Short-Term Energy Outlook

August 1997 (Released August 6, 1997)

Energy Information Administration

What's New This Month

Here are the highlights of the changes to the forecast that we have made for the month of August, 1997 (all results refer to the mid world oil price case unless otherwise specified):

Oil Prices

Despite the impending return of Iraq to the world oil market after a two-month hiatus, no *sustained* sharp reduction in oil prices is expected in the near term. On the other hand, oil prices are not expected to head up very soon either, but may range upward slightly in 1998, once Iraqi crude oil is fully absorbed into the market balance once again (see "The Iraq Situation" below). Currently, based on continued non-Iraq OPEC production strength, a slight increase in expected oil output from Latin America (i.e. Colombia), and the prospects for additional excess world oil stocks in the near term, we have lowered our average world oil price projections from last month by about \$1 per barrel over most of the forecast (Figure U1). (Current price strength evident in the spot market is expected to be short-lived and is related to unusual strength in the domestic transportation fuel market that should diminish in August .)

Petroleum product prices are of course expected to respond to this and, despite some bullish-looking spot gasoline prices in recent weeks, we have lowered our expected retail gasoline prices for the rest of the summer from last month's projections (<u>Figure U2</u>). The third quarter average retail gasoline price (all service, all grades) is now expected to be \$1.25 per gallon, four cents per gallon below the second-quarter average and 6 cents per gallon below the 1996 third quarter average (<u>Figure U3</u>).

Oil Demand

Although July's unusually strong demand pattern is not expected to continue, the petroleum demand averages that we now compute for 1997 are up. Part of the reason for this higher track for petroleum demand is the lower oil price forecast. It is not expected that recent growth patterns (5.1 percent over previous year for the four weeks ended July 25 (see EIA's <u>Weekly Petroleum Status Report</u>)) will continue. Still, a somewhat more robust outlook for petroleum demand in the short-term is emerging from the recent numbers. Also, revisions now included for 1996 from EIA's <u>Petroleum Supply Annual</u>, have lead to slightly higher expected demand levels for some fuels, including gasoline (Figure U4). Total petroleum demand for all of 1997 is now expected to average 18.65 million barrels per day, compared to 18.48 million barrels per day expected in early July. This means that demand growth for all of 1997 is now at a projected 1.9 percent, compared to 1.4 percent projected last month. Meanwhile, we have added about 90 thousand barrels per day to our 1998 forecast, yielding a 0.5 -percent percent adjustment to 18.87 million barrels per day expected next year.

Motor gasoline demand strength has become more apparent in recent weeks, although recent high growth rates are not necessarily indicative of underlying growth trends but, more likely, a rather unevenly timed response of suppliers to the basic demand strength that was there to begin with. In any case, the current data fit in well with the general story we have been putting forth about gasoline demand all year long, namely that summer gasoline demand this year would be around 2 percent above 1996 levels. (The current update reports an estimated 1.3 percent year-to-year growth rate for the second quarter of this year followed by a 2.6 percent rate for the third quarter - <u>Figure U5</u>).

Product Stocks

With demand picking up, gasoline stocks have dropped below their comparable 1996 and they are expected to remain relatively low throughout the remainder of this year. However, increases in average gasoline stock levels are expected in 1998 (Figure U6). On the other hand, heating fuel stocks appear to

Figure U1. World Oil Prices*



Source: Energity Information Administration, Short-Term Energy Model, August 1997

Figure U2. Retail Gasoline Prices*



Source: Energity Information Administration, Short-Term Energy Model, August 1997

Figure U3. Quarterly Retail Gasoline Price Growth Change from Year Ago



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

Figure U4. Monthly Gasoline Demand



Source: Energity Information Administration, Short-Term Energy Model, August 1997

Figure U5. Quarterly Gasoline Demand Growth

Percent Change from Year Ago



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

Figure U6. Total Gasoline Stocks



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

still be quite well situated despite the mid-summer surge in distillate demand. The forecast for inventories of distillate fuel and have not changed from last month. Inventories of distillate fuel (and LPG as well) are in very good shape and both are still expected to be significantly higher (12 to 14 million barrels) than they were entering last year's heating season (Figure U7).

The Iraq Situation

Perhaps the great New York Yankee catcher, Yogi Berra, was right. It does seem like deja vu all over again! Here we are again near the end of summer not knowing when Iraqi oil will return to the world oil market. Last year at this time, there was a lot of speculation as to when Iraq would accept the terms of United Nations Security Council Resolution 986 and begin exporting oil for humanitarian goods. At the time, many people thought that Iraq would be exporting within the month, but the first trickle of exports from Iraq didn't enter the world oil market until December. This year, Iraq stopped exporting oil in early June, while negotiating a new distribution plan for the humanitarian goods to be purchased with the oil revenue. On August 4, the United Nations approved the new Iraqi distribution plan and rumors are rampant that Iraqi oil will be flowing by the weekend of August 9-10 or by sometime the following week at the latest. There has been concern on what effect a resumption of Iraqi oil exports would have on the market. It is EIA's contention that while oil prices would certainly decline, the effect would only be temporary.

Under United Nations Security Council Resolution 986, Iraq is allowed oil exports of up to \$1.07 billion (the \$70 million accounts for transit fees going to Turkey for using their pipeline) every 90 days with the proceeds being used to purchase approved humanitarian items. At the beginning of the current 90-day period (June 8), Iraq refused to export any oil until a new distribution plan was approved and later attempted to redefine the beginning of the 90-day window. The United Nations Security Council, however, denied Iraq's request. This means that even if Iraq begins exporting in early August, they would have less than 30 days to export as much as possible before the current 90-day window expires on September 5. In order to receive the full allotment of \$1.07 billion in the limited time remaining, Iraq would need to export over 2 million barrels per day, which all objective analysts assume is beyond their current export capability. Most analysts estimate that the most Iraq could export is about 1.4 million barrels per day. Thus, Iraq would have forfeited hundreds of millions of dollars of potential oil revenues during this delay.

But what impact would such a large amount (1.4 million barrels per day) of oil have on oil prices? With current supplies in general balance with demand requirements, it is expected that such a large volume of additional exports into the world oil market would cause prices to decline by \$1-2 dollars per barrel or more. However, this would only be temporary. When the next 90-day window begins on September 6, it is likely that Iraq will begin exporting about 750,000 barrels per day. This volume, assuming a selling price of around \$16 per barrel, would generate the maximum \$1.07 billion over a full 90-day period. The market can certainly handle this amount of exports from Iraq without causing prices to fall much below \$18 - \$18.50 per barrel (for the Imported Refiners Acquisition Cost, or around \$20 per barrel for West Texas Intermediate). In fact, as we get closer to the end of the year and enter the winter heating season, price pressures from the heating oil market may even cause prices to increase slightly. So with a light at the end of the tunnel (the closing of the current 90-day period on September 5), the impact on oil prices from a large increase in Iraqi oil exports should be temporary. This, of course, assumes that Iraq begins exporting again as soon as possible.

Natural Gas Demand

Total gas demand for 1997 has been revised downward this month to just under 22.0 trillion cubic feet from a projected 22.18 trillion cubic feet last month. Actual April demand was significantly below our estimate from last month, mostly because we underestimated the full impact of the mild weather in March on sales reported in April. Meanwhile, we have incorporated more accurate estimates of the

Figure U7. Distillate Fuel Stocks



Source: Energity Information Administration, Short-Term Energy Model, August 1997

relatively weak electricity demand growth seen so far this summer, and this has pushed our estimates for electric utility demand gas down some, particularly in June of this year. As a result, we now expect to see an average natural gas demand growth rate of 0.2 percent in 1997 and 4.7 percent in 1998. This compares with the 1.2 percent and 4.1 percent projected rates reported last month.

Natural Gas Spot Prices and Storage: What will the Autumn Bring?

Natural gas storage levels are currently higher than last year's, injections into storage have generally been strong and natural gas spot prices have mostly remained steady from the beginning of May. The average wellhead price for next winter is still expected to be about 20 cents per thousand cubic feet lower than last winter's price as storage levels are expected to be above last year's at the beginning of the heating season (November 1), although not by very much (<u>Figure U8</u>). (As of this date, no end-July actual data on storage levels was available, but net injections through mid July were somewhat below expectations.) The risk to this forecast is the *weather:* a prolonged hot spell could lower storage injections, and hurricanes in the gas-producing Gulf Coast could result in supply disruptions. Also, early cold weather in October and November could cause an unexpected surge in heating demand, pushing storage down and spot and futures prices up, as happened last year.

Last October, spot prices for natural gas at the wellhead began a very steep ascent --more than doubling the monthly September price by December. The reasons for this spike included relatively low underground storage levels combined and unusually cold weather in the Northeast, as well as some critical nuclear power plant outages. Those downed nuclear plants have still not returned, causing somewhat higher demand for gas by electric utilities. Meeting projected increases in overall demand for natural gas will require increased domestic production but (for 1997 at least) additional net imports from Canada may be more important (Figure U9).

The fact that the summer so far has been milder than normal eased the strain on supplies that would have been caused by heavy air conditioner use and thus allowed strong injections to underground storage. Nevertheless, the summer is not yet over and a prolonged hot spell could offset the progress seen so far. In addition, the potential for supply disruptions caused by hurricanes in the gas-producing Gulf Coast is always a factor to consider. A hurricane in the Gulf caused some temporary supply disruptions on July 17 and 18, but these were soon corrected. Just like last year, the pivotal period will be the months of October and November. Last October and November, gas-weighted heating degree-days (a measure of heating demand focusing on gas-heated households) were 15 percent and 17 percent, respectively, higher than normal. This unexpected surge in heating demand pushed storage to low levels, and in turn, caused spot and futures prices to soar to near record levels as the industry needed to secure supplies for winter.

The futures market for natural gas in July had been betting that prices would be relatively moderate this winter. On the other hand, the futures market had roughly these same price paths one year ago. Also, in early August, futures prices have been inching upward as the storage picture looks somewhat less certain now. *Could a sharp price run-up happen again?* Looking at the storage situation over the next 2-3 months should give us some strong clues. It seems certain that prices will remain quite sensitive to perceived shortfalls in net storage injections for the rest of the summer and early fall. This may be especially true this year since there is a strong probability of higher peak demand this winter if weather is normal.

Electricity Demand Slows While Nuclear Generation Declines:

The fact that this summer's cooling degree-days (CDDs) have generally been below normal across the U.S. has helped to keep electricity demand at below last year's levels in the second quarter despite the expected boost to economic growth this year. Electricity demand in 1997 is expected to grow by only 0.5 percent, with most of the growth occurring in the third and fourth quarters, if weather turns out to be normal as assumed (Figure U10).

Nuclear electricity generation is expected to decline by 4.7 percent, or 31.5 billion kilowatt-hours, in 1997 (Figure U11). This is due to the continued shutdown of 8 nuclear plants in the Northeast, 2 in the Southeast, and another 7 in the Midwest. Two are expected to start back up in August, but, as of this date,

Figure U8. Monthly Total Gas in Storage

Change from Year Ago



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

Figure U9. Annual Growth in U.S. Natural Gas Supply



Source: Energity Information Administration, Short-Term Energy Model, August 1997

Figure U10. Electricity Demand Growth and Weather Changes

Percent Change from Year Ago



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

Figure U11. Quarterly Change in Nuclear Electric Output Change from Year Ago



Source: Energiv Information Administration, Short-Term Energy Model, August 1997

it is not determined when 10 of the downed plants will be coming back on line. Four other units are expected to be back up by the end of 1997 or the beginning of 1998.

Nuclear power generation is the second largest component of electricity generation in the U.S., constituting 21 percent of total utility generation in 1997. Coal is the largest electricity generating component at 57 percent of total generation, and coal together with natural gas is expected to make up for most of the loss in nuclear generating capacity. Coal generation is expected to increase by 1.7 percent in 1997, and by 2.6 percent in the peak third quarter when cooling demand is usually at its highest. Natural gas generation, which constitutes 9 percent of U.S. electricity generation, is projected to increase by 4.5 percent in 1997, and by 6.9 percent in the peak third quarter.

Utility Coal Use Will Remain Strong in the Summer of 1997

Near-normal weather, measured in CDDs, for the remainder of the summer, coupled with declines in hydroelectric and nuclear-fired electricity generation will help ensure that consumption of coal by electric utilities will remain robust during the summer of 1997. Utility coal consumption for the summer (June-September) of 1997 is forecast to be 309.4 million short tons (mst), while electricity generated from coal will be 616.6 billion kilowatt-hours (bkwh). Coal consumption for the summer of 1996 was 307.1 mst and coal-fired generation was 608.7 bkwh. Coal-fired generation is expected to be higher in the remaining summer months (July-September) than in 1996.

The significant increase in coal-fired generation (1.8 percent) expected this summer is due mainly to expected declines in other generation sources. Total utility generation showed virtually no change during the summer of 1996 (1099.10 bkwh versus 1099.19 bkwh in 1995), although the CDDs fell by 10.5 percent. Coal-fired generation grew by 1.7 percent in the summer of 1996.

Summer hydroelectric generation is predicted to decline by 2.4 percent from the twenty-year high (103.3 bkwh) experienced in 1996. The hydroelectric generation forecast for the summer of 1997 (100.9 bkwh) will still be the fourth highest amount in over twenty years (1975-1997). Coal-fired generation will gain from the decrease in hydroelectricity, but natural gas is expected to be the primary beneficiary.

Nuclear generation during the summer of 1997 is projected to decline by 1.1 percent. The shutdown and outages of a significant number of nuclear power plants in the Midwest and the Northeast for all or a portion of the summer will place increased demands on other generation sources and electricity imports. Coal-fired generation in these regions is expected to increase to meet the loss in electricity generation. The potential for increases in coal generation in other areas of the country is also stronger because of the nuclear plant outages. Inter-regional transfers of electricity generated from coal (coal by wire) is also expected to increase this summer.

Summer Utility Electricity Generation (billion kilowatt-hours) And Summer Utility Coal Consumption (million short tons) 1990 - 1997

Summer	CDDs (965.8 is Summer Normal)	% Diff. from Normal	ļ	Total Utility Elec. Gen.	Utility Coal Gen.	Utility Nuclear Gen.	Utility (Gen.	Gas	Utility Hydro. Gen.	Utility Coal Cons.
1990	1013	4.9	1022	2.09	559.78	204.22	120.09	89.	38	277.00
1991	1025	6.1	1022	2.40	549.30	225.29	111.50	90.	26	273.95
1992	834	-13.7	992.	95	553.77	216.81	111.82	77.	31	274.54
1993	1017	5.3	1047	7.66	586.08	215.32	115.34	86.	90	291.26
1994	994	2.9	1054	4.32	583.07	226.61	131.60	79.	85	291.75
1995	1063	10.1	1099	9.19	598.41	235.77	142.03	96.	13	301.38
1996	951	-1.5	1099.10		608.67	234.52	125.35	103	3.31	307.09
1997	942	-2.5	1105.78		616.56	232.00	129.18	100).85	309.37

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

	1996				1997				1998				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Macroeconomic ^a		•		•											
Real Gross Domestic Product															
(billion chained 1992 dollars - SAAR)	6814	6892	6928	6993	7089	7142	7185	7221	7249	7273	7299	7340	6907	7159	7290
Percentage Change from Prior Year	1.7	2.7	2.2	3.1	4.0	3.6	3.7	3.3	2.2	1.8	1.6	1.6	2.4	3.7	1.8
Annualized Percent Change															
from Prior Quarter	2.0	4.6	2.1	3.8	5.5	3.0	2.4	2.0	1.5	1.3	1.4	2.2			
GDP Implicit Price Deflator															
(Index, 1992=1.000)	1.090	1.096	1.102	1.107	1.115	1.120	1.128	1.134	1.141	1.147	1.154	1.160	1.099	1.124	1.151
Percentage Change from Prior Year	2.2	2.1	2.1	2.1	2.3	2.2	2.4	2.4	2.4	2.4	2.3	2.3	2.1	2.3	2.3
Real Disposable Personal Income															
(billion chained 1992 Dollars - SAAR)	5034	5052	5112	5146	5227	5249	5305	5338	5368	5380	5406	5434	5086	5280	5397
Percentage Change from Prior Year	2.7	3.0	3.1	2.7	3.8	3.9	3.8	3.7	2.7	2.5	1.9	1.8	2.9	3.8	2.2
Manufacturing Production															
(Index, 1987=1.000)	1.229	1.248	1.263	1.276	1.297	1.311	1.328	1.334	1.338	1.342	1.344	1.351	1.254	1.318	1.344
Percentage Change from Prior Year	0.8	2.7	3.3	4.1	5.6	5.1	5.1	4.5	3.2	2.4	1.3	1.2	2.7	5.1	2.0
OECD Economic Growth (percent) ^b													2.5	2.7	2.5
Weather ^c															
Heating Degree-Days															
U.S	2406	552	89	1666	2143	669	89	1636	2327	524	89	1636	4713	4536	4576
New England	3361	933	151	2234	3119	1078	171	2269	3267	915	171	2269	6679	6637	6621
Middle Atlantic	3120	750	87	2029	2814	887	105	2026	2993	716	105	2026	5986	5832	5839
U.S. Gas-Weighted	2501	636	135	1768	2275	711	81	1686	2426	539	81	1686	5040	4753	4732
Cooling Degree-Days (U.S.)	21	368	725	66	29	275	750	72	30	334	758	72	1180	1126	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, ^bOECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Statistical States and States 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 CONTROL0597.

Table U2.	U.S. Eneray	Indicators:	Mid World	Oil Price	Case- A	uaust	1997

	1996					1997	ague		·	1998				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Macroeconomic ^a															
Real Fixed Investment															
(billion chained 1992 dollars-SAAR)	1013	1031	1057	1067	1093	1108	1127	1144	1161	1174	1180	1184	1042	1118	1175
Real Exchange Rate															
(index)	0.997	1.013	1.017	1.030	1.086	1.117	1.117	1.113	1.102	1.086	1.070	1.054	1.014	1.108	1.078
Business Inventory Change															
(billion chained 1992 dollars-SAAR)	12.0	-3.9	11.9	4.2	14.5	18.6	17.2	14.1	11.2	8.3	5.5	3.4	6.0	16.1	7.1
Producer Price Index															
(index, 1980-1984=1.000)	1.263	1.275	1.282	1.287	1.287	1.277	1.280	1.286	1.291	1.297	1.302	1.307	1.277	1.282	1.299
Consumer Price Index															
(index, 1980-1984=1.000)	1.551	1.564	1.575	1.588	1.597	1.602	1.613	1.626	1.637	1.649	1.661	1.674	1.570	1.610	1.655
Petroleum Product Price Index															
(index, 1980-1984=1.000)	0.632	0.727	0.702	0.744	0.721	0.651	0.630	0.646	0.666	0.653	0.647	0.672	0.701	0.662	0.659
Non-Farm Employment															
(millions)	118.5	119.3	120.0	120.5	121.2	121.8	122.7	123.4	124.0	124.6	124.9	125.3	119.5	122.3	124.7
Commercial Employment															
(millions)	80.2	81.0	81.6	82.2	82.8	83.3	84.1	84.7	85.3	85.7	86.1	86.4	81.2	83.7	85.9
Total Industrial Production															
(index, 1987=1.000)	1.215	1.233	1.243	1.257	1.274	1.288	1.303	1.311	1.316	1.321	1.324	1.330	1.237	1.294	1.323
Housing Stock															
(millions)	110.6	111.0	111.4	111.8	112.1	112.5	112.9	113.3	113.6	114.0	114.4	114.7	111.2	112.7	114.2
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1987=1.000)	1.161	1.172	1.189	1.208	1.216	1.228	1.237	1.242	1.245	1.249	1.255	1.260	1.182	1.231	1.252
Vehicle Miles Traveled ^b															
(million miles/day)	6181	7014	7134	6625	6425	7181	7366	6871	6665	7398	7559	7057	6739	6963	7172
Vehicle Fuel Efficiency															
(index, 1995=1.000)	0.960	1.028	1.040	0.980	0.993	1.039	1.046	0.990	1.003	1.051	1.057	0.999	1.002	1.017	1.028
Real Vehicle Fuel Cost															
(cents per mile)	3.96	4.13	3.94	4.13	4.07	3.81	3.65	3.79	3.74	3.67	3.58	3.73	4.04	3.83	3.68
Air Travel Capacity															
(mill. available ton-miles/day)	382.0	400.1	413.9	402.6	401.0	421.2	440.9	432.6	429.1	444.5	461.5	449.9	399.7	424.1	446.3
Aircraft Utilization															
(mill. revenue ton-miles/day)	213.0	233.4	244.8	232.0	230.0	242.4	259.0	242.5	238.4	253.6	268.2	251.7	230.8	243.5	253.0
Aircraft Yield															
(cents per ton-mile)	14.10	13.98	12.56	13.57	14.58	14.06	13.20	14.02	14.87	14.52	13.67	14.48	13.55	13.97	14.38
Raw Steel Production															
(millions tons)	26.55	26.05	25.62	25.67	26.18	26.81	26.07	27.79	28.01	28.01	27.33	27.97	103.89	106.84	111.32

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

Macroeconomic 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 CONTROL0597.

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

	1996					1997				1998			[Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Demand ^a	1			1							.I	1		L	I
OECD															
U.S. (50 States)	18.4	18.0	18.2	18.7	18.2	18.5	18.8	19.1	18.9	18.5	18.9	19.2	18.3	18.7	18.9
U.S. Territories	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Canada	1.8	1.7	1.8	1.8	1.8	1.7	1.8	1.9	1.9	1.7	1.9	1.9	1.8	1.8	1.8
Europe	14.5	13.7	14.3	14.6	14.2	13.9	14.5	14.9	14.4	14.1	14.7	15.1	14.3	14.4	14.6
Japan	6.4	5.2	5.4	6.0	6.4	5.3	5.4	6.1	6.5	5.4	5.6	6.2	5.8	5.8	5.9
Australia and New Zealand	1.0	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	0.9	1.0	0.9	0.9	1.0
Total OECD	42.2	39.7	40.7	42.3	41.8	40.5	41.7	43.0	42.8	41.0	42.1	43.5	41.2	41.8	42.4
Non-OECD															
Former Soviet Union	4.8	4.3	4.3	4.7	4.8	4.3	4.3	4.7	4.8	4.4	4.4	4.8	4.5	4.5	4.6
Europe	1.4	1.3	1.3	1.4	1.5	1.3	1.3	1.4	1.5	1.3	1.3	1.4	1.3	1.4	1.4
China	3.5	3.6	3.6	3.7	3.8	3.8	3.8	3.9	4.0	4.1	4.1	4.1	3.6	3.8	4.1
Other Asia	8.6	8.3	7.9	9.1	9.2	8.9	8.5	9.7	9.8	9.6	9.1	10.4	8.5	9.1	9.7
Other Non-OECD	12.5	12.8	12.5	12.8	12.9	13.3	13.0	13.3	13.4	13.7	13.4	13.7	12.7	13.1	13.6
Total Non-OECD	30.7	30.3	29.6	31.5	32.1	31.7	31.0	33.0	33.6	33.1	32.3	34.5	30.5	31.9	33.4
Total World Demand	73.0	69.9	70.3	73.8	74.0	72.2	72.7	76.0	76.4	74.0	74.5	78.0	71.8	73.7	75.7
Supply ^b															
OECD															
U.S. (50 States)	9.4	9.4	9.4	9.6	9.4	9.4	9.3	9.4	9.4	9.4	9.3	9.4	9.4	9.4	9.3
Canada	2.4	2.4	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.5	2.6	2.7
North Sea ^c	6.2	6.1	6.1	6.5	6.5	6.4	6.7	6.9	6.9	6.7	7.0	7.2	6.2	6.6	6.9
Other OECD	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6
Total OECD	19.6	19.5	19.6	20.2	20.1	20.0	20.2	20.6	20.5	20.4	20.6	21.0	19.7	20.2	20.6
Non-OECD															
OPEC	28.1	28.1	28.3	28.7	29.5	29.5	29.3	29.7	29.7	29.7	29.9	30.0	28.3	29.5	29.8
Former Soviet Union	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.2	7.3	7.4	7.5	7.6	7.1	7.1	7.5
China	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1	3.2	3.3
Mexico	3.3	3.4	3.3	3.3	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.3	3.4	3.5
Other Non-OECD	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.9	11.0	11.1	11.1	11.2	10.3	10.7	11.1
Total Non-OECD	51.7	51.9	52.0	52.6	53.7	53.8	53.8	54.4	54.8	54.9	55.3	55.7	52.1	53.9	55.2
Total World Supply	71.3	71.4	71.6	72.8	73.8	73.8	74.0	75.0	75.3	75.3	75.9	76.7	71.8	74.1	75.8
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	0.9	-0.7	-0.1	0.5	-0.1	-0.7	-0.1	0.5	0.4	-0.7	-0.3	0.5	0.2	-0.1	-0.0
Other	0.8	-0.7	-1.2	0.5	0.3	-0.9	-1.3	0.5	0.7	-0.6	-1.1	0.9	-0.2	-0.4	-0.0
Total Stock Withdrawals	1.7	-1.4	-1.3	0.9	0.2	-1.6	-1.4	1.0	1.1	-1.2	-1.5	1.3	-0.0	-0.4	-0.1
Closing Stocks, OECD only (billion barrels)	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.8	2.9	2.8	2.7	2.8	2.8
Non-OPEC Supply	43.2	43.3	43.3	44.2	44.3	44.3	44.7	45.4	45.5	45.5	46.1	46.6	43.5	44.7	46.0
Net Exports from Former Soviet Union	2.4	2.8	2.8	2.4	2.3	2.7	2.8	2.5	2.5	3.0	3.1	2.8	2.6	2.6	2.9

^aDemand for petroleum by the OECD countries is synonymous with "petroleum product supplied," which is defined in the glossary of the EIA *Petroleum Supply Monthly,* DOE/EIA-0109. Demand for petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering. ^bIncludes production of crude oil (including lease condensates), natural gas plant liquids, other hydrogen and hydrocarbons for refinery feedstocks, refinery gains,

alcohol, and liquids produced from coal and other sources.

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

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

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

SPR: Strategic Petroleum Reserve

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

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

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

Table U4. U. S. Energy Prices-August 1997

(Nominal Dollars)

,	1996					1997				1998				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Imported Crude Oil ^a (dollars per barrel)	18.38	20.12	20.70	23.06	21.03	17.94	17.58	18.25	18.50	18.91	18.66	19.50	20.59	18.64	18.90
Natural Gas Wellhead (dollars per thousand cubic feet)	2.01	2.10	2.13	2.74	2.52	1.93	2.11	2.39	2.38	2.05	2.03	2.33	2.25	2.24	2.20
Petroleum Products															
Gasoline Retail ^b (dollars per gallon)	1.20	1.35	1.31	1.30	1.31	1.29	1.25	1.24	1.24	1.29	1.27	1.26	1.29	1.27	1.27
No. 2 Diesel Oil, Retail (dollars per gallon)	1.16	1.23	1.21	1.30	1.25	1.18	1.13	1.18	1.18	1.17	1.16	1.22	1.23	1.18	1.18
No. 2 Heating Oil, Wholesale (dollars per gallon)	0.59	0.61	0.63	0.72	0.65	0.57	0.52	0.58	0.57	0.53	0.54	0.60	0.64	0.58	0.56
No. 2 Heating Oil, Retail (dollars per gallon)	0.96	0.98	0.91	1.06	1.06	0.97	0.87	0.94	0.97	0.92	0.88	0.96	0.99	0.99	0.96
No. 6 Residual Fuel Oil, Retail ^c (dollars per barrel)	19.29	18.12	17.64	20.72	19.00	16.59	16.42	17.62	18.13	17.57	17.02	18.63	18.97	17.45	17.87
Electric Utility Fuels															
Coal (dollars per million Btu)	1.30	1.30	1.28	1.28	1.29	1.30	1.27	1.26	1.26	1.27	1.25	1.24	1.29	1.28	1.25
Heavy Fuel Oil ^d (dollars per million Btu)	3.01	2.93	2.83	3.35	2.91	2.69	2.64	2.93	2.91	2.83	2.73	3.09	3.01	2.78	2.88
Natural Gas (dollars per million Btu)	2.81	2.55	2.46	2.96	3.13	2.47	2.55	2.86	2.83	2.42	2.36	2.70	2.64	2.69	2.52
Other Residential															
Natural Gas (dollars per thousand cubic feet)	5.74	6.66	8.35	6.46	6.66	6.70	7.61	6.12	6.06	6.60	7.66	6.17	6.29	6.58	6.30
Electricity (cents per kilowatthour)	7.90	8.52	8.83	8.31	8.04	8.57	8.80	8.33	7.94	8.53	8.81	8.31	8.39	8.44	8.40

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

^bAverage for all grades and services.

^cAverage for all sulfur contents. ^dIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the second quarter of 1997. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. The forecasts were

generated by simulation of the Short-Term Integrated Forecasting System. Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following reports: DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130; *Monthly Energy Review*, DOE/EIA-0035; *Electric Power Monthly*, DOE/EIA-0226. Petroleum Marketing Monthly,

Table U5. U.S. Petroleum Supply and Demand: Mid World Oil Price Case-August 1997

(Million Barrels per Day, Except Closing Stocks)

	1996			1997				1998				Year			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Crude Oil Supply															
Domestic Production ^a	6.55	6.43	6.39	6.49	6.45	6.42	6.37	6.40	6.38	6.33	6.29	6.31	6.46	6.41	6.33
Alaska	1.46	1.38	1.35	1.39	1.36	1.30	1.26	1.30	1.27	1.22	1.19	1.20	1.39	1.30	1.22
Lower 48	5.09	5.06	5.04	5.10	5.09	5.13	5.12	5.11	5.11	5.12	5.11	5.11	5.07	5.11	5.11
Net Imports (including SPR) ^b	6.96	7.68	7.63	7.32	7.32	8.11	8.07	7.73	7.56	8.18	8.17	7.86	7.40	7.81	7.94
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SPR Stock Withdrawn or Added (-)	0.03	0.05	0.12	0.09	0.03	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01	0.00
Other Stock Withdrawn or Added (-)	0.04	-0.16	0.13	0.20	-0.34	-0.06	0.14	0.01	-0.07	-0.01	0.06	0.02	0.05	-0.06	0.00
Product Supplied and Losses	-0.01	-0.01	-0.01	-0.01	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Unaccounted-for Crude Oil	0.13	0.44	0.16	0.14	0.24	0.38	0.23	0.27	0.27	0.28	0.28	0.27	0.22	0.28	0.28
Total Crude Oil Supply	13.70	14.43	14.42	14.22	13.71	14.83	14.80	14.41	14.13	14.78	14.80	14.46	14.19	14.44	14.54
Other Supply															
NGL Production	1.74	1.83	1.85	1.90	1.87	1.83	1.80	1.86	1.84	1.85	1.85	1.89	1.83	1.84	1.86
Other Hydrocarbon and Alcohol Inputs	0.32	0.29	0.30	0.33	0.31	0.31	0.29	0.30	0.31	0.29	0.29	0.31	0.31	0.30	0.30
Crude Oil Product Supplied	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Processing Gain	0.78	0.84	0.85	0.87	0.78	0.85	0.87	0.86	0.83	0.87	0.88	0.86	0.83	0.84	0.86
Net Product Imports ^c	1.01	1.19	1.05	1.16	1.30	1.22	1.25	1.20	1.33	1.41	1.45	1.22	1.10	1.24	1.35
Product Stock Withdrawn or Added (-) ^d	0.82	-0.60	-0.30	0.19	0.26	-0.61	-0.20	0.44	0.42	-0.66	-0.40	0.46	0.03	-0.03	-0.05
Total Supply	18.37	17.98	18.17	18.69	18.23	18.45	18.82	19.08	18.87	18.54	18.88	19.20	18.30	18.65	18.87
Demand															
Motor Gasoline	7.55	8.01	8.06	7.93	7.59	8.12	8.27	8.15	7.80	8.26	8.39	8.30	7.89	8.04	8.19
Jet Fuel	1.61	1.52	1.59	1.60	1.57	1.58	1.61	1.68	1.62	1.58	1.64	1.67	1.58	1.61	1.63
Distillate Fuel Oil	3.63	3.23	3.12	3.48	3.58	3.37	3.39	3.60	3.85	3.42	3.35	3.61	3.37	3.48	3.56
Residual Fuel Oil	0.98	0.77	0.83	0.82	0.90	0.77	0.84	0.92	1.00	0.84	0.80	0.87	0.85	0.86	0.88
Other Oils ^e	4.62	4.45	4.58	4.85	4.61	4.61	4.72	4.73	4.60	4.45	4.70	4.74	4.63	4.67	4.62
Total Demand	18.39	17.98	18.18	18.68	18.24	18.45	18.82	19.08	18.87	18.54	18.88	19.20	18.31	18.65	18.87
Total Petroleum Net Imports	7.97	8.87	8.67	8.47	8.62	9.33	9.31	8.93	8.88	9.58	9.62	9.08	8.50	9.05	9.29
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	300	314	302	284	314	320	307	306	312	313	307	305	284	306	305
Total Motor Gasoline	203	205	200	195	200	204	196	195	206	210	207	200	195	195	200
Finished Motor Gasoline	158	164	161	157	154	161	156	154	164	170	166	159	157	154	159
Blending Components	44	41	39	38	46	43	40	40	42	40	41	41	38	40	41
Jet Fuel	34	39	43	40	39	41	44	41	40	41	42	42	40	41	42
Distillate Fuel Oil	90	102	115	127	102	116	131	133	96	104	126	130	127	133	130
Residual Fuel Oil	32	35	38	46	41	39	38	40	35	39	40	43	46	40	43
Other Oils ^e	235	267	280	250	253	289	300	259	253	295	311	269	250	259	269
Total Stocks (excluding SPR)	893	962	978	942	949	1010	1015	973	941	1002	1033	989	942	973	989
Crude Oil in SPR	589	584	574	566	563	564	564	564	564	564	564	564	566	564	564
Total Stocks (including SPR)	1482	1546	1551	1507	1512	1573	1579	1537	1505	1566	1597	1552	1507	1537	1552

^aIncludes lease condensate.

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

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

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

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

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

Table U6. U.S. Natural Gas Supply and Demand: Mid world Oil Price Case-August 1997

(Trillion cubic Feet)

	1996					1997				1998				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Total Dry Gas Production	4.74	4.70	4.73	4.85	4.70	4.74	4.77	4.92	4.85	4.83	4.86	4.99	19.02	19.13	19.52
Net Imports	0.66	0.65	0.67	0.73	0.74	0.74	0.73	0.78	0.79	0.76	0.77	0.84	2.72	2.99	3.16
Supplemental Gaseous Fuels	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.13	0.12	0.13
Total New Supply	5.44	5.39	5.42	5.61	5.47	5.50	5.52	5.74	5.67	5.62	5.66	5.86	21.87	22.24	22.82
Underground Working Gas Storage															
Opening	6.50	5.04	5.86	6.93	6.51	5.32	6.05	6.98	6.51	5.23	6.03	6.97	6.50	6.51	6.51
Closing	5.04	5.86	6.93	6.51	5.32	6.05	6.98	6.51	5.23	6.03	6.97	6.50	6.51	6.51	6.50
Net Withdrawals	1.46	-0.82	-1.07	0.42	1.19	-0.73	-0.94	0.47	1.28	-0.80	-0.94	0.46	-0.00	-0.01	0.01
Total Supply	6.91	4.57	4.35	6.04	6.66	4.77	4.59	6.21	6.96	4.82	4.72	6.33	21.86	22.23	22.83
Balancing Item ^a	0.17	0.29	-0.04	-0.35	0.23	0.01	-0.11	-0.38	0.41	0.22	-0.08	-0.37	0.06	-0.25	0.18
Total Primary Supply	7.08	4.86	4.31	5.68	6.89	4.78	4.48	5.83	7.37	5.04	4.65	5.95	21.93	21.98	23.01
Demand															
Lease and Plant Fuel	0.31	0.31	0.31	0.32	0.31	0.31	0.32	0.33	0.33	0.32	0.32	0.33	1.25	1.27	1.29
Pipeline Use	0.23	0.16	0.14	0.18	0.22	0.15	0.15	0.20	0.23	0.17	0.16	0.20	0.71	0.72	0.75
Residential	2.46	0.91	0.38	1.48	2.28	0.86	0.37	1.40	2.45	0.86	0.37	1.42	5.23	4.92	5.11
Commercial	1.32	0.61	0.39	0.89	1.26	0.59	0.40	0.89	1.39	0.62	0.41	0.91	3.21	3.15	3.33
Industrial (Incl. Cogenerators)	2.25	2.09	2.04	2.22	2.29	2.11	2.09	2.33	2.38	2.18	2.14	2.39	8.60	8.82	9.09
Cogenerators ^b	0.56	0.51	0.52	0.60	0.56	0.54	0.57	0.65	0.58	0.56	0.59	0.68	2.20	2.32	2.41
Electricity Production															
Electric Utilities	0.46	0.73	1.01	0.53	0.47	0.70	1.10	0.62	0.53	0.84	1.20	0.65	2.73	2.90	3.23
Nonutilities (Excl. Cogen.)	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05	0.06	0.19	0.20	0.21
Total Demand	7.08	4.86	4.31	5.68	6.89	4.78	4.48	5.83	7.37	5.04	4.65	5.95	21.93	21.98	23.01

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

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

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

Table U7. U.S. Coal Supply and Demand: Mid World Oil Price Case-August 1997

(Million Short Tons)

`,/	1996					1997				1998				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															
Production	258.1	261.6	270.3	266.8	273.9	262.9	269.6	277.6	284.1	275.0	280.9	282.8	1056.7	1084.0	1122.8
Appalachia	109.8	112.2	109.6	113.4	119.0	110.5	106.8	115.6	121.4	113.2	108.5	115.5	445.1	451.9	458.6
Interior	43.8	42.5	43.8	42.1	42.9	41.2	41.7	41.7	42.9	41.4	41.4	40.4	172.2	167.5	166.2
Western	104.4	106.8	116.9	111.3	112.0	111.2	121.1	120.3	119.8	120.4	131.0	126.9	439.5	464.6	498.0
Primary Stock Levels ^a															
Opening	34.4	36.9	37.3	33.8	31.1	37.5	37.0	33.0	31.0	34.0	34.0	32.0	34.4	31.1	31.0
Closing	36.9	37.3	33.8	31.1	37.5	37.0	33.0	31.0	34.0	34.0	32.0	30.0	31.1	31.0	30.0
Net Withdrawals	-2.4	-0.5	3.6	2.7	-6.5	0.5	4.0	2.0	-3.0	(S)	2.0	2.0	3.4	0.1	1.0
Imports	1.7	1.6	2.1	1.8	1.3	1.8	1.9	1.9	1.8	1.8	1.8	1.8	7.1	6.9	7.3
Exports	20.5	23.0	23.5	23.4	20.0	21.6	23.3	23.2	22.3	22.9	23.1	23.0	90.5	88.1	91.3
Total Net Domestic Supply	236.8	239.6	252.4	247.9	248.8	243.6	252.2	258.3	260.7	254.0	261.6	263.6	976.8	1002.8	1039.9
Secondary Stock Levels ^b															
Opening	134.6	124.8	134.3	127.6	123.0	119.1	129.4	114.2	115.6	115.2	123.8	110.3	134.6	123.0	115.6
Closing	124.8	134.3	127.6	123.0	119.1	129.4	114.2	115.6	115.2	123.8	110.3	111.7	123.0	115.6	111.7
Net Withdrawals	9.8	-9.5	6.7	4.6	3.8	-10.2	15.2	-1.4	0.4	-8.5	13.5	-1.5	11.7	7.4	3.9
Total Supply	246.7	230.1	259.2	252.5	252.6	233.4	267.4	256.9	261.0	245.5	275.1	262.2	988.4	1010.2	1043.8
Demand															
Coke Plants	8.0	8.0	8.0	7.8	7.9	7.9	7.8	8.4	7.9	7.9	8.0	8.4	31.7	32.0	32.1
Electricity Production															
Electric Utilities	214.9	203.2	233.6	223.0	218.2	204.9	237.8	223.9	228.8	215.1	244.7	228.9	874.7	884.7	917.6
Nonutilities (Excl. Cogen.)	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	7.0	7.0	7.0	7.0	24.0	26.0	28.0
Retail and General Industry ^d	20.3	18.0	17.9	20.3	19.1	17.4	17.8	20.6	20.0	17.9	17.7	20.3	76.4	74.9	76.0
Total Demand	249.2	235.1	265.5	257.0	251.7	236.7	269.9	259.3	263.8	247.9	277.4	264.6	1006.8	1017.5	1053.8
Discrepancy ^e	-2.5	-5.0	-6.4	-4.5	0.9	-3.3	-2.5	-2.5	-2.7	-2.4	-2.3	-2.5	-18.4	-7.3	-10.0

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

^bSecondary stocks are held by users.

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

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

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

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

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

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

Table U8. U.S. Electricity Supply and Demand: Mid World Oil Price Case- August 1997

(Billion Kilowatthours)

	1996					1997				1998				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1996	1997	1998
Supply															1
Net Utility Generation															
Coal	428.2	405.7	462.7	441.0	434.0	409.8	474.2	448.2	459.8	432.0	488.9	458.2	1737.5	1766.2	1838.9
Petroleum	22.3	12.8	19.0	14.1	17.6	13.5	20.2	15.0	20.9	16.1	19.6	13.8	68.2	66.3	70.4
Natural Gas	44.6	70.8	96.6	50.8	45.6	66.8	103.2	58.7	50.2	79.2	112.6	61.6	262.8	274.3	303.5
Nuclear	174.3	163.5	177.0	159.9	160.0	148.5	175.8	158.8	171.3	154.3	180.0	162.6	674.7	643.2	668.2
Hydroelectric	91.1	92.4	73.1	72.1	94.3	92.3	71.8	67.4	77.5	78.2	63.7	64.0	328.7	325.8	283.4
Geothermal and Other ^a	1.5	1.5	2.2	2.1	1.6	1.9	1.9	1.8	1.7	1.6	1.7	1.7	7.2	7.2	6.6
Subtotal	762.1	746.6	830.5	739.9	753.1	732.9	847 1	749.9	781.4	761.4	866 4	761.8	3079.1	3083.0	3170.9
Nonutility Generation ^b						10210	0	1 1010			000			0000.0	011010
Coal	16.1	14.7	15.1	17.4	15.9	15.5	16.3	18.7	16.4	16.0	16.8	19.3	63.3	66.4	68.5
Petroleum	4.4	4.0	4.1	4.7	4.5	4.4	4.6	5.3	4.9	4.8	5.0	5.7	17.3	18.8	20.4
Natural Gas	52.3	47.9	49.1	56.5	52.3	50.8	53.3	61.2	54.2	52.7	55.3	63.6	205.8	217.6	225.9
Other Gaseous Fuels ^c	3.2	2.9	3.0	3.4	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	3.6	3.7	4.2	4.0	3.8	4.0	4.6	4.1	4.0	4.2	4.9	15.3	16.4	17.3
Geothermal and Other ^d	20.5	18.7	19.2	22.1	19.9	19.4	20.3	23.4	20.2	19.7	20.6	23.7	80.5	83.0	84.3
Subtotal	100.3	91.8	94.2	108.3	99.6	96.9	101.6	116.7	103.0	100.1	105.0	120.7	394.7	414.7	428.8
Total Generation	862.4	838.5	924.7	848.2	852.7	829.8	948.7	866.6	884.3	861.5	971.4	882.5	3473.8	3497.7	3599.7
Net Imports ^e	7.1	9.5	13.0	8.4	7.5	9.3	12.7	8.1	6.9	9.2	12.6	8.3	38.0	37.6	37.0
Total Supply	869.5	848.0	937.7	856.6	860.2	839.0	961.4	874.7	891.2	870.7	984.0	890.8	3511.8	3535.3	3636.7
Losses and Unaccounted for ^f	55.2	78.5	59.5	72.2	57.6	81.4	66.9	68.2	52.7	74.5	68.5	69.4	265.4	274.1	265.1
Demand															
Electric Utility Sales															
Residential	290.7	239.2	302.1	246.5	276.8	223.9	303.7	254.1	296.8	244.0	313.3	260.6	1078.5	1058.4	1114.6
Commercial	212.3	215.8	248.1	215.4	214.5	212.9	253.8	220.6	222.7	224.6	259.8	224.5	891.6	901.9	931.7
Industrial	245.6	252.5	262.8	253.4	248.0	258.6	269.7	259.7	252.1	262.3	272.8	262.2	1014.3	1036.0	1049.3
Other	24.6	24.3	26.6	24.7	23.4	23.6	26.8	25.5	26.2	25.8	28.1	26.4	100.2	99.3	106.5
Subtotal	773.2	731.9	839.6	740.0	762.8	718.9	854.0	759.9	797.8	756.6	874.0	773.7	3084.7	3095.5	3202.1
Nonutility Gener, for Own Use ^b	41.1	37.6	38.6	44.4	39.8	38.7	40.6	46.6	40.7	39.6	41.5	47.7	161.8	165.6	169.5
Total Demand	814.3	769.5	878.3	784.4	802.5	757.6	894.5	806.5	838.5	796.2	915.5	821.4	3246.4	3261.2	3371.6
Memo:															
Nonutility Sales to															
Electric Utilities ^b	59.2	54.2	55.6	63.9	59.8	58.2	61.0	70.1	62.3	60.6	63.5	73.0	232.9	249.1	259.3

 $\overset{a}{\cdot}$ "Other" includes generation from wind, wood, waste, and solar sources.

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

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

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

^eData for 1996 are estimates.

^fBalancing item, mainly transmission and distribution losses.

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

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