## Monthly Flash Estimates of

## **Electric Power Data**

# Data for: October 2005

## **Section 1. Commentary**

The hotter than normal weather pattern since May continued into October, with cooling degree days 7.2 percent higher than in October 2004 (heating degree days for the month were unchanged from last year). The hotter weather contributed to a 0.8 percent increase in net generation compared to last October. Year-to-date, cooling degree days are up 14.8 percent from 2004 and generation is up 1.8 percent.

Although warmer than last year, October is the part of the fall "shoulder season" when moderate temperatures lead to reduced generation, electricity sales and fuel consumption. Accordingly, total generation and sales in October both dropped 9.7 percent from September.

Year to date, electricity sales are up 3.1 percent. The average retail price of electricity has increased 5.5 percent year-to-date, reflecting higher fossil fuel prices and decreased nuclear power output. Nuclear generation is down 2.3 percent due to a higher rate of maintenance outages in 2005 than in 2004. The largest generation increase (6.9 percent) was from natural gas burning generators, because of new capacity coming on line and increased peaking demand due to hot weather. Following the increase in natural gas are a 2.0 percent increase in coal fired generation and a 1.4 percent increase in hydro generation. Due to high crude oil prices, petroleum liquids fired generation declined by 3.2 percent.

Although hydroelectric generation has increased year-to-date, hydro generation was 6.3 percent lower in October 2005 than a year earlier. This is due to a dry weather trend in the western U.S. from mid-summer through September, including the major hydroelectric producing region of the Pacific Northwest.

Fuel consumption trends have generally tracked the changes in generation. Consumption of coal and natural gas have increased year-to-date (respectively, 2.9 percent and 7.0 percent) while consumption of petroleum liquids declined by 2.0 percent. As weather moderated into October, fuel consumption dropped sharply. Coal burn decreased by 5 percent from September and natural gas consumption, much of which is used to meet peak demands, dropped almost 25 percent. The consumption of petroleum liquids, which is also used to meet peaks, dropped by 20.8 percent.

Decreasing fuel consumption allowed generators to begin rebuilding fuel stocks drawn down during the summer. The dramatic fall of petroleum liquids since May 2005 reversed course and stocks increased 8.3 percent from September to October. However, petroleum liquids stocks were still 16.0 percent below their October 2004 level and are at one of the lowest levels recorded since the early 1970s.

Coal stocks increased by 3.2 percent following the normal seasonal trend, but were down 9.0 percent from October 2004 as problems continued with rail shipments of Powder River Basin subbituminous coal. Compared to October 2004, stocks of subbituminous coal declined from 57.5 million tons to 44.8 million tons, while stocks of bituminous coal had actually increased (from 48.3 million tons in 2004 to 51.5 million tons in October 2005). (For the latest coal related information, please visit the EIA site http://www.eia.doe.gov/cneaf/coal/page/coalnews/coalmar.html.)

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

Data for: October 2005

Table 2.1 Key Generation Indicators										
Total Nuclear Hydroelectric Generation Generation Generation										
Total Change From:										
September 2005	-9.7%	-8.2%	3.2%							
October 2004	0.8%	-2.1%	-6.3%							
Year to Date	1.8%	-2.3%	1.4%							
Latest 12 Month Period*	1.9%	-2.0%	2.5%							

## **Table 2.2 Key Consumption and Stocks Indicators**

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
September 2005	-24.7%	-5.0%	3.2%
October 2004	-4.8%	3.6%	-9.0%
Year to Date	7.0%	2.9%	n/a
Latest 12 Month Period*	8.1%	2.6%	n/a

<sup>\*</sup> Change in total consumption or generation for the latest 12 month period (November 2004 to October 2005) compared to the prior 12 month period (November 2003 to October 2004).

## **Net Generation (Total, All Sectors)**

Table 3.1 Total Net Generation (All Sectors)											
Net Generation (thousand megawatthours)  Oct-05  Oct-04  % Change  Sep-05  % Ch											
Coal	162,538	157,650	3.1%	171,721	-5.3%						
Petroleum Liquids	8,430	5,888	43.2%	10,521	-19.9%						
Natural Gas	54,935	57,198	-4.0%	72,183	-23.9%						
Nuclear	61,236	62,530	-2.1%	66,739	-8.2%						
Hydroelectric Conventional	17,667	18,863	-6.3%	17,127	3.2%						
All Other	10,156	10,322	-1.6%	10,522	-3.5%						
Total (All Energy Sources)	314,962	312,450	0.8%	348,812	-9.7%						

## 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 Oct-05 Oct-04 % Change Sep-05 % Change											
Coal (Thousand Short Tons)	85,118	82,162	3.6%	89,629	-5.0%						
Petroleum Liquids (Thousand Barrels)	Petroleum Liquids (Thousand Barrels) 14,345 9,941 44.3% 18,110 -20.8%										
Natural Gas (Million Cubic Feet)	468,616	492,301	-4.8%	622,466	-24.7%						

### **Fossil Fuel Stocks (Electric Power Sector)**

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)										
Fossil Fuel Stocks	Fossil Fuel Stocks Oct-05 Oct-04 % Change Sep-05 % Change									
Coal (Thousand Short Tons)	Coal (Thousand Short Tons) 101,110 111,148 -9.0% 97,956 3.2%									
Petroleum Liquids (Thousand Barrels)										

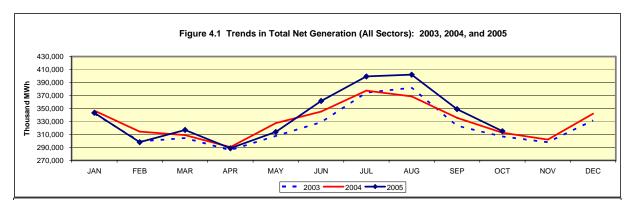
#### Notes:

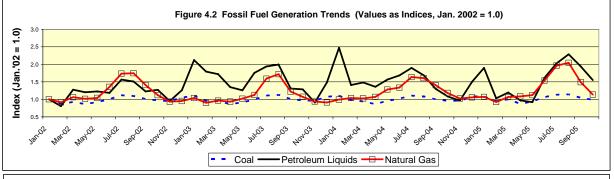
- Coal consumption and generation includes subbituminous coal, bituminous coal, anthracite, lignite, waste coal and synthetic coal (synfuel).
- Coal stocks includes the coal categories listed immediately above except for waste coal.
- Petroleum Liquids consumption and generation includes distillate oil, 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.

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

Year-to-Date Compa	/ear-to-Date Comparison												
Starting Month Ending Month Coal Petroleum Liquids Natural Gas Nuclear Conventional All Other Tot													
Current Period	January 2005	October 2005	1,677,153	83,775	649,986	645,817	224,467	105,565	3,386,763				
Prior Period	January 2004	October 2004	1,644,400	86,549	608,187	660,971	221,270	105,129	3,326,506				
Percent Change			2.0%	-3.2%	6.9%	-2.3%	1.4%	0.4%	1.8%				

Comparison to Prior	Comparison to Prior 12 Month Period													
	Starting Month Ending Month Coal Petroleum Liquids Natural Gas Nuclear Hydroelectric Conventional All Other Total													
Current Period	November 2004	October 2005	2,011,374	97,141	750,777	773,374	271,615	126,531	4,030,812					
Prior Period	November 2003	October 2004	1,978,914	99,527	697,550	789,183	265,029	125,850	3,956,053					
Percent Change			1.6%	-2.4%	7.6%	-2.0%	2.5%	0.5%	1.9%					





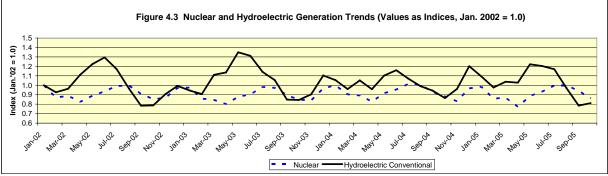
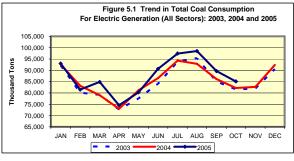
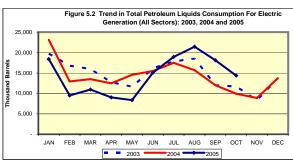


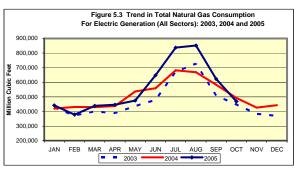
Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison											
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)						
Current Period	January 2005	October 2005	875,420	144,199	5,609,250						
Prior Period	January 2004	October 2004	851,013	147,183	5,241,222						
Percent Change			2.9%	-2.0%	7.0%						

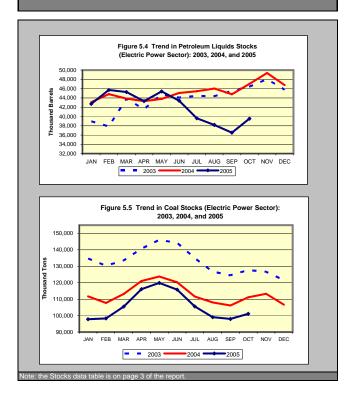
Comparison to Price	Comparison to Prior 12 Month Period											
	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)										
Current Period	November 2004	October 2005	1,050,419	166,803	6,479,335							
Prior Period         November 2003         October 2004         1,023,514         169,207         5,995,												
Percent Change         2.6%         -1.4%         8.1%												







#### Stocks Trends



# Section 6. Month-to-Month Comparisons: Electric Power Retail Sales and Average Prices

Data for: October 2005

### **Retail Sales**

Table 6.1 Retail Sales (Million Kwh)											
Ultimate Customer	Oct-05	Oct-04	% Change	Sep-05	% Change						
Residential	103,499	93,687	10.5%	126,226	-18.0%						
Commercial	107,995	102,311	5.6%	115,734	-6.7%						
Industrial	85,877	85,713	0.2%	87,304	-1.6%						
Transportation	675	590	14.4%	701	-3.7%						
All Sectors	298,046	282,301	5.6%	329,966	-9.7%						

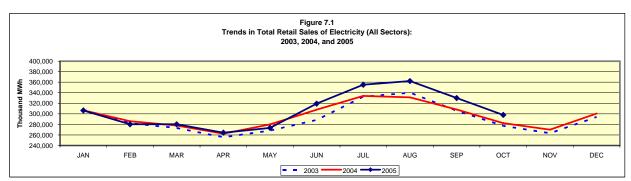
## **Average Retail Price**

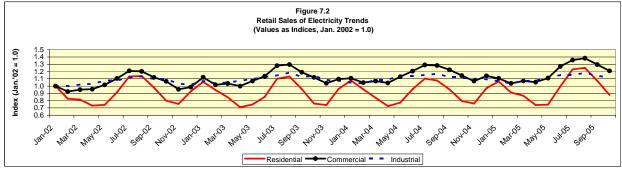
Table 6.2 Average Retail Price (Cents/kWh)											
Ultimate Customer	Oct-05	Oct-04	% Change	Sep-05	% Change						
Residential	9.73	9.11	6.8%	9.91	-1.8%						
Commercial	8.93	8.23	8.5%	9.21	-3.0%						
Industrial	5.87	5.26	11.6%	5.99	-2.0%						
Transportation	8.04	7.21	11.5%	8.01	0.4%						
All Sectors	8.32	7.62	9.2%	8.62	-3.5%						

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)	
Current Period	January 2005	October 2005	1,148,511	1,062,690	851,227	6,866	3,069,294	
Prior Period	January 2004	October 2004	1,089,648	1,031,555	850,347	5,866	2,977,417	
Percent Change			5.4%	3.0%	0.1%	17.0%	3.1%	

Comparison to Prior 12 Month Period								
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)	
Current Period	November 2004	October 2005	1,352,450	1,260,179	1,019,402	8,064	3,640,095	
Prior Period	November 2003	October 2004	1,290,032	1,222,288	1,015,644	6,933	3,534,896	
Percent Change			4.8%	3.1%	0.4%	16.3%	3.0%	





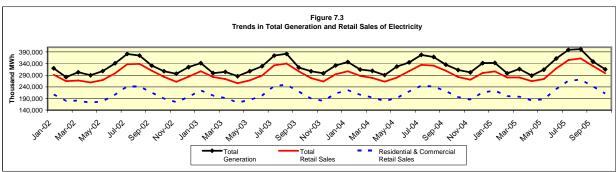
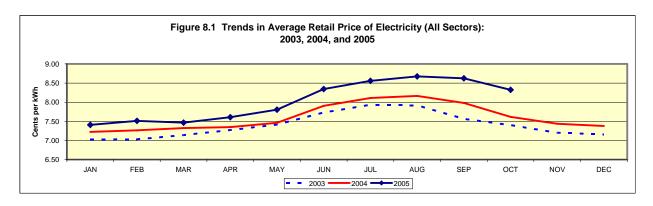


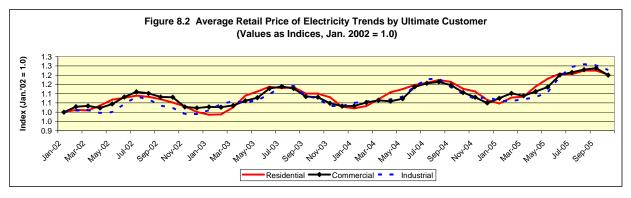
Table 8.1 Trends in Average Retail Price of Electricity (All Sectors)

Cents Per Kilowatthours

Year-to-Date Comparison								
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)	
Current Period	January 2005	October 2005	9.41	8.67	5.54	7.50	8.08	
Prior Period	January 2004	October 2004	9.01	8.20	5.29	7.16	7.66	
Percent Change			4.4%	5.7%	4.7%	4.7%	5.5%	

Comparison to Prior 12 Month Period								
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)	
Current Period	November 2004	October 2005	9.32	8.55	5.47	7.43	7.97	
Prior Period	November 2003	October 2004	8.93	8.13	5.24	7.10	7.59	
Percent Change			4.4%	5.2%	4.4%	4.6%	5.0%	





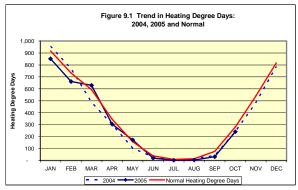
#### Table 9.1 Degree Days

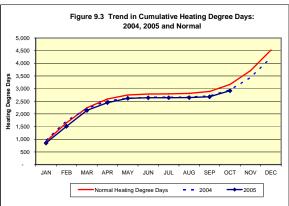
		Heating Degree Days			Cooling Degree Days			
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From the Normal	Cooling Degree Days	Normal Cooling Degree Days	Deviation From the Normal	
Current Period	October 2005	241	282	-41	74	53	21	
Previous Period	October 2004	241	282	-41	69	53	16	
Percent Change		0.0%			7.2%			

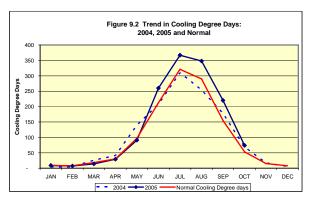
#### Table 9.2 Trends in Heating and Cooling Degree Days

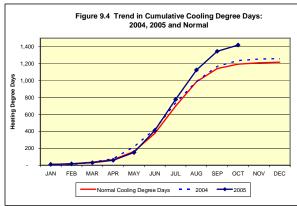
Year-to-Date Comparison								
Starting Month Ending Month Heating Degree Cooling Degre Days Days								
Current Period	January 2005	October 2005	2,918	1,419				
Prior Period	January 2004	October 2004	2,952	1,236				
Percent Change			-1.2%	14.8%				

Comparison to Prior 12 Month Period								
	Starting Month Ending Month Days Cooling Degree Days							
Current Period	November 2004	October 2005	4,190	1,442				
Prior Period	November 2003	October 2004	4,202	1,264				
Percent Change			-0.3%	14.1%				









### **Section 10. Documentation**

Data for: October 2005

**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 *Elash 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).