



EIA Energy Information Administration

Short-Term Energy Outlook

Short-Term Energy Outlook

November 1997 (Released November 8, 1997)

Energy Information Administration

Overview

Update on the winter situation. Higher near-term natural gas prices, fueled by higher-than-expected electricity demand in late summer and early fall and by coal supply problems, will most likely carry through the remainder of this quarter. However, we still do not expect peak winter gas prices to match the 1996-1997 run-up. In spite of the extra pressure on spot markets recently, natural gas in storage apparently made new gains relative to last year in October. Meanwhile, on the heating oil front, the supply situation remains good, with current estimates for end-October distillate stocks reaching about 19 percent above last year's level. Thus, barring sharp crude price increases, expected lower heating fuel prices this winter remains a good bet. That residential gas customers will see a similar benefit this winter is not so likely, as increased gas costs to local utilities will have to be recovered over the coming months.

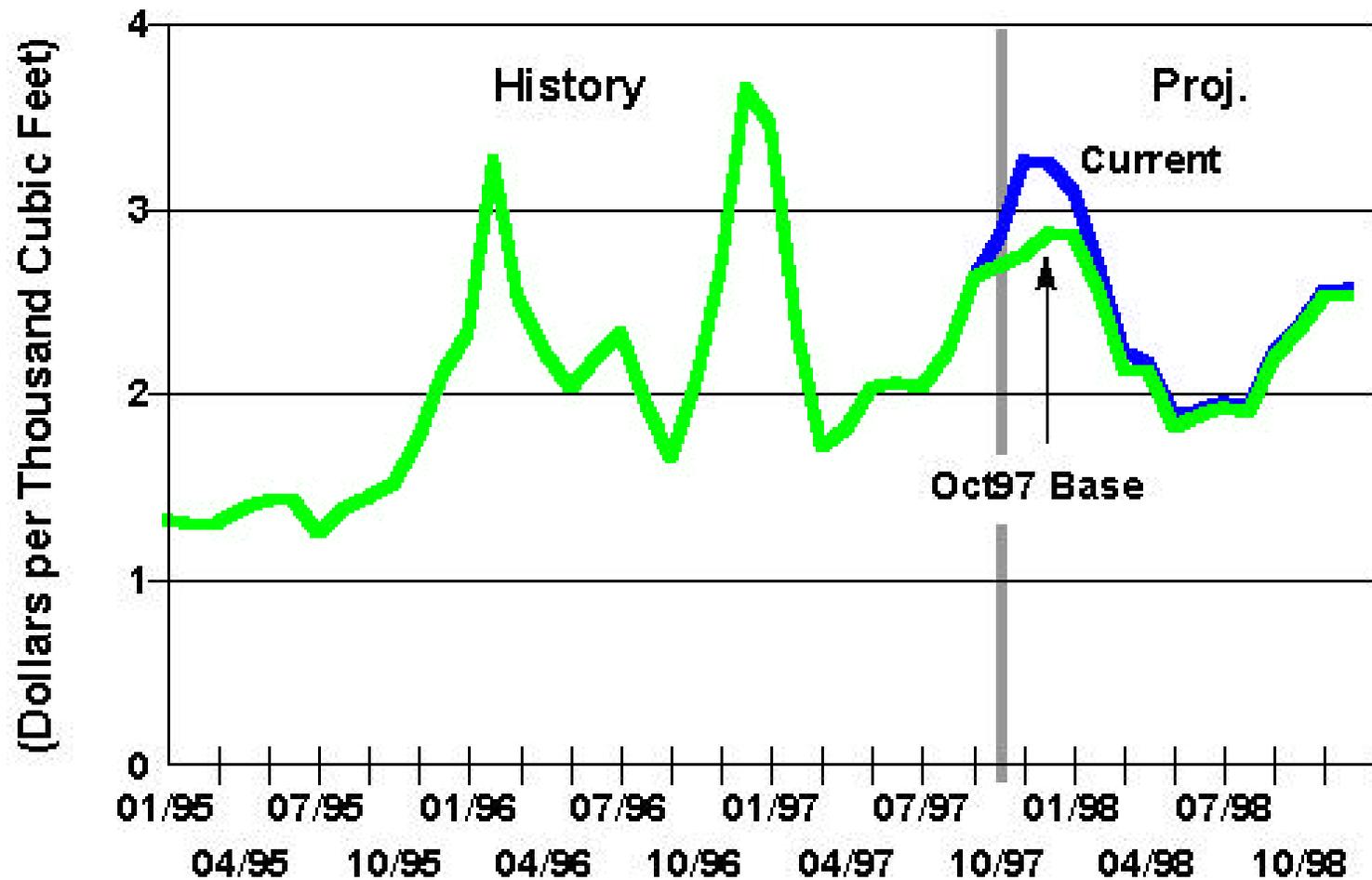
World Oil Prices. For this outlook, we have modified our world oil price to account for the latest price changes in early October, which were \$1.50 higher than previously forecasted. However, the bulk of the forecast has remained the same since the overall supply and demand projections have not changed dramatically since our last forecast. Thus, lower average winter oil prices (compared to those seen last winter) continue to characterize our base case outlook. This forecast assumes that the Iraqi humanitarian oil sales authorized by the United Nations continue. In early December 1997, a new installment of Iraqi oil sales is scheduled to begin. However, at the time of this release, there is some uncertainty as to whether the Iraqi leadership will continue to participate in the oil-for-food deal, with the uncertainty continuing even if the current weapons inspection issue is resolved. On the other hand, even if Iraq discontinues oil exports, this may not result in higher prices if OPEC increases its quota in late November as the Saudi Arabian Oil Minister has recommended.

Natural Gas

Current and expected natural gas prices have moved upward again since our October 8 report ([Figure U1](#)). Average wellhead prices for the heating season (October to March) are now expected to average about 22 cents per thousand cubic feet (7 percent) above last month's projections. Weather factors and transportation problems evidently combined to boost gas demand (specifically gas for electric power generation) in September and October, following a relatively weak August, resulting in strong short-term prices.

September proved to be unusually warm in the South and Southwest regions, leading to higher-than-expected electricity output and fuel input demand. A similar phenomenon apparently occurred in early October. To some extent, the output effect on gas demand and prices since August has been exacerbated by the ongoing rail transportation problems associated with the Union Pacific Railroad, although just how significant a contributor to higher average gas prices this has been is not known. It is clear that some utilities that depend on coal delivered by the Union Pacific have had to increase reliance of non-coal fuel sources (including natural gas) beyond expected levels

Figure U1. Natural Gas Spot Prices



Source: Energy Information Administration, Short-Term Energy Model, November 1997

due to delays in coal deliveries. Since the worst of the rail congestion and delay problems are expected to be resolved by January, our base case gas prices return to close to previous levels after mid winter. We have revised upward our projections of residential natural gas prices for this winter, and, as with average wellhead gas prices, we no longer expect a decline from last winter. Average residential prices are now expected to rise by about 2.1 percent this winter.

Meanwhile, the expectation of higher winter gas prices has prompted a lowering of winter gas demand in the industrial and electric utility sector, particularly the latter. (Figure U2 summarizes the revision to the winter electric utility gas demand forecast.) It should be noted that, despite the higher estimates for recent-period gas demand, gas inventories have moved further ahead of last year's level in October than we projected last month (Figure U3). Thus, we feel fairly confident that winter spot gas prices will not reach the peak seen last year (\$3.66 per thousand cubic feet last December).

Petroleum

Overall, our forecasts for petroleum product prices remain essentially the same as last month, although heating oil prices should be somewhat lower due to a marginally higher level of inventories at this time. Thus, average peak month residential heating oil prices are expected to be noticeably (about 12 cents per gallon) lower than those seen last year (Figure U4).

Revised petroleum quantity data for August, based on monthly rather than weekly data, has reduced the estimate for summer (third quarter) total demand from 18.76 million barrels per day to 18.65 million barrels per day. The revision mostly reflects revised estimates for stock changes and net imports of refined products. Total petroleum net imports (including crude oil and refined products) are now expected to be 8.90 million barrels per day for all of 1997, about 20 thousand barrels per day below last month's estimate. Crude oil production, while apparently likely to slip marginally this year, is now seen as staging an improvement in 1998, as enhanced expectations associated with new Lower-48 producing fields (particularly in the offshore Gulf area) offset declines in Alaska (Figure U5).

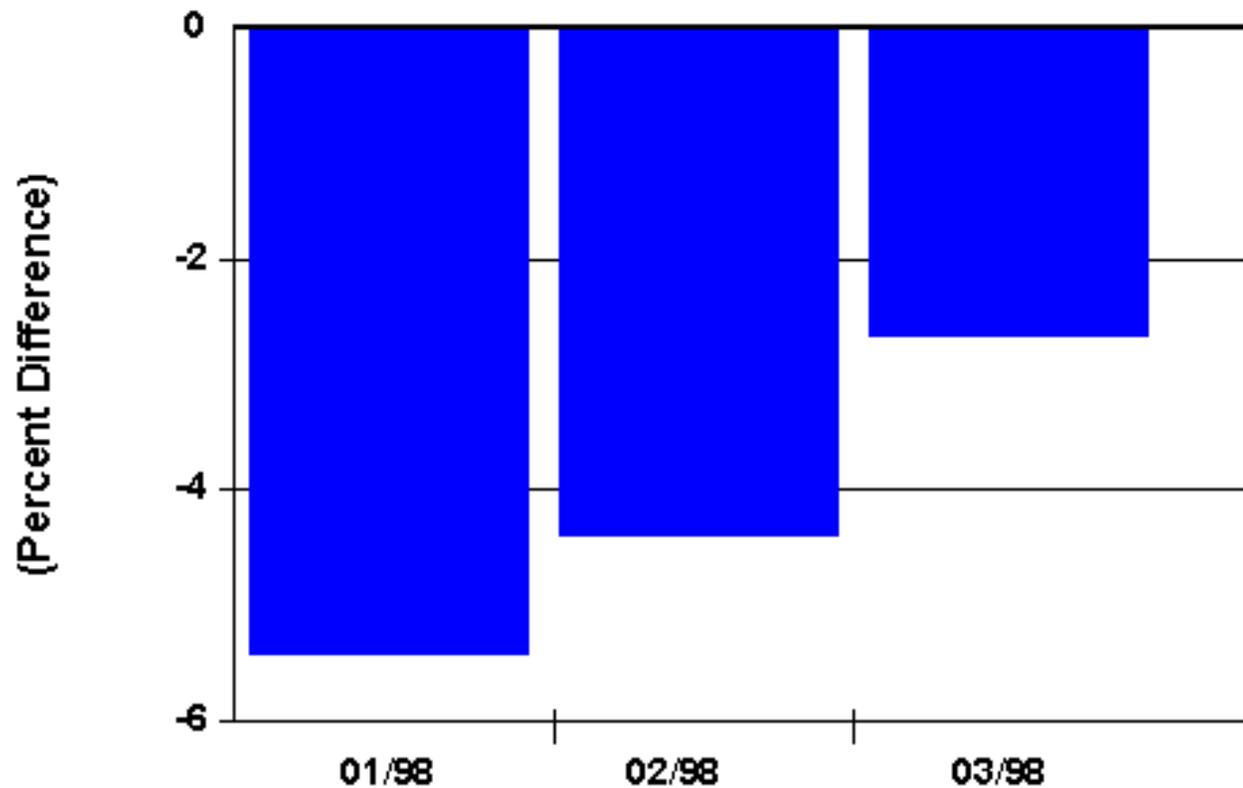
Electricity

Third quarter and early fourth quarter electricity demand was evidently above the estimates and projections from our last report. Differences focussed on the residential and commercial sectors, and were due to weather factors: September and October were hotter than normal in the South and Southwest, and colder than normal in the Midwest.

Data Notes

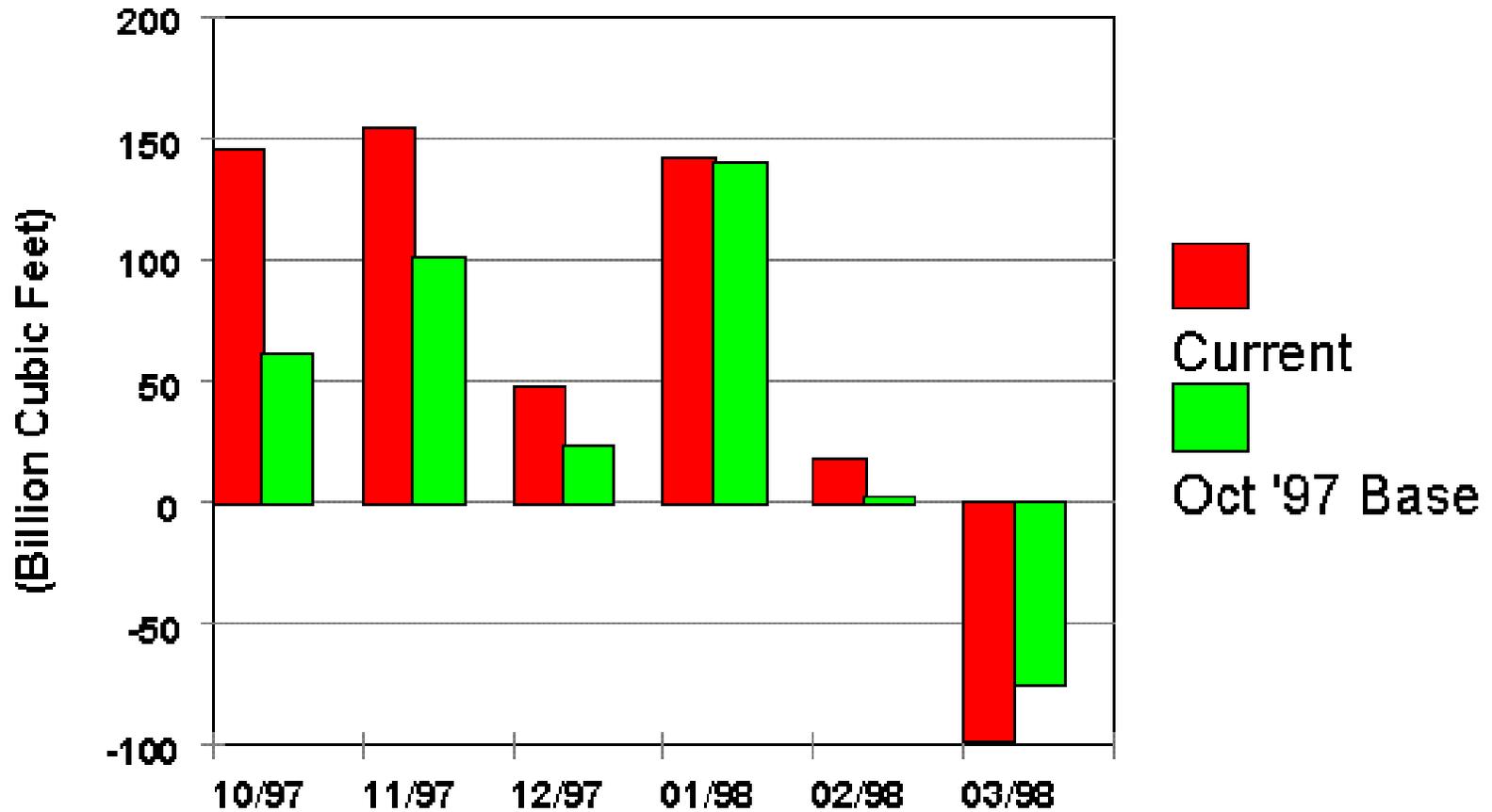
Energy Data. This month we are including revisions to the monthly natural gas demand, supply and price data resulting from the publication of EIA's *Natural Gas Annual 1996*. The revisions affect monthly values for 1996 and previously published

**Figure U2. Projected Electric Utility Gas Demand
(Change from Previous Outlook)**



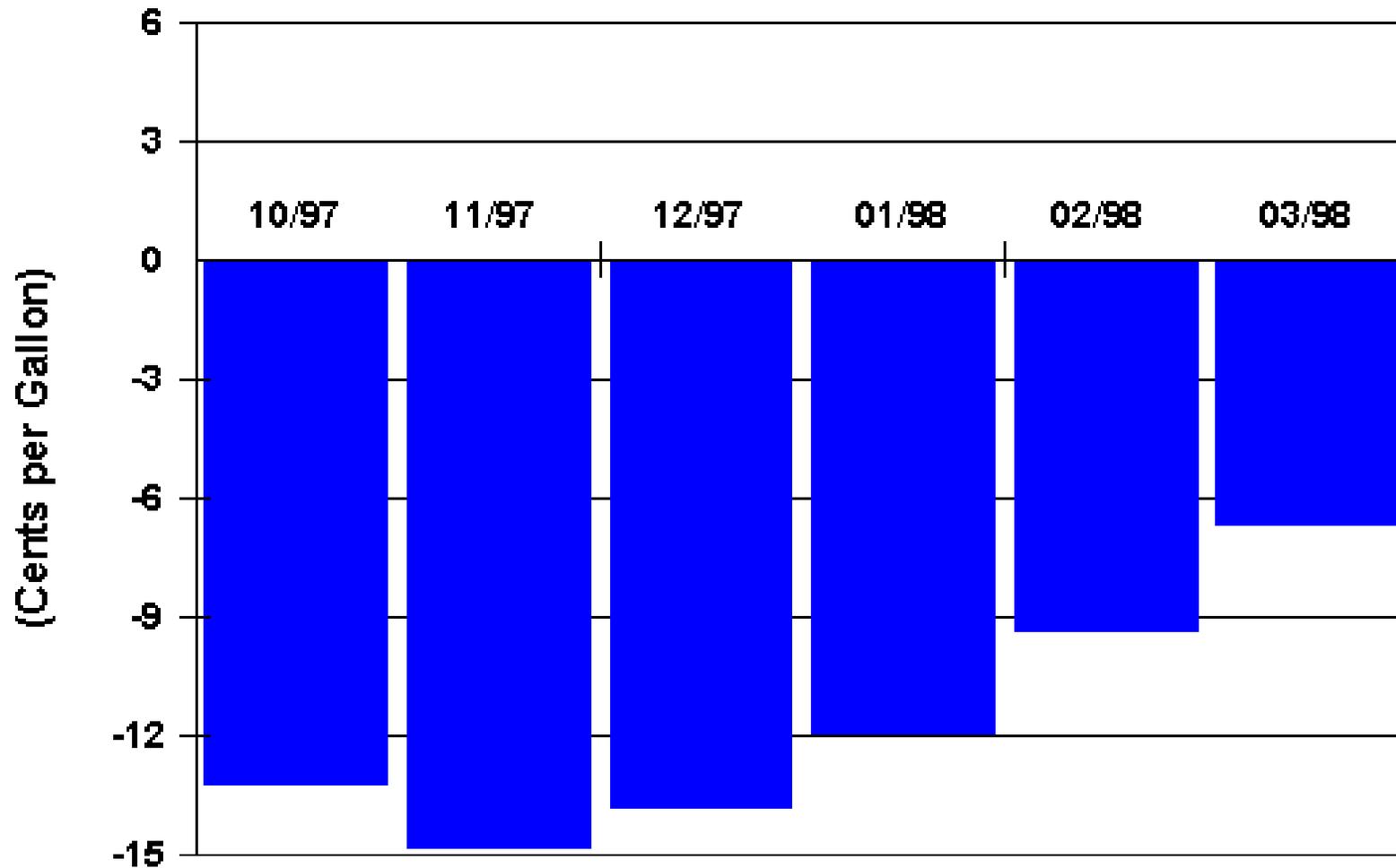
Source: Energy Information Administration, Short-Term Energy Model, November 1997

Figure U3. Gas in Underground Storage (Change from Year Ago)



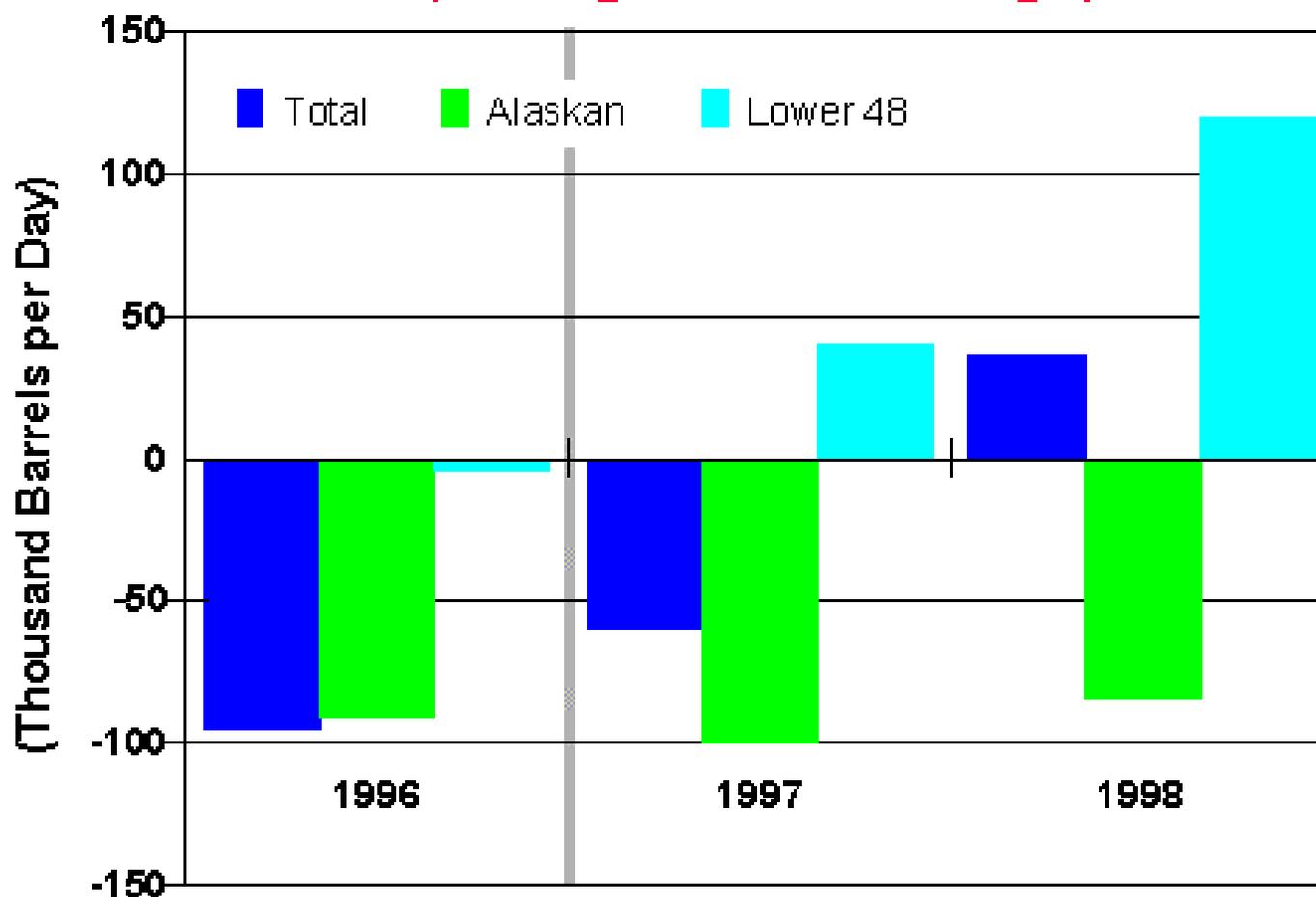
Source: Energy Information Administration, Short-Term Energy Model, November 1997

**Figure U4. Projected Retail Heating Oil Prices
(Change from Year Ago)**



Source: Energy Information Administration, Short-Term Energy Model, November 1997

Figure U5. U.S. Crude Oil Production (Change from Year Ago)

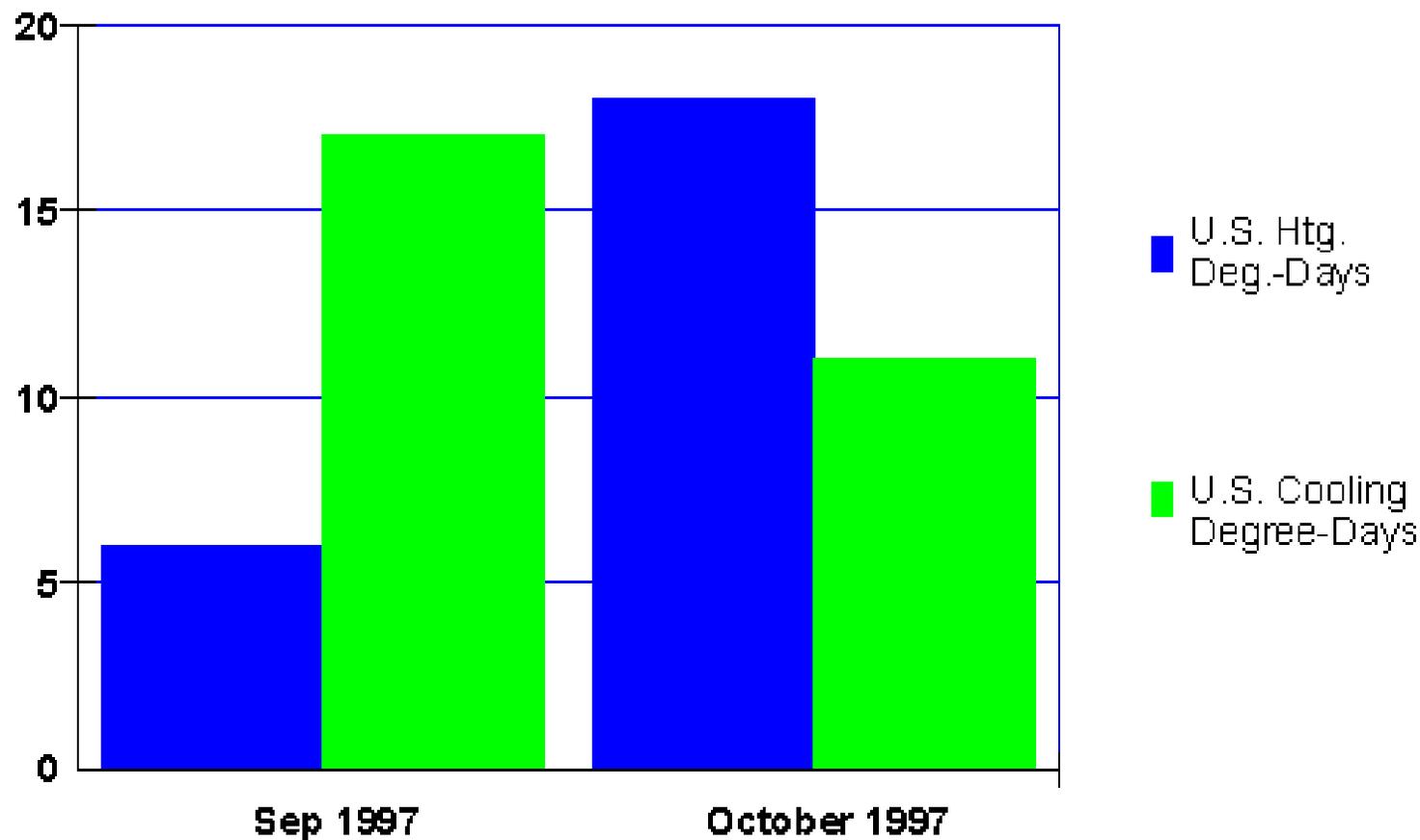


Source: Energy Information Administration, Short-Term Energy Model, November 1997

1997 data. As usual, the natural gas model used in the outlook was completely re-estimated to take account of the revisions.

Weather. September was generally hot and cooling demand was up. Electric power data from the *Edison Electric Institute* (EEI) for that month shows some particularly high output growth figures for the third week of the month in the South Central region of the country. October started out unusually warm and ended up in a wintry mode, with record snowfall and abnormally cold temperatures in some regions. Thus, last month probably yielded some increases above expectations in both cooling and heating demand (Figure U6). Data from EEI indicate average year-over-year growth in electricity output well above 4 percent in September and, using partial EEI data, we estimate a growth rate in October of about 3 to 4 percent.

Figure U6. Recent Weather Indicators (Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, November 1997

Table U1. U.S. Macroeconomic and Weather Assumptions-November 1997

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Macroeconomic ^a															
Real Gross Domestic Product (billion chained 1992 dollars - SAAR)	6826	6926	6944	7017	7102	7165	<i>7213</i>	<i>7262</i>	<i>7309</i>	<i>7342</i>	<i>7371</i>	<i>7409</i>	6928	<i>7185</i>	<i>7358</i>
Percentage Change from Prior Year	1.8	3.2	2.7	3.3	4.0	3.5	<i>3.9</i>	<i>3.5</i>	<i>2.9</i>	<i>2.5</i>	<i>2.2</i>	<i>2.0</i>	2.8	<i>3.7</i>	<i>2.4</i>
Annualized Percent Change from Prior Quarter.....	1.8	5.8	1.0	4.2	4.8	3.6	<i>2.7</i>	<i>2.7</i>	<i>2.6</i>	<i>1.8</i>	<i>1.6</i>	<i>2.0</i>			
GDP Implicit Price Deflator (Index, 1992=1.000)	1.093	1.099	1.106	1.111	1.118	1.122	<i>1.128</i>	<i>1.134</i>	<i>1.139</i>	<i>1.144</i>	<i>1.150</i>	<i>1.156</i>	1.102	<i>1.125</i>	<i>1.147</i>
Percentage Change from Prior Year	2.2	2.2	2.4	2.3	2.2	2.1	<i>2.0</i>	<i>2.0</i>	<i>1.9</i>	<i>2.0</i>	<i>2.0</i>	<i>1.9</i>	2.3	<i>2.1</i>	<i>1.9</i>
Real Disposable Personal Income (billion chained 1992 Dollars - SAAR)	5048	5061	5095	5104	5161	5198	<i>5225</i>	<i>5271</i>	<i>5352</i>	<i>5393</i>	<i>5424</i>	<i>5444</i>	5077	<i>5214</i>	<i>5403</i>
Percentage Change from Prior Year	2.2	2.4	2.4	2.0	2.2	2.7	<i>2.5</i>	<i>3.3</i>	<i>3.7</i>	<i>3.7</i>	<i>3.8</i>	<i>3.3</i>	2.3	<i>2.7</i>	<i>3.6</i>
Manufacturing Production (Index, 1992=1.000)	1.141	1.158	1.172	1.184	1.200	1.211	<i>1.219</i>	<i>1.228</i>	<i>1.240</i>	<i>1.251</i>	<i>1.259</i>	<i>1.264</i>	1.164	<i>1.215</i>	<i>1.253</i>
Percentage Change from Prior Year	0.9	2.7	3.3	4.2	5.2	4.6	<i>4.0</i>	<i>3.7</i>	<i>3.3</i>	<i>3.3</i>	<i>3.3</i>	<i>2.9</i>	2.8	<i>4.4</i>	<i>3.2</i>
OECD Economic Growth (percent) ^b													2.5	<i>2.7</i>	<i>2.5</i>
Weather ^c															
Heating Degree-Days															
U.S.....	2406	552	89	1666	2143	669	<i>122</i>	<i>1659</i>	<i>2327</i>	<i>524</i>	<i>89</i>	<i>1636</i>	4713	<i>4593</i>	<i>4576</i>
New England	3361	933	151	2234	3119	1078	<i>281</i>	<i>2328</i>	<i>3267</i>	<i>915</i>	<i>171</i>	<i>2269</i>	6679	<i>6806</i>	<i>6621</i>
Middle Atlantic.....	3120	750	87	2029	2814	887	<i>187</i>	<i>2050</i>	<i>2993</i>	<i>716</i>	<i>105</i>	<i>2026</i>	5986	<i>5938</i>	<i>5839</i>
U.S. Gas-Weighted.....	2501	636	135	1768	2275	711	<i>127</i>	<i>1729</i>	<i>2426</i>	<i>539</i>	<i>81</i>	<i>1686</i>	5040	<i>4842</i>	<i>4732</i>
Cooling Degree-Days (U.S.).....	21	368	725	66	29	275	<i>716</i>	<i>76</i>	<i>30</i>	<i>334</i>	<i>758</i>	<i>72</i>	1180	<i>1096</i>	<i>1193</i>

^aMacroeconomic projections from DRI/McGraw-Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the mid world oil price case.

^bOECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Mexico is also a member but is not yet included in OECD data.

^cPopulation-weighted degree days. A degree day indicates the temperature variation from 65 degrees Fahrenheit (calculated as the simple average of the daily minimum and maximum temperatures) weighted by 1990 population. Normal is used for the forecast period and is defined as the average number of degree days between 1961 and 1990 for a given period.

SAAR: Seasonally-adjusted annualized rate.

Note: Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release G.17(419)*. Projections of OECD growth are based on WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0997.

Table U2. U.S. Energy Indicators: Mid World Oil Price Case- November 1997

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Macroeconomic ^a															
Real Fixed Investment (billion chained 1992 dollars-SAAR)	1002	1036	1061	1069	1079	1113	<i>1130</i>	<i>1149</i>	<i>1171</i>	<i>1189</i>	<i>1198</i>	<i>1205</i>	1042	<i>1118</i>	<i>1191</i>
Real Exchange Rate (index).....	0.998	1.013	1.017	1.030	1.085	1.096	<i>1.107</i>	<i>1.110</i>	<i>1.108</i>	<i>1.104</i>	<i>1.102</i>	<i>1.097</i>	1.015	<i>1.100</i>	<i>1.103</i>
Business Inventory Change (billion chained 1992 dollars-SAAR)	12.5	0.6	14.3	12.3	20.9	29.9	<i>24.9</i>	<i>15.8</i>	<i>9.0</i>	<i>2.8</i>	<i>0.4</i>	<i>-1.3</i>	9.9	<i>22.9</i>	<i>2.7</i>
Producer Price Index (index, 1980-1984=1.000)	1.263	1.275	1.282	1.288	1.285	1.269	<i>1.272</i>	<i>1.278</i>	<i>1.280</i>	<i>1.281</i>	<i>1.284</i>	<i>1.288</i>	1.277	<i>1.276</i>	<i>1.283</i>
Consumer Price Index (index, 1980-1984=1.000)	1.551	1.564	1.575	1.588	1.597	1.601	<i>1.610</i>	<i>1.619</i>	<i>1.627</i>	<i>1.636</i>	<i>1.645</i>	<i>1.655</i>	1.570	<i>1.607</i>	<i>1.641</i>
Petroleum Product Price Index (index, 1980-1984=1.000)	0.632	0.727	0.702	0.744	0.722	0.675	<i>0.657</i>	<i>0.656</i>	<i>0.656</i>	<i>0.645</i>	<i>0.644</i>	<i>0.650</i>	0.701	<i>0.677</i>	<i>0.649</i>
Non-Farm Employment (millions)	118.5	119.3	119.9	120.5	121.1	121.9	<i>122.6</i>	<i>123.2</i>	<i>123.9</i>	<i>124.5</i>	<i>124.9</i>	<i>125.4</i>	119.5	<i>122.2</i>	<i>124.7</i>
Commercial Employment (millions)	80.1	80.8	81.4	81.9	82.6	83.2	<i>83.7</i>	<i>84.4</i>	<i>85.0</i>	<i>85.5</i>	<i>85.9</i>	<i>86.3</i>	81.0	<i>83.5</i>	<i>85.7</i>
Total Industrial Production (index, 1992=1.000).....	1.131	1.148	1.157	1.170	1.183	1.194	<i>1.201</i>	<i>1.210</i>	<i>1.221</i>	<i>1.230</i>	<i>1.239</i>	<i>1.244</i>	1.152	<i>1.197</i>	<i>1.233</i>
Housing Stock (millions)	110.6	111.0	111.4	111.8	112.1	112.5	<i>112.9</i>	<i>113.3</i>	<i>113.6</i>	<i>114.0</i>	<i>114.4</i>	<i>114.7</i>	111.2	<i>112.7</i>	<i>114.2</i>
Miscellaneous															
Gas Weighted Industrial Production (index, 1992=1.000).....	1.077	1.087	1.102	1.119	1.125	1.135	<i>1.132</i>	<i>1.133</i>	<i>1.135</i>	<i>1.138</i>	<i>1.142</i>	<i>1.146</i>	1.096	<i>1.131</i>	<i>1.140</i>
Vehicle Miles Traveled ^b (million miles/day).....	6181	7014	7142	6639	6446	7119	<i>7321</i>	<i>6818</i>	<i>6637</i>	<i>7379</i>	<i>7543</i>	<i>7047</i>	6745	<i>6928</i>	<i>7154</i>
Vehicle Fuel Efficiency (index, 1995=1.000).....	0.961	1.028	1.040	0.983	0.997	1.026	<i>1.042</i>	<i>0.984</i>	<i>1.001</i>	<i>1.036</i>	<i>1.048</i>	<i>0.992</i>	1.004	<i>1.013</i>	<i>1.020</i>
Real Vehicle Fuel Cost (cents per mile).....	3.96	4.13	3.94	4.13	4.07	3.86	<i>3.83</i>	<i>3.93</i>	<i>3.76</i>	<i>3.72</i>	<i>3.63</i>	<i>3.75</i>	4.04	<i>3.92</i>	<i>3.71</i>
Air Travel Capacity (mill. available ton-miles/day)	382.0	400.1	413.9	402.6	401.7	411.1	<i>432.4</i>	<i>428.9</i>	<i>426.8</i>	<i>443.2</i>	<i>461.9</i>	<i>452.0</i>	399.7	<i>418.6</i>	<i>446.1</i>
Aircraft Utilization (mill. revenue ton-miles/day)	213.0	233.4	244.8	232.0	230.4	243.9	<i>260.2</i>	<i>244.9</i>	<i>239.9</i>	<i>256.2</i>	<i>271.7</i>	<i>256.3</i>	230.8	<i>244.9</i>	<i>256.1</i>
Aircraft Yield (cents per ton-mile).....	14.10	13.98	13.19	13.36	14.16	13.61	<i>12.96</i>	<i>13.79</i>	<i>14.68</i>	<i>14.28</i>	<i>13.46</i>	<i>14.13</i>	13.66	<i>13.63</i>	<i>14.14</i>
Raw Steel Production (millions tons).....	26.55	26.05	25.62	25.67	26.18	26.69	<i>26.48</i>	<i>27.53</i>	<i>28.41</i>	<i>28.52</i>	<i>28.12</i>	<i>28.95</i>	103.89	<i>106.88</i>	<i>113.99</i>

^aMacroeconomic projections from DRI/McGraw-Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the mid world oil price case.

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

Note: Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, *Statistical Release* G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0997.

Table U3. International Petroleum Supply and Demand: Mid World Oil Price Case- November 1997
(Million Barrels per Day, Except Closing Stocks)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Demand^a															
OECD															
U.S. (50 States).....	18.4	18.0	18.2	18.7	18.2	18.5	18.7	18.9	18.8	18.6	18.9	19.2	18.3	18.6	18.9
U.S. Territories.....	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Canada.....	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.9
Europe.....	14.5	13.7	14.3	14.6	14.3	14.1	14.5	14.9	14.5	14.3	14.7	15.1	14.3	14.4	14.7
Japan.....	6.4	5.2	5.4	6.0	6.4	5.2	5.4	6.1	6.5	5.3	5.6	6.2	5.8	5.8	5.9
Australia and New Zealand.....	1.0	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0	0.9	0.9	1.0
Total OECD.....	42.3	39.7	40.7	42.3	41.9	40.6	41.5	42.8	42.8	41.2	42.2	43.6	41.2	41.7	42.4
Non-OECD															
Former Soviet Union.....	4.8	4.3	4.3	4.7	4.8	4.3	4.3	4.7	4.8	4.4	4.4	4.8	4.5	4.5	4.6
Europe.....	1.4	1.3	1.3	1.4	1.5	1.3	1.3	1.4	1.5	1.3	1.3	1.4	1.3	1.4	1.4
China.....	3.5	3.6	3.6	3.7	3.8	3.8	3.8	3.9	4.0	4.1	4.1	4.1	3.6	3.8	4.1
Other Asia.....	8.6	8.3	7.9	9.1	9.2	8.9	8.5	9.7	9.8	9.6	9.1	10.4	8.5	9.1	9.7
Other Non-OECD.....	12.5	12.8	12.5	12.8	12.9	13.3	13.0	13.3	13.4	13.7	13.4	13.7	12.7	13.1	13.6
Total Non-OECD.....	30.7	30.3	29.6	31.5	32.1	31.7	31.0	33.0	33.6	33.1	32.3	34.5	30.5	31.9	33.4
Total World Demand.....	73.0	70.0	70.3	73.8	74.0	72.3	72.5	75.8	76.4	74.2	74.5	78.0	71.8	73.7	75.8
Supply^b															
OECD															
U.S. (50 States).....	9.4	9.4	9.4	9.6	9.4	9.4	9.4	9.5	9.4	9.5	9.5	9.5	9.4	9.4	9.5
Canada.....	2.4	2.4	2.5	2.6	2.6	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.5	2.6	2.7
North Sea ^c	6.2	6.1	6.1	6.5	6.5	6.1	6.5	6.8	6.9	6.7	7.0	7.2	6.2	6.4	6.9
Other OECD.....	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6
Total OECD.....	19.6	19.5	19.6	20.2	20.1	19.6	20.1	20.5	20.6	20.5	20.8	21.1	19.7	20.1	20.8
Non-OECD															
OPEC.....	28.1	28.1	28.3	28.7	29.5	29.6	29.4	30.1	29.9	30.0	30.1	30.2	28.3	29.7	30.1
Former Soviet Union.....	7.1	7.1	7.1	7.1	7.1	7.2	7.2	7.3	7.3	7.3	7.4	7.4	7.1	7.2	7.3
China.....	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.1	3.3	3.3
Mexico.....	3.3	3.4	3.3	3.3	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.3	3.4	3.5
Other Non-OECD.....	10.1	10.2	10.2	10.4	10.4	10.5	10.7	10.7	11.0	11.1	11.2	11.3	10.2	10.6	11.2
Total Non-OECD.....	51.7	51.8	52.0	52.6	53.6	54.0	54.0	54.8	54.9	55.2	55.5	55.8	52.0	54.1	55.3
Total World Supply.....	71.3	71.3	71.6	72.8	73.7	73.5	74.1	75.3	75.5	75.7	76.3	76.9	71.7	74.1	76.1
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR).....	0.9	-0.7	-0.1	0.5	-0.1	-0.7	-0.1	0.4	0.4	-0.6	-0.3	0.5	0.2	-0.1	0.0
Other.....	0.8	-0.7	-1.2	0.5	0.4	-0.5	-1.5	0.1	0.4	-0.8	-1.5	0.7	-0.1	-0.4	-0.3
Total Stock Withdrawals.....	1.7	-1.4	-1.3	1.0	0.4	-1.2	-1.6	0.5	0.8	-1.5	-1.8	1.2	0.0	-0.5	-0.3
Closing Stocks, OECD only (billion barrels).....	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.7	2.6	2.7	2.8	2.7	2.7	2.7	2.7
Non-OPEC Supply.....	43.2	43.3	43.3	44.1	44.2	43.9	44.6	45.2	45.6	45.7	46.2	46.6	43.5	44.5	46.1
Net Exports from Former Soviet Union.....	2.4	2.8	2.8	2.4	2.3	2.9	2.9	2.5	2.4	2.9	3.0	2.6	2.6	2.7	2.7

^aDemand for petroleum by the OECD countries is synonymous with "petroleum product supplied," which is defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109. Demand for petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

^bIncludes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, refinery gains, alcohol, and liquids produced from coal and other sources.

^cIncludes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Mexico is also a member, but is not yet included in OECD data.

OPEC: Organization of Petroleum Exporting Countries: Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

SPR: Strategic Petroleum Reserve

Former Soviet Union: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

Notes: Minor discrepancies with other published EIA historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Energy Information Administration: latest data available from EIA databases supporting the following reports: *International Petroleum Statistics Report*, DOE/EIA-0520; Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

Table U4. U. S. Energy Prices-November 1997
(Nominal Dollars)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Imported Crude Oil ^a															
(dollars per barrel).....	18.38	20.12	20.70	23.06	21.03	17.93	17.71	19.02	18.50	18.75	18.58	18.83	20.59	18.86	18.67
Natural Gas Wellhead															
(dollars per thousand cubic feet).....	2.01	2.10	2.13	2.72	2.66	2.01	2.23	2.89	2.67	2.12	2.06	2.45	2.24	2.45	2.32
Petroleum Products															
Gasoline Retail ^b															
(dollars per gallon).....	1.20	1.35	1.31	1.30	1.31	1.29	1.30	1.27	1.24	1.28	1.27	1.25	1.29	1.29	1.26
No. 2 Diesel Oil, Retail															
(dollars per gallon).....	1.16	1.23	1.21	1.30	1.25	1.18	1.15	1.18	1.15	1.15	1.15	1.20	1.23	1.19	1.16
No. 2 Heating Oil, Wholesale															
(dollars per gallon).....	0.59	0.61	0.63	0.72	0.65	0.57	0.55	0.55	0.56	0.55	0.55	0.62	0.64	0.58	0.57
No. 2 Heating Oil, Retail															
(dollars per gallon).....	0.96	0.98	0.91	1.06	1.05	0.97	0.88	0.92	0.96	0.93	0.89	0.98	0.99	0.98	0.95
No. 6 Residual Fuel Oil, Retail ^c															
(dollars per barrel).....	19.29	18.12	17.64	20.72	19.00	16.84	16.82	18.79	18.23	17.42	16.85	18.07	18.97	17.94	17.68
Electric Utility Fuels															
Coal															
(dollars per million Btu).....	1.30	1.30	1.28	1.28	1.29	1.29	1.26	1.25	1.25	1.26	1.24	1.23	1.29	1.27	1.24
Heavy Fuel Oil ^d															
(dollars per million Btu).....	3.01	2.93	2.83	3.35	2.91	2.59	2.73	3.10	2.89	2.83	2.73	2.99	3.01	2.83	2.85
Natural Gas															
(dollars per million Btu).....	2.81	2.55	2.46	2.96	3.11	2.45	2.56	3.24	3.03	2.44	2.37	2.79	2.64	2.75	2.58
Other Residential															
Natural Gas															
(dollars per thousand cubic feet).....	5.74	6.66	8.35	6.46	6.66	6.90	8.48	6.77	6.70	7.11	8.17	6.38	6.29	6.87	6.79
Electricity															
(cents per kilowatthour).....	7.90	8.52	8.83	8.31	8.04	8.69	8.78	8.34	8.00	8.58	8.75	8.32	8.39	8.46	8.41

^aRefiner acquisition cost (RAC) of imported crude oil.

^bAverage for all grades and services.

^cAverage for all sulfur contents.

^dIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the second quarter of 1997. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Monthly Energy Review*, DOE/EIA-0035; *Electric Power Monthly*, DOE/EIA-0226.

Table U5. U.S. Petroleum Supply and Demand: Mid World Oil Price Case-November 1997
(Million Barrels per Day, Except Closing Stocks)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Crude Oil Supply															
Domestic Production ^a	6.55	6.43	6.39	6.49	6.45	6.41	6.33	6.43	6.44	6.46	6.43	6.44	6.46	6.40	6.44
Alaska	1.46	1.38	1.35	1.39	1.36	1.30	1.22	1.29	1.26	1.20	1.18	1.20	1.39	1.29	1.21
Lower 48	5.09	5.06	5.04	5.10	5.09	5.11	5.10	5.14	5.18	5.26	5.25	5.24	5.07	5.11	5.23
Net Imports (including SPR) ^b	6.96	7.68	7.63	7.32	7.32	8.11	8.21	7.70	7.34	8.05	8.18	7.76	7.40	7.84	7.83
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPR Stock Withdrawn or Added (-)	0.03	0.05	0.12	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00
Other Stock Withdrawn or Added (-)	0.04	-0.16	0.13	0.20	-0.34	-0.08	0.19	0.00	-0.07	-0.02	0.06	0.02	0.05	-0.06	-0.00
Product Supplied and Losses	-0.01	-0.01	-0.01	-0.01	-0.00	-0.00	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Unaccounted-for Crude Oil	0.13	0.44	0.16	0.14	0.24	0.41	0.37	0.35	0.27	0.28	0.28	0.28	0.22	0.34	0.28
Total Crude Oil Supply	13.70	14.43	14.42	14.22	13.71	14.84	15.10	14.47	13.96	14.76	14.94	14.49	14.19	14.53	14.54
Other Supply															
NGL Production.....	1.74	1.83	1.85	1.90	1.87	1.84	1.85	1.90	1.86	1.87	1.87	1.88	1.83	1.87	1.87
Other Hydrocarbon and Alcohol Inputs.....	0.33	0.29	0.30	0.33	0.31	0.34	0.34	0.30	0.32	0.31	0.31	0.31	0.31	0.32	0.31
Crude Oil Product Supplied.....	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Processing Gain.....	0.79	0.84	0.85	0.87	0.78	0.84	0.85	0.86	0.82	0.87	0.89	0.86	0.84	0.83	0.86
Net Product Imports ^c	1.01	1.19	1.05	1.16	1.30	1.22	0.80	0.95	1.30	1.41	1.23	1.16	1.10	1.06	1.27
Product Stock Withdrawn or Added (-) ^d	0.82	-0.60	-0.31	0.20	0.26	-0.62	-0.29	0.39	0.49	-0.61	-0.33	0.51	0.03	-0.07	0.01
Total Supply	18.39	17.98	18.18	18.68	18.23	18.46	18.65	18.88	18.76	18.62	18.92	19.23	18.31	18.56	18.88
Demand															
Motor Gasoline.....	7.55	8.01	8.06	7.93	7.59	8.15	8.25	8.13	7.78	8.36	8.45	8.34	7.89	8.03	8.24
Jet Fuel	1.61	1.52	1.59	1.60	1.57	1.56	1.66	1.61	1.60	1.57	1.64	1.67	1.58	1.60	1.62
Distillate Fuel Oil	3.63	3.23	3.12	3.48	3.58	3.33	3.22	3.58	3.83	3.41	3.36	3.62	3.37	3.43	3.56
Residual Fuel Oil.....	0.98	0.77	0.83	0.82	0.90	0.77	0.73	0.84	0.98	0.81	0.78	0.87	0.85	0.81	0.86
Other Oils ^e	4.62	4.45	4.58	4.85	4.61	4.65	4.79	4.71	4.57	4.47	4.70	4.72	4.63	4.69	4.61
Total Demand.....	18.39	17.98	18.18	18.68	18.24	18.46	18.65	18.88	18.76	18.62	18.92	19.23	18.31	18.56	18.88
Total Petroleum Net Imports	7.97	8.87	8.67	8.47	8.62	9.32	9.01	8.64	8.63	9.45	9.42	8.92	8.50	8.90	9.11
Closing Stocks (million barrels)															
Crude Oil (excluding SPR).....	300	314	302	284	314	322	304	304	311	313	307	305	284	304	305
Total Motor Gasoline.....	203	205	200	195	200	205	197	199	211	211	209	200	195	199	200
Finished Motor Gasoline	158	164	161	157	154	164	155	158	170	171	168	159	157	158	159
Blending Components.....	44	41	39	38	46	41	41	40	42	40	41	41	38	40	41
Jet Fuel	34	39	43	40	39	43	45	44	42	43	44	44	40	44	44
Distillate Fuel Oil	90	102	115	127	102	118	136	139	98	111	129	133	127	139	133
Residual Fuel Oil.....	32	35	38	46	41	39	36	37	33	38	39	42	46	37	42
Other Oils ^e	235	267	280	250	253	286	305	264	255	291	304	258	250	264	258
Total Stocks (excluding SPR)	893	962	978	942	949	1013	1023	986	949	1006	1031	982	942	986	982
Crude Oil in SPR.....	589	584	574	566	563	563	563	563	563	563	563	563	566	563	563
Total Stocks (including SPR)	1482	1547	1551	1507	1512	1577	1586	1550	1512	1569	1594	1546	1507	1550	1546

^aIncludes lease condensate.

^bNet imports equals gross imports plus SPR imports minus exports.

^cIncludes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

^dIncludes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

^eIncludes stocks of all other oils, such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109, and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Table U6. U.S. Natural Gas Supply and Demand: Mid World Oil Price Case-November 1997
(Trillion cubic Feet)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Total Dry Gas Production	4.69	4.72	4.71	4.67	4.72	4.69	<i>4.73</i>	<i>4.76</i>	<i>4.73</i>	<i>4.73</i>	<i>4.78</i>	<i>4.82</i>	18.79	<i>18.91</i>	<i>19.06</i>
Net Imports	0.70	0.68	0.67	0.73	0.74	0.68	<i>0.68</i>	<i>0.76</i>	<i>0.78</i>	<i>0.75</i>	<i>0.76</i>	<i>0.83</i>	2.78	<i>2.85</i>	<i>3.12</i>
Supplemental Gaseous Fuels	0.03	0.02	0.02	0.03	0.03	0.03	<i>0.03</i>	<i>0.03</i>	<i>0.04</i>	<i>0.03</i>	<i>0.03</i>	<i>0.03</i>	0.11	<i>0.12</i>	<i>0.13</i>
Total New Supply.....	5.42	5.43	5.41	5.43	5.49	5.39	<i>5.44</i>	<i>5.56</i>	<i>5.55</i>	<i>5.52</i>	<i>5.57</i>	<i>5.68</i>	21.69	<i>21.88</i>	<i>22.32</i>
Total Underground Storage															
Opening	6.50	5.04	5.86	6.93	6.51	5.33	<i>6.09</i>	<i>7.06</i>	<i>6.55</i>	<i>5.24</i>	<i>6.04</i>	<i>6.98</i>	6.50	<i>6.51</i>	<i>6.55</i>
Closing.....	5.04	5.86	6.93	6.51	5.33	6.09	<i>7.06</i>	<i>6.55</i>	<i>5.24</i>	<i>6.04</i>	<i>6.98</i>	<i>6.53</i>	6.51	<i>6.55</i>	<i>6.53</i>
Net Withdrawals.....	1.46	-0.82	-1.07	0.42	1.17	-0.75	<i>-0.98</i>	<i>0.51</i>	<i>1.32</i>	<i>-0.81</i>	<i>-0.94</i>	<i>0.46</i>	-0.00	<i>-0.05</i>	<i>0.02</i>
Total Supply.....	6.88	4.61	4.34	5.85	6.66	4.64	<i>4.46</i>	<i>6.07</i>	<i>6.86</i>	<i>4.71</i>	<i>4.63</i>	<i>6.14</i>	21.68	<i>21.83</i>	<i>22.34</i>
Balancing Item ^a	0.23	0.25	-0.04	-0.16	0.20	0.17	<i>0.01</i>	<i>-0.30</i>	<i>0.42</i>	<i>0.24</i>	<i>-0.05</i>	<i>-0.24</i>	0.28	<i>0.08</i>	<i>0.37</i>
Total Primary Supply	7.12	4.86	4.30	5.69	6.86	4.81	<i>4.47</i>	<i>5.78</i>	<i>7.28</i>	<i>4.95</i>	<i>4.58</i>	<i>5.90</i>	21.96	<i>21.91</i>	<i>22.71</i>
Demand															
Lease and Plant Fuel.....	0.31	0.31	0.31	0.31	0.31	0.31	<i>0.31</i>	<i>0.32</i>	<i>0.32</i>	<i>0.31</i>	<i>0.31</i>	<i>0.32</i>	1.25	<i>1.25</i>	<i>1.26</i>
Pipeline Use.....	0.23	0.16	0.14	0.18	0.22	0.16	<i>0.15</i>	<i>0.19</i>	<i>0.23</i>	<i>0.16</i>	<i>0.16</i>	<i>0.19</i>	0.71	<i>0.72</i>	<i>0.74</i>
Residential.....	2.47	0.91	0.38	1.48	2.28	0.88	<i>0.38</i>	<i>1.44</i>	<i>2.45</i>	<i>0.86</i>	<i>0.38</i>	<i>1.43</i>	5.24	<i>4.98</i>	<i>5.11</i>
Commercial.....	1.31	0.60	0.37	0.87	1.26	0.62	<i>0.40</i>	<i>0.90</i>	<i>1.39</i>	<i>0.62</i>	<i>0.42</i>	<i>0.91</i>	3.16	<i>3.19</i>	<i>3.33</i>
Industrial (Incl. Cogenerators).....	2.28	2.10	2.04	2.26	2.27	2.08	<i>2.05</i>	<i>2.31</i>	<i>2.35</i>	<i>2.14</i>	<i>2.11</i>	<i>2.36</i>	8.68	<i>8.71</i>	<i>8.96</i>
Cogenerators ^b	0.56	0.51	0.52	0.60	0.56	0.54	<i>0.57</i>	<i>0.65</i>	<i>0.58</i>	<i>0.56</i>	<i>0.59</i>	<i>0.68</i>	2.20	<i>2.32</i>	<i>2.41</i>
Electricity Production															
Electric Utilities	0.46	0.73	1.01	0.53	0.47	0.72	<i>1.13</i>	<i>0.56</i>	<i>0.50</i>	<i>0.81</i>	<i>1.16</i>	<i>0.63</i>	2.73	<i>2.88</i>	<i>3.10</i>
Nonutilities (Excl. Cogen.)	0.05	0.04	0.05	0.05	0.05	0.05	<i>0.05</i>	<i>0.06</i>	<i>0.05</i>	<i>0.05</i>	<i>0.05</i>	<i>0.06</i>	0.19	<i>0.20</i>	<i>0.21</i>
Total Demand.....	7.12	4.86	4.30	5.69	6.86	4.81	<i>4.47</i>	<i>5.78</i>	<i>7.28</i>	<i>4.95</i>	<i>4.58</i>	<i>5.90</i>	21.96	<i>21.91</i>	<i>22.71</i>

^aThe balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

^bQuarterly estimates and projections for gas consumption by nonutility generators are based on estimates for quarterly gas-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Annual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by CNEAF.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Oil and Gas, Reserves and Natural Gas Division.

Table U7. U.S. Coal Supply and Demand: Mid World Oil Price Case-November 1997
(Million Short Tons)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Production	259.8	263.4	272.1	268.6	273.9	269.7	<i>266.0</i>	<i>281.4</i>	<i>282.9</i>	<i>273.1</i>	<i>279.0</i>	<i>281.4</i>	1063.9	<i>1091.1</i>	<i>1116.4</i>
Appalachia.....	111.5	113.9	111.3	115.1	119.0	117.8	<i>106.4</i>	<i>118.4</i>	<i>120.9</i>	<i>113.6</i>	<i>109.0</i>	<i>116.1</i>	451.9	<i>461.6</i>	<i>459.6</i>
Interior.....	44.0	42.7	43.9	42.2	42.9	41.4	<i>41.0</i>	<i>42.2</i>	<i>42.7</i>	<i>41.0</i>	<i>40.9</i>	<i>40.1</i>	172.8	<i>167.4</i>	<i>164.7</i>
Western.....	104.3	106.7	116.9	111.3	112.0	110.5	<i>118.6</i>	<i>120.9</i>	<i>119.3</i>	<i>118.5</i>	<i>129.1</i>	<i>125.2</i>	439.1	<i>462.1</i>	<i>492.1</i>
Primary Stock Levels ^a															
Opening.....	34.4	36.9	37.3	33.8	31.1	37.5	<i>42.5</i>	<i>33.0</i>	<i>31.0</i>	<i>34.0</i>	<i>34.0</i>	<i>32.0</i>	34.4	<i>31.1</i>	<i>31.0</i>
Closing.....	36.9	37.3	33.8	31.1	37.5	42.5	<i>33.0</i>	<i>31.0</i>	<i>34.0</i>	<i>34.0</i>	<i>32.0</i>	<i>30.0</i>	31.1	<i>31.0</i>	<i>30.0</i>
Net Withdrawals.....	-2.4	-0.5	3.6	2.7	-6.5	-5.0	<i>9.5</i>	<i>2.0</i>	<i>-3.0</i>	<i>(S)</i>	<i>2.0</i>	<i>2.0</i>	3.4	<i>0.1</i>	<i>1.0</i>
Imports.....	1.7	1.6	2.1	1.8	1.3	1.7	<i>2.0</i>	<i>1.9</i>	<i>1.8</i>	<i>1.8</i>	<i>1.8</i>	<i>1.8</i>	7.1	<i>7.0</i>	<i>7.3</i>
Exports.....	20.5	23.0	23.5	23.4	20.0	20.6	<i>22.2</i>	<i>23.2</i>	<i>22.0</i>	<i>22.6</i>	<i>22.8</i>	<i>22.7</i>	90.5	<i>86.1</i>	<i>90.1</i>
Total Net Domestic Supply.....	238.5	241.4	254.2	249.7	248.8	245.8	<i>255.3</i>	<i>262.1</i>	<i>259.8</i>	<i>252.4</i>	<i>260.0</i>	<i>262.5</i>	983.9	<i>1012.0</i>	<i>1034.6</i>
Secondary Stock Levels ^b															
Opening.....	134.6	124.8	134.3	127.6	123.0	119.8	<i>128.1</i>	<i>111.1</i>	<i>113.4</i>	<i>112.6</i>	<i>121.1</i>	<i>107.4</i>	134.6	<i>123.0</i>	<i>113.4</i>
Closing.....	124.8	134.3	127.6	123.0	119.8	128.1	<i>111.1</i>	<i>113.4</i>	<i>112.6</i>	<i>121.1</i>	<i>107.4</i>	<i>108.8</i>	123.0	<i>113.4</i>	<i>108.8</i>
Net Withdrawals.....	9.9	-9.5	6.7	4.6	3.2	-8.2	<i>17.0</i>	<i>-2.3</i>	<i>0.8</i>	<i>-8.4</i>	<i>13.7</i>	<i>-1.5</i>	11.6	<i>9.6</i>	<i>4.6</i>
Total Supply	248.4	231.9	260.9	254.2	251.9	237.6	<i>272.3</i>	<i>259.8</i>	<i>260.6</i>	<i>243.9</i>	<i>273.7</i>	<i>261.1</i>	995.5	<i>1021.7</i>	<i>1039.2</i>
Demand															
Coke Plants.....	8.0	8.0	8.0	7.8	7.6	7.4	<i>7.7</i>	<i>8.0</i>	<i>7.6</i>	<i>7.5</i>	<i>7.7</i>	<i>8.2</i>	31.7	<i>30.7</i>	<i>30.9</i>
Electricity Production															
Electric Utilities.....	215.0	203.2	233.6	222.9	218.2	207.4	<i>242.7</i>	<i>227.4</i>	<i>228.9</i>	<i>214.6</i>	<i>244.4</i>	<i>228.7</i>	874.7	<i>895.6</i>	<i>916.5</i>
Nonutilities (Excl. Cogen.) ^c	6.0	6.0	6.0	6.0	6.5	6.5	<i>6.5</i>	<i>6.5</i>	<i>7.0</i>	<i>7.0</i>	<i>7.0</i>	<i>7.0</i>	24.0	<i>26.0</i>	<i>28.0</i>
Retail and General Industry ^d	20.3	18.0	17.9	20.3	20.1	18.3	<i>18.1</i>	<i>20.5</i>	<i>19.8</i>	<i>17.7</i>	<i>17.4</i>	<i>20.0</i>	76.4	<i>76.9</i>	<i>75.0</i>
Total Demand.....	249.2	235.1	265.5	256.9	252.3	239.5	<i>274.9</i>	<i>262.4</i>	<i>263.3</i>	<i>246.7</i>	<i>276.5</i>	<i>263.9</i>	1006.8	<i>1029.2</i>	<i>1050.4</i>
Discrepancy ^e	-0.8	-3.2	-4.6	-2.7	-0.4	-2.0	<i>-2.6</i>	<i>-2.6</i>	<i>-2.8</i>	<i>-2.8</i>	<i>-2.8</i>	<i>-2.8</i>	-11.3	<i>-7.5</i>	<i>-11.2</i>

^aPrimary stocks are held at the mines, preparation plants, and distribution points.

^bSecondary stocks are held by users.

^cConsumption of coal by Independent Power Producers (IPPs). In 1995, IPP consumption was estimated to be 5.290 million tons per quarter. Quarterly estimates and projections for coal consumption by nonutility generators are based on estimates for annual coal-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867 (Annual Nonutility Power Producer Report). Data for second quarter 1997 are estimates.

^dSynfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level in 1994, 1995, 1996, 1997 and 1998.

^eHistorical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference. Estimated IPP consumption not included in production (waste coal) has been netted out of the discrepancy. The estimated annual consumption for 1995 is 8.496 million tons, 9.600 million tons in 1996, and the forecast for 1997 is 10.400 million tons, and 11.200 million tons in 1998.

(S) indicates amounts of less than 50,000 tons in absolute value.

Notes: Rows and columns may not add due to independent rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121, and *Electric Power Monthly*, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

Table U8. U.S. Electricity Supply and Demand: Mid World Oil Price Case-November 1997
(Billion Kilowatthours)

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Net Utility Generation															
Coal.....	428.3	405.7	462.6	440.8	434.0	414.0	<i>479.5</i>	<i>454.2</i>	<i>459.3</i>	<i>430.4</i>	<i>487.5</i>	<i>457.2</i>	1737.5	<i>1781.7</i>	<i>1834.4</i>
Petroleum.....	22.2	12.8	18.8	13.6	17.6	15.4	<i>24.2</i>	<i>15.1</i>	<i>20.7</i>	<i>15.3</i>	<i>19.6</i>	<i>14.4</i>	67.3	<i>72.2</i>	<i>69.9</i>
Natural Gas.....	44.6	70.8	96.6	50.8	45.6	69.1	<i>107.2</i>	<i>54.1</i>	<i>48.0</i>	<i>77.4</i>	<i>111.5</i>	<i>60.9</i>	262.7	<i>276.0</i>	<i>297.8</i>
Nuclear.....	174.3	163.5	177.0	159.9	160.0	144.4	<i>168.4</i>	<i>158.6</i>	<i>169.9</i>	<i>153.0</i>	<i>178.5</i>	<i>161.2</i>	674.7	<i>631.4</i>	<i>662.6</i>
Hydroelectric.....	90.9	92.3	72.9	71.9	94.3	96.0	<i>77.5</i>	<i>70.0</i>	<i>79.3</i>	<i>80.7</i>	<i>65.7</i>	<i>64.6</i>	328.0	<i>337.8</i>	<i>290.3</i>
Geothermal and Other ^a	1.5	1.5	2.2	2.1	1.6	1.8	<i>2.0</i>	<i>1.8</i>	<i>1.7</i>	<i>1.6</i>	<i>1.7</i>	<i>1.6</i>	7.2	<i>7.3</i>	<i>6.6</i>
Subtotal.....	761.9	746.4	830.1	739.1	753.1	740.8	<i>858.7</i>	<i>753.8</i>	<i>778.9</i>	<i>758.5</i>	<i>864.4</i>	<i>759.9</i>	3077.4	<i>3106.4</i>	<i>3161.7</i>
Nonutility Generation ^b															
Coal.....	16.1	14.7	15.1	17.4	15.9	15.5	<i>16.3</i>	<i>18.7</i>	<i>16.4</i>	<i>16.0</i>	<i>16.8</i>	<i>19.3</i>	63.3	<i>66.4</i>	<i>68.5</i>
Petroleum.....	4.4	4.0	4.1	4.7	4.5	4.4	<i>4.6</i>	<i>5.3</i>	<i>4.9</i>	<i>4.8</i>	<i>5.0</i>	<i>5.7</i>	17.3	<i>18.8</i>	<i>20.4</i>
Natural Gas.....	52.3	47.9	49.1	56.5	52.3	50.8	<i>53.3</i>	<i>61.2</i>	<i>54.2</i>	<i>52.7</i>	<i>55.3</i>	<i>63.6</i>	205.8	<i>217.6</i>	<i>225.9</i>
Other Gaseous Fuels ^c	3.2	2.9	3.0	3.4	3.0	2.9	<i>3.1</i>	<i>3.5</i>	<i>3.0</i>	<i>2.9</i>	<i>3.1</i>	<i>3.5</i>	12.5	<i>12.5</i>	<i>12.6</i>
Hydroelectric.....	3.9	3.6	3.7	4.2	4.0	3.8	<i>4.0</i>	<i>4.6</i>	<i>4.1</i>	<i>4.0</i>	<i>4.2</i>	<i>4.9</i>	15.3	<i>16.4</i>	<i>17.3</i>
Geothermal and Other ^d	20.5	18.7	19.2	22.1	19.9	19.4	<i>20.3</i>	<i>23.4</i>	<i>20.2</i>	<i>19.7</i>	<i>20.6</i>	<i>23.7</i>	80.5	<i>83.0</i>	<i>84.3</i>
Subtotal.....	100.3	91.8	94.2	108.3	99.6	96.9	<i>101.6</i>	<i>116.7</i>	<i>103.0</i>	<i>100.1</i>	<i>105.0</i>	<i>120.7</i>	394.7	<i>414.7</i>	<i>428.8</i>
Total Generation.....	862.2	838.3	924.3	847.4	852.7	837.7	<i>960.3</i>	<i>870.5</i>	<i>881.8</i>	<i>858.6</i>	<i>969.4</i>	<i>880.6</i>	3472.2	<i>3521.2</i>	<i>3590.4</i>
Net Imports ^e	7.1	9.5	13.0	8.4	7.5	9.5	<i>12.7</i>	<i>7.8</i>	<i>6.7</i>	<i>9.3</i>	<i>12.6</i>	<i>8.1</i>	38.0	<i>37.5</i>	<i>36.7</i>
Total Supply.....	869.3	847.8	937.4	855.7	860.2	847.1	<i>973.0</i>	<i>878.3</i>	<i>888.5</i>	<i>867.9</i>	<i>982.0</i>	<i>888.7</i>	3510.2	<i>3558.7</i>	<i>3627.1</i>
Losses and Unaccounted for ^f	55.0	78.3	59.1	71.4	57.6	81.5	<i>67.8</i>	<i>68.6</i>	<i>53.2</i>	<i>74.9</i>	<i>68.6</i>	<i>69.4</i>	263.7	<i>275.5</i>	<i>266.1</i>
Demand															
Electric Utility Sales															
Residential.....	290.7	239.2	302.1	246.5	276.8	226.2	<i>306.7</i>	<i>255.5</i>	<i>294.2</i>	<i>240.9</i>	<i>311.0</i>	<i>258.3</i>	1078.5	<i>1065.2</i>	<i>1104.4</i>
Commercial.....	212.3	215.8	248.1	215.4	214.5	217.6	<i>263.2</i>	<i>223.5</i>	<i>223.0</i>	<i>225.0</i>	<i>260.5</i>	<i>225.4</i>	891.6	<i>918.9</i>	<i>933.9</i>
Industrial.....	245.6	252.5	262.8	253.4	248.0	259.5	<i>268.0</i>	<i>258.6</i>	<i>251.1</i>	<i>261.6</i>	<i>272.1</i>	<i>261.3</i>	1014.3	<i>1034.2</i>	<i>1046.1</i>
Other.....	24.6	24.3	26.6	24.7	23.4	23.6	<i>26.7</i>	<i>25.5</i>	<i>26.2</i>	<i>25.9</i>	<i>28.4</i>	<i>26.7</i>	100.2	<i>99.2</i>	<i>107.2</i>
Subtotal.....	773.2	731.9	839.6	740.0	762.8	726.9	<i>864.7</i>	<i>763.1</i>	<i>794.6</i>	<i>753.4</i>	<i>871.9</i>	<i>771.6</i>	3084.7	<i>3117.5</i>	<i>3191.5</i>
Nonutility Gener. for Own Use ^b	41.1	37.6	38.6	44.4	39.8	38.7	<i>40.6</i>	<i>46.6</i>	<i>40.7</i>	<i>39.6</i>	<i>41.5</i>	<i>47.7</i>	161.8	<i>165.6</i>	<i>169.5</i>
Total Demand.....	814.3	769.5	878.3	784.4	802.5	765.6	<i>905.2</i>	<i>809.7</i>	<i>835.3</i>	<i>793.0</i>	<i>913.4</i>	<i>819.3</i>	3246.4	<i>3283.1</i>	<i>3361.0</i>
Memo:															
Nonutility Sales to															
Electric Utilities ^b	59.2	54.2	55.6	63.9	59.8	58.2	<i>61.0</i>	<i>70.1</i>	<i>62.3</i>	<i>60.6</i>	<i>63.5</i>	<i>73.0</i>	232.9	<i>249.1</i>	<i>259.3</i>

^a"Other" includes generation from wind, wood, waste, and solar sources.

^bElectricity from nonutility sources, including cogenerators and small power producers. Quarterly estimates and projections for nonutility net sales, own use, and generation by fuel source supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867, "Annual Nonutility Power Producer Report."

^cIncludes refinery still gas and other process or waste gases, and liquefied petroleum gases.

^dIncludes geothermal, solar, wind, wood, waste, nuclear, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

^eData for 1996 are estimates.

^fBalancing item, mainly transmission and distribution losses.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.