# Monthly Flash Estimates of

# **Electric Power Data**

# **Section 1. Commentary**

In February 2011, the contiguous United States as a whole experienced temperatures that were near normal. Accordingly, the total population-weighted heating degree days for the United States were just 1.5 percent above the February normal.

Retail sales of electricity increased 0.2 percent from February 2010. Over the same period, the average U.S. retail price of electricity increased 3.0 percent. For the 12-month period ending February 2011, the average U.S. retail price of electricity increased 1.6 percent over the previous 12-month period ending February 2010.

Total electric power generation in the United States decreased 3.0 percent compared to February 2010 (the change in electric power generation does not necessarily coincide with the change in retail sales of electricity because utility billing cycles tend to lag electricity production in many areas). This was due to the much colder weather experienced in February 2010. Over the same period, coal generation decreased 9.5 percent, while natural gas generation decreased 2.6 percent and petroleum liquids generation increased 8.5 percent. Conventional hydroelectric generation increased 18.5 percent from the previous year, mainly due to a stronger than expected snowmelt in the Northwest region. All other generation showed the largest change, increasing by 31.9 percent. This was largely due to the addition of several new wind farms, most notably Streator Cayuga Ridge South in Illinois.

Total coal stocks decreased 2.1 percent from January 2011. However, following the winter pattern observed in previous years, the average number of days of burn for coal plants consuming bituminous or subbituminous coal as their primary fuel increased from the previous month.

<u>References for weather data</u>: http://www.ncdc.noaa.gov/oa/climate/research/2011/feb/national.html

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statistical a	was prepared by the U.S. Energy Information Administration, the independent nd analytical agency within the U.S. Department of Energy. The information contained herein ttributed to the U.S. Energy Information Administration and should not be construed as	U.S. Energy
	or reflecting any policy of the Department of Energy or any other organization. For additional	
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information, contact Chris Cassar at Christopher.Cassar@eia.gov.

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Table 2.1 Key Generation Indicators									
	Total Generation	Nuclear Generation	Hydroelectric Generation						
Total Change From:									
January 2011	-14.8%	-12.3%	-5.6%						
February 2010	-3.0%	-2.2%	18.5%						
Year to Date	-0.9%	-0.9%	17.3%						
Latest 12 Month Period*	3.5%	0.9%	-3.8%						

# Table 2.2 Key Consumption and Stocks Indicators

	Natural Gas Consumption	Coal Consumption	Coal Stocks
Total Change From:			
January 2011	-11.3%	-18.2%	-2.1%
February 2010	0.4%	-7.8%	-5.6%
Year to Date	-0.2%	-3.9%	
Latest 12 Month Period*	5.9%	3.4%	

\* Change in total consumption or generation for the latest 12 month period (March 2010 to February 2011) compared to the prior 12 month period (March 2009 to February 2010).

## Net Generation (Total, All Sectors)

Table 3.1 Total Net Generation (All Sectors)										
Net Generation (thousand megawatthours) Feb-11 Feb-10 % Change Jan-11 % Change										
Coal	138,566	153,073	-9.5%	171,246	-19.1%					
Petroleum Liquids	1,301	1,199	8.5%	1,840	-29.3%					
Natural Gas	63,623	65,345	-2.6%	74,070	-14.1%					
Nuclear	63,819	65,245	-2.2%	72,743	-12.3%					
Hydroelectric Conventional	24,303	20,513	18.5%	25,746	-5.6%					
All Other	17,975	13,629	31.9%	17,735	1.4%					
Total (All Energy Sources)	309,588	319,004	-3.0%	363,378	-14.8%					

### 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	Feb-11	Feb-10	% Change	Jan-11	% Change				
Coal (Thousand Short Tons)	73,811	80,053	-7.8%	90,223	-18.2%				
Petroleum Liquids (Thousand Barrels)	2,214	2,066	7.2%	3,212	-31.1%				
Natural Gas (Million Cubic Feet)	497,996	496,158	0.4%	561,746	-11.3%				

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

Table 3.3 Total Fossil Fuel Stocks (Electric Power Sector)								
Fossil Fuel Stocks     Feb-11     Feb-10     % Change     Jan-11     % Change								
Coal (Thousand Short Tons)	161,545	171,123	-5.6%	165,059	-2.1%			
Petroleum Liquids (Thousand Barrels) 35,189 38,265 -8.0% 35,578 -1.1%								

Notes:

- Coal consumption and generation includes subbituminous coal, bituminous coal, anthracite, lignite, and waste coal.

- Coal stocks include the coal categories listed immediately above, except for waste coal. The bituminous category includes anthracite.

- 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, only waste oil is excluded.

- 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

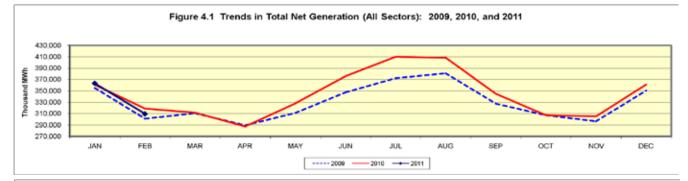
Data for: February 2011

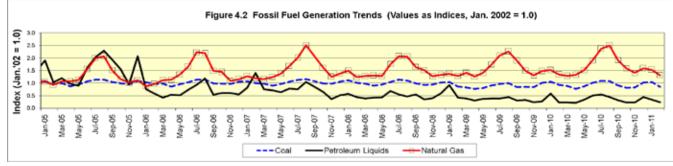
### Table 4.1 Trends in Total Generation by Fuel (All Sectors) Millions of Kilowatthours

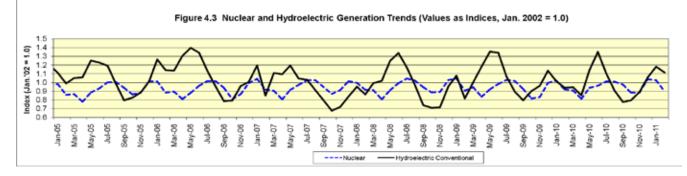
Year-to-Date Comparison											
	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total		
Current Period	January 2011	February 2011	309,812	3,142	137,693	136,562	50,048	35,709	672,966		
Prior Period	January 2010	February 2010	326,578	4,370	138,903	137,815	42,670	29,069	679,405		
Percent Difference			-5.1%	-28.1%	-0.9%	-0.9%	17.3%	22.8%	-0.9%		

### Comparison to Prior Twelve-Month Period

	Starting Month	Ending Month	Coal	Petroleum Liquids	Natural Gas	Nuclear	Hydroelectric Conventional	All Other	Total
Current Period	March 2010	February 2011	1,833,984	22,168	980,605	805,715	264,431	206,685	4,113,588
Prior Period	March 2009	February 2010	1,769,641	23,109	931,192	798,340	274,812	176,218	3,973,312
Percent Difference			3.6%	-4.1%	5.3%	0.9%	-3.8%	17.3%	3.5%





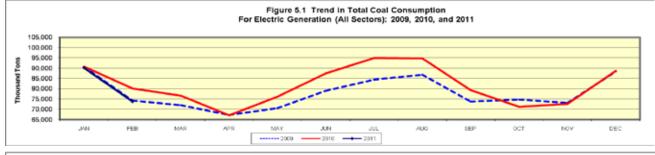


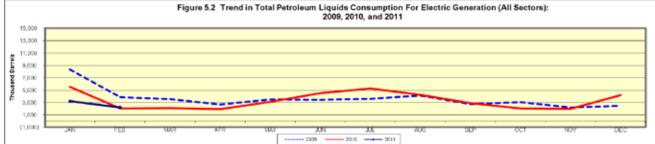
# Section 5. Fossil Fuel Consumption Trends

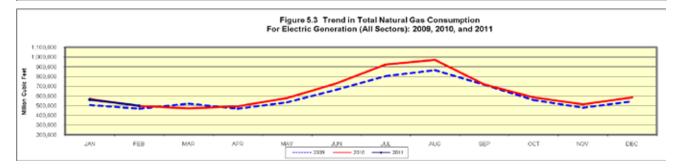
### Table 5.1 Trends in Fossil Fuel Consumption For Electric Generation, Total (All Sectors)

Year-to-Date Comparison										
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)					
Current Period	January 2011	February 2011	164,034	5,426	1,059,742					
Prior Period	January 2010	February 2010	170,769	7,605	1,062,249					
Percent Difference			-3.9%	-28.7%	-0.2%					

Comparison to Prior 12 Month Period											
	Starting Month	Ending Month	Coal (Thousand Tons)	Petroleum Liquids (Thousand Barrels)	Natural Gas (Million Cubic Feet)						
Current Period	March 2010	February 2011	972,821	37,862	7,630,962						
Prior Period	March 2009	February 2010	940,557	38,953	7,208,102						
Percent Difference			3.4%	-2.8%	5.9%						







### **Section 6. Fossil Fuel Stock Trends**

Table 6.1 Trends in Total Fossil Fuel Stocks (Electric Power Sector)										
Fossil Fuel Stocks	Feb-11	Feb-10	% Change	Jan-11	% Change					
Coal, Total (Thousand Short Tons)	161,545	171,123	-5.6%	165,059	-2.1%					
Bituminous (includes anthracite and coal synfuel)	75,843	82,476	-8.0%	76,432	-0.8%					
Subbituminous	79,321	83,807	-5.4%	82,294	-3.6%					
Lignite	6,381	4,840	31.8%	6,333	0.8%					
Petroleum Liquids (Thousand Barrels)	35,189	38,265	-8.0%	35,578	-1.1%					

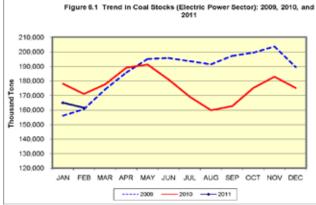
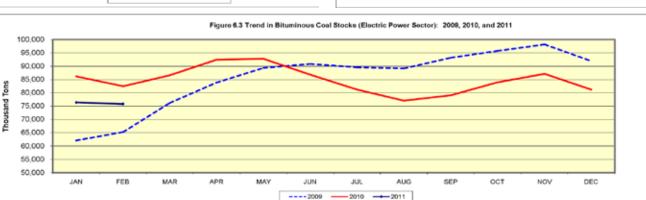
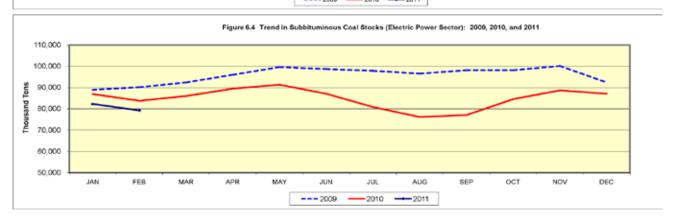




Figure 6.2 Trend in Petroleum Liquids Stocks (Electric Power Sector): 2009, 2010, and 2011





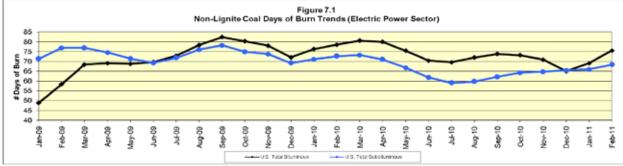
## Section 7. Average Number of Days of Burn Non-Lignite Coal

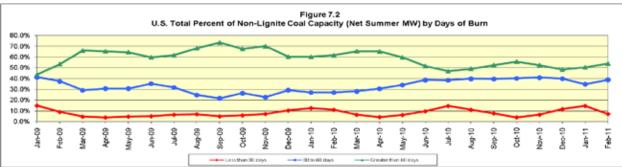
Data for: February 2011

Table 7	Table 7.1 Average Number of Days of Burn Non-Lignite Coal by Region           (Electric Power Sector)										
Zone	Feb-11	Feb-10	% Change	Jan-11	% Change						
Northeast	46	57	-18.9%	39	18.3%						
South	74	77	-3.5%	68	9.5%						
Midwest	67	68	-0.9%	66	2.3%						
West	84	92	-9.5%	80	4.9%						

Table 7.2 Percent of Non-Lignite Coal Capacity (Net Summer MW) by Days of Burn (Electric Power Sector)									
		February 2011							
Zone	Less than 30 days	30 to 60 days							
Northeast	30.1%	43.5%	26.4%						
South	6.2%	36.5%	57.3%						
Midwest	5.9%	43.4%	50.7%						
West	0.3%	31.4%	68.4%						
U.S. Total									

		Fel	o-11	Fe	b-10		Ja	n-11	
Zone	Coal	Stocks (000 tons)	Days of Burn	Stocks (000 tons)	Days of Burn	% Change of Stocks	Stocks (000 tons)	Days of Burn	% Change of Stocks
Northeast	Bituminous	6,076	48	7,490	58	-18.9%	6,123	41	-0.8%
Northeast	Subbituminous	385	23	681	42	-43.4%	481	23	-20.0%
South	Bituminous	42,735	79	45,250	79	-5.6%	42,290	72	1.1%
South	Subbituminous	4,677	48	6,385	65	-26.7%	4,617	46	1.3%
Midwest	Bituminous	16,143	69	17,548	72	-8.0%	17,228	67	-6.3%
muwest	Subbituminous	40,949	67	40,293	66	1.6%	43,306	66	-5.4%
West	Bituminous	6,742	116	7,927	131	-14.9%	6,688	113	0.8%
West	Subbituminous	27,927	78	30,675	86	-9.0%	28,475	74	-1.9%
LLS Total	Bituminous	71,696	76	78,214	79	-8.3%	72,329	69	-0.9%
US Lotal	Subbituminous	73,939	68	78.034	73	-5.2%	76,880	66	-3.8%





## **Retail Sales**

Table 8.1 Retail Sales (Million kWh)												
Ultimate Customer	Feb-11	Feb-10	% Change	Jan-11	% Change							
Residential	121,722	123,425	-1.4%	146,431	-16.9%							
Commercial	99,929	100,588	-0.7%	107,908	-7.4%							
Industrial	76,601	73,602	4.1%	78,934	-3.0%							
Transportation	675	722	-6.6%	697	-3.2%							
All Sectors	298,926	298,337	0.2%	333,969	-10.5%							

# **Average Retail Price**

Table 8.2 Average Retail Price (Cents/kWh) U.S. Total												
Ultimate Customer	Feb-11	Feb-10	% Change	Jan-11	% Change							
Residential	11.45	10.95	4.6%	10.99	4.2%							
Commercial	10.12	9.93	1.9%	9.88	2.4%							
Industrial	6.80	6.55	3.8%	6.73	1.0%							
Transportation	10.54	10.78	-2.2%	10.52	0.2%							
All Sectors	9.81	9.52	3.0%	9.62	2.0%							

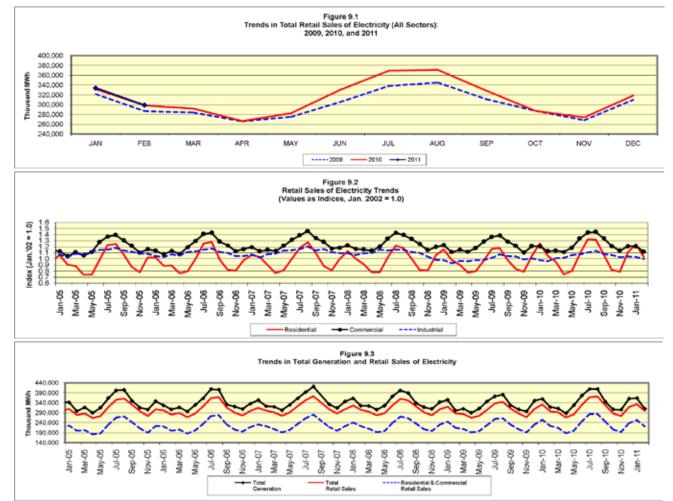
Tab	Table 8.3 Average Retail Price (Cents/kWh) by Census Division													
Census Division		Residential		All Sectors										
	Feb-11	Feb-10	% Change	Feb-11	Feb-10	% Change								
New England	15.98	16.28	-1.8%	14.68	14.97	-1.9%								
Middle Atlantic	15.34	14.92	2.8%	13.13	13.16	-0.2%								
East North Central	11.07	10.52	5.2%	9.03	8.69	3.9%								
West North Central	9.05	8.31	8.9%	7.68	7.12	7.9%								
South Atlantic	11.93	10.83	10.2%	10.11	9.66	4.7%								
East South Central	9.74	8.76	11.2%	8.38	7.60	10.3%								
West South Central	9.95	10.27	-3.1%	8.45	8.71	-3.0%								
Mountain	9.76	9.79	-0.3%	8.08	8.05	0.4%								
Pacific Contiguous	11.67	11.74	-0.6%	10.81	10.34	4.5%								
Pacific Noncontiguous	24.33	22.17	9.7%	22.76	20.32	12.0%								
U.S. Total	11.45	10.95	4.6%	9.81	9.52	3.0%								

### Section 9. Retail Sales Trends

# Table 9.1 Trends in Total Retail Sales of Electricity (All Sectors) Millions of Kilowatthours

Year-to-Date Com	Year-to-Date Comparison												
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)						
Current Period	January 2011	February 2011	268,153	207,837	155,534	1,371	632,895						
Prior Period	January 2010	February 2010	271,320	208,618	148,573	1,460	629,972						
Percent Difference			-1.2%	-0.4%	4.7%	-6.1%	0.5%						

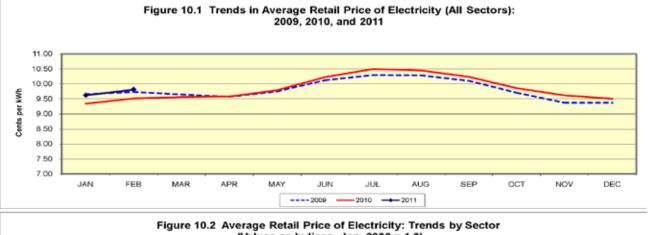
Comparison to Pri	Comparison to Prior Twelve-Month Period											
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)					
Current Period	March 2010	February 2011	1,447,591	1,328,541	969,126	7,651	3,752,908					
Prior Period	March 2009	February 2010	1,384,179	1,306,906	919,708	7,795	3,618,588					
Percent Difference			4.6%	1.7%	5.4%	-1.8%	3.7%					

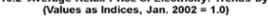


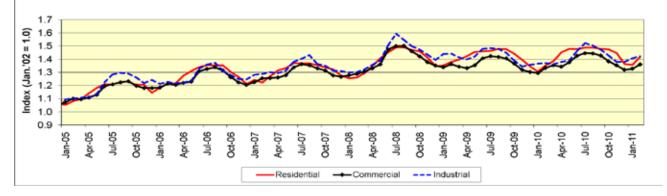
## Section 10. Average Retail Price Trends

Year-to-Date Comp	Year-to-Date Comparison												
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)						
Current Period	January 2011	February 2011	11.20	10.00	6.77	10.53	9.71						
Prior Period	January 2010	February 2010	10.74	9.77	6.54	10.63	9.43						
Percent Difference			4.3%	2.4%	3.5%	-0.9%	3.0%						

Comparison to Prior 12 Month Period												
	Starting Month	Ending Month	Residential	Commercial	Industrial	Transportation	Total (All Sectors)					
Current Period	March 2010	February 2011	11.67	10.29	6.82	10.95	9.93					
Prior Period	March 2009	February 2010	11.44	10.13	6.76	10.68	9.77					
Percent Difference			2.0%	1.6%	0.9%	2.5%	1.6%					







Data for:

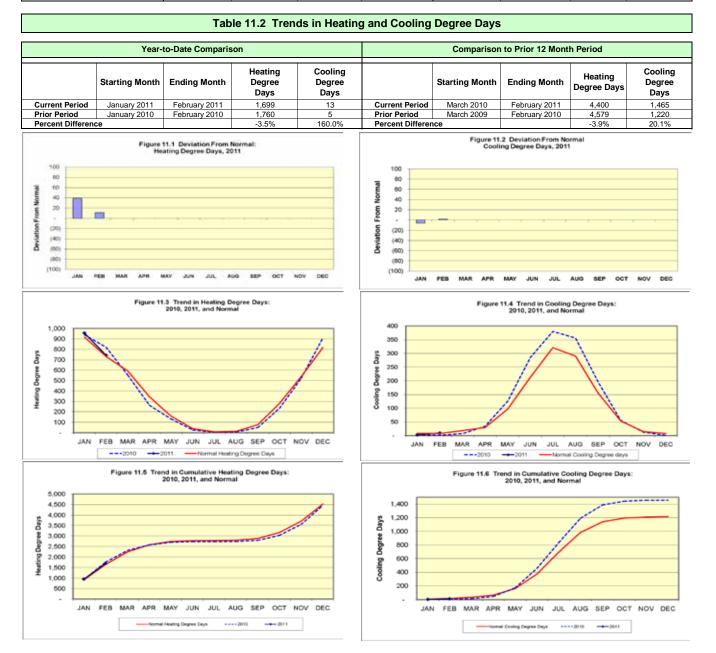
February 2011

### Section 11. Heating and Cooling Degree Days

Data for: February 2011

### Table 11.1 Degree Days

			Heating De	egree Days			Cooling Deg	ree Days	
	Month	Heating Degree Days	Normal Heating Degree Days	Deviation From Normal	Percent Difference From Normal	Cooling         Normal         Deviation         Per           Degree         Cooling         From         Diffe           Days         Degree Days         Normal         From			
Current Period	February 2011	743	732	11	1.5%	10	8	2	25.0%
Prior Period	February 2010	820	732	88	12.0%	2	8	-6	-75.0%
Percent Difference	ce	-9.4%				400.0%			



### **Section 12. Documentation**

**General:** The Monthly Flash Estimates of Electric Power Data ("Flash Estimates") is prepared by the Electric Power Operations Team, Office of Electricity, Renewables and Uranium Statistics, U.S. Energy Information Administration (EIA), U.S. Department of Energy. Data published in the Flash Estimates are compiled from the following sources: U.S. Energy Information Administration, Form EIA-826, "Monthly Electric Utility Sales and Revenues with State Distributions Report," and U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report."

The survey data are collected monthly using multiple-attribute cutoff sampling of power plants and electric retailers for the purpose of estimation for various data elements (generation, stocks, revenue, etc.), for various categories, such as geographic regions. (The data elements and categories are "attributes.") The nominal sample sizes are: for the Form EIA-826, approximately 450 electric utilities and other energy service providers; for the Form EIA-923, approximately 1590 plants. Regression-based (i.e., "prediction") methodologies are used to estimate totals from the sample. Essentially complete samples are collected for the *Electric Power Monthly* (EPM), which includes State-level values. The Flash Estimates is based on an incomplete sample and includes only national-level estimates. Using 'prediction,' it is generally possible to make estimates based on the incomplete EPM sample, and still estimate variances.

For complete documentation on EIA monthly electric data collection and estimation, see the Technical Notes to the *Electric Power Monthly*, at: http://www.eia.gov/cneaf/electricity/epm/epm.pdf. Values displayed in the Flash Estimates may differ from values published in the *Electric Power Monthly* due to the additional data collection and data revisions that may occur between the releases of these two publications. 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).

Average Days of Burn: Average Days of Burn is defined as the average number of days remaining until coal stocks reach zero if no further deliveries of coal are made. These data have been calculated using only the population of coal plants present in the monthly Form EIA-923. This includes 1) coal plants that have generators with a primary fuel of bituminous coal (including anthracite) or subbituminous, and 2) are in the Electric Power Sector (as defined in the above "Sector definitions"). Excluded are plants with primary fuel of lignite and waste coal, mine mouth plants, and out of service plants. Coal storage terminals and the related plants that they serve are aggregated into one entity for the calculation of Average Days of Burn, as are plants that share stockpiles.

Average days of burn is computed as follows: End of month stocks for the current (data) month, divided by the average burn per day. Average burn per day is the average of the three previous years' consumption as reported on the Form EIA-923.

For lists of the plants included in the calculations, the plants that are excluded, and the plants that are aggregated with terminals, contact EIA at EIA923@eia.gov.

These data are displayed by coal rank and by zone. Each zone has been formed by combining the following Census Divisions:

"Northeast" -- New England, Middle Atlantic "South" -- South Atlantic, East South Central "Midwest" -- West North Central, East North Central "West" -- Mountain, West South Central, Pacific Contiguous

### Coal Stocks: Section 6 vs. Section 7

The coal stocks data presented in Section 6 will differ from the coal stocks presented in Section 7. This occurs because coal stocks in Section 6 include the entire population of coal plants that report on both the annual and monthly Form EIA-923. The coal stocks reported in Section 7 only include coal plants that report on the monthly Form EIA-923 and have a primary fuel of bituminous (including anthracite) or subbituminous as reported on the Form EIA-860.