Short-Term Energy Outlook

February 1998 (Released February 6, 1998)

Energy Information Administration

February 1998

Highlights

Here are the salient points to be emphasized in this month's Outlook:

- World oil price projections are set substantially below previous Outlooks. The base case forecast does not include a monthly average U.S. cost of imported crude oil above \$16 per barrel (Figure 1). Slack demand now due to weak heating demand, anticipated additional weakness from economies affected by economic problems in Asia, and expected increases in supply inside and outside of OPEC mean excess supply worldwide. Continued world stock builds seem likely (Figure 2). While the base case outlook places monthly oil prices in the \$15-\$16 per barrel range through the end of 1999, as usual significant uncertainty about particular monthly values is to be accounted for (see Figure 3).
- U.S. petroleum inventories are relatively high now, partly because of lower-than-expected demand due to the mild weather conditions (Figures 4 and 5). Weather data estimated through January 1998 indicate that population-weighted heating degree-days were approximately 3 percent below normal for the four-month period ended January 31, with January alone being 14 percent below normal. As a result, heating fuel demand levels have fallen below those anticipated prior to the beginning of the heating season. The January weather estimates have contributed to a noticeable reduction in demands expected for the first quarter, especially for natural gas (Figure 6) Colder weather during what remains of winter could alter this picture somewhat, but, except in an extreme case, would not be likely to change the overall market picture much. This picture includes sharply lower fuel prices.
- For this Outlook, first quarter 1998 heating fuel prices are expected to be: 14 percent (14 cents per gallon) lower than Q1 1997 for residential heating oil (Figures 7 and 8); 12 percent (14 cents per gallon) lower for propane; 2 percent (13 cents per thousand cubic feet) lower for natural gas; and 1.1 percent lower for electricity. Combined with the relatively weak or lower demands already seen this year, these lower prices mean that typical residential customers using heating oil or propane for heat may ultimately see heating fuel bills for the entire season (October through March) that are, in comparison to the 1996-1997 season, about 10 percent and 12 percent lower, respectively (Figure 9). For natural gas and electricity, average bills could be up by about 1 percent and 2 percent respectively, as it may take beyond the heating season for current fuel cost reductions to filter into residential prices under regulated regimes and because gas costs were up sharply for the first half of the fourth quarter.

Figure 1. Recent World Oil Price Projections

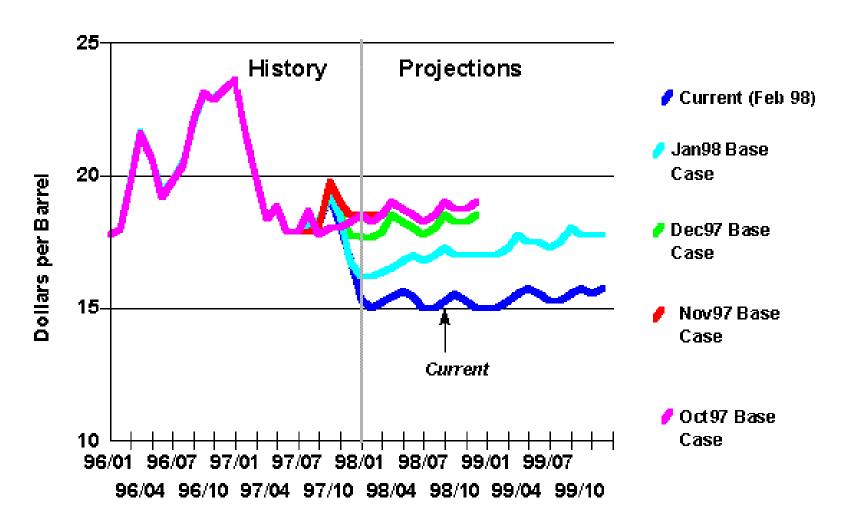
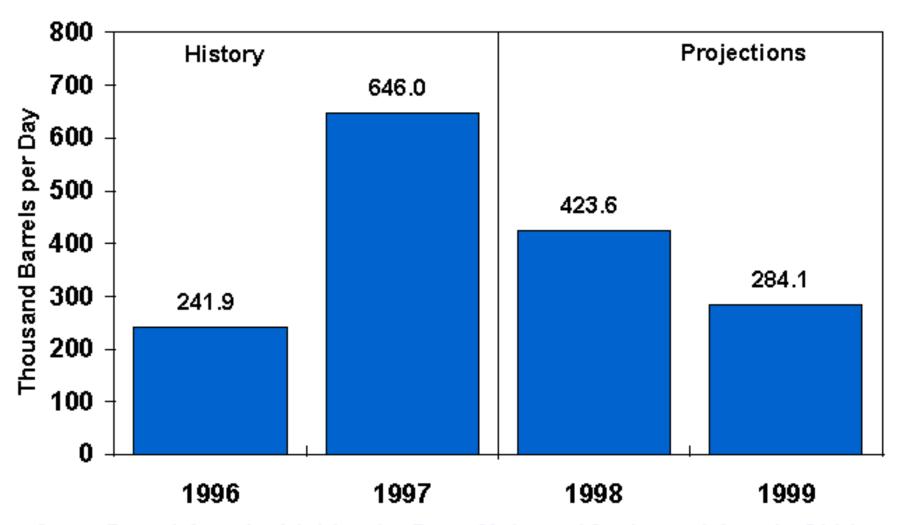


Figure 2. OECD Commercial Stock Builds



Source: Energy Information Administration, Energy Markets and Contingency Information Division

Figure 3. World Oil Price Cases

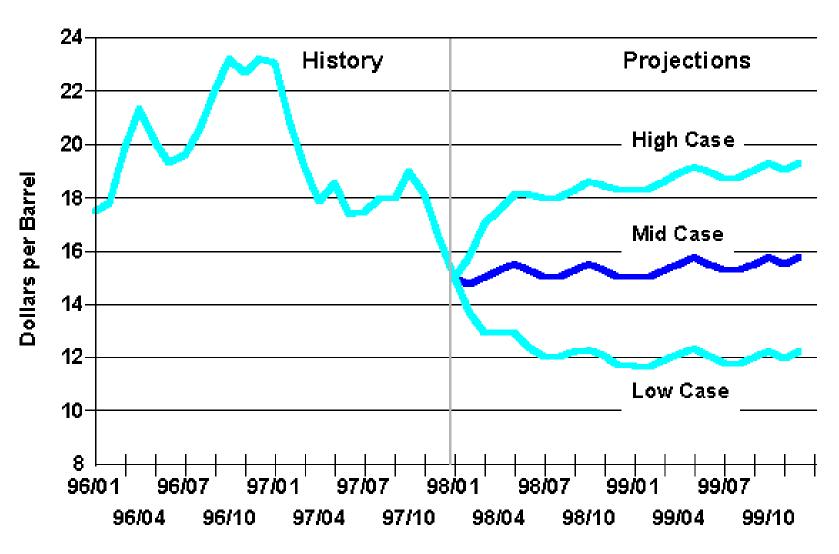


Figure 4. Crude and Oil Product Stocks (Change from Previous Year)

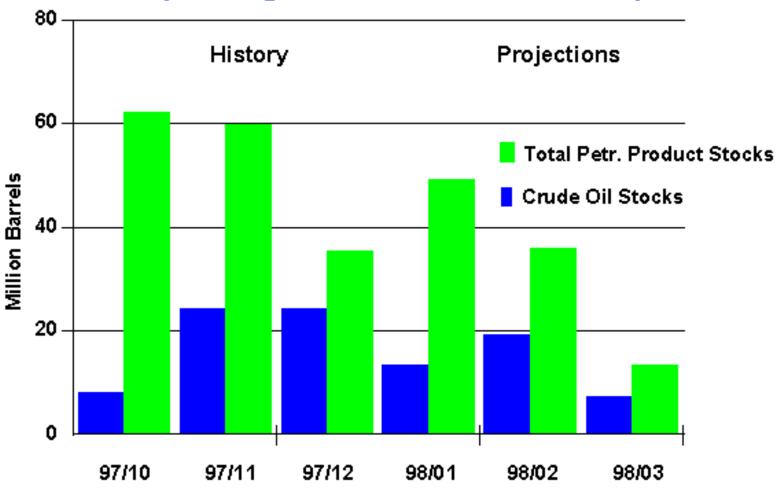


Figure 5. Total Distillate Fuel Stocks

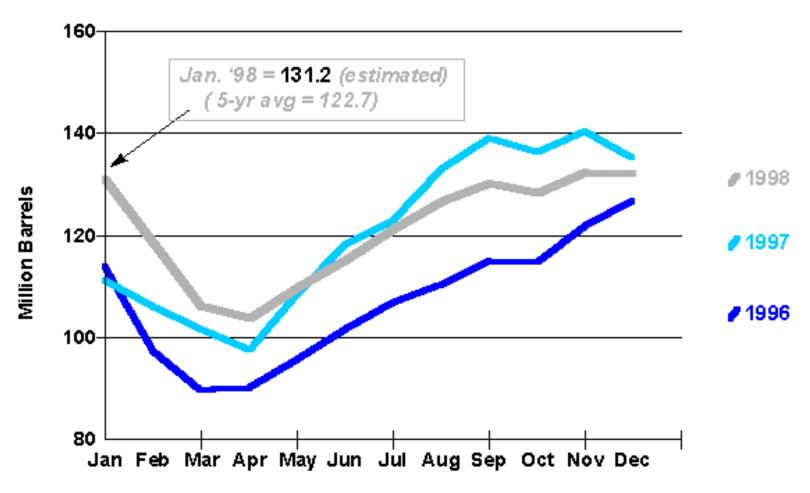


Figure 6. Projected Fuel Demand Growth for Q1 1998

(Percent Change From Previous Outlook)

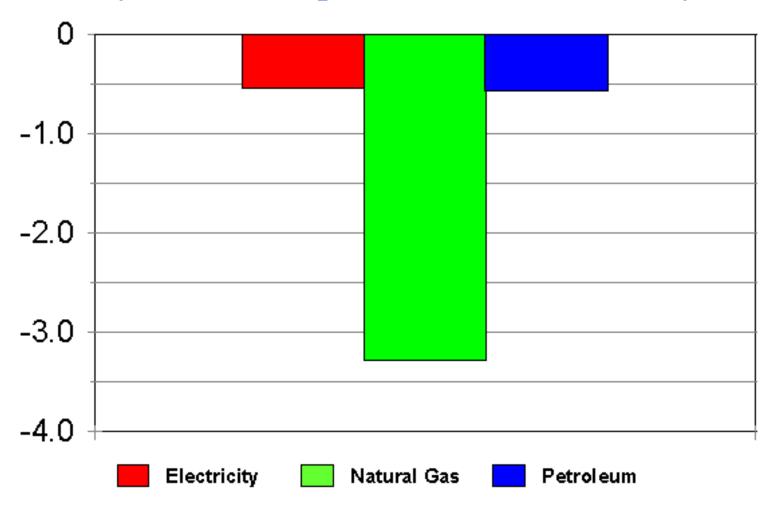


Figure 7. U.S. Average Residential Heating Oil Price

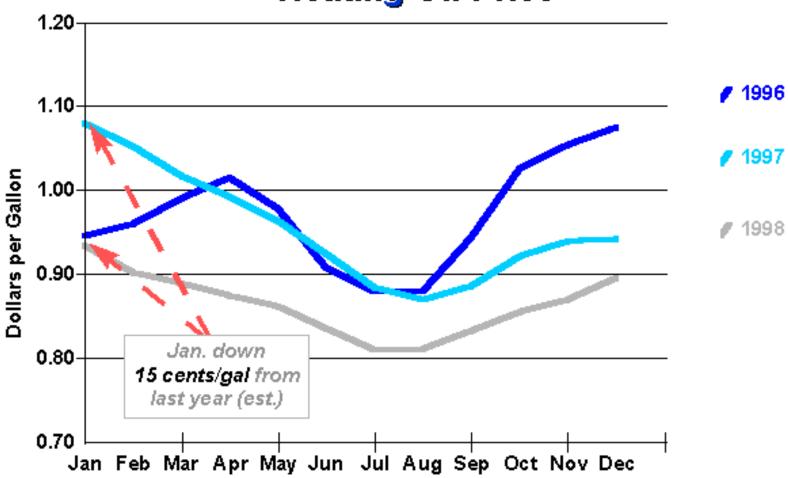


Figure 8. Fuel Price Changes for Q1 1998

(Percent Change From Previous Year)

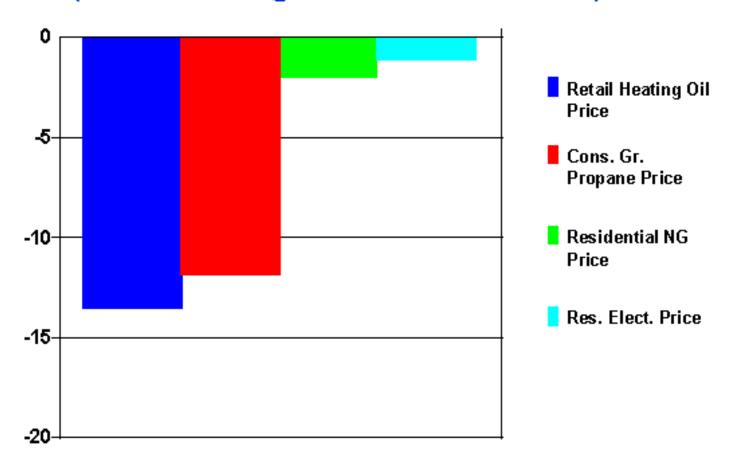
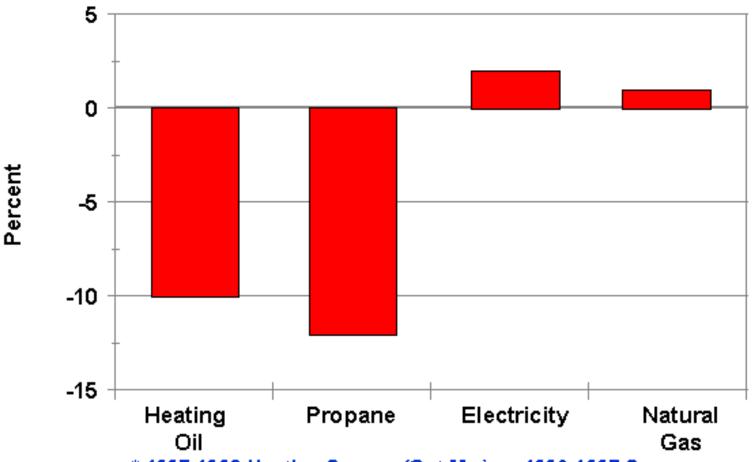


Figure 9. Projected Household Heating Bills

(Percent Change from Previous Year*)



* 1997-1998 Heating Season (Oct-Mar) vs 1996-1997 Season

- Despite relatively weaker heating demand this winter, U.S. petroleum demand is still expected to show solid growth overall, particularly because of increases in transportation-related fuels (Figure 10). Lower expected fuel costs bolster the case for accelerated growth in U.S. gasoline demand this year. With the current outlook, real gasoline prices would dip to the lowest levels seen since at least 1975 (Figure 11), even though real taxes on gasoline have increased significantly over that time frame (Figure 12). An expected decline of 10 percent in real gasoline costs per mile this year and sustained growth in personal income portend strong travel growth in 1998. With increases in average vehicle efficiency expected to be at or below recent trends, gasoline demand could exhibit growth in excess of 3 percent this year (Figure 13).
- Electricity sales to the residential sector in the first quarter of 1998 are now expected to be below the previous forecast due to the below-normal heating degree-days thus far this winter. Commercial and industrial sector use of electricity, which is driven more by the economy than by the weather, are at previously expected levels. On balance, despite the slow start, stronger growth in total electricity demand is expected this year than last (Figure 14). Residential sales will still lead the way, assuming the below-normal summer cooling demand experienced last year is not repeated.
- The acceleration in electricity demand growth this year will keep aggregate coal demand growing from 1997 levels, although at a somewhat slower rate. The return of some of the nuclear power plants that were down last year is expected to restrict the need for additional coal somewhat (Figure 15).
- U.S. coal exports in 1997 are estimated to be 83.5 million short tons (mmst). This is a 7.7 percent decline from the 90.5 mmst exported in 1996 (Figure 16). The decline, the largest since 1993, is due primarily to lower exports of steam coal. Weak international coal prices and strong competition in the European and Asian markets from other steam coal exporters were the significant factors for the decline. While U.S. metallurgical coal exports are expected to remain near 52.0 mmst throughout the forecast period, the situation of weak prices and strong competition will continue in the steam coal markets. Coal exports are forecast to be 85.1 mmst (a 1.8 percent increase) in 1998 and 85.3 mmst (a 0.3 percent increase) in 1999 (Table 9).

Data Notes: This Outlook includes for the first time the revisions to the monthly historical electric utility sales data, based on EIA's *Electric Sales and Revenue 1996* report. The revisions to annual sales (billion kilowatt-hours) for 1996 were (by sector): Residential: +0.4 percent; Commercial: -0.5 percent; Industrial: +1.6 percent; Other: -2.7 percent; Total: +0.4 percent.

Figure 10. U.S. Petroleum Demand Growth

(Percent Change from Previous Year)

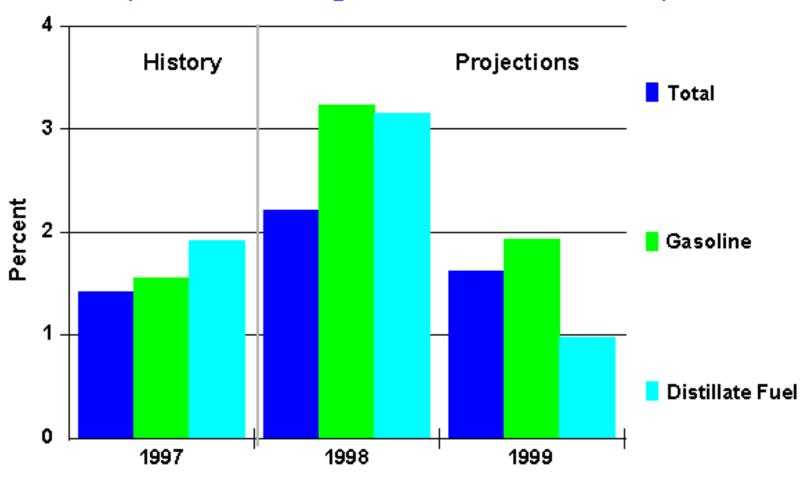
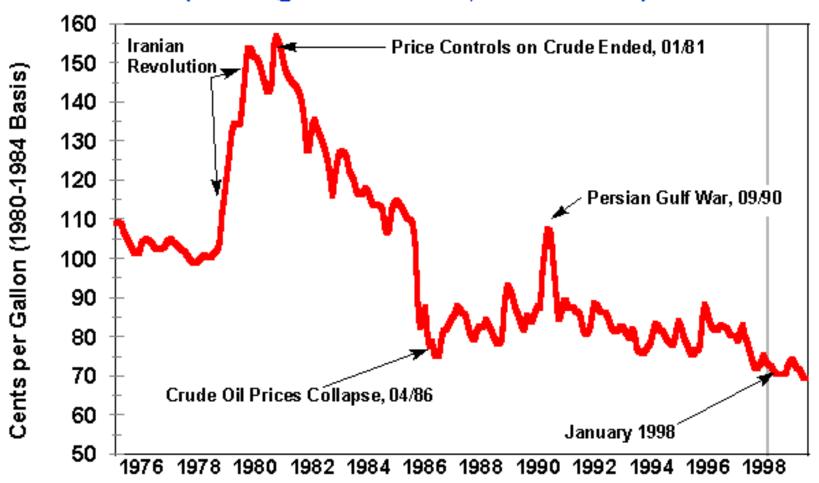


Figure 11. Real Retail Gasoline Prices*

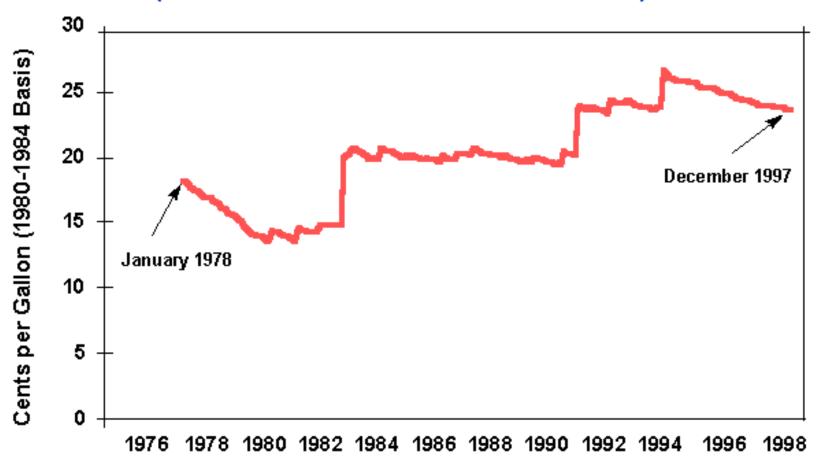
(Average All Grades, All Service)



*Pump price (including tax)/Consumer Price Index (CPIU): 1980-1984=1.000

Figure 12. Real Gasoline Taxes*

(Includes Federal and State Taxes)



*Total Federal and State taxes/Consumer Price Index (CPIU): 1980-1984=1.000

Figure 13. Gasoline Market Indicators

(Percent Change from Previous Year)

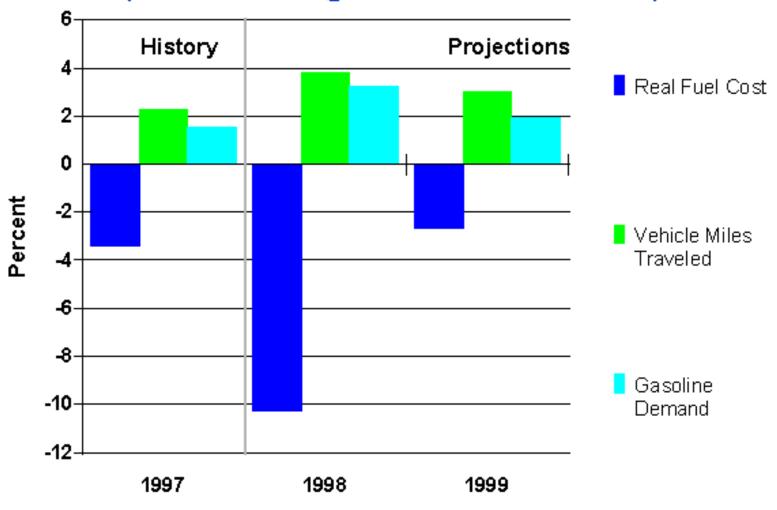


Figure 14. Electricity Demand Growth

(Percent Change from Previous Year)

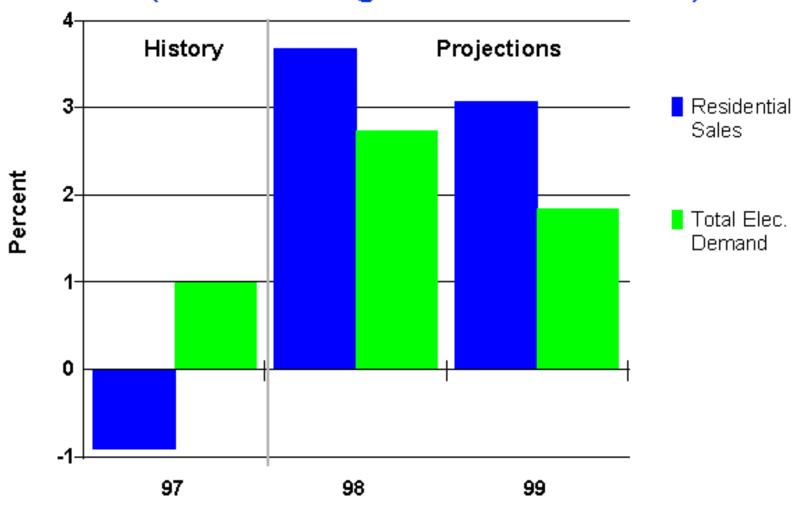


Figure 15. Electric Utility Use of Coal and Nuclear Power (Percent Change from Previous Year)

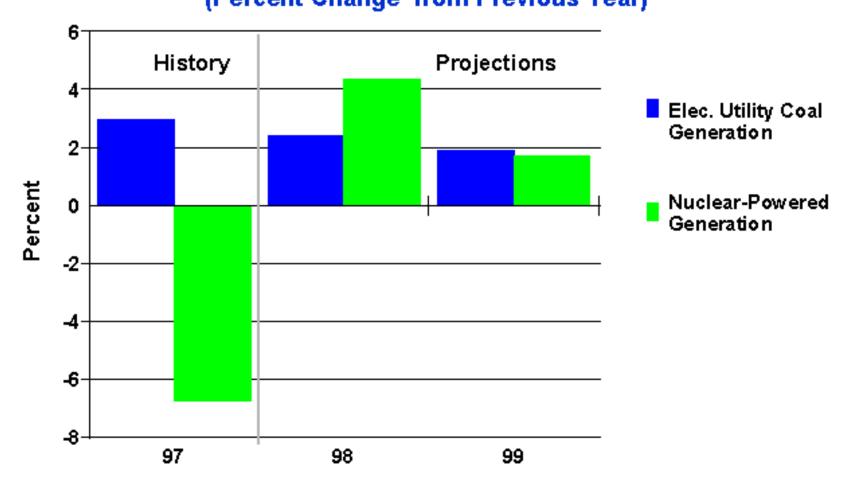


Figure 16. Total U.S. Coal Exports (Percent Change from Previous Year)

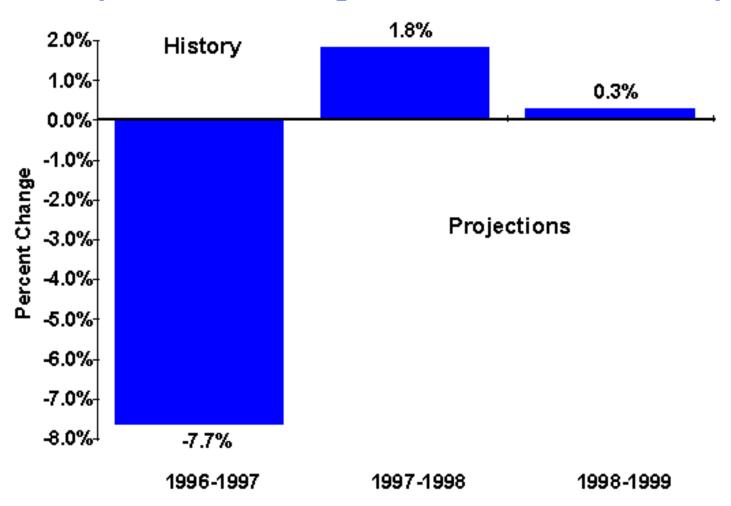


Table HL1. U.S. Energy Supply and Demand Summary

Table HL1. U.S. Energy Supply ar	iu Deiliai	Year	у		Annua	I Percentage	Change
	1996	1997	1998	1999	1996-1997	1997-1998	1998-1999
Real Gross Domestic Product (GDP) (billion chained 1992 dollars)	6928	7187	7345	7465	3.7	2.2	1.6
Imported Crude Oil Price ^a (nominal dollars per barrel)	20.61	18.61	15.15	15.42	-9.7	-18.6	1.8
Petroleum Supply Crude Oil Production b	6.46	6.41	6.38	6.36	-0.8	-0.5	-0.3
Total Petroleum Net Imports (including SPR) (million barrels per day)	8.50	8.90	9.26	9.60	4.7	4.0	3.7
Energy Demand							
World Petroleum (million barrels per day)	71.5	73.4	75.3	77.3	2.7	2.6	2.7
Petroleum (million barrels per day)	18.31	18.57	18.98	19.29	1.4	2.2	1.6
Natural Gas (trillion cubic feet)	21.96	21.94	22.54	23.16	-0.1	2.7	2.8
Coal (million short tons)	1007	1033	1051	1071	2.6	1.7	1.9
Electricity (billion kilowatthours) Utility Sales ^c Nonutility Own Use ^d Total	3098 164 3262	3126 169 3294	3211 173 3384	3269 178 3447	0.9 3.0 1.0	2.7 2.4 2.7	1.8 2.9 1.9
Adjusted Total Energy Demand ^e (quadrillion Btu)	93.9	94.5	96.1	97.9	0.6	1.7	1.8
Adjusted Total Energy Demand per Dollar of G (thousand Btu per 1992 Dollar)	DP 13.56	13.15	13.08	13.11	-3.0	-0.5	0.2
Renewable Energy as Percent of Total	7.7	7.9	7.2	7.0			

^aRefers to the refiner acquisition cost (RAC) of imported crude oil.

^bIncludes lease condensate.

^cTotal annual electric utility sales for historical periods are derived from the sum of monthly sales figures based on submissions by electric utilities of Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions." These historical values differ from annual sales totals based on Form EIA-861, :Annual Electric Utility Report," reported in several EIA publications, but match alternate annual totals reported in EIA's *Electric Power Monthly*, DOE/EIA-0226.

^dDefined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 1997 are estimates.

^eThe conversion from physical units to Btu is calculated by using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER)*. Consequently, the historical data may not precisely match those published in the *MER* or the *Annual Energy Review (AER)*.

SPR: Strategic Petroleum Reserve.

Notes: Minor discrepancies with other published EIA historical data are 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: Latest data available from Bureau of Economic Analysis and Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0130; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Statistics Report DOE/EIA-0520; Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1297.

Table 1. U.S. Macroeconomic and Weather Assumptions

Table 1. U.S. Macroeconom		1997			-,5 5. 51	1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Macroeconomic ^a			•				'								
Real Gross Domestic Product															
(billion chained 1992 dollars - SAAR)	7102	7160	7218	7268	7299	7332	7359	7390	7417	7447	7476	7521	7187	7345	7465
Percentage Change from Prior Year	4.0	3.4	3.9	3.6	2.8	2.4	2.0	1.7	1.6	1.6	1.6	1.8	3.7	2.2	1.6
Annualized Percent Change															
from Prior Quarter	4.8	3.3	3.2	2.8	1.7	1.8	1.5	1.7	1.4	1.6	1.6	2.4			
GDP Implicit Price Deflator															
(Index, 1992=1.000)	1.118	1.123	1.127	1.132	1.137	1.141	1.146	1.151	1.157	1.161	1.166	1.170	1.125	1.144	1.164
Percentage Change from Prior Year	2.3	2.2	1.9	1.9	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.7	2.0	1.7	1.7
Real Disposable Personal Income															
(billion chained 1992 Dollars - SAAR)	5161	5201	5235	5281	5342	5378	5414	5457	5494	5512	5527	5543	5220	5398	5519
Percentage Change from Prior Year	2.2	2.8	2.8	3.5	3.5	3.4	3.4	3.3	2.8	2.5	2.1	1.6	2.8	3.4	2.3
Manufacturing Production															
(Index, 1992=1.000)	1.200	1.212	1.233	1.251	1.255	1.262	1.266	1.264	1.264	1.268	1.274	1.282	1.224	1.262	1.272
Percentage Change from Prior Year	5.2	4.7	5.2	5.6	4.6	4.1	2.7	1.1	0.7	0.5	0.7	1.4	5.2	3.1	0.8
OECD Economic Growth (percent) ^b													3.1	2.2	2.2
Weather °															
Heating Degree-Days															
U.S		635	122	1692	2192	524	89	1636	2327	524	89	1636	4605	4441	4576
New England		1047	281	2329	3105	915	171	2269	3267	915	171	2269	6765	6459	6621
Middle Atlantic		866	187	2070	2780	716	105	2026	2993	716	105	2026	5900	<i>5627</i>	5839
U.S. Gas-Weighted Cooling Degree-Days (U.S.)		711 289	127 716	1773 68	2291 27	539 334	81 758	1686 72	2426 30	539 334	81 758	1686 72	4886 1123	4597 1190	4732 1193
Occurry Degree-Days (0.0.)	30	209	/10	00	21	334	700	12	30	334	700	12	1123	1190	1193

^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.

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 CONTROL1297.

^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.

Table 2. U.S. Energy Indicators: Mid World Oil Price Case

		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Macroeconomic ^a															
Real Fixed Investment															
(billion chained 1992 dollars-SAAR)	1079	1111	1148	1160	1180	1197	1211	1218	1222	1229	1238	1247	1125	1201	1234
Real Exchange Rate															
(index)	1.085	1.096	1.106	1.102	1.097	1.088	1.083	1.074	1.067	1.058	1.043	1.032	1.097	1.086	1.050
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	20.9	29.0	16.9	14.2	11.1	6.7	2.1	-1.0	-3.1	-3.7	-3.5	-3.2	20.2	4.7	-3.4
Producer Price Index															
(index, 1980-1984=1.000)	1.284	1.268	1.272	1.275	1.272	1.274	1.277	1.280	1.282	1.284	1.286	1.289	1.275	1.276	1.286
Consumer Price Index															
(index, 1980-1984=1.000)	1.597	1.601	1.609	1.618	1.622	1.629	1.637	1.646	1.655	1.663	1.672	1.682	1.606	1.634	1.668
Petroleum Product Price Index															
(index, 1980-1984=1.000)	0.722	0.675	0.667	0.658	0.607	0.580	0.570	0.574	0.576	0.577	0.575	0.579	0.681	0.583	0.577
Non-Farm Employment	404.4	404.0	400.0	400.0	400.0	1011	4040	405.0	405.0	405.0	100.1	100.1	400.0	1010	400.0
(millions)	121.1	121.9	122.6	123.3	123.9	124.4	124.9	125.3	125.6	125.9	126.1	126.4	122.2	124.6	126.0
Commercial Employment	00.0	00.0	00.7	04.4	040	05.0	05.7	00.4	00.5	00.0	07.0	07.4	00.5	05.5	00.0
(millions)	82.6	83.2	83.7	84.4	84.9	85.3	85.7	86.1	86.5	86.8	87.0	87.4	83.5	85.5	86.9
(index, 1992=1.000)	1 102	1 106	1 215	1.230	1.233	1.238	1 2/2	1.242	1 2/1	1 215	1 250	1 250	1.206	1.239	1.249
Housing Stock	1.103	1.190	1.213	1.230	1.233	1.230	1.242	1.242	1.241	1.243	1.230	1.230	1.200	1.239	1.249
(millions)	1121	1125	112 0	113.3	1136	114.0	1111	1112	115 1	1155	115 8	116 2	112.7	114.2	115.6
(1111110110)	112.1	112.5	112.5	110.0	110.0	114.0	117.7	114.0	110.1	110.0	110.0	110.2	112.7	114.2	110.0
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1992=1.000)	1.125	1.135	1.137	1.148	1.146	1.146	1.146	1.146	1.145	1.147	1.150	1.156	1.136	1.146	1.149
Vehicle Miles Traveled ^b															
(million miles/day)	6463	7138	7311	6824	6672	7413	7589	7115	6918	7636	7801	7301	6936	7200	7416
Vehicle Fuel Efficiency															
(index, 1996=1.000)	1.037	1.067	1.083	1.029	1.034	1.075	1.088	1.041	1.054	1.083	1.097	1.049	1.055	1.060	1.071
Real Vehicle Fuel Cost															
(cents per mile)	4.06	3.85	3.83	3.90	3.60	3.52	3.42	3.48	3.42	3.45	3.36	3.41	3.91	3.51	3.41
Air Travel Capacity															
(mill. available ton-miles/day)	402.1	417.1	433.5	425.5	427.4	445.0	460.0	448.7	441.0	455.9	470.6	459.0	419.6	445.4	456.7
Aircraft Utilization															
(mill. revenue ton-miles/day)	230.5	248.0	260.6	248.4	243.0	257.8	270.4	252.5	246.5	262.2	276.4	261.7	247.0	<i>256.0</i>	261.8
Aircraft Yield															
(cents per ton-mile)	14.16	13.61	13.04	13.61	14.25	14.06	13.38	14.20	14.88	14.58	13.80	14.53	13.60	13.97	14.45
Raw Steel Production															
(millions tons)	26.47	26.59	26.52	27.70	28.63	28.77	28.67	29.22	29.59	29.40	29.09	29.76	106.98	115.29	117.84

^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.

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 CONTROL1297.

^bIncludes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Table 3. International Petroleum Supply and Demand: Mid World Oil Price Case

(Million Barrels per Day, Except OECD Commercial Stocks)

(Million Barrele per B		1997	0202			1998	- /			1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Demand ^a															
OECD															
U.S. (50 States)	18.2	18.5	18.7	18.9	18.8	18.8	19.1	19.3	19.2	19.1	19.3	19.6	18.6	19.0	19.3
U.S. Territories	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3
Canada	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	2.0	2.0	1.9	1.9	2.0
Europe	14.3	14.2	14.4	14.8	14.5	14.3	14.6	14.9	14.7	14.6	14.8	15.1	14.4	14.6	14.8
Japan	6.4	5.2	5.4	6.3	6.4	5.2	5.4	6.3	6.4	5.2	5.5	6.4	5.8	5.8	5.9
Australia and New Zealand	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total OECD	41.9	40.8	41.6	43.1	42.8	41.4	42.2	43.7	43.6	42.0	42.9	44.4	41.9	42.5	43.2
Non-OECD															
Former Soviet Union	4.7	4.3	4.3	4.7	4.9	4.5	4.5	4.9	5.1	4.7	4.7	5.1	4.5	4.7	4.9
Europe	1.5	1.3	1.3	1.4	1.6	1.4	1.4	1.5	1.7	1.5	1.5	1.6	1.4	1.5	1.6
China	3.8	3.9	3.9	4.0	4.1	4.1	4.2	4.2	4.4	4.4	4.5	4.5	3.9	4.2	4.4
Other Asia	8.9	8.6	8.2	9.4	9.2	9.0	8.5	9.7	9.6	9.3	8.9	10.2	8.8	9.1	9.5
Other Non-OECD		13.1	12.8	13.0	13.1	13.5	13.2	13.4	13.5	13.9	13.6	13.9	12.9	13.3	13.7
Total Non-OECD	31.7	31.3	30.6	32.6	32.9	32.5	31.8	33.9	34.3	33.8	33.1	35.3	31.5	32.8	34.1
Total World Demand	73.6	72.1	72.2	75.7	75.8	73.9	74.0	77.6	77.9	75.9	76.0	79.6	73.4	75.3	77.3
Supply ^b															
OECD															
U.S. (50 States)	9.4	9.4	9.4	9.5	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Canada	2.6	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.6	2.7	2.7
North Sea °	6.5	6.1	6.0	6.4	6.5	6.3	6.5	6.8	7.0	6.8	7.0	7.3	6.2	6.5	7.0
Other OECD	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7
Total OECD	20.1	19.6	19.6	20.1	20.1	20.0	20.2	20.6	20.8	20.6	20.9	21.2	19.9	20.2	20.9
Non-OECD															
OPEC	29.5	29.6	30.1	30.2	30.4	30.4	30.5	30.6	30.9	31.0	31.1	31.2	29.9	30.5	31.0
Former Soviet Union	7.1	7.2	7.3	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.5	7.2	7.3	7.4
China	3.2	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.3	3.3
Mexico	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.4	3.6	3.6
Other Non-OECD	10.4	10.5	10.4	10.5	10.7	10.9	11.0	11.1	11.2	11.4	11.5	11.8	10.4	10.9	11.5
Total Non-OECD	53.6	54.0	54.4	54.8	<i>55.2</i>	55.4	55.6	55.8	56.3	56.6	56.9	<i>57.3</i>	54.2	<i>55.5</i>	56.8
Total World Supply	73.7	73.5	74.1	74.9	<i>75.3</i>	75.4	75.8	76.4	77.0	77.2	77.7	78.5	74.0	<i>75.7</i>	77.6
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.1	-0.7	-0.2	0.3	0.4	-0.5	-0.2	0.5	0.4	-0.6	-0.3	0.5	-0.2	0.0	0.0
Other	0.0	-0.8	-1.7	0.5	0.1	-1.1	-1.5	0.7	0.5	-0.8	-1.5	0.6	-0.5	-0.5	-0.3
Total Stock Withdrawals	0.0	-1.5	-1.9	0.8	0.5	-1.6	-1.7	1.2	0.9	-1.4	-1.8	1.2	-0.6	-0.4	-0.3
OECD Comm. Stocks, End (bill. bbls.)	2.7	2.7	2.8	2.7	2.7	2.7	2.8	2.8	2.7	2.8	2.9	2.8	2.7	2.8	2.8
Non-OPEC Supply	44.2	43.9	43.9	44.6	44.9	45.0	45.2	45.8	46.2	46.3	46.7	47.3	44.2	45.2	46.6
Net Exports from Former Soviet Union	2.3	2.9	2.9	2.5	2.3	2.8	2.8	2.4	2.2	2.7	2.7	2.3	2.7	2.6	2.5

^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, Kazakhstan, 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 4. U. S. Energy Prices

(Nominal Dollars)

(Frommar 2 onaro)		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Imported Crude Oil ^a (dollars per barrel)	21.03	17.93	17.80	17.92	14.92	15.33	15.08	15.25	15.08	15.58	15.33	15.67	18.61	15.15	15.42
Natural Gas Wellhead (dollars per thousand cubic feet)	2.66	2.01	2.26	2.76	2.15	1.97	1.99	2.31	2.18	1.88	1.92	2.26	2.43	2.11	2.06
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)	1.31	1.29	1.30	1.27	1.18	1.20	1.19	1.17	1.16	1.21	1.21	1.18	1.29	1.19	1.19
No. 2 Diesel Oil, Retail (dollars per gallon)	1.25	1.18	1.15	1.17	1.11	1.09	1.08	1.12	1.10	1.10	1.09	1.12	1.19	1.10	1.10
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.65	0.57	0.54	0.57	0.49	0.48	0.48	0.51	0.50	0.49	0.50	0.53	0.59	0.49	0.51
No. 2 Heating Oil, Retail (dollars per gallon)	1.05	0.97	0.88	0.94	0.91	0.86	0.82	0.88	0.91	0.88	0.84	0.90	0.99	0.88	0.90
No. 6 Residual Fuel Oil, Retail ° (dollars per barrel)	19.00	16.84	17.04	18.11	15.09	14.67	14.00	14.97	15.27	14.62	14.32	15.58	17.79	14.71	14.98
Electric Utility Fuels															
Coal (dollars per million Btu)	1.29	1.29	1.26	1.25	1.25	1.26	1.24	1.23	1.23	1.24	1.22	1.21	1.27	1.25	1.23
Heavy Fuel Oil ^d (dollars per million Btu)	2.91	2.59	2.71	2.94	2.39	2.40	2.30	2.46	2.41	2.39	2.35	2.56	2.80	2.38	2.42
Natural Gas (dollars per million Btu)	3.11	2.45	2.60	3.25	2.61	2.31	2.30	2.66	2.61	2.24	2.25	2.61	2.78	2.42	2.38
Other Residential															
Natural Gas (dollars per thousand cubic feet)	6.67	6.91	8.57	6.93	6.53	6.88	8.06	6.30	6.36	6.97	8.18	6.59	6.93	6.64	6.66
Electricity (cents per kilowatthour)	8.04	8.69	8.79	8.31	7.95	8.53	8.70	8.27	7.89	8.45	8.71	8.21	8.46	8.37	8.32

^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 fourth 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 5. U.S. Petroleum Supply and Demand: Mid World Oil Price Case

(Million Barrels per Day, Except Closing Stocks)

•		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply															
Crude Oil Supply															
Domestic Production a	6.45	6.41	6.33	6.45	6.42	6.40	6.34	6.38	6.37	6.33	6.32	6.40	6.41	6.38	6.36
Alaska	1.36	1.30	1.24	1.29	1.22	1.18	1.15	1.21	1.24	1.19	1.16	1.19	1.30	1.19	1.19
Lower 48	5.09	5.11	5.09	5.15	5.21	5.22	5.19	5.16	5.13	5.14	5.17	5.21	5.11	5.19	5.16
Net Imports (including SPR) b	7.32	8.11	8.17	7.95	7.48	8.03	8.32	7.96	7.76	8.42	8.58	8.14	7.89	7.95	8.23
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Other Stock Withdrawn or Added (-)	-0.34	-0.08	0.20	-0.06	-0.15	0.02	0.11	0.02	-0.06	-0.02	0.06	0.02	-0.07	0.00	0.00
Product Supplied and Losses	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01
Unaccounted-for Crude Oil	0.24	0.41	0.46	0.46	0.32	0.28	0.29	0.28	0.27	0.29	0.29	0.28	0.39	0.29	0.28
Total Crude Oil Supply	13.71	14.84	15.16	14.80	14.06	14.72	15.05	14.62	14.33	15.01	15.25	14.84	14.63	14.62	14.86
Other Supply															
NGL Production	1.87	1.84	1.86	1.81	1.87	1.87	1.86	1.87	1.88	1.87	1.86	1.86	1.84	1.87	1.87
Other Hydrocarbon and Alcohol Inputs	0.31	0.34	0.36	0.34	0.31	0.31	0.32	0.33	0.34	0.32	0.33	0.33	0.34	0.32	0.33
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Processing Gain	0.78	0.84	0.87	0.86	0.78	0.83	0.85	0.83	0.80	0.85	0.87	0.84	0.84	0.82	0.84
Net Product Imports ^c		1.22	0.82	0.70	1.28	1.52	1.30	1.14	1.38	1.56	1.36	1.19	1.01	1.31	1.37
Product Stock Withdrawn or Added (-) d .	0.26	-0.63	-0.38	0.37	0.50	-0.50	-0.32	0.48	0.46	-0.57	-0.33	0.49	-0.10	0.04	0.01
Total Supply	18.23	18.46	18.69	18.88	18.81	18.76	19.06	19.27	19.20	19.05	19.34	19.55	18.56	18.98	19.29
Demand															
Motor Gasoline	7.59	8.15	8.23	8.08	7.86	8.40	8.49	8.33	8.00	8.59	8.66	8.48	8.01	8.27	8.43
Jet Fuel		1.56	1.65	1.63	1.62	1.60	1.68	1.69	1.67	1.62	1.71	1.72	1.60	1.65	1.68
Distillate Fuel Oil	3.58	3.33	3.23	3.58	3.75	3.42	3.36	3.62	3.85	3.44	3.37	3.64	3.43	3.54	3.57
Residual Fuel Oil		0.77	0.77	0.77	0.96	0.84	0.83	0.91	1.03	0.85	0.83	0.91	0.80	0.88	0.91
Other Oils ^e		4.65	4.81	4.82	4.62	4.50	4.71	4.71	4.65	4.55	4.78	4.80	4.72	4.64	4.70
Total Demand		18.46		18.88	18.81	18.76	19.06		19.20	19.05	19.34			18.98	
Total Petroleum Net Imports	8.62	9.32	8.99	8.65	8.76	9.55	9.61	9.09	9.14	9.98	9.94	9.33	8.90	9.26	9.60
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	-	322	303	308	322	320	309	307	313	315	309	307	308	307	307
Total Motor Gasoline		205	199	209	214	212	207	200	213	211	207	200	209	200	200
Finished Motor Gasoline		164	158	165	173	172	166	159	172	171	166	159	165	159	159
Blending Components		41	41	43	42	40	41	41	42	40	41	41	43	41	41
Jet Fuel		43	45	44	41	43	44	44	42	43	45	44	44	44	44
Distillate Fuel Oil		118	139	135	106	115	130	132	95	109	127	131	135	132	131
Residual Fuel Oil		39	35	40	32	36	38	42	34	38	39	42	40	42	42
Other Oils ^e		286	309	265	254	287	303	261	254	289	302	257	265	261	257
Total Stocks (excluding SPR)		1013	1030	1001	970	1013	1032	986	950	1004	1028	981	1001	986	981
Crude Oil in SPR		563	563	563	563	563	563	563	563	563	563	563	563	563	563
Total Stocks (including SPR)	1512	1577	1594	1565	1533	1576	1595	1549	1513	1567	1592	1545	1565	1549	1545

^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.

⁴Includes 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 6. Approximate Energy Demand Sensitivities^a for the STIFS^b Model

(Deviation Base Case)

		+ 10	% Prices	+ 10%	Weather [°]
Demand Sector	+1% GDP	Crude Oil °	N.Gas Wellhead ^d	Fall/Winter ^f	Spring/Summer
Petroleum					
Total	0.6%	-0.3%	0.1%	1.1%	0.1%
Motor Gasoline	0.1%	-0.3%	0.0%	0.0%	0.0%
Distillate Fuel	0.8%	-0.2%	0.0%	2.7%	0.1%
Residual Fuel	1.6%	-3.4%	2.6%	2.0%	2.7%
Natural Gas					
Total	1.1%	0.3%	-0.4%	4.4%	1.0%
Residential	0.1%	0.0%	0.0%	8.2%	0.0%
Commercial	0.9%	0.0%	0.0%	7.3%	0.0%
Industrial	1.7%	0.2%	-0.5%	1.3%	0.0%
Electric Utility	1.8%	1.6%	-1.5%	1.0%	4.0%
Coal					
Total	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Utility	0.6%	0.0%	0.0%	1.9%	1.9%
Electricity					
Total	0.6%	0.0%	0.0%	1.5%	1.7%
Residential	0.1%	0.0%	0.0%	3.2%	3.6%
Commercial	0.9%	0.0%	0.0%	1.0%	1.4%
Industrial	0.8%	0.0%	0.0%	0.3%	0.2%

^aPercent change in demand quantity resulting from specified percent changes in model inputs.

Table 7. Forecast Components for U.S. Crude Oil Production

(Million Barrels per Day)

,	High Price Case	Low Price Case		Difference	
			Total	Uncertainty	Price Impact
United States	6.55	6.09	0.46	0.09	0.37
Lower 48 States	5.34	4.90	0.43	0.08	0.36
Alaska	1.21	1.18	0.03	0.01	0.01

Note: Components provided are for the fourth quarter 1998. Totals may not add to sum of components due to independent rounding.

Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

^bShort-Term Integrated Forecasting System.

Refiner acquisitions cost of imported crude oil.

^dAverage unit value of marketed natural gas production reported by States.

^{*}Refers to percent changes in degree-days.

Response during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days.

Response during the spring/summer period refers to change in cooling degree-days.

Table 8. U.S. Natural Gas Supply and Demand: Mid world Oil Price Case

(Trillion cubic Feet)

		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply															
Total Dry Gas Production	4.76	4.72	4.75	4.80	4.76	4.74	4.80	4.87	4.83	4.81	4.87	4.94	19.03	19.17	19.45
Net Imports	0.74	0.68	0.69	0.74	0.77	0.75	0.75	0.82	0.83	0.80	0.81	0.87	2.84	3.08	3.31
Supplemental Gaseous Fuels	0.03	0.03	0.02	0.03	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.12	0.13	0.13
Total New Supply	5.53	5.42	5.47	5.57	5.56	5.52	5.58	5.72	5.69	5.65	5.71	5.85	21.99	22.38	22.90
Underground Working Gas Storage															
Opening	6.51	5.34	6.09	7.03	6.58	5.27	6.06	7.00	6.54	5.28	6.06	7.00	6.51	6.58	6.54
Closing	5.34	6.09	7.03	6.58	5.27	6.06	7.00	6.54	5.28	6.06	7.00	6.55	6.58	6.54	6.55
Net Withdrawals	1.18	-0.75	-0.95	0.45	1.31	-0.79	-0.94	0.46	1.26	-0.78	-0.94	0.46	-0.07	0.04	0.00
Total Supply	6.71	4.67	4.52	6.02	6.87	4.73	4.64	6.18	6.96	4.87	4.77	6.31	21.92	22.42	22.90
Balancing Item ^a	0.16	0.14	-0.03	-0.25	0.24	0.23	-0.03	-0.32	0.46	0.20	-0.05	-0.34	0.02	0.12	0.26
Total Primary Supply	6.87	4.81	4.49	5.77	7.11	4.96	4.61	5.86	7.42	5.06	4.71	5.96	21.94	22.54	23.16
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.32	0.31	0.31	0.31	0.32	0.31	0.31	0.31	0.32	1.25	1.24	1.24
Pipeline Use	0.22	0.16	0.15	0.18	0.22	0.15	0.14	0.18	0.22	0.15	0.14	0.18	0.71	0.70	0.70
Residential	2.28	0.88	0.38	1.47	2.33	0.86	0.37	1.42	2.48	0.87	0.37	1.44	5.01	4.98	5.15
Commercial	1.27	0.62	0.41	0.92	1.32	0.62	0.42	0.91	1.41	0.63	0.43	0.92	3.21	3.27	3.39
Industrial (Incl. Cogenerators)	2.27	2.08	2.05	2.24	2.34	2.12	2.10	2.32	2.37	2.15	2.12	2.37	8.63	8.88	9.00
Cogenerators ^b	0.53	0.56	0.56	0.63	0.57	0.55	0.60	0.67	0.59	0.56	0.61	0.69	2.28	2.39	2.46
Electricity Production															
Electric Utilities	0.47	0.72	1.15	0.60	0.54	0.85	1.22	0.65	0.58	0.91	1.28	0.68	2.94	3.27	3.45
Nonutilities (Excl. Cogen.)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.06	0.20	0.20	0.21
Total Demand	6.87	4.81	4.49	5.77	7.11	4.96	4.61	5.86	7.42	5.06	4.71	5.96	21.94	22.54	23.16

^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 9. U.S. Coal Supply and Demand: Mid World Oil Price Case (Million Short Tons)

,		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply			•						•						
Production	273.9	269.7	271.3	276.4	282.6	273.1	279.8	281.3	289.3	277.2	284.0	285.0	1091.3	1116.9	1135.5
Appalachia	119.0	117.8	112.0	118.3	120.8	115.3	113.2	118.3	121.5	115.0	112.5	117.6	467.2	467.5	466.7
Interior	42.9	41.4	44.4	43.5	42.7	40.2	44.0	42.1	42.1	39.1	42.8	40.6	172.1	169.0	164.5
Western	112.0	110.5	114.9	114.6	119.2	117.6	122.7	120.9	125.6	123.1	128.7	126.9	452.0	480.3	504.3
Primary Stock Levels ^a															
Opening	28.6	37.5	42.5	39.1	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	28.6	34.0	31.0
Closing	37.5	42.5	39.1	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	30.0	34.0	31.0	30.0
Net Withdrawals	-8.9	-5.0	3.4	5.1	(S)	(S)	2.0	1.0	-3.0	(S)	2.0	2.0	-5.4	3.0	1.0
Imports	1.3	1.7	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	7.1	7.2	7.3
Exports	20.0	20.6	22.4	20.6	20.7	21.3	21.6	21.5	20.8	21.4	21.6	21.5	83.5	85.1	85.3
Total Net Domestic Supply	246.4	245.8	254.6	262.8	263.7	253.6	262.1	262.7	267.3	257.6	266.2	267.3	1009.5	1042.0	1058.5
Secondary Stock Levels ^b															
Opening	123.0	119.8	128.1	110.2	106.6	112.9	120.9	107.3	108.5	110.5	118.7	105.5	123.0	106.6	108.5
Closing	119.8	128.1	110.2	106.6	112.9	120.9	107.3	108.5	110.5	118.7	105.5	107.6	106.6	108.5	107.6
Net Withdrawals	3.2	-8.2	17.9	3.7	-6.3	-8.1	13.6	-1.2	-2.0	-8.3	13.2	-2.1	16.5	-1.9	0.9
Total Supply	249.5	237.6	272.4	266.4	257.4	245.5	275.7	261.5	265.4	249.4	279.4	265.2	1026.0	1040.1	1059.4
Demand															
Coke Plants	7.6	7.4	7.9	8.2	7.8	7.6	7.9	8.3	8.1	7.9	7.8	8.1	31.0	31.6	31.8
Electricity Production															
Electric Utilities	218.2	207.4	243.1	229.8	225.1	215.4	245.6	228.4	232.2	219.0	249.2	231.9	898.4	914.5	932.3
Nonutilities (Excl. Cogen.) °	6.5	6.5	6.5	6.5	7.0	7.0	7.0	7.0	7.5	7.5	7.5	7.5	26.0	28.0	30.0
Retail and General Industry d	20.2	18.3	18.1	20.5	20.3	18.3	18.0	20.6	20.6	18.0	18.0	20.7	77.2	77.2	77.2
Total Demand	252.5	239.5	275.6	265.0	260.2	248.3	278.5	264.3	268.4	252.4	282.4	268.2	1032.6	1051.3	1071.4
Discrepancy °	-2.9	-2.0	-3.2	1.4	-2.8	-2.8	-2.8	-2.8	-3.0	-3.0	-3.0	-3.0	-6.7	-11.2	-12.0

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

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.

^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 fourth 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 estimate 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.

Table 9. U.S. Coal Supply and Demand: Mid World Oil Price Case (Million Short Tons)

,		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply			•						•						
Production	273.9	269.7	271.3	276.4	282.6	273.1	279.8	281.3	289.3	277.2	284.0	285.0	1091.3	1116.9	1135.5
Appalachia	119.0	117.8	112.0	118.3	120.8	115.3	113.2	118.3	121.5	115.0	112.5	117.6	467.2	467.5	466.7
Interior	42.9	41.4	44.4	43.5	42.7	40.2	44.0	42.1	42.1	39.1	42.8	40.6	172.1	169.0	164.5
Western	112.0	110.5	114.9	114.6	119.2	117.6	122.7	120.9	125.6	123.1	128.7	126.9	452.0	480.3	504.3
Primary Stock Levels ^a															
Opening	28.6	37.5	42.5	39.1	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	28.6	34.0	31.0
Closing	37.5	42.5	39.1	34.0	34.0	34.0	32.0	31.0	34.0	34.0	32.0	30.0	34.0	31.0	30.0
Net Withdrawals	-8.9	-5.0	3.4	5.1	(S)	(S)	2.0	1.0	-3.0	(S)	2.0	2.0	-5.4	3.0	1.0
Imports	1.3	1.7	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	7.1	7.2	7.3
Exports	20.0	20.6	22.4	20.6	20.7	21.3	21.6	21.5	20.8	21.4	21.6	21.5	83.5	85.1	85.3
Total Net Domestic Supply	246.4	245.8	254.6	262.8	263.7	253.6	262.1	262.7	267.3	257.6	266.2	267.3	1009.5	1042.0	1058.5
Secondary Stock Levels ^b															
Opening	123.0	119.8	128.1	110.2	106.6	112.9	120.9	107.3	108.5	110.5	118.7	105.5	123.0	106.6	108.5
Closing	119.8	128.1	110.2	106.6	112.9	120.9	107.3	108.5	110.5	118.7	105.5	107.6	106.6	108.5	107.6
Net Withdrawals	3.2	-8.2	17.9	3.7	-6.3	-8.1	13.6	-1.2	-2.0	-8.3	13.2	-2.1	16.5	-1.9	0.9
Total Supply	249.5	237.6	272.4	266.4	257.4	245.5	275.7	261.5	265.4	249.4	279.4	265.2	1026.0	1040.1	1059.4
Demand															
Coke Plants	7.6	7.4	7.9	8.2	7.8	7.6	7.9	8.3	8.1	7.9	7.8	8.1	31.0	31.6	31.8
Electricity Production															
Electric Utilities	218.2	207.4	243.1	229.8	225.1	215.4	245.6	228.4	232.2	219.0	249.2	231.9	898.4	914.5	932.3
Nonutilities (Excl. Cogen.) °	6.5	6.5	6.5	6.5	7.0	7.0	7.0	7.0	7.5	7.5	7.5	7.5	26.0	28.0	30.0
Retail and General Industry d	20.2	18.3	18.1	20.5	20.3	18.3	18.0	20.6	20.6	18.0	18.0	20.7	77.2	77.2	77.2
Total Demand	252.5	239.5	275.6	265.0	260.2	248.3	278.5	264.3	268.4	252.4	282.4	268.2	1032.6	1051.3	1071.4
Discrepancy °	-2.9	-2.0	-3.2	1.4	-2.8	-2.8	-2.8	-2.8	-3.0	-3.0	-3.0	-3.0	-6.7	-11.2	-12.0

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

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.

^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 fourth 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 estimate 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.

Table 10. U.S. Electricity Supply and Demand: Mid World Oil Price Case

(Billion Kilowatthours)

		1997				1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply															
Net Utility Generation															
Coal	434.0	414.0	480.5	460.5	451.6	432.7	490.9	456.9	466.0	439.4	497.4	463.5	1789.0	1832.1	1866.3
Petroleum	17.6	15.4	24.6	23.2	26.5	19.9	24.4	19.2	26.3	21.1	<i>25.3</i>	19.8	80.8	90.0	92.6
Natural Gas	45.6	69.1	109.6	<i>57.0</i>	51.7	82.0	117.7	62.7	<i>55.8</i>	87.5	123.4	64.9	281.3	314.1	331.5
Nuclear	160.0	144.4	171.0	153.7	163.9	153.0	178.5	161.2	171.2	154.2	179.8	162.4	629.2	656.6	667.7
Hydroelectric	94.3	96.0	77.7	70.7	78.5	80.6	65.6	64.0	73.8	77.2	63.7	63.5	338.7	288.7	278.2
Geothermal and Other ^a	1.6	1.8	2.0	2.0	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	7.4	6.8	6.3
Subtotal	753.1	740.8	865.4	767.1	773.9	769.9	878.8	765.7	794.7	780.9	891.3	775.8	3126.4	3188.3	3242.7
Nonutility Generation ^b															
Coal	15.3	16.3	16.4	18.4	16.6	15.9	17.3	19.3	17.0	16.3	17.7	19.8	66.4	69.1	70.8
Petroleum	4.0	4.2	4.2	4.7	4.4	4.2	4.6	5.1	4.7	4.5	4.9	5.5	17.1	18.4	19.6
Natural Gas	49.2	52.5	52.8	59.1	53.7	51.4	55.9	62.6	55.2	52.9	57.6	64.5	213.7	223.7	230.2
Other Gaseous Fuels ^c	2.9	3.1	3.1	3.5	3.0	2.9	3.1	3.5	3.0	2.9	3.1	3.5	12.5	12.5	12.6
Hydroelectric	3.9	4.2	4.2	4.7	4.4	4.2	4.5	5.1	4.6	4.4	4.7	5.3	17.1	18.2	19.0
Geothermal and Otherd	19.0	20.3	20.4	22.9	20.3	19.4	21.2	23.7	20.5	19.6	21.3	23.9	82.6	84.6	85.3
Subtotal	94.3	100.6	101.2	113.3	102.3	98.0	106.7	119.4	104.9	100.5	109.4	122.5	409.4	426.4	437.4
Total Generation	847.4	841.4	966.6	880.4	876.2	867.9	985.4	885.2	899.7	881.5	1000.7	898.3	3535.8	3614.7	3680.1
Net Imports ^e	7.5	8.9	11.8	7.8	7.0	8.6	11.5	7.6	7.2	9.2	11.7	7.9	36.1	34.7	36.0
Total Supply	854.9	850.3	978.4	888.2	883.2	876.6	996.9	892.7	906.8	890.6	1012.4	906.2	3571.8	3649.3	3716.1
Losses and Unaccounted for	53.3	82.0	74.6	67.9	52.0	75.1	69.5	68.4	53.3	76.2	70.6	69.4	277.7	265.0	269.5
Demand															
Electric Utility Sales															
Residential	276.8	226.2	309.8	259.8	287.9	245.8	319.5	258.8	300.9	252.6	327.6	264.9	1072.6	1112.0	1146.0
Commercial	214.5	217.6	256.0	226.3	222.4	226.1	262.0	227.3	228.3	229.8	265.6	229.9	914.4	937.9	953.6
Industrial	248.0	259.5	269.8	261.8	253.2	263.9	274.2	263.1	254.7	264.8	275.2	265.1	1039.1	1054.4	1059.8
Other	23.4	23.6	26.7	25.8	26.2	25.8	28.3	26.6	27.0	26.4	28.9	27.2	99.4	106.9	109.4
Subtotal	762.8	726.9	862.2	773.7	789.7	761.6	884.0	775.8	810.9	773.5	897.4	787.0	3125.6	3211.2	3268.9
Nonutility Gener. for Own Use ^b	38.8	41.4	41.7	46.6	41.5	39.8	43.3	48.5	42.6	40.9	44.5	49.8	168.6	173.1	177.7
Total Demand		768.4	903.9		831.2				-		941.8		3294.2	3384.3	3446.6
Memo:															
Nonutility Sales to															
Electric Utilities ^b	55.5	59.2	59.5	66.6	60.7	58.2	63.3	70.9	62.3	59.7	65.0	72.7	240.8	253.2	259.7

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

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.

^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.

Table 11. U.S. Renewable Energy Use by Sector: Mid World Oil Price Case

(Quadrillion Btu)

		Year			Annua	I Percentage C	hange
	1996	1997	1998	1999	1996-1997	1997-1998	1998-1999
Electric Utilities							
Hydroelectric Power ^a	3.411	3.523	3.002	2.894	3.3	-14.8	-3.6
Geothermal, Solar and Wind Energy b	0.110	0.113	0.101	0.092	2.7	-10.6	-8.9
Biofuels ^c	0.020	0.021	0.020	0.020	5.0	-4.8	0.0
Total	3.541	3.657	3.123	3.006	3.3	-14.6	-3.7
Nonutility Power Generators							
Hydroelectric Power ^a	0.170	0.175	0.187	0.195	2.9	6.9	4.3
Geothermal, Solar and Wind Energy b	0.257	0.280	0.288	0.293	8.9	2.9	1.7
Biofuels ^c	0.597	0.634	0.647	0.650	6.2	2.1	0.5
Total	1.024	1.089	1.122	1.138	6.3	3.0	1.4
Total Power Generation	4.565	4.746	4.245	4.144	4.0	-10.6	-2.4
Other Sectors							
Residential and Commercial d	0.713	0.695	0.697	0.697	-2.5	0.3	0.0
Industrial ^e	1.546	1.586	1.620	1.620	2.6	2.1	0.0
Transportation f	0.082	0.103	0.108	0.115	25.6	4.9	6.5
Total	2.341	2.384	2.424	2.431	1.8	1.7	0.3
Net Imported Electricity ⁹	0.307	0.291	0.280	0.291	-5.2	-3.8	3.9
Total Renewable Energy Demand	7.214	7.421	6.949	6.866	2.9	-6.4	-1.2

^aConventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

Notes: Minor discrepancies with other published EIA historical data are 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: Estimates derived from Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration, Renewable Energy Annual, 1995; Projections: Renewables growth in sectors other than electric utilities taken from Energy Information Administration, Annual Energy Outlook database and Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration.

^bAlso includes photovoltaic and solar thermal energy.

^cBiofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

^dIncludes biofuels and solar energy consumed in the residential and commercial sectors.

^eConsists primarily of biofuels for use other than in electricity cogeneration.

^fEthanol blended into gasoline.

⁹Represents 78.6 percent of total electricity net imports, which is the proportion of total 1994 net imported electricity (0.459 quadrillion Btu) attributable to renewable sources (0.361 quadrillion Btu).

⁽S) Less than 500 billion Btu.

NM indicates percent change calculations are not meaningful or undefined at the precision level of this table.

Table A1. Annual U.S. Energy Supply and Demand

								Year							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Real Gross Domestic Product (GDP)															
(billion chained 1992 dollars)	5324	5488	5649	5865	6062	6136	6079	6244	6390	6611	6742	6928	7187	7345	7465
Imported Crude Oil Price ^a															
(nominal dollars per barrel)	26.99	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.61	15.15	15.42
Petroleum Supply															
Crude Oil Production ^b															
(million barrels per day)	8.97	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.41	6.38	6.36
Total Petroleum Net Imports (including SPR)															
(million barrels per day)	4.29	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	8.90	9.26	9.60
Energy Demand															
World Petroleum															
(million barrels per day)	60.1	61.8	63.1	64.9	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.5	73.4	75.3	77.3
U.S. Petroleum															
(million barrels per day)	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.57	18.98	19.29
Natural Gas															
(trillion cubic feet)	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.94	22.54	23.16
Coal	040	004	007	004	004	007	00.4	007	044	054	000	4007	4000	40.40	4074
(million short tons)	818	804	837	884	891	897	894	907	944	951	962	1007	1033	1049	1071
Electricity (billion kilowatthours)	2324	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3126	3211	3269
Utility Sales ^c	-	2309 NA	245 <i>1</i> NA	NA	108	113	122	132	138	2935 150	158	164	169	3211 173	3209 178
Total		2369	2457	2578	2755	2826	2884	2895	3000	3085	3171	3262	3294	3384	3447
Total Energy Demand®	2024	2000	2-101	20.0	2700	2020	200-	2000	0000	0000	0171	0202	0204	0004	0447
(quadrillion Btu)	74.0	74.3	76.9	80.2	81.3	81.2	81.1	82.4	84.2	85.9	87.5	89.7	90.6	92.4	94.1
Total Energy Demand per Dollar of GDP															•
(thousand Btu per 1992 Dollar)	13.90	13.54	13.61	13.68	13.42	13.23	13.33	13.20	13.17	12.99	12.98	12.95	12.61	12.58	12.61
Adjusted Total Energy Demand®															
(quadrillion Btu)	NA	NA	NA	NA	NA	84.1	84.0	85.5	87.3	89.2	90.9	93.9	94.5	96.1	97.9
Adjusted Total Energy Demand per Dollar of GDP															
(thousand Btu per 1992 Dollar)	NA	NA	NA	NA	NA	13.70	13.82	13.70	13.67	13.49	13.49	13.56	13.15	13.08	13.11

^aRefers to the imported cost of crude oil to U.S. refiners.

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: Petroleum Supply Monthly, DOE/EIA-0109; Petroleum Supply Annual, DOE/EIA-0340/2; Natural Gas Monthly, DOE/EIA-0130; Electric Power Monthly, DOE/EIA-0226; and Quarterly Coal Report, DOE/EIA-0121; International Petroleum Statistics Report DOE/EIA-520; Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL1297.

^bIncludes lease condensate.

^cTotal annual electric utility sales for historical periods are derived from the sum of monthly sales figures based on submissions by electric utilities of Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions." These historical values differ from annual sales totals based on Form EIA-861, reported in several EIA publications, but match alternate annual totals reported in EIA's *Electric Power Monthly*, DOE/EIA-0226.

defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867. "Annual Nonutility Power Producer Report." Data for 1997 are estimates.

^e"Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1995, DOE/EIA-0384(95), Table 1.1 for the period 1960 to 1989. Adjusted "Total Energy Demand" refers to the aggregate energy demand concept reported in the same table for 1990 and beyond. The former concept is extended here in order to provide a more consistent long-term energy demand series. The latter concept is more comprehensive and is intended as the primary energy demand aggregate for assessing energy intensity trends since 1990. The adjusted measure incorporates information on renewable energy consumption among households, commercial establishments, and electricity generating facilities other than electric utilities (including industrial cogenerators). The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER)*. Consequently, the historical data may not precisely match those published in the *MER* or the *AER*. Notes: SPR: Strategic Petroleum Reserve. Minor discrepancies with other published EIA historical data are 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.

Table A2. Annual U.S. Macroeconomic and Weather Indicators

								Year							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Macroeconomic															
Real Gross Domestic Product															
	E224	E 400	EC40	EOCE	coco	6426	6070	6044	6200	CC44	6740	cone	7407	7245	7465
(billion chained 1992 dollars)	5324	5488	5649	5865	6062	6136	6079	6244	6390	6611	6742	6928	7187	7345	7465
GDP Implicit Price Deflator	0.700	0.000	0.004	0.004	0.007	0.000	0.070	4 000	4 000	4.054	4.070	4 400	4 405	4 4 4 4	4 404
(Index, 1992=1.000)	0.786	0.806	0.831	0.861	0.897	0.936	0.973	1.000	1.026	1.051	1.078	1.102	1.125	1.144	1.164
Real Disposable Personal Income		4404	4400	4000		4 400	4500	400=	4=0.4	4005				5000	5540
(billion chained 1992 Dollars)	3972	4101	4168	4332	4417	4498	4500	4627	4704	4805	4964	5077	5220	5398	5519
Manufacturing Production															
(Index, 1987=1.000)	0.857	0.881	0.928	0.971	0.990	0.985	0.962	1.000	1.037	1.094	1.132	1.164	1.224	1.262	1.272
Real Fixed Investment															
(billion chained 1992 dollars)	799	805	799	818	832	806	741	783	843	916	962	1042	1125	1201	1234
Real Exchange Rate															
(Index, 1990=1.000)	NA	NA	NA	NA	NA	1.000	1.006	1.012	1.056	1.033	0.960	1.015	1.097	1.086	1.050
Business Inventory Change															
(billion chained 1992 dollars)	-4.5	-4.2	5.1	9.5	19.2	6.6	-6.1	-9.2	6.1	11.1	7.8	9.9	20.2	4.7	-3.4
Producer Price Index															
(index, 1980-1984=1.000)	1.032	1.002	1.028	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.248	1.277	1.275	1.276	1.286
Consumer Price Index															
(index, 1980-1984=1.000)	1.076	1.097	1.137	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.634	1.668
Petroleum Product Price Index															
(index, 1980-1984=1.000)	0.832	0.532	0.568	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.681	0.583	0.577
Non-Farm Employment															
(millions)	97.4	99.3	102.0	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.5	122.2	124.6	126.0
Commercial Employment															
(millions)	60.8	62.9	65.2	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.0	83.5	85.5	86.9
Total Industrial Production															
(index, 1987=1.000)	0.880	0.890	0.931	0.973	0.990	0.989	0.969	1.000	1.034	1.086	1.121	1.152	1.206	1.239	1.249
Housing Stock															
(millions)	96.3	98.0	99.8	101.6	102.9	103.5	104.5	105.5	106.8	108.2	109.8	111.2	112.7	114.2	115.6
Weather ^a															
Heating Degree-Days															
U.S	4642	4295	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4605	4441	4576
New England	6571	4293 6517	6546	6715	6887	5848	5960	6844	6728	6672	6559	6679	6765	6459	6621
Middle Atlantic	5660	5665	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5900	5627	5839
	4856	4442	4391	4779	4856	4998 4139	4337	4458	4754	5934 4659	4707	5040	4886	<i>5627</i> 4597	5639 4732
U.S. Gas-Weighted	4856 1194		4391 1269	4779 1283						4659 1220					
Cooling Degree-Days (U.S.)	1194	1249	1209	1283	1156	1260	1331	1040	1218	1220	1293	1180	1123	1190	1193

^aPopulation-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.

Notes: 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 CONTROL1297.

Table A3. Annual International Petroleum Supply and Demand Balance (Millions Barrels per Day, Except OECD Commercial Stocks)

_							Υ	ear							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Demand ^a	•	•	•	•	•				•	•	•		•		
OECD															
U.S. (50 States)	15.8	16.3	16.7	17.3	17.4	17.0	16.8	17.1	17.2	17.7	17.7	18.3	18.6	19.0	19.3
Europe ^b	11.7	12.1	12.3	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.6	14.8
Japan	4.4	4.4	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.8	5.8	5.9
Other OECD	2.5	2.5	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.2	3.3
Total OECD	34.3	35.3	36.0	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.9	42.5	43.2
Non-OECD															
Former Soviet Union	9.0	9.0	9.0	8.9	8.7	8.4	8.3	6.8	5.6	4.8	4.6	4.4	4.5	4.7	4.9
Europe	2.2	2.2	2.2	2.2	2.1	1.9	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.5	1.6
China	1.9	2.0	2.1	2.3	2.4	2.3	2.5	2.7	3.0	3.1	3.3	3.5	3.9	4.2	4.4
Other Asia	3.6	3.8	4.1	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.3	8.8	9.1	9.5
Other Non-OECD	9.1	9.5	9.7	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.2	12.5	12.9	13.3	13.7
Total Non-OECD	25.8	26.5	27.1	27.7	28.3	28.5	28.5	28.0	28.1	28.4	29.4	30.1	31.5	32.8	34.1
Total World Demand	60.1	61.8	63.1	64.9	66.0	66.0	66.6	66.8	67.0	68.3	69.9	71.5	73.4	<i>75.3</i>	77.3
Supply ^c															
OECD															
U.S. (50 States)	11.2	11.0	10.7	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.4	9.4	9.4
Canada	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.7
North Sea d	3.6	3.8	3.8	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.5	7.0
Other OECD	1.4	1.4	1.4	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.7	1.7
Total OECD	18.1	17.9	17.9	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	20.2	20.9
Non-OECD															
OPEC	17.2	19.3	19.6	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.5	31.0
Former Soviet Union	11.9	12.3	12.5	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.2	7.3	7.4
China	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.3	3.3
Mexico	3.0	2.8	2.9	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.6	3.6
Other Non-OECD	6.6	11.0	6.9	7.3	7.7	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.4	10.9	11.5
Total Non-OECD	41.2	43.9	44.6	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	<i>55.5</i>	56.8
Total World Supply	59.3	61.8	62.5	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.0	75.7	77.6
Total Stock Withdrawals	0.8	0.0	0.6	0.1	0.0	-0.8	-0.1	-0.2	-0.3	0.1	0.1	-0.2	-0.6	-0.4	-0.3
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.7	2.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.8
Net Exports from Former Soviet Union	3.0	3.4	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.5	2.7	2.7	2.6	2.5

^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.

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, Kazakhstan, 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, and Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

^BOECD Europe includes the former East Germany.

^cIncludes 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.

^dIncludes 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 OECD data do not yet include Mexico.

Table A4. Annual Average U.S. Energy Prices (Nominal Dollars)

							Y	ear							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Imported Crude Oil ^a															
(dollars per barrel)	28.88	26.99	14.00	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.61	15.15	15.42
Natural Gas Wellhead															
(dollars per thousand cubic feet)	2.51	1.94	1.66	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.16	2.43	2.11	2.06
Petroleum Products															
Gasoline Retail ^b															
(dollars per gallon) No. 2 Diesel Oil, Retail	1.20	0.93	0.96	0.96	1.06	1.22	1.20	1.19	1.17	1.17	1.21	1.29	1.29	1.19	1.19
(dollars per gallon) No. 2 Heating Oil, Wholesale	1.16	0.88	0.93	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.10	1.23	1.19	1.10	1.10
(dollars per gallon) No. 2 Heating Oil, Retail	0.78	0.49	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.49	0.51
(dollars per gallon) No. 6 Residual Fuel Oil, Retail °	1.05	0.84	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.89	0.87	0.99	0.99	0.88	0.90
(dollars per barrel)	25.57	14.46	17.76	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	18.97	17.79	14.71	14.98
Electric Utility Fuels															
Coal															
(dollars per million Btu) Heavy Fuel Oil ^d	1.65	1.58	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.23
(dollars per million Btu)	4.26	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.80	2.38	2.42
(dollars per million Btu)	3.43	2.35	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.78	2.42	2.38
Other Residential															
Natural Gas															
(dollars per thousand cubic feet) Electricity	6.12	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.93	6.64	6.66
(cents per kilowatthour)	7.8	7.4	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.4	8.4	8.5	8.4	8.3

^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: 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 A5. Annual U.S. Petroleum Supply and Demand (Million Barrels per Day, Except Closing Stocks)

							Υ	ear							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Supply		•	•		•		•	•				•	•	•	
Crude Oil Supply															
Domestic Production a	8.97	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.41	6.38	6.36
Alaska	1.83	1.87	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.19	1.19
Lower 48	7.15	6.81	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.11	5.19	5.16
Net Imports (including SPR) b	3.00	4.02	4.52	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	7.89	7.95	8.23
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
Stock Draw (Including SPR)	-0.05	-0.08	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.07	0.00	0.00
Product Supplied and Losses	-0.06	-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01
Unaccounted-for Crude Oil	0.15	0.14	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.39	0.29	0.28
Total Crude Oil Supply	12.00	12.72	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.63	14.62	14.86
Other Supply															
NGL Production	1.61	1.55	1.59	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.84	1.87	1.87
Other Hydrocarbon and Alcohol Inputs	0.11	0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.32	0.33
Crude Oil Product Supplied	0.06	0.05	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Processing Gain	0.56	0.62	0.64	0.66	0.66	0.70	0.71	0.77	0.76	0.77	0.77	0.84	0.84	0.82	0.84
Net Product Imports °	1.29	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.01	1.31	1.37
Product Stock Withdrawn or Added (-)	0.15	-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.10	0.04	0.01
Total Supply	15.78	16.33	16.72	17.33	17.37	17.05	16.76	17.10	17.25	17.72	17.72	18.31	18.56	18.98	19.29
Demand															
Motor Gasoline d	6.78	6.94	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.01	8.27	8.43
Jet Fuel	1.22	1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.65	1.68
Distillate Fuel Oil	2.87	2.91	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.43	3.54	3.57
Residual Fuel Oil	1.20	1.42	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.88	0.91
Other Oils ^e	3.71	3.75	3.90	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.72	4.64	4.70
Total Demand	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.57	18.98	19.29
Total Petroleum Net Imports	4.29	5.44	5.91	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	8.90	9.26	9.60
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	321	331	349	330	341	323	325	318	335	337	303	284	308	307	307
Total Motor Gasoline	223	233	226	228	213	220	219	216	226	215	202	195	209	200	200
Jet Fuel	40	50	50	44	41	52	49	43	40	47	40	40	44	44	44
Distillate Fuel Oil	144	155	134	124	106	132	144	141	141	145	130	127	135	132	131
Residual Fuel Oil	50	47	47	45	44	49	50	43	44	42	37	46	40	42	42
Other Oils ^f	247	265	260	267	257	261	267	263	273	275	258	250	265	261	257

^aIncludes lease condensate.

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

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

For years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, Short-Term Energy Outlook, EIA/DOE-0202(93/3Q), for details on this adjustment.

ncludes 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.

Includes 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 A6. Annual U.S. Natural Gas Supply and Demand (Trillion Cubic Feet)

								Year							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Supply															
Total Dry Gas Production	16.45	16.06	16.62	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.79	19.03	19.17	19.45
Net Imports	0.89	0.69	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	3.08	3.31
Supplemental Gaseous Fuels	0.13	0.11	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.12	0.13	0.13
Total New Supply	17.47	16.86	17.66	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.69	21.99	22.38	22.90
Total Underground Storage															
Opening	6.71	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.58	6.54
Closing	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.97	6.50	6.51	6.58	6.54	6.55
Net Withdrawals	0.26	-0.12	0.02	-0.10	0.33	-0.61	0.16	0.14	-0.01	-0.32	0.46	-0.01	-0.07	0.04	0.00
Total Supply	17.73	16.74	17.68	18.32	19.02	18.77	19.61	20.02	20.42	21.08	21.86	21.68	21.92	22.42	22.90
Balancing Item ^a	-0.45	-0.52	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.14	-0.37	-0.28	0.29	0.02	0.12	0.26
Total Primary Supply	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.94	22.54	23.16
Demand															
Lease and Plant Fuel	0.97	0.92	1.15	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.25	1.24	1.24
Pipeline Use	0.50	0.49	0.52	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.71	0.70	0.70
Residential	4.43	4.31	4.31	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	5.01	4.98	5.15
Commercial	2.43	2.32	2.43	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.27	3.39
Industrial (Incl. Nonutilities)	5.90	5.58	5.95	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	9.09	9.21
Cogenerators b	0.00	0.00	0.00	0.00	1.12	1.30	1.41	1.67	1.80	1.98	2.18	2.09	2.28	2.39	2.46
Other Nonutil. Gen. b	0.00	0.00	0.00	0.00	0.06	0.09	0.16	0.18	0.22	0.17	0.17	0.18	0.20	0.20	0.21
Electric Utilities	3.04	2.60	2.84	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.94	3.27	3.45
Total Demand	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.94	22.54	23.16

^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.

^bAnnual projections for nonutility gas consumption, as well as the detail on independent power producers' share of gas consumption, are provided by the office of Coal, Nuclear, Electric and Alternative Fuels, Energy Information Administration.

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 A7. Annual U.S. Coal Supply and Demand (Million Short Tons)

								Year							
1	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Supply															
Production	883.6	890.3	918.8	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1091.3	1116.9	1135.5
Appalachia	NA	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.2	467.5	466.7
Interior	NA	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	172.1	169.0	164.5
Western	NA	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	452.0	480.3	504.3
Primary Stock Levels ^a															
Opening	34.1	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	31.0
Closing	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	31.0	30.0
Net Withdrawals	1.0	1.0	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.4	3.0	1.0
Imports	2.0	2.2	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.1	7.2	7.3
Exports	92.7	85.5	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	85.1	85.3
Total Net Domestic Supply	793.9	808.0	844.7	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1009.5	1042.0	1058.5
Secondary Stock Levels b															
Opening	197.2	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.6	108.5
Closing	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.6	108.5	107.6
Net Withdrawals	27.0	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.6	16.5	-1.9	0.9
Total Supply	820.8	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	946.1	951.9	997.9	1026.0	1040.1	1059.4
Demand															
Coke Plants	41.1	35.9	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	31.0	31.6	31.8
Electricity Production															
Electric Utilities	693.8	685.1	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	898.4	914.5	932.3
Nonutilities (Excl. Cogen.)	NA	NA	NA	NA	0.9	1.6	6.0	14.8	17.8	20.9	21.2	24.0	26.0	28.0	30.0
Retail and General Industry °	83.2	83.3	82.1	83.4	82.3	83.1	81.5	80.2	81.1	81.2	78.6	76.4	77.2	77.2	77.2
Total Demand d	818.0	804.2	836.9	883.6	890.6	897.1	893.6	907.3	943.7	951.1	961.8	1006.8	1032.6	1051.3	1071.4
Discrepancy ^e	2.8	-1.2	-2.5	-1.3	5.9	2.4	-2.3	-5.4	-13.5	-4.9	-9.9	-8.9	-6.7	-11.2	-12.0

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

^bSecondary stocks are held by users.

^cSynfuels 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.

^dTotal excludes any shipments to independent power producers (IPPs) not calculated in Retail and General Industry for years prior to 1993.

^eHistorical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference. It also includes any shipment to IPPs not captured in Retail and General Industry and consumption by IPPs not included in production (waste coal).

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

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 A8. Annual U.S. Electricity Supply and Demand (Billion Kilowatthours)

							Υ	ear							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Supply															
Net Utility Generation															
Coal	1402.1	1385.8	1463.8	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1789.0	1832.1	1866.3
Petroleum	100.2	136.6	118.5	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	80.8	90.0	92.6
Natural Gas	291.9	248.5	272.6	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	281.3	314.1	331.5
Nuclear	383.7	414.0	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	629.2	656.6	667.7
Hydroelectric	281.1	290.8	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	338.7	288.7	278.2
Geothermal and Other a	10.7	11.5	12.3	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.4	6.8	6.3
Subtotal	2469.8	2487.3	2572.1	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3126.4	3188.3	3242.7
Nonutility Generation ^b	#N/A	#N/A	#N/A	#N/A	#N/A	221.8	253.7	296.0	325.5	354.9	374.4	382.5	409.4	426.4	437.4
Total Generation	#N/A	#N/A	#N/A	#N/A	#N/A	3030.0	3078.7	3093.2	3208.1	3265.6	3369.0	3460.0	3535.8	3614.7	3680.1
Net Imports	40.9	35.9	46.3	31.8	11.0	2.0	22.3	28.3	28.4	44.6	37.6	38.0	36.1	34.7	36.0
Total Supply	NA	NA	NA	NA	2986.6	3032.0	3101.0	3121.6	3236.5	3310.3	3406.6	3498.0	3571.8	3649.3	3716.1
Losses and Unaccounted for °	NA	NA	NA	NA	231.4	206.1	217.1	226.6	236.9	225.5	235.4	236.2	277.7	265.0	269.5
Demand															
Electric Utility Sales															
Residential	793.9	819.1	850.4	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1072.6	1112.0	1146.0
Commercial	606.0	630.5	660.4	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	914.4	937.9	953.6
Industrial	836.8	830.5	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1030.4	1039.1	1054.4	1059.8
Other	87.3	88.6	88.2	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	99.4	1054.4	1039.8
Subtotal	2324.0	2368.8	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3097.8	3125.6	3211.2	3268.9
Nonutility Own Use ^b	#N/A	#N/A	#N/A	#N/A	#N/A	113.4	121.9	131.6	138.1	150.2	157.9	164.0	168.6	173.1	177.7
Total Demand	#N/A	#N/A	#N/A	#N/A	#N/A	2825.9	2883.9	2895.0	2999.6	3084.8	3171.2	3261.8	3294.2	3384.3	3446.6
	mura	ming.	ming PA	TIME	myr	_0_0.0	2000.0	2000.0	2000.0	300-10	317 1. L	0201.0	3207.Z	3004.0	0.770.0
Memo:															
Nonutility Sales															
to Electric Utilities ^d	26.0	39.9	50.0	68.0	83.0	108.5	131.9	164.4	187.4	204.7	216.5	218.5	240.8	253.2	259.7

^aOther includes generation from wind, wood, waste, and solar sources.

^bFor 1989 to 1991, estimates for nonutility generation are estimates made by the Energy Markets and Contingency Information Division, based on Form EIA-867 data. Historical data and Projections for the same items are from the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration, based on Form EIA-867 (Annual Nonutility Power Producer Report).

^cBalancing item, mainly transmission and distribution losses.

^dHistorical data for nonutility sales to electric utilities are from the Energy Information Administration, *Annual Energy Review*, DOE/EIA-0389, Table 8.1, for 1982 to 1988; from Form EIA-867 (Annual Nonutility Power Producer Report) for 1989 to 1996.

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.