comparison to Prior 12 Month Period					
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)
Current Period	January 2004	December 2004	1,029,120	170,477	6,014,409
Prior Period	January 2003	December 2003	1,014,058	175,136	5,616,136
Percent Change			1.5%	-2.7%	7.1%

Figure 4. Trend in Total Coal Consumption (All Sectors): 2002, 2003, and 2004

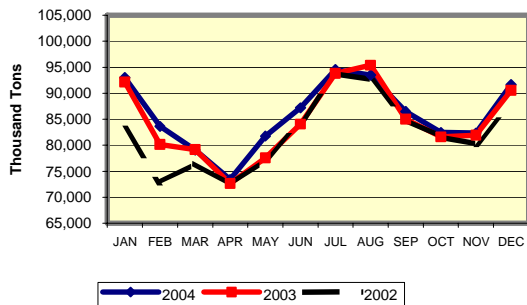


Figure 5. Trend in Total Petroleum Liquids Consumption (All Sectors): 2002, 2003 and 2004

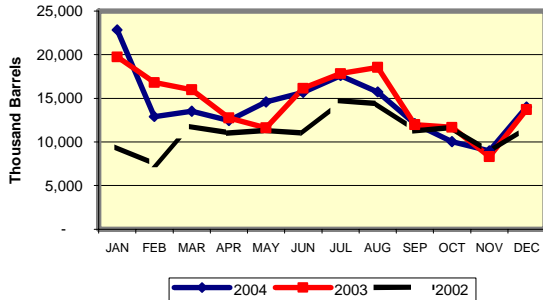
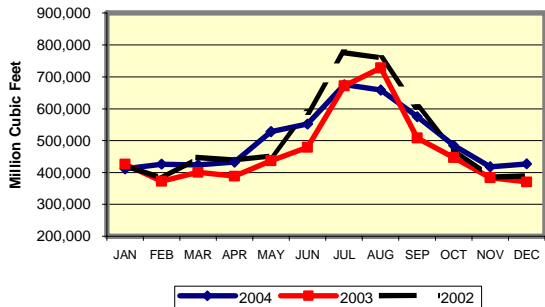


Figure 6. Trend in Total Natural Gas Consumption (All Sectors): 2002, 2003, and 2004



Stocks Trends

Figure 7. Trend in Petroleum Liquids Stocks (Electric Power Sector): 2002, 2003, and 2004

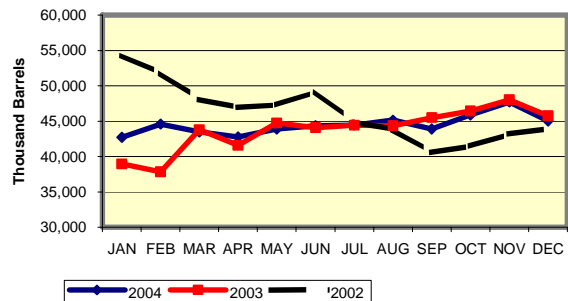
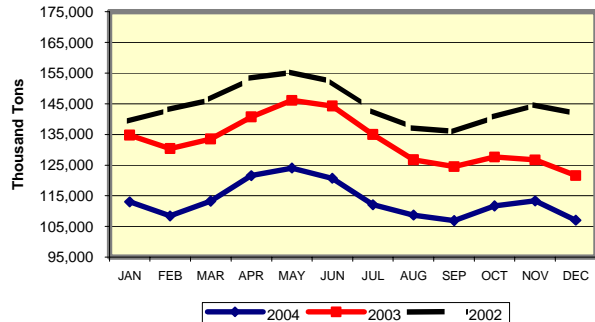


Figure 8. Trend in Coal Stocks (Electric Power Sector): 2002, 2003, and 2004



Note: the Stocks data table is on page 2 of the report.

Degree Days

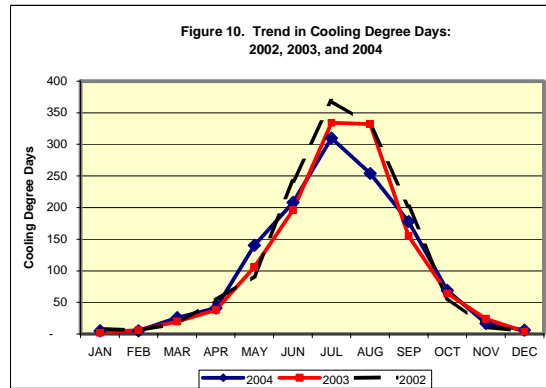
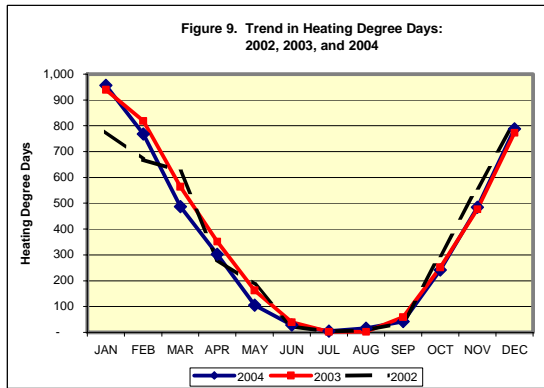


Table 9. Trends in Heating and Cooling Degree Days

Year-to-Date Comparison				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	January 2004	December 2004	4,224	1,259
Prior Period	January 2003	December 2003	4,440	1,281
Percent Change			-4.9%	-1.7%
Comparison to Prior 12 Month Period				
	Starting Month	Ending Month	Heating Degree Days	Cooling Degree Days
Current Period	January 2004	December 2004	4,224	1,259
Prior Period	January 2003	December 2003	4,440	1,281
Percent Change			-4.9%	-1.7%

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 EIA-826, approximately 450 electric utilities and other energy service providers; for the EIA-920, approximately 300 combined heat and power (CHP) plants; and for the 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 2.

Change in data collection categories for electric sales and revenue data Sales data for periods prior to January 2004 were collected for the Residential, Commercial, Industrial and Other categories. For the period January 2004 and later, the Other category was eliminated, and the data are now collected for the new Transportation category, the Residential category, and slightly redefined Commercial and Industrial categories that contain some elements previously in the Other category.