Short-Term Energy Outlook

May 1998 (Released May 8, 1998)

Energy Information Administration

May 1998

Highlights

Oil Prices/Supply

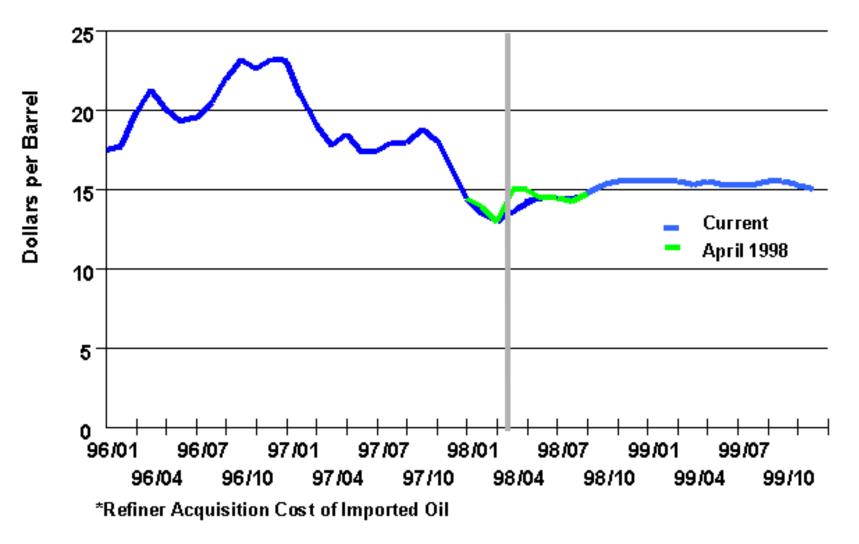
World oil prices have not received sufficient support from announced oil cutback plans or other developments to move above our projected base levels from last month. In fact, our near-term estimates proved to be too bullish (Figure 1). More complete data for the first quarter and parts of the second quarter indicate a greater oil surplus at winter's end than previously estimated hence the lower-than-expected crude prices. Combined U.S. crude oil and product stocks are comparatively high now and we expect them to reach about 1.61 billion barrels at the end of the second quarter, which is about 25 million barrels above the previous forecast and would be nearly 40 million barrels above the level in 1997 (Figure 2). We do expect to see slightly higher overall world oil demand than previously projected and have not materially changed the price forecast beyond the second quarter of this year. That leaves our average refiner acquisition cost of imported crude oil at about \$14.40 per barrel for the summer, which translates into \$16 to \$16.50 per barrel for West Texas Intermediate.

U.S. Energy Prices

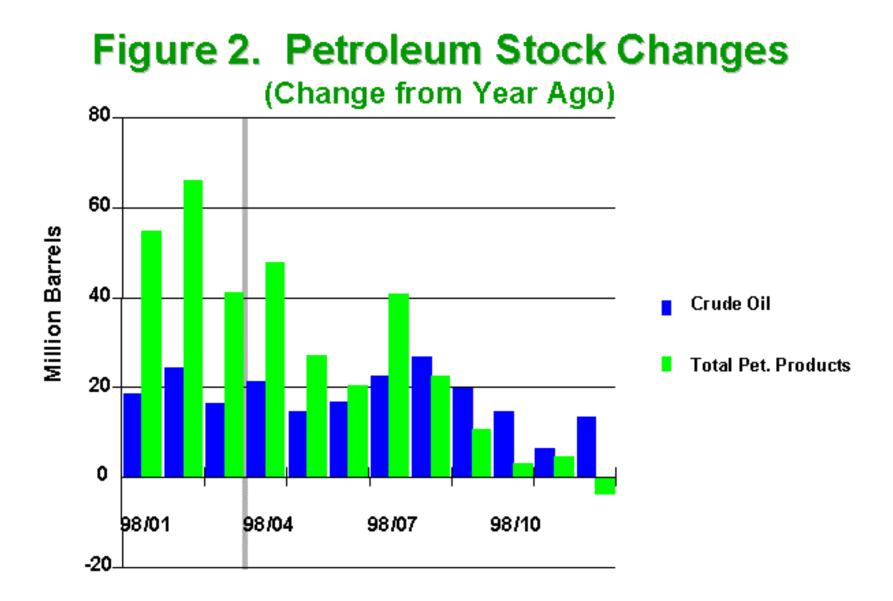
Retail motor gasoline prices appear to have bottomed out in March with their lowest inflation-adjusted price ever. In fact the average annual price for 1998 is projected to be the lowest inflation-adjusted annual price on record. (See "Gasoline Price Analysis Sheet.") Starting with this report, the Outlook will be presenting two new motor gasoline price series in place of the one average retail price used in the past. (See "New Motor Gasoline Price Series.") For most of the United States, spot prices for motor gasoline at the beginning of May were a few cents ahead of early April levels - not unexpected as the driving season begins (Figure 3). These moderate increases should be seen at the pump during the month of May. In California, spot prices for reformulated gasoline rose by as much as 26 cents per gallon between April 1 and April 28, due in part to refinery outages. Spot prices have retreated from late-April highs, but remain noticeably higher in California (in relative terms) than in other regions. Because California mandates a unique, cleaner (and more expensive) reformulated gasoline, supplies of this fuel, from other regions in the country, are not easily or readily available. Pump prices in California have already reflected these relatively large spot price movements and may continue at abovenormal levels in May. We currently expect average retail gasoline prices to be about 7 to 12 cents per gallon lower during the coming summer months than was the case in 1997 (Figure 4).

Natural gas prices at the wellhead are projected to decline by 3.6 percent in 1998 (Figure 5). This compares to a projected drop of 7.4 percent in our last report. Much

Figure 1. Crude Oil Price* Forecasts

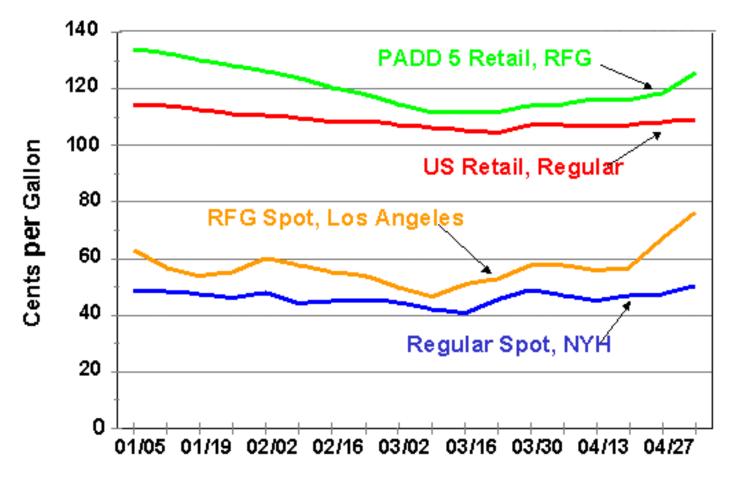


Source: Energy Information Administration, Short-Term Energy Model, May 1998

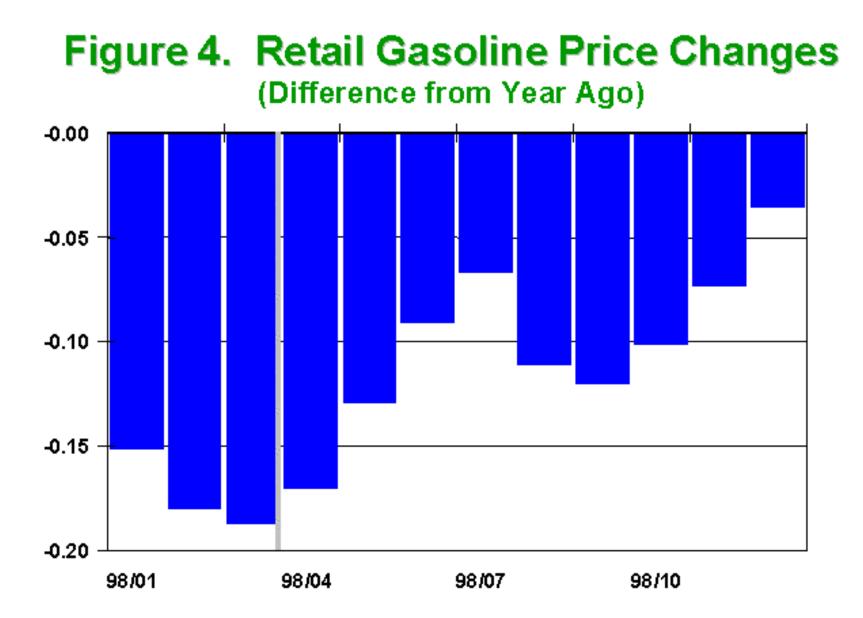


Source: Energy Information Administration, Short-Term Energy Model, May 1998

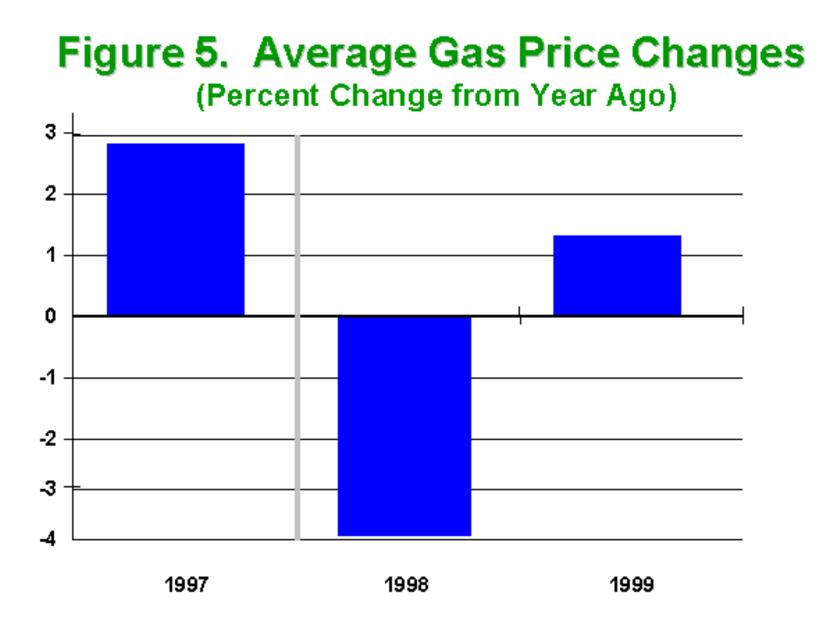
Figure 3. Weekly Gasoline Prices (Change from Year Ago)



Source: Energy Information Administration, Weekly Petroleum Status Report



Source: Energy Information Administration, Short-Term Energy Model, May 1998



Source: Energy Information Administration, Short-Term Energy Model, May 1998

of that difference is the result of revised (downward) historical data for 1997 (Figure 6). Otherwise, for 1998 the story remains essentially the same as in the previous Outlook: concern over the potential effects on gas demand of a very hot summer, particularly if coal delivery problems for Southwest electric utilities persist, should keep gas prices above \$2.00 per thousand cubic feet throughout the year. One thing that appears to have tempered bullish sentiment regarding gas prices recently is the realization that gas in storage for the end of April exceeded our previous projections and is comfortably ahead of last year (Figure 7). These relatively high storage levels should obviate the necessity for strong storage injections in the early summer, perhaps leaving more of current supply for use in power generation without heavy additional pressure on spot prices. Despite a retreat from previously expected summer prices, it is noteworthy that the lowest quarterly price for this year may have already been seen in the normally high-priced first quarter. Unusually warm weather caused very weak demand and a bypassing of the usual winter peak in spot and average wellhead prices. For 1999, we can expect a slight upward bump in wellhead prices as the first quarter weather is assumed to be normal and thus much colder.

U.S. Petroleum Demand

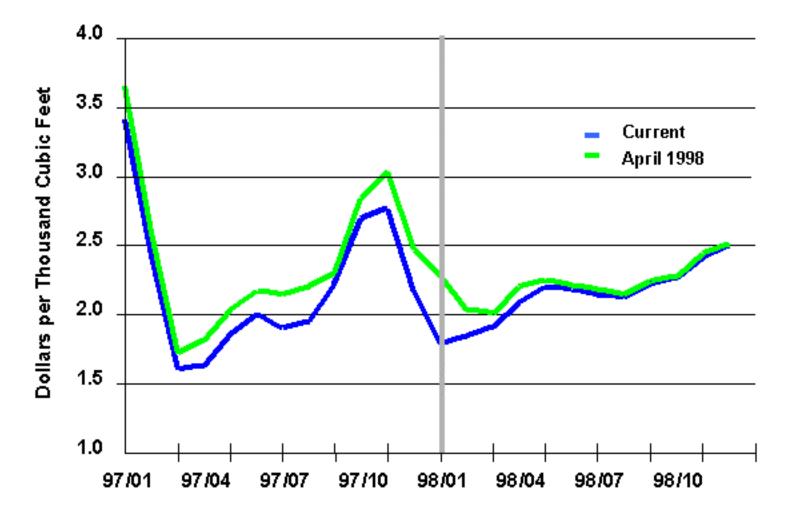
This month's Outlook shows relatively little change in overall projected demand for petroleum products from that of the April report. However, the revised estimate for first-quarter 1998 demand is now 18.33 million barrels per day, down about 50,000 barrels per day from the April estimate. Jet fuel demand accounts for almost half of that downward revision. Recently released data show that we overestimated early 1998 airline traffic in our previous forecasts (Figure 8). We now project a more moderate 3.7-percent year-to-year increase in first-quarter air traffic compared to a projected 6.2-percent rise in the previous Outlook. The other major products exhibit little change in first-quarter decline. Most of the rest of the decline is in the other oils category, probably reflecting additional mild-weather effects.

For the year as a whole, 1998 demand, (18.92 million barrels per day) is up 10,000 barrels per day from the April projections, as 50,000-60,000 barrels per day of additional demand. In the following year, demand is expected to average 19.37 million barrels per day compared to 19.35 million barrels per day in the April Outlook. Slightly lower energy prices raise demand for gasoline by 20,000 barrels per day and other oils by 30,000 barrels per day compared to the last report. But lower projected air traffic results in a 10,000 barrels-per-day lower projection for jet fuel demand.

Natural Gas

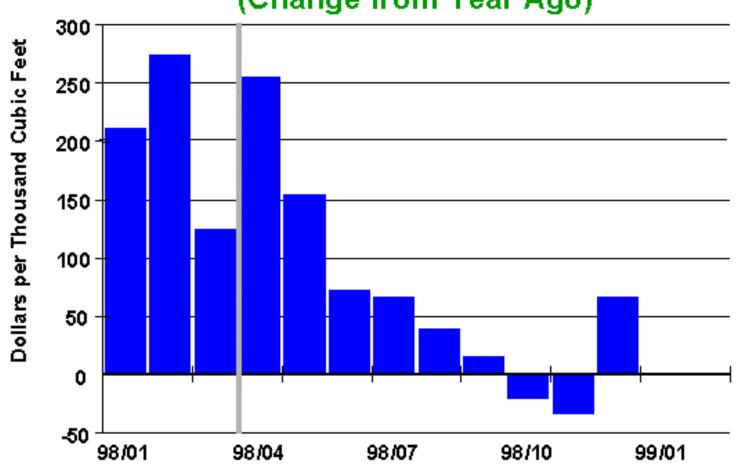
The natural gas demand forecast for 1998 and 1999 is somewhat lower than previously forecast in the April 1998 Outlook, due to the generally mild weather

Figure 6. Natural Gas Wellhead Prices



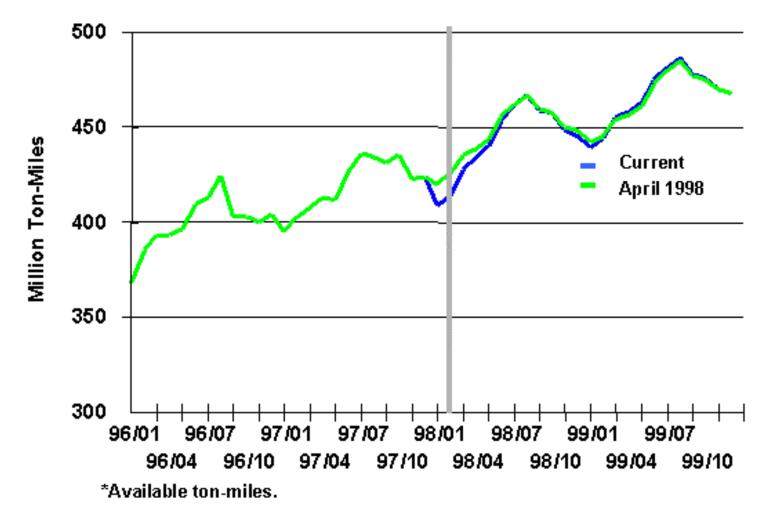
Source: Energy Information Administration, Short-Term Energy Model, May 1998

Figure 7. Gas in Underground Storage (Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, May 1998

Figure 8. Commercial Airline Traffic*



Source: Energy Information Administration, Short-Term Energy Model, May 1998

through April and new data in January showing an overestimate there in last month's report (Figure 9). Despite expected increases in electric utility and industrial gas use this year, the strong dampening effects on demand of the mild winter is expected to leave net gas demand growth for 1998 at about zero (Figure 10). Even this would compare positively to the net downturn in gas demand seen in 1997. The apparent lack of strong gas production growth in recent months has thus not resulted in any extremely high gas prices, and storage has been bolstered by the lack of demand growth (Figure 7).

The projections for net natural gas imports have been lowered since the last report and may be expected to remain about flat for the year 1998, because of the weak winter demand and pipeline restraints (<u>Figure 11</u>). Little in the way of import capacity was added last year, with a 62-million-cubic-feet-per-day addition to the Voyageur Project into Minnesota, booked last November, as the only notable item. This year, total import capacity is expected to expand by about 1.1 billion cubic feet per day in time for the next winter heating season. Thus, assuming normal weather, expected sharp increases in gas demand for heating in early 1999 should boost import flows from Canada substantially next year.

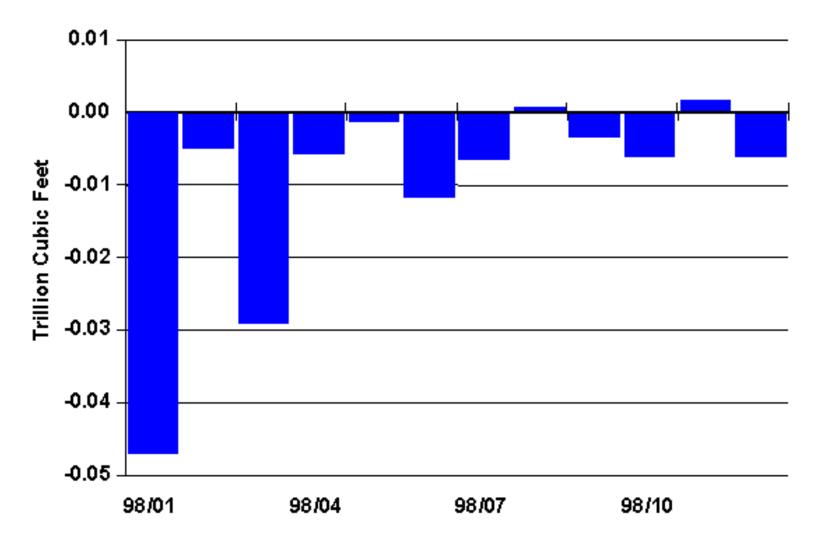
Coal delivery problems in Texas and the southwest and lower levels of hydro generation this year could play a role in slowing summer gas storage injections and raising gas prices, particularly in the event of warmer than normal weather this summer. However, this now seems less likely to be an issue given the improved storage situation.

Electricity

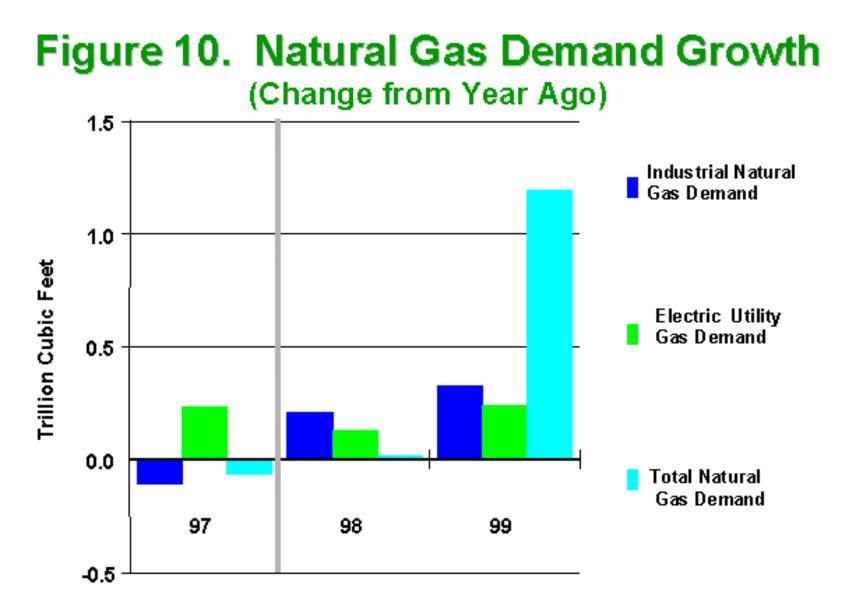
Total electricity demand in 1998 was revised downward somewhat from our April forecast due mainly to revisions for 1997 and new data for January (which proved to be below previous estimates), and indications that demand was below previous projections during the early part of the current quarter (Figure 12). However, demand growth is still expected to be robust this year, particularly in comparison to the weak growth seen in 1997 and most particularly in the spring and summer periods (Figure 13).

Projections of hydroelectric and nuclear generation have not changed materially from the April 1998 Outlook, although the rate of decline from last year's high levels did apparently slow in February. On average, hydroelectric generation in 1998 is assumed to fall 10.3% below the abnormally high levels of 1997. This would still leave room for additional declines averaging nearly 8 percent in 1999, assuming that hydroelectric output falls to normal by then (<u>Figure 14</u>). Nuclear generation of electricity is expected to be higher in 1998 and 1999 than it was in 1997 as plants which were shut down or working at lower capacity come back up (<u>Figure 15</u>). We still do not expect nuclear output to reach 1996 levels in the next 2 years.

Figure 9. Total Natural Gas Demand Forecast (Difference from Previous Outlook)



Source: Energy Information Administration, Short-Term Energy Model, May 1998



Source: Energy Information Administration, Short-Term Energy Model, May 1998

Figure 11. Natural Gas Net Imports

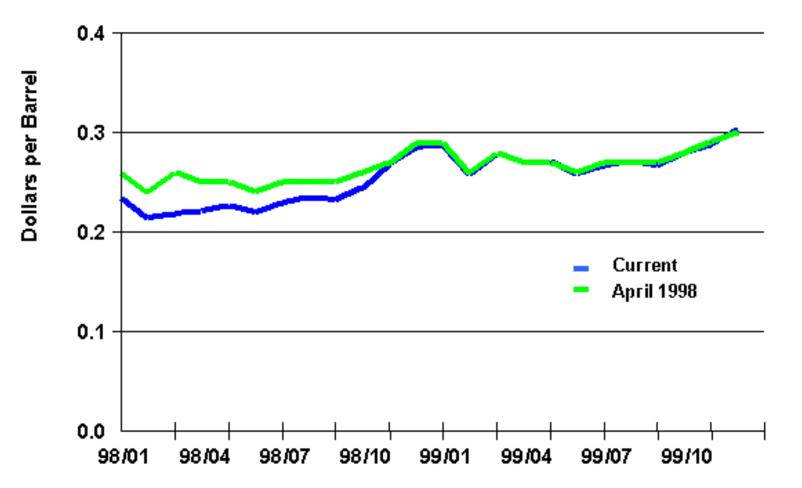
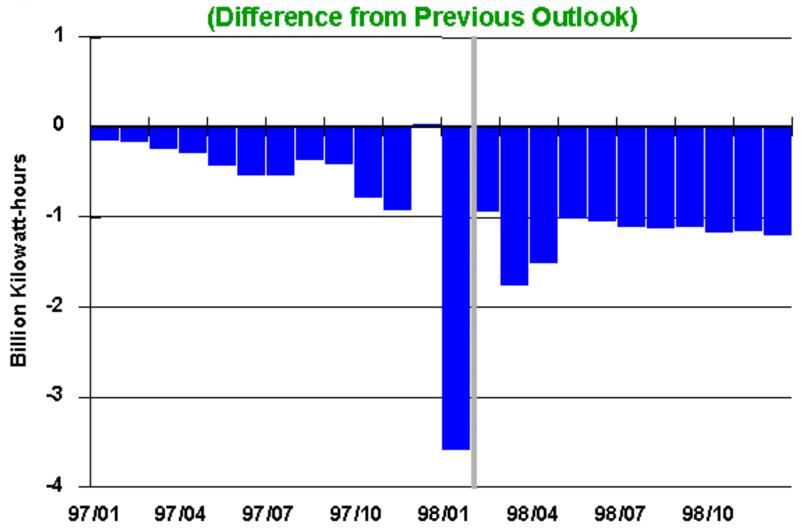
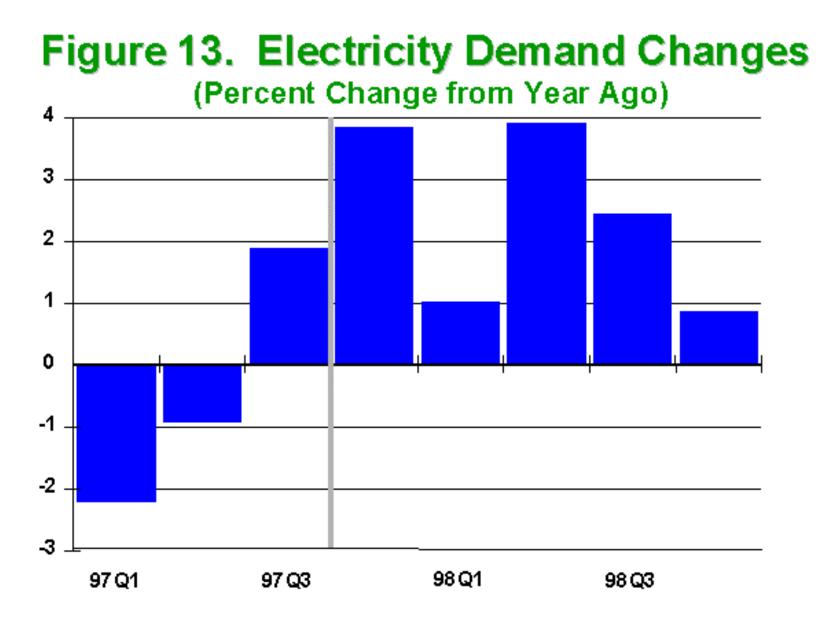




Figure 12. Electricity Data and Forecast Revisions



Source: Energy Information Administration, Short-Term Energy Model, May 1998

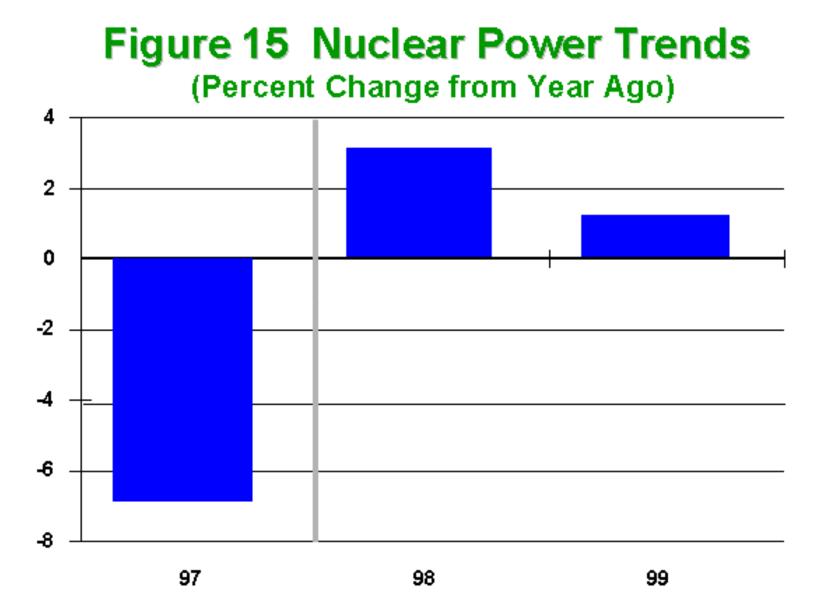


Source: Energy Information Administration, Short-Term Energy Model, May 1998

Figure 14 Hydroelectric Power Trends (Percent Change from Year Ago)



Source: Energy Information Administration, Short-Term Energy Model, May 1998



Source: Energy Information Administration, Short-Term Energy Model, May 1998

Table HL1. U. S. Energy Supply and Demand

		Year			An	nual Percentage	e Change
	1996	1997	1998	1999	1996-1997	1997-1998	1998-1999
Real Gross Domestic Product (GDP)					•		
(billion chained 1992 dollars)	6928	7191	7395	7540	3.8	2.8	2.0
Imported Crude Oil Price ^a							
(nominal dollars per barrel)	20.61	18.58	14.47	15.35	-9.8	-22.1	6.1
Petroleum Supply							
Crude Oil Production ^b	6.46	6.41	6.42	6.40	-0.8	0.2	-0.3
Total Petroleum Net Imports (including SPR)							
(million barrels per day)	8.50	8.90	9.14	9.57	4.7	2.7	4.7
Energy Demand							
World Petroleum							
(million barrels per day)	71.5	73.3	75.2	77.4	2.5	2.6	2.9
Petroleum							
(million barrels per day)	18.31	18.58	18.92	19.37	1.5	1.8	2.4
Natural Gas							
(trillion cubic feet)	21.96	21.90	21.92	23.11	-0.3	0.1	5.4
Coal			10.11	1070		10	0.0
(million short tons)	1006	1031	1041	1072	2.5	1.0	3.0
Electricity (billion kilowatthours)			0.170	0050		2.0	0.5
Utility Sales ^c Nonutility Own Use ^d	3098	3115	3178 173	3258	0.5 3.0	2.0	2.5 2.9
Total	164 3262	169 3284	3351	178 3436	0.7	2.4 2.0	2.5
Adjusted Total Energy Demand ^e							
(quadrillion Btu)	93.9	94.4	95.2	97.9	0.6	0.8	2.8
Adjusted Total Energy Demand per Dollar of GDP							
(thousand Btu per 1992 Dollar)	13.55	13.13	12.87	12.98	-3.1	-2.0	0.9
Renewable Energy as Percent of Total	7.7	7.8	7.5	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-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-0520; *Weekly Petroleum Status Report* DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0398.

Table 1. U.S. Macroeconomic and Weather Assumptions

		1997				1998	-			1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Macroeconomic ^a															
Real Gross Domestic Product	7400	7160	7040	7000	7004	7000	7444	7440	7400	7540	7666	7040	7404	7005	7540
(billion chained 1992 dollars - SAAR)	7102	/160	7218	7283	7334	7382	7414	7449	7480	7513	7555	7613	7191	7395	7540
Percentage Change from Prior Year	4.0	3.4	3.9	3.8	3.3	3.1	2.7	2.3	2.0	1.8	1.9	2.2	3.8	2.8	2.0
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Annualized Percent Change															
from Prior Quarter	4.8	3.3	3.2	3.6	2.8	2.6	1.7	1.9	1.7	1.8	2.2	3.0			
GDP Implicit Price Deflator															
(Index, 1992=1.000)	1.118	1.123	1.127	1.131	1.135	1.141	1.147	1.152	1.158	1.163	1.168	1.174	1.125	1.144	1.166
Percentage Change from Prior Year	2.3	2.2	1.9	1.8	1.6	1.6	1.8	1.9	2.0	1.9	1.9	1.9	2.0	1.7	1.9
r brochlage change nom r her rear	2.0			1.0	1.0	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0		1.0
Real Disposable Personal Income															
(billion chained 1992 Dollars - SAAR)	5161	5201	5235	5292	5373	5430	5462	5493	5524	5554	5573	5596	5222	5439	5562
Percentage Change from Prior Year	2.2	2.8	2.8	3.7	4.1	4.4	4.3	3.8	2.8	2.3	2.0	1.9	2.9	4.2	2.3
Manufacturing Descharting															
Manufacturing Production (Index, 1992=1.000)	1.243	1.257	1.276	1.301	1.315	1.326	1.329	1.333	1.336	1.344	1.354	1.367	1.269	1.326	1.350
(Index, 1992=1.000)	1.243	1.237	1.270	1.301	1.315	1.520	1.529	1.555	1.330	1.544	1.504	1.307	1.209	1.320	1.350
Percentage Change from Prior Year	5.8	5.0	5.3	6.3	5.8	5.5	4.2	2.5	1.6	1.3	1.8	2.6	5.6	4.5	1.8
5 5															
OECD Economic Growth (percent) ^b													3.1	2.7	2.4
Weather ^c															
Heating Degree-Days															
U.S	2156	635	86	1692	1975	524	89	1636	2327	524	89	1636	4569	4224	4576
New England	3108	1047	172	2329	2779	858	171	2269	3267	915	171	2269	6656	6076	6621
Middle Atlantic	2777	866	121	2070	2428	660	105	2026	2993	716	105	2026	5834	5219	5839
U.S. Gas-Weighted	2275	711	127	1773	2078	550	81	1686	2426	539	81	1686	4886	4395	4732
Cooling Degree-Days (U.S.)	50	289	754	68	24	334	758	72	30	334	758	72	1161	1187	1193
a															

^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 CONTROL0398.

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	1149	1180	1200	1218	1227	1235	1247	1256	1269	1122	1206	1252
Real Exchange Rate															
(index)	1.085	1.096	1.106	1.117	1.137	1.132	1.121	1.096	1.065	1.054	1.044	1.037	1.101	1.121	1.050
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	20.9	29.0	16.9	22.3	12.8	7.7	0.8	-0.5	-1.0	-0.4	0.9	4.4	22.2	5.2	1.0
Producer Price Index															
(index, 1982=1.000)	1.285	1.268	1.272	1.274	1.253	1.253	1.255	1.261	1.266	1.269	1.272	1.275	1.275	1.256	1.271
Consumer Price Index															
(index, 1982-1984=1.000)	1.597	1.601	1.609	1.617	1.621	1.626	1.635	1.645	1.656	1.667	1.677	1.688	1.606	1.632	1.672
Petroleum Product Price Index															
(index, 1982=1.000)	0.722	0.675	0.669	0.651	0.553	0.546	0.570	0.583	0.591	0.587	0.591	0.584	0.679	0.563	0.588
Non-Farm Employment															
(millions)	121.1	121.9	122.6	123.5	124.5	125.2	125.8	126.2	126.5	126.8	127.1	127.4	122.3	125.4	127.0
Commercial Employment															
(millions)	82.5	83.2	83.7	84.5	85.4	86.1	86.7	87.2	87.6	87.9	88.2	88.5	83.5	86.3	88.0
Total Industrial Production															
(index, 1992=1.000)	1.220	1.233	1.251	1.273	1.284	1.295	1.298	1.301	1.304	1.311	1.320	1.333	1.244	1.295	1.317
Housing Stock															
(millions)	112.1	112.5	112.9	113.3	113.6	114.0	114.4	114.8	115.1	115.5	115.9	116.2	112.7	114.2	115.7
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1992=1.000)	1.140	1.152	1.155	1.169	1.181	1.188	1.193	1.195	1.197	1.202	1.209	1.219	1.154	1.189	1.207
Vehicle Miles Traveled ^b															
(million miles/day)	6463	7138	7310	6824	6628	7418	7585	7108	6908	7630	7783	7289	6936	7187	7404
Vehicle Fuel Efficiency															
(index, 1996=1.000)	1.037	0.998	0.996	1.003	1.035	1.007	1.006	1.012	1.046	1.016	1.012	1.018	1.008	1.015	1.022
Real Vehicle Fuel Cost															
(cents per mile)	3.94	3.73	3.69	3.71	3.35	3.26	3.31	3.41	3.40	3.38	3.31	3.35	3.77	3.33	3.36
Air Travel Capacity															
(mill. available ton-miles/day)	402.1	417.1	434.1	427.7	417.0	442.4	462.5	450.6	446.5	465.5	482.1	471.4	420.3	443.3	466.5
Aircraft Utilization															
(mill. revenue ton-miles/day)	230.5	248.0	260.9	247.2	237.9	260.1	274.2	257.1	253.0	269.5	284.4	269.5	246.7	257.4	269.2
Airline Ticket Price Index															
(index, 1982-1984=1.000)	1.975	2.016	1.985	1.993	2.051	2.083	2.090	2.123	2.161	2.176	2.181	2.212	1.992	2.087	2.183
Raw Steel Production															
(millions tons)	26.47	26.59	26.52	27.69	28.58	28.61	28.45	29.04	29.51	29.39	29.03	29.75	106.97	114.68	117.69

^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 CONTROL0398.

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

(Million Barrels per Day, Except OECD Commercial Stocks)

		1997				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	18.3	18.7	19.2	19.4	19.2	19.1	19.4	19.7	18.6	18.9	19.4
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	1.8	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.1	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	15.2	14.4	14.6	14.8
Japan	6.4	5.2	5.4	5.9	6.4	5.2	5.4	5.9	6.4	5.2	5.5	5.9	5.7	5.7	5.8
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	0.9	1.0	1.0
Total OECD	41.9	40.7	41.5	42.7	42.3	41.3	42.3	43.4	43.6	42.0	43.0	44.1	41.7	42.3	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	8.7	8.2	9.4	9.3	9.0	8.5	9.7	9.6	9.4	8.9	10.2	8.8	9.1	9.5
Other Non-OECD	12.8	13.1	12.8	13.1	13.2	13.6	13.3	13.5	13.6	14.0	13.7	13.9	13.0	13.4	13.8
Total Non-OECD	31.8	31.4	30.7	32.6	33.1	32.6	31.9	34.0	34.4	34.0	33.2	35.4	31.6	32.9	34.2
Total World Demand	73.6	72.1	72.2	75.3	75.4	73.9	74.2	77.3	78.0	76.0	76.2	79.4	73.3	75.2	77.4
Supply ^b															
OECD															
U.S. (50 States)	9.4	9.4	9.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.6	9.4	9.5	9.5
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 ^c	6.5	6.1	6.0	6.4	6.5	6.3	6.3	6.6	6.8	6.6	6.9	7.2	6.2	6.4	6.9
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	20.2	20.1	20.1	20.5	20.7	20.5	20.9	21.2	19.9	20.2	20.8
Non-OECD															
OPEC	29.5	29.7	30.1	30.3	30.9	30.1	30.4	30.7	31.0	31.1	31.2	31.4	29.9	30.5	31.2
Former Soviet Union		7.1	7.2	7.3	7.3	7.3	7.3	7.4	7.4	7.4	7.4	7.5	7.1	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	3.5	3.5	3.5	3.6	3.6	3.6	3.6	3.4	3.5	3.6
Other Non-OECD	10.4	10.5	10.3	10.5	10.7	10.7	10.8	11.0	11.1	11.3	11.4	11.6	10.4	10.8	11.4
Total Non-OECD	53.5	53.9	54.3	54.9	55.7	54.9	55.3	55.8	56.2	56.7	56.9	57.4	54.2	55.4	56.8
Total World Supply	73.6	73.5	74.0	75.0	75.9	74.9	75.4	76.3	76.9	77.2	77.8	78.6	74.0	75.6	77.6
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.1	-0.7	-0.2	0.3	-0.1	-0.4	0.0	0.6	0.5	-0.6	-0.3	0.5	-0.1	0.0	0.0
Other	0.1	-0.7	-1.6	-0.1	-0.5	-0.6	-1.2	0.5	0.7	-0.7	-1.3	0.3	-0.6	-0.5	-0.3
Total Stock Withdrawals	0.0	-1.4	-1.8	0.3	-0.6	-1.0	-1.2	1.0	1.1	-1.2	-1.6	0.8	-0.7	-0.4	-0.2
OECD Comm. Stocks, End (bill. bbls.)	2.7	2.7	2.8	2.7	2.8	2.8	2.9	2.8	2.8	2.8	2.9	2.8	2.7	2.8	2.8
Non-OPEC Supply	44.1	43.8	43.9	44.7	45.0	44.8	45.0	45.6	46.0	46.1	46.6	47.2	44.1	45.1	46.5
Net Exports from Former Soviet Union	2.3	2.8	2.9	2.5	2.3	2.8	2.8	2.4	2.2	2.7	2.7	2.3	2.6	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,* DQE/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, 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)

		1997				1998			ļ	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	17.77	13.69	14.17	14.58	15.41	15.50	15.33	15.33	15.25	18.58	14.47	15.35
Natural Gas Wellhead (dollars per thousand cubic feet)	2.49	1.84	2.02	2.54	1.85	2.16	2.17	2.40	2.25	2.07	2.04	2.33	2.23	2.15	2.17
Petroleum Products															
Gasoline Retail ^b (dollars per galle All Grades Regular Unleaded No. 2 Diesel Oil, Retail	1.27	1.24 1.20	1.25 1.21	1.21 1.17	1.10 1.05	1.11 1.06	1.16 1.10	1.14 1.08	1.15 1.08	1.19 1.13	1.19 1.12	1.16 1.08	1.24 1.20	1.13 1.07	1.17 1.10
(dollars per gallon) No. 2 Heating Oil, Wholesale	1.25	1.18	1.15	1.17	1.08	1.06	1.07	1.12	1.11	1.10	1.10	1.13	1.19	1.08	1.11
(dollars per gallon)	0.65	0.57	0.54	0.57	0.47	0.46	0.48	0.54	0.54	0.51	0.51	0.54	0.59	0.49	0.53
No. 2 Heating Oil, Retail (dollars per gallon)	1.05	0.97	0.88	0.93	0.91	0.84	0.82	0.90	0.94	0.90	0.85	0.91	0.99	0.89	0.91
No. 6 Residual Fuel Oil, Retail ^c (dollars per barrel)	19.00	16.84	17.04	18.16	13.90	13.37	13.79	15.08	15.70	14.15	13.73	14.94	17.80	14.05	14.67
Electric Utility Fuels															
Coal (dollars per million Btu)	1.29	1.29	1.26	1.26	1.27	1.28	1.26	1.25	1.25	1.27	1.24	1.23	1.27	1.26	1.25
Heavy Fuel Oil ^d (dollars per million Btu)	2.91	2.59	2.71	2.91	2.19	2.18	2.27	2.49	2.48	2.30	2.26	2.47	2.79	2.28	2.37
Natural Gas (dollars per million Btu)	3.11	2.45	2.60	3.15	2.30	2.50	2.47	2.76	2.70	2.41	2.34	2.68	2.76	2.51	2.49
Other Residential															
Natural Gas (dollars per thousand cubic feet).	6.67	6.90	8.57	6.80	6.31	6.80	8.19	6.41	6.52	7.05	8.16	6.57	6.89	6.57	6.74
Electricity (cents per kilowatthour)	8.04	8.69	8.79	8.31	8.07	8.55	8.74	8.25	7.87	8.46	8.71	8.20	8.46	8.41	8.32

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

^bAverage self-service cash prices.

^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)

(Million Barreis per L	/uy, ∟/	1997	010011	.9 0.0		1998				1999				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1997	1998	1999
Supply	130	2110	510	401	130	2110	514	401	130	Zilu	Jiu	401	1337	1550	1333
Crude Oil Supply															
Domestic Production ^a	6.45	6.41	6.33	6.45	6.46	6.41	6.38	6.42	6.38	6.38	6.38	6.47	6.41	6.42	6.40
Alaska	1.36	1.30	1.24	1.28	1.22	1.18	1.16	1.23	1.23	1.19	1.16	1.19	1.30	1.20	0.40 1.19
Lower 48	5.09	5.11	5.09	5.17	5.24	5.23	5.22	5.20	5.15	5.19	5.23	5.28	5.12	5.22	5.21
Net Imports (including SPR) ^b	7.32	8.11	5.09 8.17	7.95	5.24 7.89	3.23 8.47	3.22 8.36	3.20 8.05	7.90	8.60	3.23 8.76	3.20 8.28	7.89	3.22 8.20	3.2 T 8.39
	1.52	0.11	0.17	7.95	7.03	0.47	0.50	0.00	7.90	0.00	0.70	0.20	1.09	0.20	0.55
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	0.08	0.12	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.00
Other Stock Withdrawn or Added (-)	-0.34	-0.08	0.20	-0.02	-0.29	-0.09	0.17	0.05	-0.06	-0.02	0.06	0.02	-0.06	-0.04	0.00
Product Supplied and Losses	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01
Unaccounted-for Crude Oil	0.24	0.41	0.46	0.39	0.17	0.34	0.29	0.28	0.28	0.29	0.29	0.29	0.38	0.27	0.29
Total Crude Oil Supply	13.71	14.84	15.16	14.78	14.23	15.21	15.31	14.81	14.49	15.24	15.49	15.05	14.63	14.89	15.07
Other Supply															
NGL Production	1.87	1.84	1.86	1.80	1.85	1.89	1.89	1.87	1.90	1.88	1.87	1.87	1.84	1.87	1.88
Other Hydrocarbon and Alcohol Inputs	0.31	0.34	0.36	0.35	0.35	0.33	0.34	0.35	0.35	0.34	0.35	0.36	0.34	0.34	0.35
Crude Oil Product Supplied	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01
Processing Gain	0.78	0.84	0.87	0.90	0.82	0.85	0.87	0.84	0.81	0.87	0.89	0.86	0.85	0.85	0.86
Net Product Imports ^c	1.30	1.22	0.82	0.73	0.89	0.86	1.01	1.02	1.16	1.31	1.22	1.06	1.02	0.95	1.19
Product Stock Withdrawn or Added (-) ^d	0.26	-0.63	-0.38	0.36	0.20	-0.40	-0.28	0.52	0.52	-0.55	-0.39	0.50	-0.10	0.01	0.02
Total Supply	18.23	18.46		18.92	18.34	18.74	19.16	19.42			19.43			18.92	
Demand															
Motor Gasoline	7.59	8.15	8.23	8.05	7.80	8.40	8.45	8.31	8.04	8.56	8.62	8.47	8.01	8.24	8.43
Jet Fuel	1.57	1.56	1.65	1.61	1.55	1.55	1.69	1.70	1.65	1.61	1.71	1.73	1.60	1.62	1.68
Distillate Fuel Oil	3.58	3.33	3.23	3.58	3.61	3.39	3.36	3.60	3.85	3.45	3.39	3.65	3.43	3.49	3.59
Residual Fuel Oil	0.90	0.77	0.77	0.75	0.80	0.82	0.82	0.87	0.96	0.84	0.84	0.88	0.80	0.83	0.88
Other Oils ^e	4.61	4.65	4.81	4.93	4.58	4.58	4.85	4.92	4.73	4.63	4.89	4.97	4.75	4.73	4.81
Total Demand	18.24	18.46	18.69	18.93	18.34	18.74	19.17	19.41	19.24			19.71	18.58		19.37
Total Petroleum Net Imports	8.62	9.32	8.99	8.68	8.78	9.33	9.38	9.07	9.06	9.91	9.97	9.34	8.90	9.14	9.57
Closing Stocks (million barrels)	~ ~ ~				004			0.40				0.40		0.40	0.40
Crude Oil (excluding SPR)	314	322	303	305	331	339	323	318	324	326	320	318	305	318	318
Total Motor Gasoline	200	205	199	210	212	209	207	205	208	202	202	200	210	205	200
Finished Motor Gasoline	154	164	158	166	163	163	162	161	164	161	161	159	166	161	159
Blending Components	46	41	41	44	50	46	45	43	45	41	42	41	44	43	41
Jet Fuel	39	43	45	44	41	44	44	44	45	46	48	47	44	44	47
Distillate Fuel Oil	102	118	139	139	121	127	139	137	98	112	130	133	139	137	133
Residual Fuel Oil	41	39	35	40	41	40	38	42	34	38	39	42	40	42	42
Other Oils ^e	253	286	309	261	261	292	309	262	258	295	310	261	261	262	261
Total Stocks (excluding SPR)	949	1013	1030	998	1006	1051	1061	1008	966	1019	1049	1001	998	1008	1001
Crude Oil in SPR	563	563	563	563	563	556	545	545	545	545	545	545	563	545	545
Total Stocks (including SPR)	1512	1577	1594	1562	1570	1607	1606	1553	1512	1564	1594	1546	1562	1553	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

		+ 10	0% Prices	+ 10%	% Weather ^e
Demand Sector	+1% GDP	Crude Oil ^c	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%

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

(Percent Deviation Base Case)

^aPercent change in demand quantity resulting from specified percent changes in model inputs. ^bShort-Term Integrated Forecasting System. ^cRefiner acquisitions cost of imported crude oil.

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

^eRefers 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 7. Forecast Components for U.S. Crude Oil Production

(Million Barrels per Day)

				Difference	
	High Price Case	Low Price Case	Total	Uncertainty	Price Impact
United States	6.61	6.07	0.54	0.11	0.43
Lower 48 States	5.39	4.91	0.48	0.08	0.43 0.40
Alaska	1.22	1.16	0.06	0.03	0.03

Note: Components provided are for the fourth quarter 1999. 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.

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	4.74	4.70	4.72	4.77	4.78	4.75	4.78	4.85	4.84	4.81	4.84	4.91	18.93	19.16	19.40
Net Imports	0.74	0.68	0.68	0.73	0.67	0.67	0.70	0.80	0.82	0.80	0.81	0.87	2.83	2.83	3.30
Supplemental Gaseous Fuels	0.03	0.03	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.12	0.13	0.13
Total New Supply	5.51	5.40	5.43	5.54	5.48	5.45	5.50	5.68	5.70	5.64	5.67	5.81	21.88	22.11	22.83
Underground Working Gas Storage															
Opening	6.51	5.34	6.09	7.03	6.52	5.46	6.16	7.05	6.59	5.32	6.10	7.03	6.51	6.52	6.59
Closing	5.34	6.09	7.03	6.52	5.46	6.16	7.05	6.59	5.32	6.10	7.03	6.58	6.52	6.59	6.58
Net Withdrawals	1.18	-0.75	-0.95	0.51	1.06	-0.70	-0.89	0.46	1.27	-0.78	-0.94	0.46	-0.01	-0.07	0.01
Total Supply	6.68	4.65	4.48	6.05	6.54	4.75	4.61	6.14	6.97	4.86	4.73	6.27	21.87	22.05	22.84
Balancing Item ^a	0.18	0.16	0.02	-0.33	0.12	0.11	-0.06	-0.29	0.46	0.17	-0.05	-0.30	0.03	-0.13	0.27
Total Primary Supply	6.86	4.81	4.50	5.72	6.66	4.86	4.55	5.85	7.43	5.03	4.68	5.97	21.90	21.92	23.11
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.31	0.31	0.30	0.31	0.32	0.31	0.31	0.31	0.32	1.24	1.24	1.24
Pipeline Use	0.22	0.16	0.15	0.19	0.21	0.15	0.14	0.18	0.22	0.15	0.14	0.19	0.71	0.70	0.70
Residential	2.28	0.88	0.38	1.47	2.12	0.85	0.36	1.40	2.46	0.85	0.36	1.42	5.00	4.73	5.10
Commercial	1.26	0.62	0.42	0.91	1.23	0.63	0.42	0.92	1.43	0.64	0.43	0.93	3.22	3.19	3.43
Industrial (Incl. Cogenerators)	2.28	2.08	2.05	2.17	2.26	2.10	2.09	2.33	2.40	2.16	2.14	2.40	8.58	8.78	9.10
Cogenerators ^b	0.53	0.57	0.57	0.64	0.58	0.55	0.60	0.68	0.60	0.57	0.62	0.70	2.31	2.41	2.49
Electricity Production															
Electric Utilities	0.47	0.72	1.15	0.62	0.48	0.79	1.18	0.64	0.56	0.87	1.25	0.66	2.97	3.10	3.34
Nonutilities (Excl. Cogen.)	0.04	0.04	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.18	0.19	0.20
Total Demand	6.86	4.81	4.50	5.72	6.66	4.86	4.55	5.85	7.43	5.03	4.68	5.97	21.90	21.92	23.11

^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	273.7	279.6	267.3	279.6	281.5	284.3	277.4	284.8	285.4	1088.6	1108.1	1131.9
Appalachia	119.0	117.8	112.0	115.9	119.5	113.0	113.1	117.4	119.5	115.1	112.8	117.1	464.7	462.9	464.5
Interior	42.9	41.4	44.4	43.6	42.2	39.3	44.0	43.0	41.4	39.1	42.9	41.7	172.3	168.6	165.1
Western	112.0	110.5	114.9	114.2	117.9	115.0	122.6	121.1	123.5	123.1	129.1	126.6	451.6	476.6	502.3
Primary Stock Levels ^a															
Opening	28.6	37.5	42.5	39.1	32.9	34.0	34.0	32.0	32.0	32.0	34.0	32.0	28.6	32.9	32.0
Closing	37.5	42.5	39.1	32.9	34.0	34.0	32.0	32.0	32.0	34.0	32.0	30.0	32.9	32.0	30.0
Net Withdrawals	-8.9	-5.0	3.4	6.2	-1.1	(S)	2.0	(S)	(S)	-2.0	2.0	2.0	-4.2	0.9	2.0
Imports	1.3	1.7	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	7.5	7.2	7.3
Exports	20.0	20.6	22.4	20.6	19.3	21.3	21.6	21.5	20.8	21.4	21.6	21.5	83.5	83.7	85.3
Total Net Domestic Supply	246.4	245.8	254.6	261.6	261.0	247.8	261.9	261.8	265.4	255.8	267.1	267.7	1008.3	1032.5	1055.9
Secondary Stock Levels ^b															
Opening	123.0	120.6	128.8	110.7	106.8	116.4	121.0	106.7	108.4	108.3	114.1	100.3	123.0	106.8	108.4
Closing	120.6	128.8	110.7	106.8	116.4	121.0	106.7	108.4	108.3	114.1	100.3	103.1	106.8	108.4	103.1
Net Withdrawals	2.4	-8.2	18.1	3.9	-9.6	-4.6	14.3	-1.7	0.1	-5.8	13.8	-2.8	16.2	-1.6	5.3
Total Supply	248.8	237.6	272.7	265.4	251.4	243.2	276.2	260.1	265.5	250.0	280.9	264.9	1024.5	1030.9	1061.2
Demand															
Coke Plants	7.6	7.4	7.9	6.6	7.5	7.3	7.6	8.0	7.8	7.6	7.5	7.9	29.4	30.4	30.8
Electricity Production															
Electric Utilities	219.0	208.2	244.0	230.5	219.9	213.9	246.8	227.7	232.9	220.2	251.1	232.0	901.7	908.3	936.1
Nonutilities (Excl. Cogen.) ^c	5.9	5.9	5.9	5.9	6.3	6.2	6.3	6.3	6.6	6.6	6.6	6.6	23.5	25.0	26.5
Retail and General Industry ^d	20.2	18.3	18.2	19.6	20.2	18.2	18.1	20.6	20.8	18.3	18.3	21.1	76.4	77.1	78.4
Total Demand	252.7	239.7	276.0	262.6	253.9	245.7	278.7	262.6	268.1	252.7	283.5	267.5	1031.0	1040.9	1071.8
Discrepancy ^e	-3.9	-2.2	-3.3	2.9	-2.5	-2.5	-2.5	-2.5	-2.7	-2.6	-2.6	-2.6	-6.5	-10.0	-10.6

^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 fourth quarter 1997 are estimates.

⁹Synfuels 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 1994 is 7.875 million tons, 8.496 million tons in 1995, 9.6 million tons in 1996, 10.4 million tons in 1997 and the estimate for 1998 is 11.2 million tons, and 12.0 million tons in 1999.

(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 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	7191	7395	7540
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	18.58	14.47	15.35
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	6.42	6.40
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	9.14	9.57
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	73.3	75.2	77.4
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	18.58	18.92	19.37
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	21.90	21.92	23.11
Coal	040	804	027	004	004	897	000	907	944	951	060	1000	1021	1011	1070
(million short tons) Electricity (billion kilowatthours)	818	804	837	884	891	897	898	907	944	951	962	1006	1031	1041	1072
Utility Sales ^c	2324	2369	2457	2578	2647	2713	2762	2763	2861	2935	3013	3098	3115	3178	3258
Nonutility Own Use ^d	NA	NA	NA	NA	108	113	122	132	138	150	158	164	169	173	178
Total	2324	2369	2457	2578	2755	2826	2884	2895	3000	3085	3171	3262	3284	3351	3436
Total Energy Demand ^e															
(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	90.5	91.5	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	12.59	12.37	12.47
Adjusted Total Energy Demand ^e															
(quadrillion Btu)	NA	NA	NA	NA	NA	84.1	84.0	85.5	87.3	89.2	90.9	93.9	94.4	95.2	97.9
Adjusted Total Energy Demand per Dollar of GDP						40 -0	40.00	40 -	40.07	40.40		40.55	40.40	10 0	(0.05
(thousand Btu per 1992 Dollar)	NA	NA	NA	NA	NA	13.70	13.82	13.70	13.67	13.49	13.49	13.55	13.13	12.87	12.98

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

^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.

^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. 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.

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 CONTROL0398.

Table A2	Annual U.S.	. Macroeconomic and Weather Indicators
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								Year							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Macroeconomic															
Real Gross Domestic Product															
(billion chained 1992 dollars)	5324	5488	5649	5865	6062	6136	6079	6244	6390	6611	6742	6928	7191	7395	7540
GDP Implicit Price Deflator	0014	0400	0040	0000	0002	0100	0010	0244	0000	0011	0142	0020	1101	1000	1010
(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	1.166
Real Disposable Personal Income	0.700	0.000	0.001	0.001	0.007	0.000	0.070	1.000	1.020	1.001	1.070	1.102	11120		1.100
(billion chained 1992 Dollars)	3972	4101	4168	4332	4417	4498	4500	4627	4704	4805	4964	5077	5222	5439	5562
Manufacturing Production														0.00	0002
(Index, 1987=1.000)	0.857	0.881	0.928	0.971	0.990	0.985	0.962	1.000	1.038	1.100	1.160	1.202	1.269	1.326	1.350
Real Fixed Investment			0.020				0.00-					•_			
(billion chained 1992 dollars)	799	805	799	818	832	806	741	783	843	916	962	1042	1122	1206	1252
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	1.101	1.121	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	22.2	5.2	1.0
Producer Price Index															
(index, 1982=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	1.256	1.271
Consumer Price Index															
(index, 1982-1984=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	1.632	1.672
Petroleum Product Price Index															
(index, 1982=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	0.679	0.563	0.588
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	122.3	125.4	127.0
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	86.3	88.0
Total Industrial Production															
(index, 1987=1.000)	0.880	0.890	0.931	0.973	0.990	0.989	0.969	1.000	1.035	1.092	1.145	1.185	1.244	1.295	1.317
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	115.7
Weather ^a															
Heating Degree-Days															
U.S	4642	4295	4334	4653	4726	4016	4200	4441	4700	4483	4531	4713	4569	4224	4576
New England	6571	6517	6546	6715	6887	5848	5960	6844	6728	6672	6559	6679	6656	6076	6621
Middle Atlantic	5660	5665	5699	6088	6134	4998	5177	5964	5948	5934	5831	5986	5834	5219	5839
U.S. Gas-Weighted	4856	4442	4391	4779	4856	4139	4337	4458	4754	4659	4707	5040	4886	4395	4732
Cooling Degree-Days (U.S.)	1194	1249	1269	1283	1156	1260	1331	1040	1218	1220	1293	1180	1161	1187	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 CONTROL0398.

Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrelsper Day, Except OECD Commercial Stocks)

								Year							
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Demand ^a		•	•	•	•				•	•	•	•		•	•
OECD U.S. (50 States)	45.0	40.0	407	47.0	47.4	47.0	40.0	474	47.0	477	477	40.0	40.0	40.0	40.4
Europe ^b	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	18.9 14.6	19.4 14.8
Japan	11.7 4.4	12.1	12.3 4.5	12.4	12.5 5.0	12.6 5.1	13.4 5.3	13.6 5.4	13.5 5.4	13.6 5.7	14.1 5.7	14.3 5.9	14.4 5.7	14.0 5.7	14.8 5.8
Other OECD	4.4 2.5	4.4 2.5		4.8 2.6									5.7 3.0	5.7 3.1	5.8 3.2
Total OECD	2.5 34.3	2.5	2.5 36.0	2.0	2.7 37.6	2.7 37.5	2.7 38.1	2.7 38.8	2.8 39.0	2.9 39.9	3.0 40.6	3.0 41.4	3.0 41.7	42.3	3.2 43.2
Non-OECD	34.3	33.3	30.0	37.1	57.0	37.5	30.1	30.0	39.0	39.9	40.0	41.4	41.7	42.3	43.2
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	0.3 1.4	1.3	1.3	1.3	1.3	1.3	4.5	1.5	4.9 1.6
China	1.9	2.0	2.1	2.2	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	13.0	13.4	13.8
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	31.6	32.9	34.2
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	73.3	75.2	77.4
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	9.5	9.5
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	6.4	6.9
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	20.8
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	31.2
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	7.1	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	3.5	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	10.8	11.4
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	55.4	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	75.6	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	-0.7	-0.4	-0.2
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	2.6	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.

^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.

OPEC: Organization of Petroleum Exporting Countries: Algeria, 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.

Table A4. Annual Average U.S. Energy Prices

(Nominal Dollars)

								Year							
	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	18.58	14.47	15.35
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	2.23	2.15	2.17
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)															
All Grades	1.15	0.88	0.91	0.92	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.13	1.17
Regular Unleaded No. 2 Diesel Oil, Retail	1.17	0.88	0.91	0.91	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.07	1.10
(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	1.11	1.23	1.19	1.08	1.11
(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	0.53
(dollars per gallon) No. 6 Residual Fuel Oil, Retail ^c	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	0.89	0.91
(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	17.80	14.05	14.67
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	1.26	1.25
(dollars per million Btu) Natural Gas	4.26	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.28	2.37
(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	2.76	2.51	2.49
Other Residential Natural Gas															
(dollars per thousand cubic feet)	6.12	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.89	6.57	6.74
(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 self-service cash prices.

^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)

I			<u> </u>					Year							
	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	6.42	6.40
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	1.20	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	5.12	5.22	5.21
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	8.20	8.39
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)		-0.08	-0.12	0.00	-0.09	0.02	-0.01	0.01	-0.06	-0.02	0.09	0.05	-0.06	-0.04	0.00
Product Supplied and Losses		-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01
Unaccounted-for Crude Oil		0.14	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.38	0.27	0.29
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	14.89	15.07
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	1.88	1.88
Other Hydrocarbon and Alcohol Inputs		0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.34	0.35
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	0.00	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	0.85	0.85	0.86
Net Product Imports ^c		1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.02	0.95	1.19
Product Stock Withdrawn or Added (-)		-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.10	0.01	0.02
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	18.58	18.92	19.37
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	8.24	8.43
Jet Fuel		1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	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	3.49	3.59
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	0.83	0.88
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	4.75	4.73	4.81
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	18.58	18.92	19.37
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	9.14	9.57
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	321	331	349	330	341	323	325	318	335	337	303	284	305	318	318
Total Motor Gasoline	223	233	226	228	213	220	219	216	226	215	202	195	210	205	200
Jet Fuel	40	50	50	44	41	52	49	43	40	47	40	40	44	44	47
Distillate Fuel Oil		155	134	124	106	132	144	141	141	145	130	127	139	137	133
Residual Fuel Oil		47	47	45	44	49	50	43	44	42	37	46	40	42	42
Other Oils ^f		265	260	267	257	261	267	263	273	275	258	250	261	262	261

^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. ^dFor 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. ¹Includes 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							
Γ	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	18.93	19.16	19.40
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	2.83	2.83	3.30
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	21.88	22.11	22.83
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	6.52	6.59
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	6.52	6.59	6.58
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	-0.01	-0.07	0.01
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	21.87	22.05	22.84
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	0.03	-0.13	0.27
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	21.90	21.92	23.11
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	1.24	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	5.00	4.73	5.10
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	3.22	3.19	3.43
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	8.76	8.97	9.30
Cogenerators ^b	NA	NA	NA	NA	1.12	1.30	1.41	1.67	1.80	1.98	2.18	2.27	2.31	2.41	2.49
Other Nonutil. Gen. ^b	NA	NA	NA	NA	0.06	0.09	0.16	0.18	0.22	0.17	0.17	0.16	0.18	0.19	0.20
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	2.97	3.10	3.34
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	21.90	21.92	23.11

^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								
	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	1088.6	1108.1	1131.9
Appalachia	NA	NA	NA	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	464.7	462.9	464.5
Interior	NA	NA	NA	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	172.3	168.6	165.1
Western	NA	NA	NA	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.6	476.6	502.3
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	32.9	32.0
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	32.9	32.0	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	-4.2	0.9	2.0
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	7.5	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	83.7	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	1008.3	1032.5	1055.9
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	106.8	108.4
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	106.8	108.4	103.1
Net Withdrawals	27.0	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.2	-1.6	5.3
Total Supply	820.8	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	946.1	951.9	998.0	1024.5	1030.9	1061.2
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	29.4	30.4	30.8
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	901.7	908.3	936.1
Nonutilities (Excl. Cogen.) ^c	NA	NA	NA	NA	0.9	1.6	10.2	14.8	17.8	20.9	21.2	22.2	23.5	25.0	26.5
Retail and General Industry ^d	83.2	83.3	82.1	83.4	82.3	83.1	81.5	80.2	81.1	81.2	78.9	76.9	76.4	77.1	78.4
Total Demand ^e	818.0	804.2	836.9	883.6	890.6	897.1	897.8	907.3	943.7	951.1	962.0	1005.6	1031.0	1040.9	1071.8
Discrepancy [†]	2.8	-1.2	-2.5	-1.3	5.9	2.4	-6.4	-5.4	-13.5	-4.9	-10.1	-7.6	-6.5	-10.0	-10.6

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

^bSecondary stocks are held by users.

^C consumption 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 EAIA on Form EIA-867 (Annual Nonutility Power Producer Report). Data for fourth quarter 1997 are estimates. These quantities are not reported in EIA's *Monthly Energy Review or Annual energy Review*.

^dSynfuels plant demand in 1993 was 1.7 million tons per quarter and is assumed to remain at that level throughout the forecast.

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

¹Historical 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)

								Year							
	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	1790.1	1809.4	1872.6
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	77.8	84.7	95.7
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	283.7	297.9	321.1
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	628.6	648.4	656.5
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	337.2	302.6	279.0
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	7.5	6.9	6.4
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	3124.9	3149.9	3231.2
Nonutility Generation ^b	NA	NA	NA	NA	191.3	221.8	253.7	296.0	325.5	354.9	374.4	382.5	409.4	426.4	437.4
Total Generation	NA	NA	NA	NA	2975.6	3030.0	3078.7	3093.2	3208.1	3265.6	3369.0	3460.0	3534.3	3576.2	3668.6
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	36.5	37.4	36.0
Total Supply	NA	NA	NA	NA	2986.6	3032.0	3101.0	3121.6	3236.5	3310.3	3406.6	3498.0	3570.7	3613.6	3704.6
Losses and Unaccounted for ^c	NA	NA	NA	NA	231.4	206.1	217.1	226.6	236.9	225.5	235.4	236.2	287.2	262.8	268.8
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	1071.6	1091.7	1136.4
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	913.3	936.4	955.9
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	1032.5	1047.0	1060.3
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	97.5	1047.0	105.5
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	3115.0	3177.7	3258.1
Nonutility Own Use ^b	NA	NA	NA	NA	108.4	113.4	121.9	131.6	138.1	150.2	157.9	164.0	168.6	173.1	177.7
Total Demand	NA	NA	NA	NA	2755.2	2825.9	2883.9	2895.0	2999.6	3084.8	3171.2	3261.8	3283.5	3350.8	3435.8
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.