

**Testimony of**

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**before the**

**Committee on Education and Labor**

**Subcommittee on Healthy Families and Communities**

**U. S. House of Representatives**

**November 13, 2007**

Madam Chairwoman and Members of the Committee, I appreciate the opportunity to appear before you today to discuss recent developments in energy markets and the short term outlook, including the outlook for this winter's heating fuels expenditures.

The Energy Information Administration (EIA) is the independent statistical and analytical agency within the Department of Energy. While we do not promote, formulate, or take positions on policy issues, we do produce objective, timely, and relevant data, projections, and analyses that are meant to assist policymakers, help markets function efficiently, and inform the public. Our views are strictly those of EIA and should not be construed as representing those of the Department of Energy or the Administration.

My testimony today relies on EIA's *Short-Term Energy Outlook (STEO)*, which is updated each month. The November *STEO* was released November 6<sup>th</sup> and provides projections through 2008, including price, consumption, and expenditures projections for heating fuels this winter by region and by fuel. EIA's heating fuel expenditure projections reflect forecasts of weather conditions and energy markets as well as the characteristics of household heating systems in each region. Heating system characteristics for each region are based on the EIA *Residential Energy Consumption Survey*, which collects information on energy using equipment and energy bills from a sample of residences every 4 years. The energy market forecasts are developed by EIA staff, while weather forecasts are supplied by the National Oceanographic and Atmospheric Administration (NOAA) within the Department of Commerce. EIA also

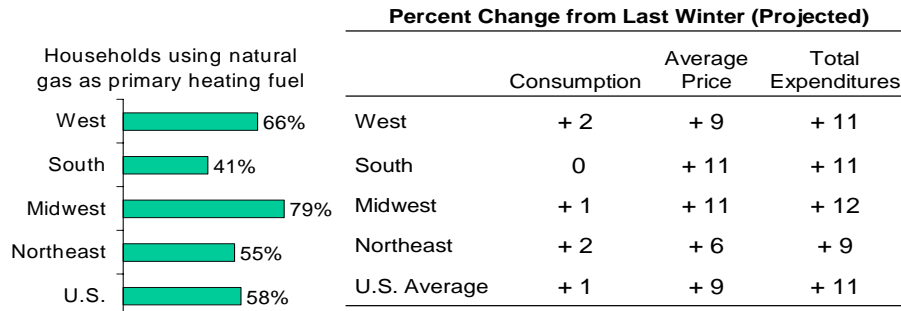
examines 10-percent colder and 10-percent warmer winter cases to provide a range of heating fuel market outcomes.

### ***Projected Winter Fuel Expenditures by Fuel and Region***

EIA's estimates of average winter fuel expenditures provide a broad guide to changes from last winter, but household expenditures are highly dependent on local weather conditions, market size, the size and efficiency of individual homes and their heating equipment, and thermostat settings. On average, households heating primarily with natural gas are expected to spend an average of \$87 (11 percent) more this winter than last winter in fuel expenditures. Households heating primarily with heating oil can expect to pay an average of \$375 (26 percent) more this winter. Households heating primarily with propane can expect to pay an average of \$273 (20 percent) more this winter. Households heating primarily with electricity can expect to pay an average of \$22 (3 percent) more.

Nationwide, about 58 percent of all households depend on natural gas as their primary heating fuel. During this winter, as noted above, the average household using natural gas for heating can expect to pay 11 percent more than it did last winter, reflecting the combined effects of a 9-percent increase in price and a 1-percent increase in consumption. In the Midwest, where 79 percent of all households rely on natural gas, a projected 12-percent increase in average household expenditures results from an 11-percent increase in prices and 1-percent consumption growth (**Figure 1**).

**Figure 1. Natural gas heating bills are projected to be higher for all regions this winter.**

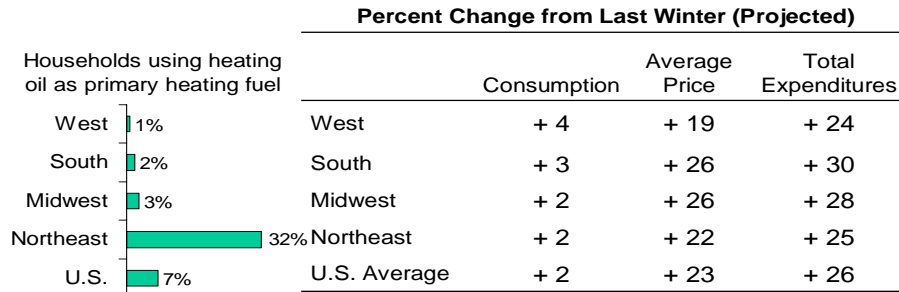


Short-Term Energy Outlook, November 2007



Only 7 percent of U.S. households depend on heating oil for winter fuel. Most of these households are in the Northeast, where 32 percent of households use heating oil as their primary heating fuel. In that region, the average household is projected to pay 26 percent more than last winter as a result of a 23-percent increase in prices and a 2-percent increase in consumption (**Figure 2**).

**Figure 2. U.S. winter heating oil expenditures projected to increase for all regions.**

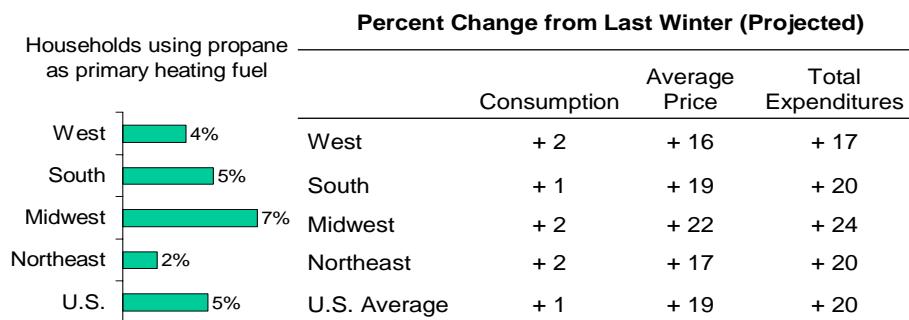


Short-Term Energy Outlook, November 2007



Propane-consuming households, which account for 5 percent of the U.S. total, are projected to see an average increase of 20 percent in propane expenditures this winter, but that increase varies widely by region (**Figure 3**). Western households are projected to see an average expenditures increase of 17 percent, for example, while Midwestern homes are expected to experience an average increase of 24 percent.

**Figure 3. Propane expenditures are projected to increase in all regions.**

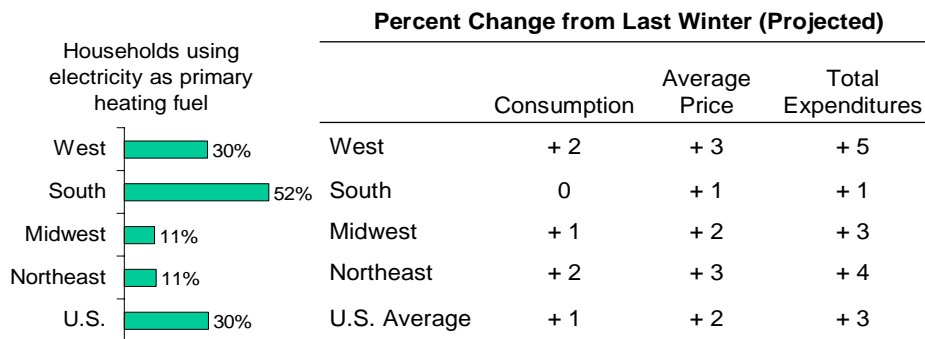


Short-Term Energy Outlook, November 2007



Thirty percent of all U.S. households rely on electricity as their primary heating fuel, with electricity serving as the primary heating fuel for 30 percent of households in the West, 52 percent in the South, and 11 percent each in the Northeast and the Midwest. On average, electricity expenditures during the winter are projected to rise by 3 percent due to increased consumption and prices. Households in the South, for example, are projected to pay 1 percent more this winter on electricity bills, while Western households' expenditures are projected to rise 5 percent from last winter (**Figure 4**).

**Figure 4. Winter electricity expenditure increases are expected to be smaller than other fuels.**



Short-Term Energy Outlook, November 2007



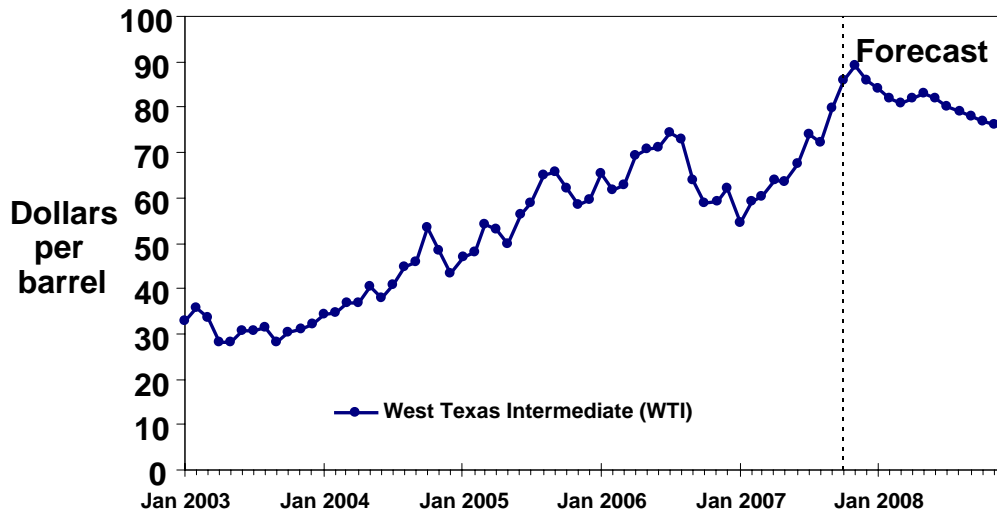
Attached to my testimony is a table (**Table WFO1**) which provides additional data on projected nationwide and regional heating fuel expenditures for the upcoming winter as well as historical data for past winters.

The remainder of my testimony reviews some of the factors that have contributed to recent and projected price trends in oil and natural gas markets. Oil price trends in particular have been a major factor contributing to the increase in projected heating expenditures for the upcoming winter.

### *Oil Markets*

A number of factors have combined to cause oil prices to rise significantly in 2007 and will likely continue to impact prices through 2008. West Texas Intermediate (WTI) crude oil prices are projected to increase from an average of \$66 per barrel in 2006 to \$71 per barrel in 2007, and to nearly \$80 per barrel in 2008 (**Figure 5**). EIA believes that supply and demand fundamentals, including strong world economic growth driving growth in oil use, moderate non-Organization of the Petroleum Exporting Countries (OPEC) supply growth, OPEC members' production decisions, low OPEC spare production capacity, tightness in global commercial inventories, worldwide refining bottlenecks, and ongoing geopolitical risks and concerns about supply availability, have been the main drivers of oil price movements over the past year.

Figure 5. Crude Oil Prices



Short-Term Energy Outlook, November 2007



With the rise in prices, oil markets have been drawing increased interest and participation from investors and financial entities without direct commercial involvement in physical oil markets. The role of these non-commercial futures-market participants in recent price developments is difficult to assess, particularly over short time intervals. However, general principles favor a focus on fundamentals, rather than consideration of alternative price drivers, when the explanatory power of fundamentals is high. A more extensive discussion of the factors affecting current high oil prices is contained in the Supplement to the November *Short-Term Energy Outlook*, which can be found on our website at <http://www.eia.doe.gov/emeu/steo/pub/contents.html> .



## *Natural Gas Markets*

Mild weather, high storage levels, and a lack of tropical storm activity in the Gulf of Mexico this year have caused the natural gas market to soften. Natural gas inventories reached an all-time high in the week ending November 2, and warmer-than-normal weather at the start of the fourth quarter has reduced consumption in key regions that rely on natural gas for space heating.

On the supply side, total domestic natural gas production continues to increase. In particular, production activity in the lower-48 onshore region has expanded and has more than offset production declines in the Gulf of Mexico. Imports of liquefied natural gas (LNG), which surged during the first half of 2007 and are expected to surpass last year's total by roughly 40 percent, have slowed recently due to rising demand by other LNG-consuming nations.

The Henry Hub spot price of natural gas averaged \$6.94 per thousand cubic feet (mcf) in October and is expected to rise as consumption increases with the onset of winter over the coming months. The Henry Hub spot price is projected to reach a winter peak monthly average price of about \$8.65 per mcf in January 2008. On an annual basis, Henry Hub spot prices are expected to average \$7.30 per mcf in 2007 and \$8.01 per mcf in 2008.

This concludes my statement, Madam Chairwoman, and I will be happy to answer any questions you and the other Members may have.

Table WF01. Selected U.S. Average Consumer Prices\* and Expenditures for Heating Fuels During the Winter  
 Energy Information Administration/Short-Term Energy Outlook -- November 2007

Fuel / Region	Winter of							Forecast	
	01-02	02-03	03-04	04-05	05-06	Avg.01-06	06-07	07-08	% Change
<b>Natural Gas</b>									
<b>Northeast</b>									
Consumption (mcf**)	67.7	84.3	79.9	79.7	73.8	77.1	74.7	76.6	2.5
Price (\$/mcf)	9.41	9.99	11.77	13.01	16.82	12.19	14.74	15.09	6.4
Expenditures (\$)	637	842	941	1,038	1,242	940	1,101	1,201	9.1
<b>Midwest</b>									
Consumption (mcf)	78.2	92.3	85.7	85.3	82.3	84.8	84.9	85.9	1.2
Price (\$/mcf)	6.26	7.61	8.77	10.04	13.42	9.21	11.05	12.26	10.9
Expenditures (\$)	490	702	751	857	1,104	781	938	1,053	12.2
<b>South</b>									
Consumption (mcf)	52.7	60.4	55.4	53.8	53.5	55.2	54.6	54.4	-0.3
Price (\$/mcf)	8.17	9.03	10.67	12.17	16.46	11.25	13.59	15.11	11.2
Expenditures (\$)	431	545	591	655	881	621	742	823	10.9
<b>West</b>									
Consumption (mcf)	47.8	45.1	46.1	47.1	47.0	46.6	47.6	48.6	2.2
Price (\$/mcf)	7.08	7.55	8.84	10.18	12.95	9.33	11.20	12.17	8.6
Expenditures (\$)	338	340	408	479	609	435	533	591	11.0
<b>U.S. Average</b>									
Consumption (mcf)	62.5	71.2	67.2	66.8	64.5	66.4	65.8	66.6	1.2
Price (\$/mcf)	7.45	8.42	9.81	11.12	14.65	10.27	12.36	13.52	9.4
Expenditures (\$)	465	600	659	743	945	682	813	900	10.7
Households (thousands)	59,264	59,096	59,708	60,364	61,036	59,893	61,721	62,385	1.1
<b>Heating Oil</b>									
<b>Northeast</b>									
Consumption (gallons)	544.8	676.1	641.6	641.4	593.0	619.4	599.2	614.1	2.5
Price (\$/gallon)	1.18	1.42	1.46	1.93	2.45	1.69	2.50	3.06	22.3
Expenditures (\$)	641	963	935	1,237	1,453	1,046	1,499	1,879	25.4
<b>Midwest</b>									
Consumption (gallons)	449.4	533.8	492.9	486.9	469.4	486.5	487.7	496.7	1.8
Price (\$/gallon)	1.03	1.35	1.34	1.84	2.38	1.59	2.40	3.01	25.5
Expenditures (\$)	463	720	661	895	1,116	771	1,168	1,493	27.8
<b>South</b>									
Consumption (gallons)	342.9	423.7	398.2	382.9	377.8	385.1	368.1	379.9	3.2
Price (\$/gallon)	1.13	1.41	1.45	1.95	2.45	1.68	2.37	2.98	25.7
Expenditures (\$)	387	597	578	746	925	646	872	1,132	29.7
<b>West</b>									
Consumption (gallons)	338.9	304.6	318.2	327.7	327.3	323.3	327.2	340.5	4.1
Price (\$/gallon)	1.09	1.39	1.46	1.98	2.50	1.68	2.57	3.07	19.4
Expenditures (\$)	369	422	463	650	817	544	842	1,046	24.3
<b>U.S. Average</b>									
Consumption (gallons)	542.6	658.7	624.7	622.4	584.2	606.5	590.6	604.5	2.3
Price (\$/gallon)	1.16	1.41	1.44	1.92	2.45	1.68	2.48	3.05	22.7
Expenditures (\$)	627	932	903	1,198	1,430	1,018	1,466	1,841	25.6
Households (thousands)	8,071	7,883	7,867	7,868	7,866	7,911	7,857	7,858	0.0

Table WF01. Selected U.S. Average Consumer Prices\* and Expenditures for Heating Fuels During the Winter  
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Fuel / Region	Winter of							Forecast	
	01-02	02-03	03-04	04-05	05-06	Avg.01-06	06-07	07-08	% Change
<b>Propane</b>									
<b>Northeast</b>									
Consumption (gallons)	741.2	914.5	870.1	869.3	807.8	840.6	816.1	835.5	2.4
Price (\$/gallon)	1.40	1.55	1.65	1.87	2.20	1.74	2.29	2.09	17.3
Expenditures (\$)	1,040	1,414	1,436	1,629	1,774	1,459	1,870	2,245	20.0
<b>Midwest</b>									
Consumption (gallons)	733.1	858.1	799.2	790.3	765.2	789.2	791.6	804.7	1.6
Price (\$/gallon)	1.00	1.07	1.20	1.42	1.67	1.27	1.74	2.13	22.0
Expenditures (\$)	734	919	955	1,119	1,275	1,000	1,380	1,711	24.0
<b>South</b>									
Consumption (gallons)	494.7	574.7	532.8	513.8	517.5	526.7	518.5	521.7	0.6
Price (\$/gallon)	1.24	1.45	1.57	1.79	2.12	1.63	2.16	2.58	19.3
Expenditures (\$)	613	835	838	918	1,096	860	1,121	1,345	20.0
<b>West</b>									
Consumption (gallons)	618.5	582.9	590.0	599.3	596.3	597.4	605.2	614.4	1.5
Price (\$/gallon)	1.25	1.38	1.54	1.78	2.09	1.61	2.18	2.53	15.6
Expenditures (\$)	776	806	906	1,068	1,245	960	1,322	1,551	17.4
<b>U.S. Average</b>									
Consumption (gallons)	634.5	719.9	679.5	670.4	657.0	672.2	669.0	678.2	1.4
Price (\$/gallon)	1.16	1.29	1.42	1.64	1.95	1.49	2.02	2.39	18.6
Expenditures (\$)	736	926	962	1,102	1,281	1,002	1,349	1,622	20.2
Households (thousands)	4,979	4,906	4,929	4,951	4,985	4,950	5,020	5,056	0.7
<b>Electricity</b>									
<b>Northeast</b>									
Consumption (kwh***)	8,956	10,529	10,128	10,109	9,564	9,857	9,643	9,818	1.8
Price (\$/kwh)	0.111	0.109	0.114	0.117	0.133	0.117	0.139	0.142	2.5
Expenditures (\$)	997	1,148	1,153	1,183	1,272	1,151	1,337	1,395	4.4
<b>Midwest</b>									
Consumption (kwh)	10,224	11,397	10,850	10,792	10,552	10,763	10,784	10,890	1.0
Price (\$/kwh)	0.075	0.074	0.075	0.077	0.081	0.076	0.086	0.088	2.4
Expenditures (\$)	762	841	818	830	853	821	923	955	3.4
<b>South</b>									
Consumption (kwh)	8,171	8,817	8,446	8,304	8,297	8,407	8,341	8,346	0.1
Price (\$/kwh)	0.075	0.074	0.078	0.082	0.092	0.080	0.096	0.097	1.1
Expenditures (\$)	615	650	655	677	763	672	799	808	1.2
<b>West</b>									
Consumption (kwh)	7,284	6,969	7,095	7,189	7,181	7,143	7,195	7,317	1.7
Price (\$/kwh)	0.090	0.091	0.091	0.092	0.097	0.092	0.102	0.105	3.0
Expenditures (\$)	659	635	642	661	696	659	735	770	4.7
<b>U.S. Average</b>									
Consumption (kwh)	7,980	8,531	8,258	8,190	8,103	8,212	8,158	8,209	0.6
Price (\$/kwh)	0.083	0.082	0.085	0.088	0.096	0.087	0.101	0.103	2.0
Expenditures (\$)	663	697	699	717	782	712	823	845	2.7
Households (thousands)	30,926	30,992	31,335	31,700	32,035	31,398	32,352	32,680	1.0
All households (thousands)	103,240	102,877	103,839	104,883	105,922	104,152	106,950	107,979	1.0
Average Expenditures (\$)	550	670	704	786	948	732	889	986	10.9

Note: Winter covers the period October 1 through March 31.

\* Prices include taxes

\*\* thousand cubic feet

\*\*\* kilowatthour