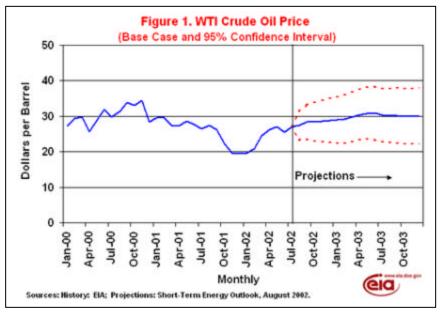


### **■** Short-Term Energy Outlook

#### August 2002



#### Overview

**World Oil Markets:** Oil prices remained relatively high in July, averaging close to the expectations reported in the July Outlook. The average spot West Texas Intermediate (WTI) price in July was approximately \$27 per barrel. As always, a wide range of possibilities exists for oil price movements over the next year and a However, given the amount of growth in world demand expected through 2003, we think that likely scenarios for OPEC and non-OPEC output growth imply continued tightening of markets (lower commercial inventories) and continued support for

crude oil prices near or slightly above current levels through mid-2003. The average WTI spot price is expected to edge upward toward \$30 per barrel by early to mid 2003 under our current Base Case assumptions (Figure 1).

**Summer Motor Gasoline Update:** Average pump prices turned up in July, the first monthly average increase since April. The increase was small, however (1.5 cents per gallon), and the U.S. average price for regular gasoline continued to exhibit notable stability for a fourth straight month. Average monthly prices remained in the \$1.38-\$1.40 per gallon range from April to July of this year. Since we expect some gradual increases in crude oil prices in the near term, some additional growth in pump prices may materialize in August and September as suppliers gear up toward Labor Day and the end of the peak driving season. We expect only modest increases, however (perhaps a few cents per gallon, at most), unless significant refinery problems develop. In the April *Outlook*, we projected the average summer (April-to-September) regular gasoline price to be \$1.46 per gallon. Our best guess at this point is that the summer average will end up at about \$1.40 per gallon, lower than originally expected thanks to good supply availability (including strong net imports) but higher than most years due to above-average crude oil costs (Figure 2).

**U.S. Natural Gas Markets:** Spot wellhead prices have been weaving above and below \$3.00 per thousand cubic feet (mcf) since mid-March. This sharp price volatility, which occurred over the spring and early summer months, has recently become calmer now that the summer is more than half over and a clearer picture of the likely winter storage situation emerges. Working gas in underground storage has been above the previous 5-year average since the beginning of the year. By the end of July, the storage level for working gas was about 15 percent higher than last year and about 17 percent above the previous 5-year average for that month.

#### **International Oil Markets**

**Crude Oil Prices**. West Texas Intermediate (WTI) crude oil spot prices were about \$1.40 per barrel higher in

## Figure 1. WTI Crude Oil Price

(Base Case and 95% Confidence Interval)

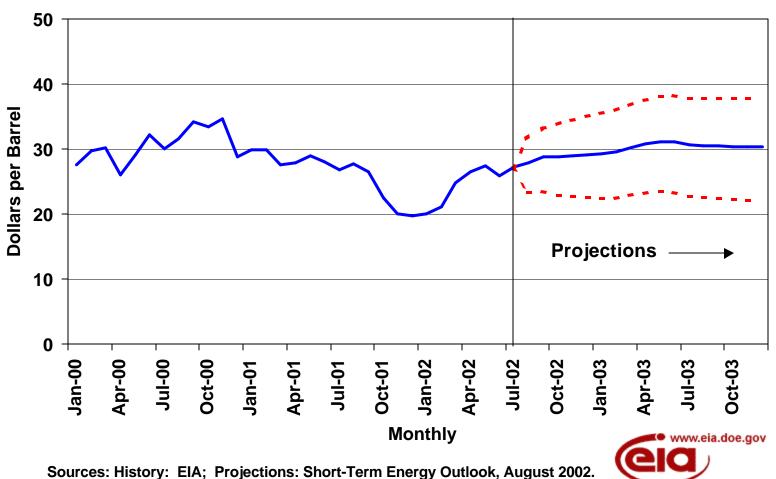
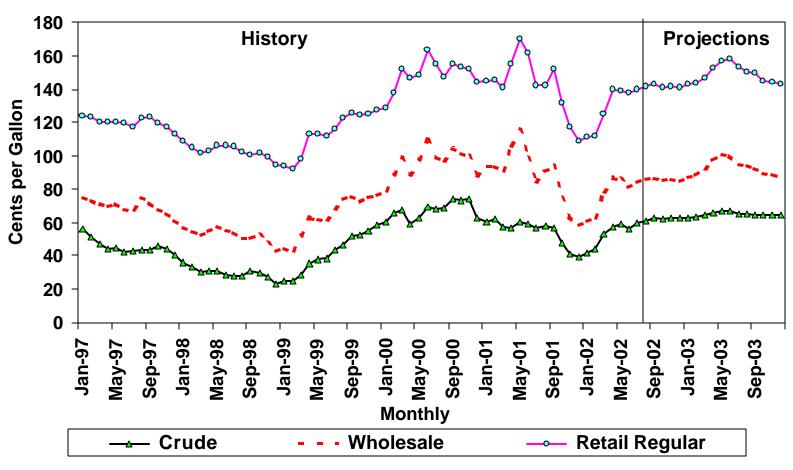


Figure 2. Gasoline Prices and Crude Oil Costs



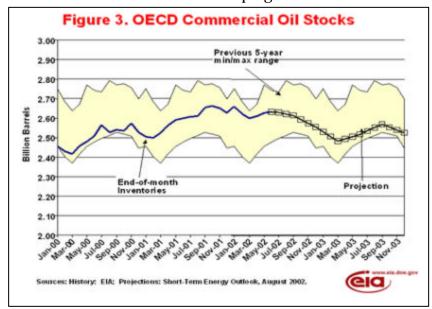


July than in June, with the July average reaching almost \$27 per barrel. Other world oil price market indicators also rose in July, with both Brent crude oil and the OPEC basket prices averaging \$1.30 - \$1.60 per barrel more in July than in June.

The OPEC basket price has been above \$22 per barrel since March 8, and July marked the fifth consecutive month that the OPEC basket price averaged above \$22 per barrel, the lower end of OPEC's original target range for the OPEC basket price. July was also the first month in over a year in which the OPEC basket price averaged over \$25 per barrel. The OPEC basket price is projected to remain within this target range throughout the forecast period, with prices expected to rise through early 2003 before leveling off in midyear.

**International Oil Supply and Demand.** OPEC 10 production in July is estimated to have been 1.6 million barrels per day above quota levels, slightly more than the level of June overproduction. The July overproduction would have been higher if not for problems at export terminals and flow stations in Nigeria that resulted in shut-in production. OPEC 10 overproduction during the second quarter had already reached 1.4 million barrels per day above quota levels, an increase of 350,000 barrels per day above the first quarter level.

OPEC 10 overproduction was offset to some extent by a drop in Iraqi production due to Iraq's self-imposed embargo during the second quarter of 2002. Iraqi production during this time fell to its lowest quarterly production level since the beginning of 1998, averaging 1.5 million barrels per day. The *Outlook* assumes that Iraqi production will continue to fluctuate, with another downturn expected following the next rollover of the United Nation's oil-for-food program at the end of November.



Despite the current high levels of overproduction, EIA's current *Outlook* assumes that OPEC 10 production will need to rise further over the rest of 2002 in order to prevent prices from rising above OPEC's target range. OPEC enacted a series of quota cuts over the past 1½ years totaling 5 million barrels per day, and, even with its overproduction, the OPEC 10 cut oil supplies by over 3.5 million barrels per day during this time.

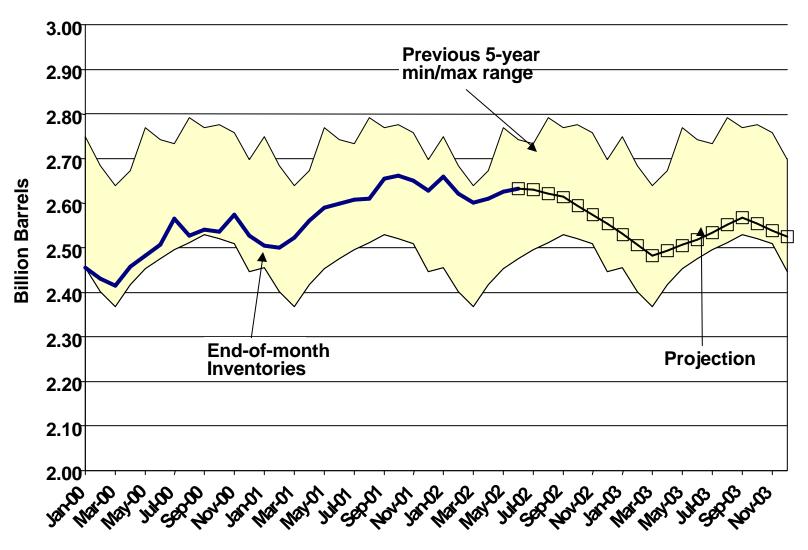
The expected turnaround in world oil demand in the second half of 2002, combined with OPEC's very low quota

level, is projected to reduce world oil inventories below their 5-year observed range unless OPEC increases its production significantly in the fourth quarter, or average 1 million barrels per day above second quarter 2002 production levels (Figure 3). With the expected recovery of the economy in 2003, particularly in the United States, where GDP growth is projected to reach over 3 percent annually, world oil demand could increase by 1.2 million barrels per day in 2003, with about half of this coming from the U.S. (Figure 4).

#### **U. S. Energy Prices**

**Motor Gasoline:** Average monthly retail motor gasoline prices rebounded slightly in July after dropping a few cents per gallon in May and June <u>(Figure 2)</u>. Rising crude oil prices over that same time period were simply passed on to the pump price. The U.S. average retail price of gasoline is expected to peak at around

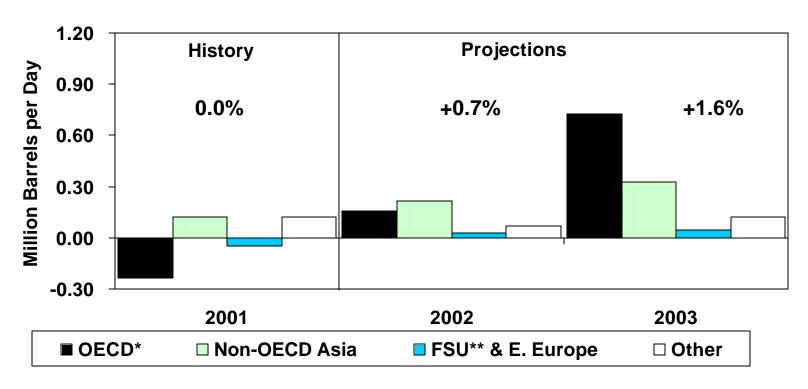
## Figure 3. OECD Commercial Oil Stocks





## Figure 4. World Oil Demand Growth

(Change from Year Ago)



<sup>\*</sup> Note: OECD now defined to include the Czech Republic, Hungary, Mexico, Poland and South Korea in EIA's statistics.



<sup>\*\*</sup> FSU = Former Soviet Union

\$1.41-\$1.43 per gallon later this summer Pump prices for July and August will be about equal to the prices during the same months last year, even though crude oil prices this year will be close to 5 cents per gallon higher. Abundant gasoline supplies from both production and imports helped create ample gasoline inventories, which have kept a lid on gasoline prices this driving season, even as demand reaches record highs. Nevertheless, pump prices could inch up by the end of the summer, as crude oil prices keep rising. The possibility of local or regional price spikes still exists, if supply problems (such as an unscheduled refinery shutdown) crop up or if crude oil prices rise faster than anticipated. Because of the currently strong supply conditions, refiner margins (the difference between the refiner price of gasoline and the refiner acquisition cost of crude oil) have been fairly weak this summer, particularly when compared to the margins from the last two summers (Figure 5). In 2003, retail gasoline prices are expected to increase by 12-15 cents per gallon on an annual basis, assuming rising crude oil prices and recovering refiner margins, as continuing economic growth boosts gasoline demand. At the end of July, motor gasoline inventories stood at 211 million barrels, which is at the high end of the summer "normal" range (Figure 6).

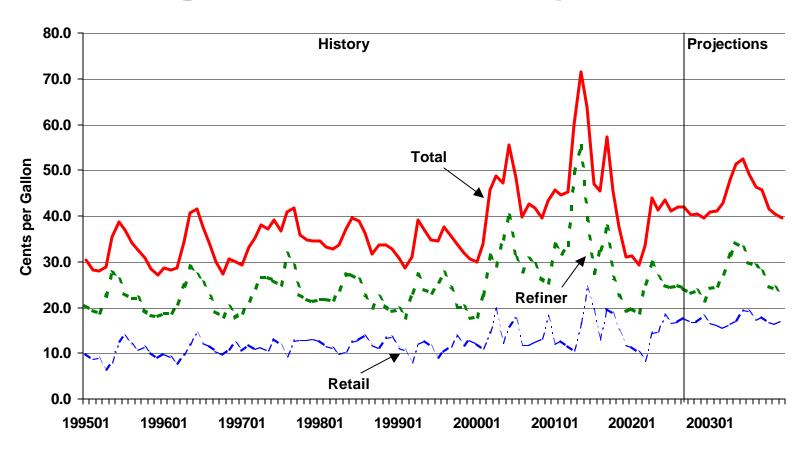
**Distillate Fuel Oil (Diesel and Heating Oil):** Diesel fuel oil prices have not moved much since early spring, as supplies for this fuel have been strong, setting a limit on upward movements in price. (At the end of July, distillate fuel oil inventories were about 135 million barrels, at the upper range of the 5-year average (Figure 7). However, when the heating season begins and winter demand for fuel oil normally boosts both heating oil and diesel fuel prices, we can expect a normal seasonal price increase. A stronger economy along with the expectation of higher crude oil prices in 2003 are expected to increase prices by an average of 13-16 cents per gallon for retail heating oil and diesel fuel (Figure 8). Residential heating oil prices are projected to be about 20 cents per gallon higher next winter compared to the previous winter. Assumptions of higher crude oil prices next winter, averaging \$7.50 per barrel (or 18 cents per gallon) more than the previous winter, will account for most of the projected difference. It should also be noted that the previous weather in the Northeast (where 75 percent of the nation's heating oil is consumed) was 18 percent warmer than average, which greatly lessened demand pressure on prices.

**Natural Gas:** Spot wellhead prices have weaved above, and more recently below \$3.00 per thousand cubic feet (mcf) since mid-March. The sharp price volatility, which occurred over the spring and early summer months, has recently become calmer now that the summer is more than half over and a clearer picture of the likely winter storage situation emerges (Figure 9).

Natural gas factors to watch for in the upcoming months are weather conditions and the volume of working gas in underground storage. Traditionally, a working gas storage level of 3 - 3.2 trillion cubic feet by November 1 is considered ample to provide sufficient amounts of gas for winter's demand under most conditions. Over the next three months, gas is typically added (injected) to storage. However, if the remainder of the summer is unusually hot, gas may be diverted from storage for incremental electricity generation to meet the added cooling demand. The months of September through November bear particular scrutiny, as the weather over that period can be a critical determinant of the storage situation and ultimately the price of gas next winter. A hotter-than-normal September or colder-than-normal weather for October and/or November will eat into storage and thus drive up the price. Conversely, milder-than-normal weather in those months could send spot gas prices reeling, even into the winter, especially given the current cushion of working gas in storage. Working gas in underground storage has been above the previous 5-year average since the beginning of the year. By the end of July, the storage level for working gas was about 15 percent higher than last year and about 17 percent above the previous 5-year average for that month.

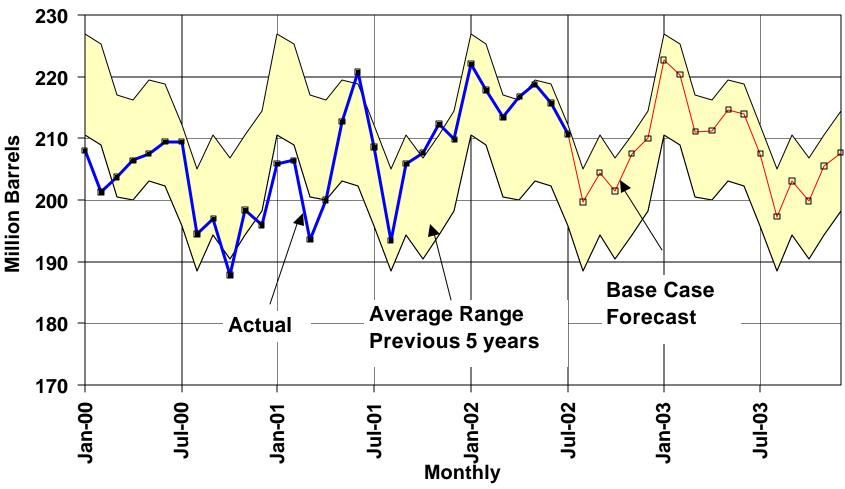
In addition to the weather, other factors that would influence gas prices are world oil prices and the pace of economic growth. Both crude oil prices and economic growth are expected to pick up over the forecast period, therefore allowing natural gas prices to also rise.

## Figure 5. Motor Gasoline Spreads



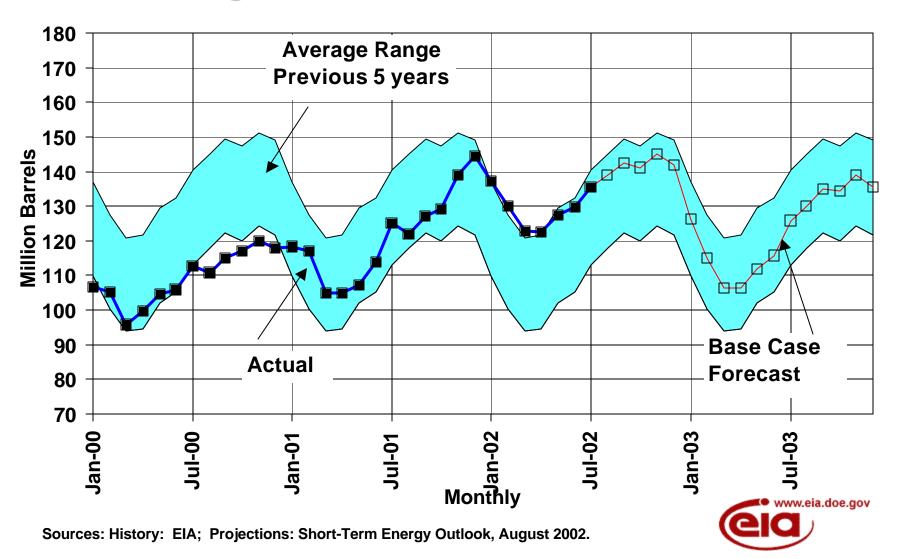


## Figure 6. U.S. Gasoline Inventories





## Figure 7. Distillate Fuel Inventories



## Figure 8. Distillate Fuel Prices

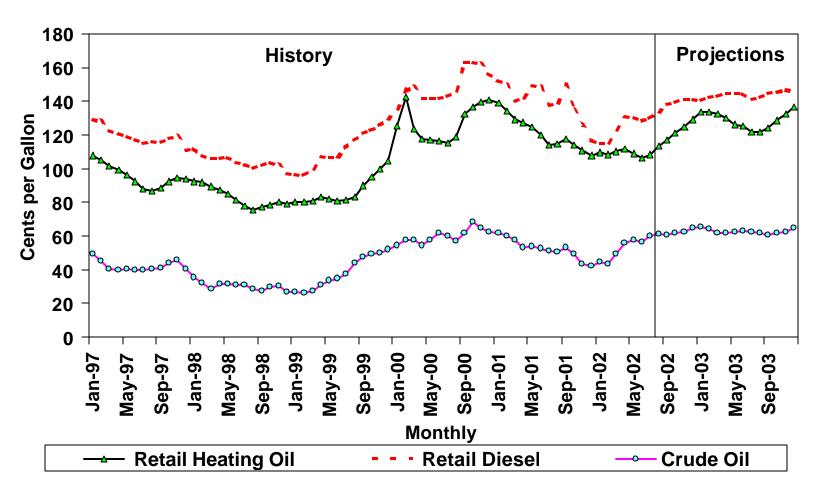
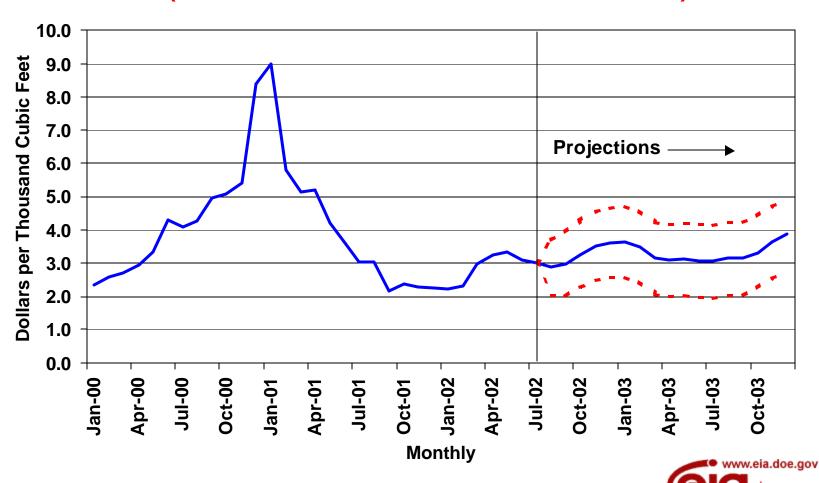




Figure 9. Natural Gas Spot Prices (Base Case and 95% Confidence Interval)



Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, August 2002.

For the upcoming winter, natural gas wellhead prices, assuming normal weather, are expected to average close to \$3.12 per thousand cubic feet, which is about \$0.70 per thousand cubic feet above last winter's price, but only about 10-15 percent higher than current gas prices. For all of 2002, the annual average natural gas wellhead price is projected to be about \$2.80 per thousand cubic feet compared to over \$4.00 last year. In 2003, assuming normal weather, the combination of projected lower levels of underground gas storage, continuing economic gains and rising crude oil prices is expected to push natural gas wellhead prices higher, to just over \$3.00 per thousand cubic feet.

#### **U. S. Oil Demand**

For the current year, total petroleum demand is projected to average 19.72 million barrels per day, an increase of 70,000 barrels per day, or 0.4 percent, from that of the previous year (Figure 10). But first- and second-half demand behavior differ widely.

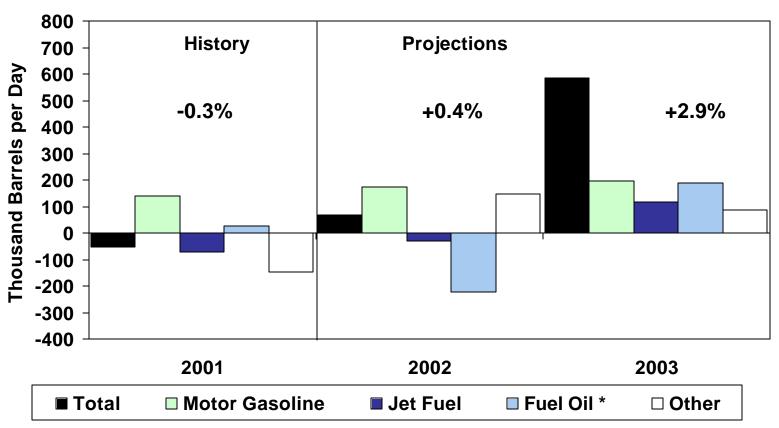
Data for the first half of this year indicate that petroleum demand fell by an estimated 225,000 barrels per day, or 1.2 percent, from the same period in 2001, extending a period of stagnation in petroleum markets since 1999. Motor gasoline demand, buoyed by increases in real disposable income averaging 4.6 percent and a 15-percent decline in retail motor gasoline prices, rose 23,000 barrels per day, or 2.6 percent. But record mild weather, the lingering effects of the events of the previous September and declines in industrial production depressed deliveries of jet fuel by more than 8 percent. Distillate fuel oil fell by 6 percent, largely as a result of a 10.3-percent fall in Northeastern heating degree-days and a more than 2-percent decline in industrial production. Moreover, the combined effects of record mild weather, depressed levels of industrial production and a substantial retreat in the price of natural gas from the previous year's record levels contributed to the 27-percent decline of residual fuel oil demand to record low levels.

Reversing the decline during the first half of the year, total petroleum products demand during the second half is projected to climb 365,000 barrels per day, or 1.8 percent, with the bulk of the increase occurring in final quarter. This projection appears to mark the end of the 3-year period of stagnation in total petroleum demand. Motor gasoline demand is still projected to climb steadily, with year-to-year growth averaging 1.4 percent. Jet fuel deliveries are expected to grow by 5 percent, but much of that growth stems from the previous year's weakness brought about by the events of last September. (Demand during the current quarter, in fact, is still below that of the same period in 2001). Reflecting the recovery in industrial production, as well as assumptions of normal weather, total distillate demand is projected to climb 2 percent. Residual fuel oil demand, on the other hand, is still projected to extend its slide for the rest of the year, registering a year-to-year decline of almost 1 percent. Despite the nascent economic recovery and the assumptions of normal weather, the firming of oil prices and continued weakness in natural gas prices is expected to continue to favor the consumption of natural gas at the expense of residual fuel oil in the price-sensitive industrial and power-generation sectors.

For 2003, we assume continued economic and industrial recovery as well as normal weather patterns. As a result, total petroleum demand is projected to average 20.30 million barrels day, an increase of 580,000 barrels per day, or 2.9 percent. All of the major petroleum products groups are expected to contribute to that growth. Motor gasoline demand is projected to climb by 2.3 percent, reflecting continuing increases in highway travel activity. Jet fuel demand, reflecting both economic growth and a recovery of air activity to levels approaching pre-September 2001 levels, is projected to increase by almost 7 percent. Distillate fuel demand, buoyed by assumed normal weather patterns and continued recovery in industrial activity, is slated to increase by 2.7 percent. Residual fuel oil demand is projected to climb by almost 12 percent but is still projected to average less than 800,000 barrels per day.

#### **U.S. Oil Supply**

# Figure 10. Petroleum Products Demand Growth (Change from Year Ago)



<sup>\*</sup> Sum of distillate and residual fuel.



Average domestic oil production is expected to increase by 64 thousand barrels per day or 1.1 percent in 2002, to a level of 5.91 million barrels of oil per day <u>(Figure 11).</u> For 2003, the average production rate seen in 2002 is expected to be maintained.

Lower-48 States oil production is expected to increase by 19 thousand barrels per day to a rate of 4.9 million barrels per day in 2002, followed by a decrease of 57 thousand barrels per day in 2003. Shell's Brutus Federal Offshore platform oil production is expected to peak at 100 thousand barrels per day in 2002. The production from the new Brutus platform offsets the decline in production from other fields in 2002. Oil production from the Mars, Troika, Ursa, Dianna-Hoover and Brutus Federal Offshore fields is expected to account for about 9.3 percent of the lower-48 oil production by the fourth quarter of 2003.

Alaska is expected to account for 18.0 percent of total U.S. oil production in 2003. Alaska oil production is expected to increase by 4.7 percent in 2002 and increase by 5.2 percent in 2003. The increase in 2003 will be the result of field facilities expansion in the new satellite Colville River (Alpine) field. Another satellite field, North Star, came on in November 2001 at a rate of over 50 thousand barrels per day. Production from the Kuparuk River field plus like production from West Sak, Tabasco, Tarn and Meltwater fields is expected to stay at an average of 220 thousand barrels per day in the 2002 and 2003 forecast periods.

#### **Natural Gas Demand and Supply**

In 2002, natural gas demand is projected to increase by 3.0 percent over 2001 levels, an upward revision of projected demand in the last *Outlook*. The revision is due to higher expected demand figures for the electric power sector. This growth shows up in the industrial sector due to the inclusion of nonutility generation in that category. In 2003, natural gas demand growth is expected to increase by 2.8 percent, as the economy continues to recover (Figure 12). In 2003, natural gas demand growth is expected across all sectors.

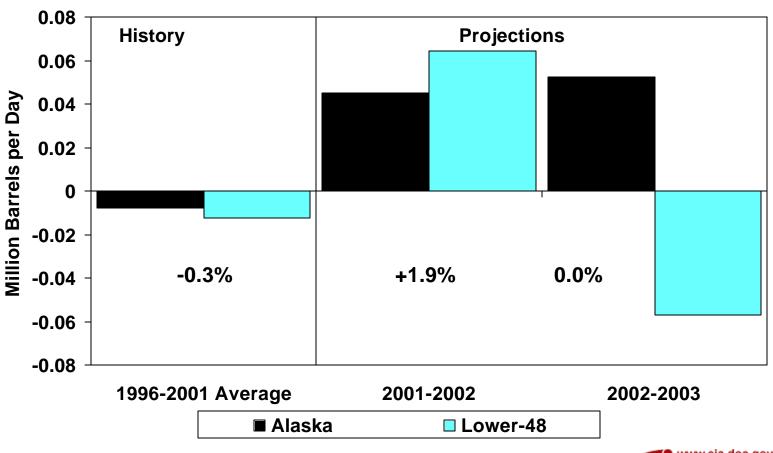
This summer's natural gas demand is now projected to be 4.6 percent above last summer's level, rather than the 3.6 percent projected in the last *Outlook*. Growth is due partly to the fall in natural gas prices since a year ago and the slowly reviving economy. We have increased our assessment of the amount of natural gas for power generation required this summer, generally at the expense of coal.

Working gas in storage is estimated to have reached about 2,600 billion cubic feet (bcf) by the end of July, 17 percent above the 5-year average. Storage levels are now about 330 bcf higher than a year ago, and over half of that surplus is in the producing region. Storage is expected to remain above average levels through the beginning of the next heating season (Figure 13). In July 2002, spot natural gas prices averaged about \$3.00 per thousand cubic feet (mcf), close to the July 2001 average of \$3.05. The forecast for natural gas prices for 2003 is an increase of about \$0.25 per mcf from the 2002 average.

Domestic dry natural gas production is projected to fall by about 2.3 percent in 2002 compared to the 2001 growth rate of 2.4 percent. Lower natural gas prices have reduced production and resource development incentives from their highs of last summer. Still, current supplies, including natural gas in storage, appear to be at very comfortable levels. In 2003, production is expected to rebound by 3.9 percent as demand rises.

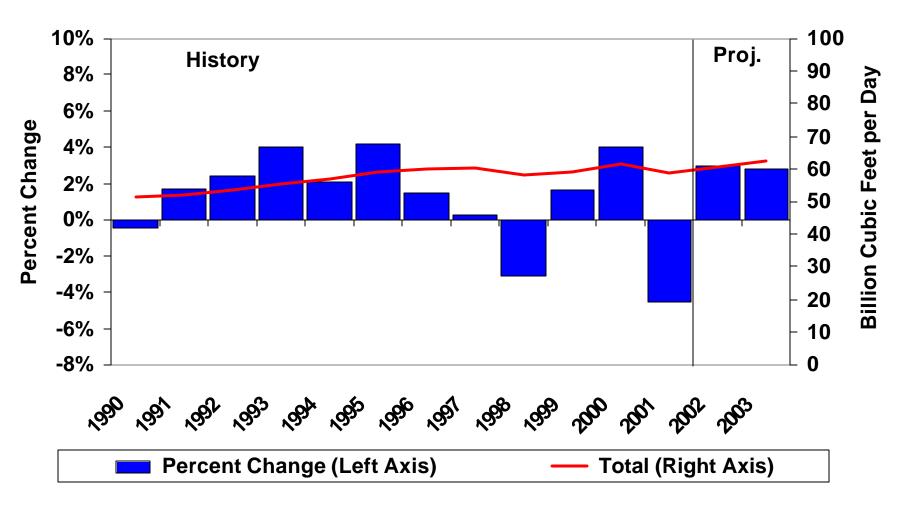
Gas-directed drilling, while down sharply from summer 2001 levels, is still quite strong by a longer historical perspective. Nevertheless, natural gas drilling activity has fallen significantly from the peaks seen last July. <u>Baker Hughes</u> reported average active rigs drilling for natural gas in July at 716, 48 percent below the year-ago level. However, the posting of 729 rigs during the week of August 2 was 23 percent above the recent low of 591 posted for the week of April 5, 2002. Aggregate lease revenues from domestic oil and gas production are expected to move up this year and settle at about \$320 million per day in 2003, which would be approximately a 30-percent increase over the rates seen at the end of 2001 (Figure 14). Inasmuch as these

# Figure 11. U.S. Crude Oil Production Growth (Change from Year Ago)





## Figure 12. Total Natural Gas Demand Growth Patterns

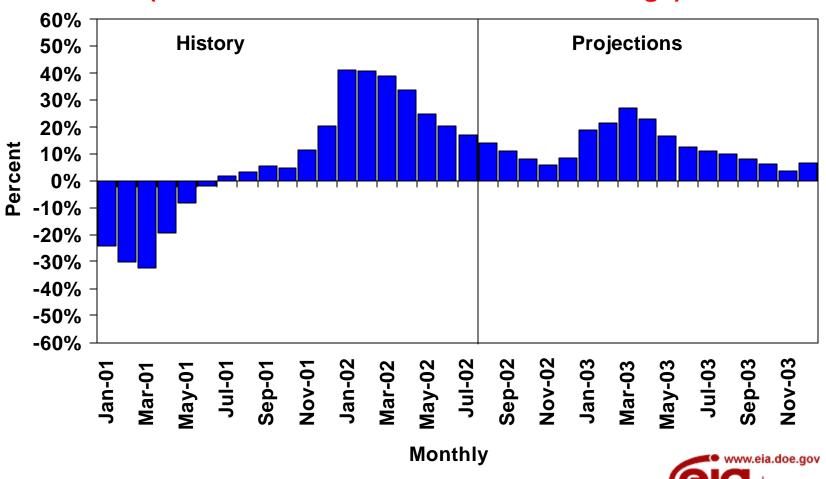


Sources: History: EIA; Projections: Short-Term Energy Outlook, August 2002.

Note: This chart replaces a previous Figure 12 because of revised data for January 2002.



## Figure 13. Working Gas in Storage (Difference from Previous 5-Year Average)



## Figure 14. U.S. Oil and Gas Production Revenues





revenues are a strong determinant of industry cash flow, which in turn is a powerful driver of drilling activity levels, an upward trend in drilling levels generally (and natural gas-directed drilling in particular) is anticipated for this year and into 2003 (Figure 15). Thus, natural gas drilling rates appear to be at the beginning of a rise in the current drilling cycle.

#### **Electricity Demand and Supply**

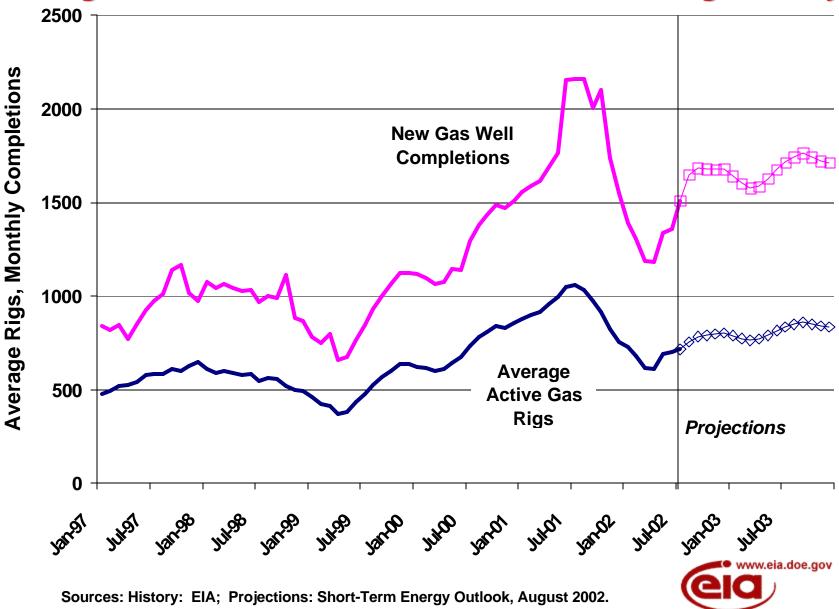
This summer, total electricity demand is expected to grow by less than 1 percent over last summer's demand level, following an actual decline in summer demand last year. Cooling degree-days (CDDs) for the cooling season (April through September), based on CDDs thus far, are assumed to be at 5.6 percent above last summer's, or about 7.5 percent above normal. Also, while the economy is assumed to be growing through the summer months, significant year-over-year increases in industrial output are not expected to show up until the third quarter of this year.

Total annual electricity demand growth (retail sales plus industrial generation for own use and other direct sales) is estimated to have been flat in 2001. For 2002, demand is also expected to be almost flat but it is expected to begin to revive in the third quarter of 2002, and to grow by 3.0 percent in 2003 (Figure 16) as the economy recovers.

In 2001, total hydropower generation was down to lows not seen since 1966. In 2002, total hydro generation is expected to rise by 24 percent with normal precipitation in the Pacific Northwest, the main region affected. Total oil-fired generation is projected to be down considerably, by 44 percent from last year due to higher relative prices, while total gas-fired generation is projected to be up by 8.3 percent from what it was last year.

Total nuclear generation is expected to be only slightly above the 2001 level in both 2002 and 2003. The capacity factor for 2001 was 89.5% and capacity factors for 2002 and 2003 are both projected to be slightly above 90%. The projection reflects revised and increasing capacities for the 103 operating units. Nuclear plant owners have filed applications with the Nuclear Regulatory Commission for uprates for many years; however, there have recently been many more and larger uprates sought. There were applications for uprates at 22 units in 2001 and an equal number is expected through 2003. The planned expansions range from 1 to 20 percent of the current capacities and each could take from 12 to 36 months to implement. The resulting capacity increases reflected in this projection are for 295 megawatts electric (Mwe) in 2001, 994 Mwe in 2002 and 644 Mwe in 2003, for a total exceeding 1,900 Mwe. Currently, the only major outage is with the Davis Besse facility, which is projected to resume operation by November.

## Figure 15. U.S. Natural Gas-Directed Drilling Activity



## Figure 16. Total Electricity Demand Growth Patterns

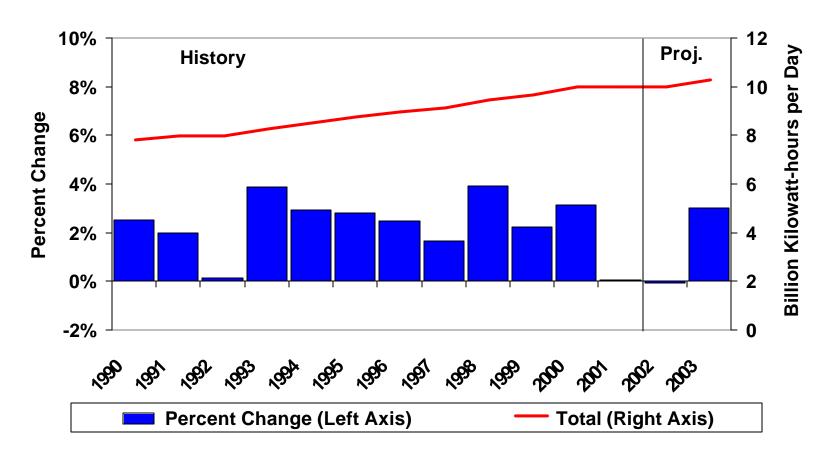




Table HL1. U.S. Energy Supply and Demand: Base Case

Table HL1. U.S. Energy Sup	pry and	Year	iu. Dasi	e Case	Annu	al Percentage C	hango
·	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Real Gross Domestic Product (GDP)	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
(billion chained 1996 dollars)	9224	9334	9556	9855	1.2	2.4	3.1
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel)	27.72	22.01	23.76	27.10	-20.6	8.0	14.1
<b>Petroleum Supply</b> (million barrels per day) Crude Oil Production <sup>b</sup>	5.82	5.80	5.91	5.91	-0.3	1.9	0.0
Total Petroleum Net Imports (including SPR)	10.43	10.91	10.39	10.99	4.6	-4.8	5.8
Energy Demand							
World Petroleum (million barrels per day)	76.0	76.0	76.5	77.7	0.0	0.7	1.6
Petroleum (million barrels per day)	19.70	19.65	19.72	20.30	-0.3	0.4	2.9
Natural Gas (trillion cubic feet)	22.54	21.45	22.21	22.68	-4.8	3.5	2.1
Coal <sup>c</sup> (million short tons)	1081	1050	1070	1075	-2.9	1.9	0.5
Electricity (billion kilowatthours) Retail Sales <sup>d</sup>	3421 199 3620	3397 215 3611	3388 221 3609	3483 235 3718	-0.7 8.0 -0.2	-0.3 2.8 -0.1	2.8 6.3 3.0
Total Energy Demand <sup>f</sup> (quadrillion Btu)	99.6	97.1	98.8	101.3	-2.5	1.8	2.6
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.79	10.40	10.34	10.28	-3.6	-0.6	-0.6
Renewable Energy as Percent of Total <sup>9</sup>	7.2	6.7	7.3	7.6			

<sup>&</sup>lt;sup>a</sup>Refers to the refiner acquisition cost (RAC) of imported crude oil.

<sup>&</sup>lt;sup>b</sup>Includes lease condensate.

<sup>&</sup>lt;sup>c</sup>Total Demand includes estimated Independent Power Producer (IPP) coal consumption.

<sup>&</sup>lt;sup>d</sup>Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2000 are estimates.

<sup>&</sup>lt;sup>e</sup>Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.

<sup>&</sup>lt;sup>1</sup>The 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).

<sup>&</sup>lt;sup>g</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy.

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 Monthly DOE/EIA-0520; Weekly Petroleum Status Report, DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0702.

Table 1. U.S. Macroeconomic and Weather Assumptions: Base Case

		2001 2002 2003								Year					
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Macroeconomic <sup>a</sup>				I	I			L.			I				
Real Gross Domestic Product															
(billion chained 1996 dollars - SAAR)	9334	9342	9310	9349	9476	9519	9576	9652	9727	9814	9894	9985	9334	9556	9855
Percentage Change from Prior Year	2.5	1.2	0.5	0.5	1.5	1.9	2.9	3.2	2.6	3.1	3.3	3.5	1.2	2.4	3.1
Annualized Percent Change															
from Prior Quarter	1.3	0.3	-1.3	1.6	5.5	1.8	2.4	3.2	3.1	3.6	3.3	3.7			
GDP Implicit Price Deflator															
(Index, 1996=1.000)	1.087	1.092	1.098	1.098	1.101	1.106	1.112	1.119	1.128	1.133	1.140	1.148	1.094	1.110	1.137
Percentage Change from Prior Year	2.3	2.3	2.3	1.9	1.3	1.3	1.2	2.0	2.5	2.4	2.5	2.5	2.2	1.4	2.5
Real Disposable Personal Income															
(billion chained 1996 Dollars - SAAR)	6679	6719	6918	6774	6996	7015	7039	7063	7109	7168	7212	7237	6772	7028	7182
Percentage Change from Prior Year	3.8	3.0	5.3	2.1	4.7	4.4	1.8	4.3	1.6	2.2	2.5	2.5	3.6	3.8	2.2
Manufacturing Production															
(Index, 1996=1.000)	1.221	1.202	1.187	1.167	1.176	1.192	1.208	1.222	1.239	1.260	1.281	1.296	1.194	1.200	1.269
Percentage Change from Prior Year	-1.0	-4.3	-5.6	-6.1	-3.7	-0.8	1.8	4.7	5.3	5.7	6.0	6.0	-4.3	0.5	5.8
OECD Economic Growth (percent) b													0.9	1.8	2.6
Weather <sup>c</sup>															
Heating Degree-Days															
U.S	2329	446	85	1363	2067	521	143	1622	2231	518	86	1622	4223	4353	4456
New England	3268	802	122	1867	2800	919	179	2237	3171	882	167	2237	6059	6135	645
Middle Atlantic	2950	627	102	1618	2476	704	101	2002	2888	699	105	2001	5297	5284	569
U.S. Gas-Weighted	2450	470	93	1438	2181	558	85	1714	2348	555	90	1713	4451	4537	470
Cooling Degree-Days (U.S.)		371	779	80	30	404	811	76	33	347	783	76	1256	1321	123

<sup>&</sup>lt;sup>a</sup>Macroeconomic projections from DRI/McGraw -Hill model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

<sup>&</sup>lt;sup>b</sup>OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

<sup>&</sup>lt;sup>c</sup>Population-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.

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 DRI-WEFA, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0702.

Table 2, U.S. Energy Indicators: Base Case

Table 2. U.S. Energy Ind	icato	2001	ase (	Jase		2002				2003				Year	
	1st	2001 2nd	3rd	4th	1st	2002 2nd	3rd	4th	1st	2003 2nd	3rd	4th	2001	2002	2003
Macroeconomic <sup>a</sup>	101	2	0.4				0.4				0.4				
Real Fixed Investment															
(billion chained 1996 dollars-SAAR)	1740	1696	1672	1622	1613	1622	1624	1633	1645	1672	1702	1734	1683	1623	1688
Real Exchange Rate															
(index)	1.113	1.150	1.142	1.158	1.191	1.168	1.163	1.145	1.116	1.087	1.070	1.056	1.141	1.167	1.083
Business Inventory Change															
(billion chained 1996 dollars-SAAR)	-15.0	-35.6	-47.0	-44.1	-26.8	-4.6	0.7	1.8	6.3	8.7	9.5	9.5	-35.4	-7.2	8.5
Producer Price Index															
(index, 1982=1.000)	1.385	1.363	1.329	1.292	1.297	1.319	1.327	1.337	1.349	1.349	1.359	1.366	1.342	1.320	1.356
Consumer Price Index															
(index, 1982-1984=1.000)	1.759	1.773	1.776	1.775	1.781	1.797	1.810	1.825	1.840	1.852	1.865	1.880	1.771	1.803	1.859
Petroleum Product Price Index															
(index, 1982=1.000)	0.892	0.968	0.875	0.675	0.655	0.747	0.786	0.882	0.917	0.889	0.864	0.919	0.852	0.768	0.897
Non-Farm Employment															
(millions)	132.6	132.5	132.4	131.5	131.2	131.3	131.4	131.9	132.5	132.9	133.6	134.4	132.2	131.5	133.4
Commercial Employment															
(millions)	93.1	93.3	93.3	92.7	92.7	92.8	92.9	93.2	93.7	94.0	94.6	95.2	93.1	92.9	94.4
Total Industrial Production															
(index, 1996=1.000)	1.199	1.181	1.167	1.147	1.154	1.170	1.186	1.201	1.217	1.236	1.255	1.270	1.173	1.178	1.245
Housing Stock								4000	400.5	4000	40.40	40.4 =			40.4.0
(millions)	117.5	117.7	117.7	118.4	119.2	119.6	119.9	120.2	120.5	120.8	121.2	121.5	117.8	119.7	121.0
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1996=1.000)	1.081	1.073	1.069	1.060	1.068	1.074	1.082	1.089	1.097	1.106	1.117	1.126	1.071	1.078	1.111
Vehicle Miles Traveled <sup>b</sup>															
(million miles/day)	7106	7883	7877	7574	7235	7999	8097	7743	7473	8204	8368	7889	7612	7771	7986
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.990	1.052	1.029	1.013	0.985	1.037	1.048	1.017	1.004	1.044	1.050	1.009	1.021	1.022	1.027
Real Vehicle Fuel Cost															
(cents per mile)	4.11	4.33	3.96	3.33	3.32	3.73	3.68	3.74	3.83	3.95	3.79	3.74	3.93	3.62	3.83
Air Travel Capacity					400.0	400 =	450 5		4== 0	400.0	4000	<b>500</b> 4		450.0	100.0
(mill. available ton-miles/day)	488.9	495.6	476.6	430.2	432.0	439.7	456.7	4/1.1	4/5.2	483.6	496.9	503.4	472.7	450.0	489.9
Aircraft Utilization	202.7	202.0	205.0	225.2	225.7	270.0	201.1	274.0	2072	200.2	202.7	200.0	250.4	207.2	207.2
(mill. revenue ton-miles/day)	263.7	202.0	265.9	225.3	235.7	270.6	291.1	271.0	207.2	288.2	303.7	289.8	259.4	267.3	287.3
Airline Ticket Price Index (index, 1982-1984=1.000)	2 200	2 /100	2 /52	2 21 9	2 217	2 277	2 /17	2 110	2 504	2 526	2 520	2 5/19	2 204	2.390	2 520
Raw Steel Production	2.333	2.400	2.432	2.310	2.317	2.311	2.41/	2. <del>44</del> 9	2.304	2.020	2.009	2.040	2.334	2.390	2.328
(million tons)	25 53	26.07	25 25	22 05	23 92	24 68	24 10	23 37	24 66	25 97	25.50	24 80	98 80	96 16	101.02
(	20.00	20.07	20.20		20.02	2-7.00	27.13	20.07	2-7.00	20.07	20.00	2 7.03	55.05	55.10	101.02

<sup>&</sup>lt;sup>a</sup>Macroeconomic projections from DRI-WEFA model forecasts are seasonally adjusted at annual rates and modified as appropriate to the base world oil price case.

blincludes all highway travel.

SAAR: Seasonally -adjusted annualized rate.

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

Table 3. International Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except OECD Commercial Stocks)

(willion Barrolo per Bay,	<u> </u>	2001	-05	2011111	icroiai	2002	,			2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Demand <sup>a</sup>															
OECD															
U.S. (50 States)	19.9	19.6	19.7	19.4	19.4	19.7	19.9	20.0	20.2	20.0	20.5	20.6	19.6	19.8	20.3
U.S. Territories	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4
Canada	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.1	2.1	1.9	2.0	2.0
Europe	15.2	14.8	15.5	15.6	15.2	14.9	15.6	15.7	15.6	14.6	15.2	15.9	15.3	15.3	15.3
Japan	6.1	5.0	5.1	5.5	5.7	5.0	5.1	5.5	5.9	4.8	5.0	5.5	5.4	5.3	5.3
Other OECD	5.3	4.9	4.9	5.2	5.3	5.0	5.0	5.3	5.1	5.1	5.3	5.4	5.1	5.2	5.2
Total OECD	48.9	46.5	47.4	47.9	47.9	46.8	47.8	48.8	49.1	46.8	48.5	49.8	47.7	47.8	48.6
Non-OECD															
Former Soviet Union	3.7	3.6	3.6	3.6	3.8	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.6	3.7	3.7
Europe	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
China	4.9	4.9	4.8	4.8	5.1	5.0	5.0	5.0	5.3	5.2	5.2	5.2	4.9	5.0	5.2
Other Asia	7.4	7.4	7.1	7.4	7.4	7.4	7.2	7.5	7.6	7.6	7.3	7.7	7.3	7.4	7.5
Other Non-OECD	11.7	11.9	12.0	11.8	11.7	12.0	12.0	11.9	11.8	12.1	12.2	12.1	11.8	11.9	12.0
Total Non-OECD	28.4	28.4	28.1	28.3	28.6	28.7	28.4	28.7	29.1	29.1	28.9	29.3	28.3	28.6	29.1
Total World Demand	77.2	74.9	75.5	76.3	76.5	75.5	76.2	77.6	78.2	75.9	77.4	79.1	76.0	76.5	77.7
Supply <sup>b</sup>															
OECD															
U.S. (50 States)	8.7	9.0	9.0	9.1	9.1	9.2	9.1	9.2	9.2	9.2	9.2	9.3	9.0	9.2	9.2
Canada	2.8	2.8	2.7	2.9	2.9	3.0	3.1	3.1	3.0	3.0	3.1	3.2	2.8	3.0	3.1
Mexico	3.6	3.5	3.6	3.6	3.6	3.6	3.7	3.6	3.8	3.8	3.9	3.8	3.6	3.7	3.8
North Sea <sup>c</sup>	6.4	6.1	6.2	6.5	6.3	6.1	6.3	6.6	6.2	5.8	5.9	6.2	6.3	6.3	6.0
Other OECD	1.6	1.6	1.6	1.6	1.6	1.3	1.3	1.3	1.2	1.3	1.3	1.2	1.6	1.4	1.3
Total OECD	23.2	23.0	23.1	23.7	23.6	23.2	23.5	23.9	23.4	23.1	23.4	23.7	23.2	23.5	23.4
Non-OECD															
OPEC	31.1	29.9	30.1	29.2	27.9	27.4	28.2	28.4	29.5	29.1	30.2	29.7	30.1	28.0	29.6
Former Soviet Union	8.6	8.7	8.9	9.1	9.0	9.1	9.3	9.4	9.4	9.5	9.7	9.8	8.8	9.2	9.6
China	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.3	3.4	3.4	3.3	3.3	3.3
Other Non-OECD	11.2	11.1	11.3	11.3	11.5	11.4	11.6	11.8	11.6	11.7	11.9	12.0	11.2	11.6	11.8
Total Non-OECD	54.3	53.0	53.6	52.9	51.7	51.2	52.5	52.9	53.7	53.7	55.1	54.8	53.5	52.1	54.3
Total World Supply	77.5	76.0	76.7	76.6	75.3	74.4	76.0	76.7	77.1	76.8	78.5	78.5	76.7	75.6	77.7
Stock Changes															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR)	-0.2	-0.9	-0.2	-0.1	0.2	-0.5	-0.1	0.4	0.2	-0.6	-0.3	0.4	-0.3	0.0	-0.1
Other	-0.1	-0.2	-1.0	-0.3	0.9	1.6	0.3	0.5	0.8	-0.2	-0.8	0.2	-0.4	0.8	0.0
Total Stock Withdrawals	-0.2	-1.1	-1.2	-0.3	1.2	1.1	0.2	0.8	1.1	-0.8	-1.1	0.5	-0.7	0.8	-0.1
OECD Comm. Stocks, End (bill. bbls.)	2.5	2.6	2.7	2.7	2.6	2.6	2.6	2.5	2.5	2.5	2.6	2.5	2.7	2.5	2.5
Non-OPEC Supply	46.4	46.1	46.6	47.4	47.4	47.0	47.8	48.4	47.7	47.6	48.3	48.9	46.6	47.7	48.1
Net Exports from Former Soviet Union	4.9	5.1	5.3	5.5	5.2	5.5	5.7	5.7	5.5	5.8	6.0	6.1	5.2	5.5	5.9

<sup>&</sup>lt;sup>a</sup>Demand 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.

blincludes 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.

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

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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 Monthly, DOE/EIA-0520; Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database.

Table 4. U.S. Energy Prices: Base Case

(Nominal Dollars)

(Frommar Donard)		2001				2002				2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Crude Oil Brings (dellars you have)															
Crude Oil Prices (dollars per barrel) Imported Average a	24.00	22.06	22.04	16.04	10 22	22.00	25 45	26.07	26.61	27.70	27.07	26.00	22.01	22.76	27 10
WTI <sup>b</sup> Spot Average															
VVII Opot/tvorage	. 20.02		20.00	20.40	27.00	20.20	27.00	20.02	20.07	00.00	00.20	00.07	20.50	20.07	00.00
Natural Gas Wellhead															
(dollars per thousand cubic feet)	6.37	4.56	3.06	2.50	2.34	3.01	2.78	3.00	3.25	2.89	2.87	3.09	4.12	2.78	3.02
Petroleum Products															
Gasoline Retail <sup>c</sup> (dollars per gallon)															
All Grades	1.47	1.66	1.49	1.23	1.20	1.43	1.44	1.43	1.46	1.58	1.53	1.46	1.47	1.38	1.51
Regular Unleaded			1.45	1.19	1.16	1.39	1.41	1.41	1.44	1.56	1.51	1.44	1.43	1.35	1.49
Ğ															
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.47	1.47	1.42	1.27	1.18	1.30	1.34	1.41	1.42	1.45	1.43	1.46	1.41	1.31	1.44
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.84	0.80	0.76	0.61	0.60	0.68	0.77	0.83	0.86	0.86	0.85	0.89	0.76	0.72	0.87
(donard per galler)	. 0.04	0.00	0.70	0.01	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.70	0.72	0.07
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.34	1.25	1.15	1.11	1.09	1.09	1.13	1.26	1.33	1.27	1.23	1.33	1.22	1.15	1.30
N 00 11 15 103 D 134															
No. 6 Residual Fuel Oil, Retail d	25.42	22.20	24.70	40.07	10.01	00.74	05.45	20.04	20.05	2024	25.07	20.50	22.20	22.04	20.44
(dollars per barrel)	. 23.13	22.29	21.70	10.97	19.34	23.74	23.43	20.01	20.00	20.24	25.97	20.32	22.30	23.91	20.41
Electric Utility Fuels															
Coal															
(dollars per million Btu)	1.23	1.24	1.23	1.22	1.23	1.23	1.21	1.20	1.20	1.22	1.19	1.19	1.23	1.21	1.20
Heavy Fuel Oil <sup>e</sup>															
(dollars per million Btu)	4.21	3.82	3.50	2.89	2.75	3.84	4.32	4.18	4.12	4.38	4.42	4.18	3.71	3.93	4.28
Natural Gas															
(dollars per million Btu)	7.26	4.96	3.47	2.97	2.99	3.09	2.81	3.25	3.66	3.21	3.16	3.47	4.43	3.00	3.32
(30.3.0 po	•		•			0.00	2.0.	0.20	0.00	0.2 .	00	0		0.00	0.02
Other Residential															
Natural Gas															
(dollars per thousand cubic feet)	10.10	10.66	10.64	7.68	7.14	7.88	9.47	7.60	7.61	8.45	9.68	7.85	9.62	7.60	7.98
						-		-		-					
Electricity															
(cents per kilowatthour)			8.85	8.47	8.12	8.70	8.92	8.45	8.15	8.73	8.95	8.49	8.48	8.56	8.59

<sup>&</sup>lt;sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil. <sup>b</sup>West Texas Intermediate.

<sup>&</sup>lt;sup>c</sup>Average self-service cash prices.

dAverage for all sulfur contents.
eIncludes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the fourth quarter of 2000. 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-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0035; Electric Power Monthly, DOE/EIA-0130; Monthly Energy Review, DOE/EIA-0130; Monthly Energy Review Rev 0226.

Table 5. U.S. Petroleum Supply and Demand: Base Case

(Million Barrels per Day, Except Closing Stocks)

		2001				2002				2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply	<u> </u>				Įl						Į	<u> </u>			
Crude Oil Supply															
Domestic Production a	. 5.82	5.82	5.73	5.84	5.93	5.89	5.87	5.96	5.96	5.88	5.86	5.93	5.80	5.91	5.91
Alaska		0.96	0.92	0.99	1.03	1.00	0.96	1.04	1.07	1.04	1.03	1.10	0.96	1.01	1.06
Lower 48		4.86	4.81	4.85	4.89	4.89	4.91	4.92	4.90	4.84	4.82	4.82	4.84	4.90	4.85
Net Commercial Imports b		9.66	9.41	9.10	8.63	9.12	9.26	9.04	9.02	9.83	9.83	9.33	9.30	9.01	9.50
Net Commercial Imports	. 3.02	3.00	3.41	5.10	0.00	5.12	5.20	3.04	3.02	5.05	0.00	5.55	3.50	3.07	3.00
Net SPR Withdrawals	0.00	0.00	-0.01	-0.05	-0.08	-0.15	-0.12	-0.14	-0.15	-0.11	-0.11	-0.11	-0.02	-0.13	-0.12
Net Commercial Withdrawals	0.26	0.00	-0.01	-0.03	-0.22	0.13	0.25	0.05	-0.18	0.00	0.12	0.04	-0.07	0.05	0.00
Product Supplied and Losses	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
Unaccounted-for Crude Oil	. 0.16	0.16	0.10	0.04	0.13	0.36	0.19	0.13	0.18	0.20	0.17	0.13	0.12	0.21	0.17
Total Crude Oil Supply	. 14.75	15.65	15.21	14.90	14.40	15.36	15.44	15.03	14.83	15.80	15.87	15.31	15.13	15.06	15.46
Other Supply															
NGL Production	. 1.65	1.88	1.96	1.97	1.88	1.93	1.94	1.93	1.93	1.96	1.97	1.97	1.87	1.92	1.96
Other Hydrocarbon and Alcohol	0.37	0.39	0.40	0.38	0.36	0.43	0.41	0.42	0.40	0.40	0.42	0.42	0.38	0.40	0.41
Inputs		0.00	0.40	0.00	0.00	0.70	0.77	0.12	0.70	0.70	0.12	0.12	0.00	0.70	0.77
Crude Oil Product Supplied		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
Processing Gain		0.90	0.88	0.94	0.95	0.94	0.92	0.95	0.91	0.94	0.95	0.97	0.90	0.94	0.94
Net Product Imports <sup>c</sup>		1.64	1.40	1.21	1.31	1.50	1.35	1.25	1.53	1.42	1.52	1.52	1.59	1.35	1.49
Product Stock Withdrawn or	0.09	-0.86	-0.15	0.01	0.52	-0.47	-0.19	0.44	0.57	-0.53	-0.27	0.43	-0.23	0.07	0.05
Added (-)															
Total Supply	19.89	19.60	19.70	19.41	19.41	19.68	19.86	20.03	20.17	19.99	20.45	20.62	19.65	19.75	20.31
Demand															
Motor Gasoline	8.29	8.66	8.85	8.64	8.48	8.92	8.93	8.80	8.60	9.08	9.20	9.03	8.61	8.78	8.98
Jet Fuel	. 1.73	1.72	1.67	1.51	1.56	1.60	1.64	1.70	1.73	1.70	1.75	1.79	1.66	1.63	1.74
Distillate Fuel Oil	4.23	3.75	3.67	3.75	3.79	3.71	3.61	3.88	4.07	3.72	3.66	3.95	3.85	3.75	3.85
Residual Fuel Oil		0.88	0.77	0.66	0.68	0.66	0.69	0.76	0.89	0.68	0.79	0.77	0.81	0.70	0.78
Other Oils d		4.60	4.74	4.86	4.92	4.72	4.96	4.89	4.88	4.82	5.06	5.08	4.73	4.87	4.96
Total Demand		19.60	19.70	19.41	19.44	19.60	19.83		20.17	19.99	20.46	20.62	19.65		20.31
Total Petroleum Net Imports		11.33		_	9.98	10.64	10.61	10.29		11.24	11.35	10.84	10.91	10.40	11.00
0 : 0 ! / ::: !															
Closing Stocks (million barrels)					201	0.40						004			
Crude Oil (excluding SPR)		308	309	312	331	319	297	292	308	308	297	294	312	292	294
Total Motor Gasoline		221	206	210	213	216	205	210	211	214	203	208	210	210	208
Finished Motor Gasoline		169	158	161	160	167	158	164	159	165	156	161	161	164	161
Blending Components		51	48	48	53	49	46	46	52	49	47	47	48	46	47
Jet Fuel		43	43	42	42	40	41	40	37	40	41	41	42	40	41
Distillate Fuel Oil		114	127	145	123	130	142	142	106	116	135	136	145	142	136
Residual Fuel Oil		42	37	41	34	34	37	37	34	34	36	36	41	37	36
Other Oils <sup>e</sup>	. 255	292	312	287	265	301	314	269	257	290	304	258	287	269	258
Total Stocks (excluding SPR)		1020	1034	1036	1009	1040	1035	989	954	1002	1016	972	1036	989	972
Crude Oil in SPR		543	545	550	561	576	587	601	614	624	634	644	550	601	644
Heating Oil Reserve	. 2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (including SPR and	1486	1565	1581	1588	1573	1618	1624	1592	1570	1628	1652	1618	1588	1592	1618
HOR)	• ·														

<sup>&</sup>lt;sup>a</sup>Includes lease condensate.

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

Notes: Minor discrepancies with other EIA published historical data are due to rounding, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's Petroleum Supply Monthly, Table C1. Historical data are printed in bold; forecasts are in italics. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System model.

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.

<sup>&</sup>lt;sup>b</sup>Net imports equals gross imports plus SPR imports minus exports.

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

<sup>&</sup>lt;sup>d</sup>Includes 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.

<sup>&</sup>lt;sup>e</sup>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.

Table 6. Approximate Energy Demand Sensitivities<sup>a</sup> for the STIFS<sup>b</sup>

(Percent Deviation Base Case)

		+ 10	0% Prices	+ 109	% Weather <sup>e</sup>
Demand Sector	+1% GDP	Crude Oil °	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer <sup>f</sup>
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%

<sup>&</sup>lt;sup>a</sup>Percent change in demand quantity resulting from specified percent changes in model inputs.

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

(Million Barrels per Day)

	High	Low		Difference	
	Price Case	Price Case	Total	Uncertainty	Price Impact
United States	6.16	5.69	0.47	0.07	0.40
Lower 48 States	5.04	4.60	0.44	0.05	0.39
Alaska	1.12	1.09	0.03	0.02	0.02

Note: Components provided are for the fourth quarter 2003. 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.

<sup>&</sup>lt;sup>b</sup>Short-Term Integrated Forecasting System.

<sup>&</sup>lt;sup>c</sup>Refiner acquisitions cost of imported crude oil.

dAverage unit value of marketed natural gas production reported by States. Refers to percent changes in degree-days.

Response during fall/winter period(first and fourth calendar quarters) refers to change in heating degree-days. Response during the spring/summer period (second and third calendar quarters) refers to change in cooling degree-days.

Table 8. U.S. Natural Gas Supply and Demand: Base Case

(Trillion Cubic Feet)

(Timeri Gabie i Got)		2001				2002				2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply		l .			<u> </u>					L L		<u> </u>	<u> </u>	,L	
Total Dry Gas Production	4.86	4.86	4.84	4.88	4.76	4.70	4.73	4.79	4.87	4.90	4.93	5.04	19.43	18.99	19.74
Net Imports	0.98	0.90	0.95	0.83	0.89	0.84	0.89	0.89	0.89	0.86	0.89	0.94	3.65	3.52	3.58
Supplemental Gaseous Fuels	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.09	0.08	0.08
Total New Supply	5.86	5.78	5.81	5.72	5.67	5.57	5.65	5.70	5.79	5.78	5.85	6.00	23.17	22.60	23.41
Working Gas in Storage															
Opening	1.72	0.74	1.88	2.94	2.90	1.52	2.31	3.10	2.62	1.39	2.16	3.02	1.72	2.90	2.62
Closing	0.74	1.88	2.94	2.90	1.52	2.31	3.10	2.62	1.39	2.16	3.02	2.57	2.90	2.62	2.57
Net Withdrawals	0.98	-1.14	-1.06	0.04	1.39	-0.79	-0.79	0.48	1.23	-0.77	-0.86	0.45	-1.18	0.29	0.05
Total Supply	6.84	4.64	4.75	5.76	7.06	4.78	4.86	6.18	7.01	5.01	4.99	6.45	21.99	22.88	23.46
Balancing Item <sup>a</sup>	0.26	0.00	-0.25	-0.54	-0.46	-0.13	0.04	-0.25	0.22	-0.07	-0.22	-0.69	-0.53	-0.79	-0.76
Total Primary Supply	7.10	4.64	4.49	5.22	6.60	4.65	4.90	5.94	7.23	4.94	4.77	5.76	21.45	22.09	22.70
Demand															
Lease and Plant Fuel	0.29	0.29	0.29	0.29	0.28	0.29	0.31	0.32	0.30	0.30	0.30	0.31	1.16	1.21	1.22
Pipeline Use	0.20	0.13	0.13	0.15	0.18	0.13	0.16	0.19	0.23	0.16	0.15	0.18	0.61	0.67	0.71
Residential	2.46	0.77	0.37	1.21	2.18	0.84	0.41	1.41	2.44	0.87	0.41	1.41	4.81	4.85	5.13
Commercial		0.62	0.46	0.78	1.20	0.63	0.45	0.88	1.31	0.64	0.46	0.90	3.20	3.17	3.30
Industrial (Incl. Nonutility Use)		2.11	2.27	2.26	2.28	2.09	2.61	2.66	2.56	2.41	2.60	2.57	8.98	9.64	10.14
Electric Utilities	0.47	0.71	0.97	0.53	0.47	0.66	0.95	0.47	0.39	0.57	0.85	0.39	2.69	2.55	2.20
Total Demand	7.10	4.64	4.49	5.22	6.60	4.65	4.90	5.94	7.23	4.94	4.77	5.76	21.45	22.09	22.70

<sup>&</sup>lt;sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

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: Base Case

(Million Short Tons)

(WILLIOT SHOTE TOTIS	/														
		2001				2002				2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply												-			
Production	283.6	278.3	278.1	281.3	281.1	259.2	284.7	271.0	277.8	256.9	280.8	275.9	1121.3	1096.1	1091.4
Appalachia	110.8	109.0	104.1	105.1	107.1	98.7	104.4	99.0	104.7	96.6	100.2	98.5	428.9	409.2	400.1
Interior	37.5	37.0	37.9	35.2	36.6	33.5	37.1	32.2	33.3	31.1	34.8	30.9	147.7	139.4	130.1
Western	135.3	132.3	136.1	141.0	137.5	127.0	143.9	139.9	139.8	129.2	145.8	146.4	544.7	548.3	561.2
Primary Stock Levels <sup>a</sup>															
Opening	31.9	39.2	38.3	37.0	33.9	44.5	39.5	33.1	32.5	32.8	31.6	33.0	31.9	33.9	32.5
Closing		38.3	37.0	33.9	44.5	39.5	33.1	32.5	32.8	31.6	33.0	32.7	33.9	32.5	32.7
Net Withdrawals		0.9	1.2	3.1	-10.6	4.9	6.4	0.6	-0.2	1.1	-1.4	0.3	-2.0	1.4	-0.2
Imports		4.1	6.0	5.7	4.0	3.7	3.8	3.9	3.6	3.5	3.5	3.6	19.8	15.3	14.2
Exports		13.5	11.7	11.7	9.3	10.4	10.6	10.4	9.8	10.0	10.3	10.2	48.7	40.8	40.3
Total Net Domestic Supply						257.4			271.3	251.6	272.7	269.6	1090.4	1072.0	1065.2
Secondary Stock Levels <sup>b</sup>															
Opening	108.1	112.5	127.1	117.0	136.5	141.4	152.1	144.4	142.4	146.3	150.2	134.0	108.1	136.5	142.4
Closing					141.4	152.1	144.4	142.4	146.3	150.2	134.0	140.1	136.5	142.4	140.1
Net Withdrawals	-4.4	-14.5	10.1	-19.5	-4.9	-10.7	7.7	2.0	-3.9	-3.9	16.2	-6.1	-28.4	-5.9	2.3
Waste Coal Supplied to IPPs c	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.9	10.6	11.1	11.6
Total Supply	266.6	258.0	286.4	261.6	263.2	249.5	294.8	269.8	270.3	250.6	291.8	266.5	1072.7	1077.2	1079.1
Demand															
Coke Plants	6.8	6.9	6.6	5.8	5.9	6.4	6.5	6.0	6.3	6.4	6.5	6.1	26.1	24.8	25.3
Electricity Production	0.0	0.0	0.0	0.0	0.0	0. 1	0.0	0.0	0.0	0. 1	0.0	0. 1		2 1.0	20.0
Electric Utilities	200.8	193.2	220.5	191.8	188.0	186.9	219.8	195.9	198.3	183.1	217.1	193.2	806.3	790.6	791.7
Nonutilities (Excl. Cogen.) d	36.7	34.7	40.8	38.5	47.2	45.1	52.0	48.4	48.2	46.1	53.2	49.6	150.6	192.7	197.1
Retail and General Industry		16.1	16.3	17.0	17.6	15.3	15.1	17.8	17.4	15.0	14.9	17.6	67.5	65.8	64.9
Total Demand <sup>e</sup>		-		-	-		-	_	270.3		291.8	-	1050.5	1073.9	1079.1
TOTAL DETITATIO	202.3	201.0	204.2	200.0	200.7	200.0	293.4	200.2	210.3	200.0	291.0	200.5	1030.3	1073.9	1079.1
Discrepancy <sup>f</sup>	4.3	7.0	2.2	8.6	4.5	-4.1	1.4	1.6	0.0	0.0	0.0	0.0	22.2	3.3	0.0

<sup>&</sup>lt;sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

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

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

bSecondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

<sup>&</sup>lt;sup>c</sup>Estimated independent power producers' (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>&</sup>lt;sup>'d</sup>Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2000 and projections for 2001 and 2002 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999 and 2000, and (2) annual coal-fired generation at nonutilities from Form EIA -867 (Annual Nonutility Power Producer Report).

eTotal Demand includes estimated IPP consumption.

<sup>&</sup>lt;sup>f</sup>The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

Table 10. U.S. Electricity Supply and Demand: Base Case

(Billion Kilowatt-hours)

(2,111,011,111,11		2001	-,			2002				2003				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2001	2002	2003
Supply														L	
Net Utility Generation															
Coal	391.8	376.1	423.9	368.4	364.1	351.3	410.5	361.1	370.4	339.3	404.6	357.1	1560.1	1487.0	1471.4
Petroleum	24.1	21.6	21.4	11.9	10.5	9.6	21.7	10.4	17.6	8.9	22.9	12.1	78.9	52.2	61.4
Natural Gas	46.2	69.6	95.7	53.0	47.5	65.4	92.0	45.2	37.7	55.3	83.0	38.0	264.4	250.0	214.1
Nuclear	135.9	130.2	140.6	127.5	127.5	123.8	133.3	123.8	127.1	124.6	134.2	124.6	534.2	508.4	510.5
Hydroelectric		49.8	45.6	44.5	56.9	63.2	56.9	59.2	69.1	74.6	62.7	62.1	190.1	236.2	268.5
Geothermal and Other a	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	2.2	2.2	2.5
Subtotal	648.6	647.8	727.7	605.8	607.1	613.7	715.0	600.2	622.5	603.3	708.1	594.5	2630.0	2536.0	2528.4
Nonutility Generation <sup>b</sup>															
Coal	92.9	81.3	95.6	82.8	86.2	78.3	99.5	92.2	99.6	92.0	118.0	109.0	352.5	356.1	418.6
Petroleum	17.7	12.2	11.9	7.3	7.2	6.0	12.0	7.6	12.2	6.3	15.0	10.0	49.1	32.7	43.4
Natural Gas	79.7	86.6	111.8	88.5	94.4	107.1	125.3	106.7	113.4	116.0	141.0	119.4	366.6	433.5	489.7
Other Gaseous Fuels c	4.1	4.5	5.8	4.6	4.8	5.1	6.4	5.4	5.6	5.8	7.5	6.2	18.9	21.7	25.1
Nuclear	56.2	55.3	60.4	62.7	66.4	64.7	69.6	64.7	66.4	65.0	70.0	65.2	234.6	265.4	266.6
Hydroelectric	5.2	6.3	3.3	3.2	5.0	8.1	4.2	4.2	6.1	9.5	4.6	4.4	18.0	21.5	24.7
Geothermal and Other d		21.9	23.0	22.5	23.8	24.0	25.0	24.0	23.1	23.6	24.3	24.0	88.2	96.8	95.1
Subtotal	276.6	268.2	311.6	271.5	287.8	293.2	342.1	304.7	326.4	318.2	380.5	338.3	1127.9	1227.8	1363.3
Total Generation	925.2	916.0	1039.4	877.3	894.8	906.9	1057.1	905.0	948.9	921.5	1088.5	932.8	3757.8	3763.8	3891.7
Net Imports <sup>e</sup>	3.6	7.2	5.1	4.4	4.9	8.5	6.3	5.6	6.1	7.7	11.1	6.6	20.3	25.3	31.4
Total Supply	928.8	923.2	1044.4	881.7	899.7	915.4	1063.4	910.6	955.0	929.2	1099.6	939.3	3778.1	3789.1	3923.2
Losses and Unaccounted for f	22.0	62.5	42.2	40.1	26.3	57.9	46.2	49.8	44.7	60.1	53.3	47.6	166.7	180.1	205.6
Demand															
Retail Sales <sup>g</sup>															
Residential	322.6	262.8	353.2	262.4	308.3	264.2	369.9	280.5	326.8	261.5	374.4	285.1	1201.0	1222.9	1247.8
Commercial	257.0	264.6	305.2	258.2	255.3	268.6	306.1	255.9	253.8	265.6	309.3	264.2	1085.0	1085.9	1092.8
Industrial	247.6	252.8	252.7	241.0	228.2	237.7	247.4	245.0	241.0	254.8	266.4	255.5	994.1	958.3	1017.7
Other	27.2	28.3	33.1	28.0	26.2	29.9	34.6	30.2	30.2	30.1	33.5	30.5	116.7	120.9	124.3
Subtotal	854.4	808.6	944.3	789.6	818.0	800.4	958.0	811.7	851.9	811.9	983.7	835.2	3396.8	3388.0	3482.6
Nonutility Use/Sales h		52.2	58.0	52.0	55.5	57.1	59.2	49.1	58.4	57.2	62.7	56.6	214.6	221.0	234.9
Total Demand		860.7	1002.2	841.6	873.5	857.5	1017.2	860.8	910.3	869.2	1046.3	891.8	3611.4	3609.0	3717.6
Memo:															
Nonutility Sales to															
Electric Utilities b	224.1	216.0	253.7	219.5	232.3	236.0	282.8	255.6	267.9	261.0	317.8	281.7	913.2	1006.8	1128.4

<sup>&</sup>lt;sup>a</sup>"Other" includes generation from wind, wood, was te, and solar sources.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: 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.

<sup>&</sup>lt;sup>b</sup>Electricity(net Generation) from nonutility sources, including cogenerators and small power producers.

clincludes refinery still gas and other process or waste gases and liquefied petroleum gases.

<sup>&</sup>lt;sup>d</sup>Includes geothermal, solar, wind, wood, waste, hydrogen, sulfur, batteries, chemicals and spent sulfite liquor.

<sup>&</sup>lt;sup>e</sup>Data for 2000 are estimates.

<sup>&</sup>lt;sup>f</sup>Balancing item, mainly transmission and distribution losses.

<sup>&</sup>lt;sup>9</sup>Total of retail electricity sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA'S Electric Power Monthly and Electric Power Annual. Power marketers' sales are reported annually in Appendix C of EIA's Electric Sales and Revenue. Quarterly data for power marketers ( and thus retail sales totals) are imputed. Data for 2000 are estimated.

<sup>&</sup>lt;sup>h</sup>Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.

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.

Table 11. U.S. Renewable Energy Use by Sector: Base Case

(Quadrillion Btu)

		Year	•		Annu	al Percentage C	hange
	2000	2001	2002	2003	2000-2001	2001-2002	2002-2003
Electric Utilities			•		•	•	
Hydroelectric Power <sup>a</sup>	2.600	1.991	2.474	2.813	-23.4	24.3	13.7
Geothermal, Solar and Wind Energy b	0.004	0.005	0.006	0.008	25.0	20.0	33.3
Biofuels <sup>c</sup>	0.021	0.020	0.018	0.019	-4.8	-10.0	5.6
Total	2.625	2.016	2.499	2.840	-23.2	24.0	13.6
Nonutility Power Generators							
Hydroelectric Power <sup>a</sup>	0.257	0.187	0.222	0.256	-27.2	18.7	15.3
Geothermal, Solar and Wind Energy b	0.355	0.356	0.388	0.358	0.3	9.0	-7.7
Biofuels <sup>c</sup>	0.642	0.703	0.752	0.765	9.5	7.0	1.7
Total	1.254	1.245	1.362	1.379	-0.7	9.4	1.2
Total Power Generation	3.879	3.261	3.861	4.218	-15.9	18.4	9.2
Other Sectors <sup>d</sup>							
Residential and Commercial e	0.570	0.560	0.560	0.590	-1.8	0.0	5.4
Industrial f	2.410	2.410	2.470	2.540	0.0	2.5	2.8
Transportation <sup>g</sup>	0.114	0.120	0.129	0.140	5.3	7.5	8.5
Total	3.094	3.090	3.159	3.270	-0.1	2.2	3.5
Net Imported Electricity h	0.244	0.146	0.181	0.225	-40.2	24.0	24.3
Total Renewable Energy Demand	7.217	6.497	7.201	7.714	-10.0	10.8	7.1

<sup>&</sup>lt;sup>a</sup>Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

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

<sup>&</sup>lt;sup>b</sup>Also includes photovoltaic and solar thermal energy. Sharp declines since 1998 in the electric utility sector and corresponding increases in the nonutility sector for this category mostly reflect sale of geothermal facilities to the nonutility sector.

<sup>&</sup>lt;sup>c</sup>Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

<sup>&</sup>lt;sup>d</sup>Renewable energy includes minor components of non-marketed renewable energy, which is renewable energy that is neither bought nor sold, either directly or indirectly as inputs to marketed energy. The Energy Information Administration does not estimate or project total consumption of non-marketed renewable energy.

elncludes biofuels and solar energy consumed in the residential and commercial sectors.

<sup>&</sup>lt;sup>f</sup>consists primarily of biofuels for use other than in electricity cogeneration.

<sup>&</sup>lt;sup>g</sup>Ethanol blended into gasoline.

<sup>&</sup>lt;sup>h</sup>Represents 69.3 percent of total electricity net imports, which is the proportion of total 1999 net imported electricity (0.300 quadrillion Btu) attributable to renewable sources (0.208 quadrillion Btu). See EIA's Monthly Energy Review, Table 1.5

Table A1. Annual U.S. Energy Supply and Demand: Base Case

								Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	6592	6708	6676	6880	7063	7348	7544	7813	8159	8509	8857	9224	9334	9556	9855
Imported Crude Oil Price <sup>a</sup>															
(nominal dollars per barrel)	18.07	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.01	23.76	27.10
Petroleum Supply															
Crude Oil Production <sup>b</sup>															
(million barrels per day)	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.91	5.91
(million barrels per day)	7.20	7.18	6.63	6.96	7.66	8.09	7.89	8.50	9.16	9.76	9.92	10.43	10.91	10.39	10.99
Energy Demand															
World Petroleum															
(million barrels per day)	65.9	66.0	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	76.0	76.0	76.5	77.7
(million barrels per day)	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.72	20.30
(trillion cubic feet)	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.27	21.61	22.54	21.45	22.21	22.68
Coal (million short tons)	895	903	899	907	943	950	962	1006	1030	1038	1045	1081	1050	1084	1075
Electricity (billion kilowatthours)															
Retail Sales <sup>c</sup>		2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3421	3397	3388	3483
Nonutility Own Use d	NA	104	111	122	127	141	149	149	149	160	189	199	215	221	235
Total  Total Energy Demand <sup>e</sup>	NA	2817	2873	2885	2988	3075	3162	3250	3295	3424	3501	3620	3611	3609	3718
(quadrillion Btu)	84.2	84.2	84.5	85.6	87.4	89.2	90.9	93.9	94.2	94.8	97.0	99.6	97.1	98.8	101.3
(thousand Btu per 1996 Dollar)	NA	12.55	12.66	12.44	12.37	12.14	12.05	12.04	11.54	11.14	10.96	10.79	10.40	10.34	10.28

<sup>\*</sup>Refers to the imported cost of crude oil to U.S. refiners.

<sup>&</sup>lt;sup>b</sup>Includes lease condensate.

<sup>&</sup>quot;Total of retail electric ty sales by electric utilities and power marketers. Utility sales for historical periods are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers' sales for historical periods are reported in EIA's Electric Sales and Revenue, Appendix C.

dDefined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.

"Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, Annual Energy Review, 1999, DOE/EIA0384(97) (AER), Table 1.1. Prior to 1990, some components of renewable energy consumption, particularly relating to consumption at nonutility electric generating facilities, were not available. For those years, a less compensive measure of total energy demand can be found in EIA's AER. The conversion from physical units to But 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; Quarterly Coal Report, DOE/EIA-0121; International Petroleum Monthly DOE/EIA-520, and Weekly Petroleum Status Report DOE/EIA-0208. Macroeconomic projections are based on DRI-WEFA Forecast CONTROL0702.

Table A2. Annual U.S. Macroeconomic and Weather Indicators: Base Case

								Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Macroeconomic															
Real Gross Domestic Product															
(billion chained 1996 dollars)	6592	6708	6676	6880	7063	7348	7544	7813	8159	8509	8857	9224	9334	9556	9855
GDP Implicit Price Deflator															
(Index, 1996=1.000)	0.833	0.865	0.897	0.919	0.941	0.960	0.981	1.000	1.019	1.032	1.047	1.070	1.094	1.110	1.137
Real Disposable Personal Income															
(billion chained 1996 Dollars)	4907	5014	5033	5189	5261	5397	5539	5678	5854	6169	6320	6539	6772	7028	7182
Manufacturing Production															
(Index, 1996=1.000)	0.816	0.812	0.792	0.824	0.853	0.905	0.953	1.000	1.079	1.142	1.191	1.247	1.194	1.200	1.269
Real Fixed Investment															
(billion chained 1996 dollars)	911	895	833	886	958	1046	1109	1213	1329	1480	1595	1716	1683	1623	1688
Real Exchange Rate	-											_			
(Index, 1996=1.000)	NA	0.913	0.915	0.923	0.958	0.938	0.875	0.920	0.991	1.041	1.046	1.083	1.141	1.167	1.083
Business Inventory Change								****							
(billion chained 1996 dollars)	14.2	8.9	-6.8	-4.7	3.6	12.1	14.1	10.1	14.8	27.2	13.3	13.1	-35.4	-7.2	8.5
Producer Price Index								-				-			
(index, 1982=1.000)	1.122	1.163	1.165	1.172	1.189	1.205	1.247	1.277	1.276	1.244	1.255	1.328	1.342	1.320	1.356
Consumer Price Index															
(index, 1982-1984=1.000)	1.240	1.308	1.363	1.404	1.445	1.482	1.524	1.569	1.605	1.630	1.666	1.722	1.771	1.803	1.859
Petroleum Product Price Index			11000					11000	11000		11000			7.000	7.000
(index, 1982=1.000)	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.913	0.852	0.768	0.897
Non-Farm Employment	0.0	••	•.•.	0.0	0.020	0.00	0.000	••	0.000	0.0.0	0.000	0.0.0	0.002	000	0.007
(millions)	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	128.9	131.8	132.2	131.5	133.4
Commercial Employment			100.0	10010						. 20.0	12010	10110	, oz.z	101.0	700.7
(millions)	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.6	92.1	93.1	92.9	94.4
Total Industrial Production	70.0	71.5	70.0	7 1.2	13.2	70.1	70.0	01	00.0	00.0	03.0	JZ. 1	55.1	32.3	54.4
(index, 1996=1.000)	0.8	0.8	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.245
Housing Stock	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0			1.2	1.2	1.2	1.2	1.240
(millions)	102.8	103.4	104.4	105.4	106.7	108.0	109.6	110.9	112.3	114.1	115.7	116.2	117.8	119.7	121.0
(1111110110)	102.0	100.4	104.4	100.4	100.7	100.0	103.0	110.5	112.5	117.1	115.7	110.2	117.0	110.1	12 1.0
Weather <sup>a</sup>															
Heating Degree-Days															
U.S	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	4223	4353	4456
New England		5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6489	6059	6135	6457
Middle Atlantic		4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5774	5297	5284	5693
U.S. Gas-Weighted		4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4680	4451	4537	4706
Cooling Degree-Days (U.S.)		1260.0	1331.0	1040.0	1218.0	1220.0	1293.0	1180.0	1156.0	1410.0	1297.0	1229.0	1256.0	1320.6	1238
aDopulation weighted degree days A													ilv minimu		

<sup>&</sup>lt;sup>a</sup>Population-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.

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-WEFA Forecast CONTROL0702.

Table A3. Annual International Petroleum Supply and Demand Balance: Base Case

(Millions Barrels per Day, Except OECD Commercial Stocks)

,	<b>3</b> /				,			Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Demand <sup>a</sup> OECD						1				1					
U.S. (50 States)	17.3 13.2 5.0	17.0 13.3 5.1	16.7 13.3 5.3	17.0 14.0 5.4	17.2 14.2 5.4	17.7 14.1 5.7	17.7 14.2 5.7	18.3 14.8 5.9	18.6 15.0 5.7	18.9 15.3 5.5	19.5 15.2 5.6	19.7 15.1 5.5	19.6 15.3 5.4	19.8 15.3 5.3	20.3 15.3 5.3
Japan Other OECD Total OECD	5.0 5.2 40.8	5.4 40.8	5.6 41.6	5.4 5.9 42.6	6.2 43.0	6.6 44.2	6.8 45.0	6.9 46.1	7.3 46.6	7.1 46.9	7.4 47.7	7.5 47.9	7.3 47.7	5.3 7.5 47.8	7.6 48.6
Non-OECD Former Soviet Union	8.7	8.4	8.4	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.7	3.7	3.6	3.7	3.7
Europe	1.3 2.4	1.0 2.3	0.8 2.5	0.7 2.7	0.7 3.0	0.6 3.2	0.7 3.4	0.7 3.6	0.7 3.9	0.7 4.1	0.7 4.3	0.6 4.8	0.6 4.9	0.6 5.0	0.6 5.2
Other Asia	4.0	4.3	4.5	4.7	5.1	5.5	5.9	6.3	6.6	6.7	6.9	7.3	7.3	7.4	7.5
Other Non-OECD Total Non-OECD	8.6 25.1	8.9 24.9	8.9 25.0	9.3 24.2	9.7 24.0	10.0 24.1	10.4 24.9	10.7 25.3	11.1 26.2	11.4 26.7	11.6 27.3	11.7 28.1	11.8 28.3	11.9 28.6	12.0 29.1
Total World Demand	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	72.9	73.6	75.0	76.0	76.0	76.5	77.7
Supply <sup>c</sup>															
OECD U.S. (50 States)	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.1	9.0	9.2	9.2
Canada Mexico	2.0 2.9	2.0 3.0	2.0 3.2	2.1 3.2	2.2 3.2	2.3 3.2	2.4 3.1	2.5 3.3	2.6 3.4	2.7 3.5	2.6 3.4	2.7 3.5	2.8 3.6	3.0 3.7	3.1 3.8
North Sea "	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	5.9	5.8	6.0	6.0	6.3	6.3	6.0
Other OECD Total OECD	1.4 20.0	1.5 20.2	1.5 20.8	1.5 21.1	1.4 21.2	1.5 21.9	1.5 22.4	1.5 22.7	1.8 23.1	2.1 23.6	1.9 22.9	2.1 23.4	1.6 23.2	1.4 23.5	1.3 23.4
Non-OECD						-			-		-		-		
OPECFormer Soviet Union	23.3 12.1	24.5 11.4	24.6 10.4	25.8 8.9	26.6 8.0	27.0 7.3	27.6 7.1	28.3 7.1	29.9 7.1	30.4 7.2	29.3 7.6	30.9 8.1	30.1 8.8	28.0 9.2	29.6 9.6
China	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.3	3.3	3.3
Other Non-OECD	7.7	7.9	8.1	8.3	8.7	9.1	9.8	10.2	10.4	10.7	11.2	11.2	11.2	11.6	11.8
Total Non-OECD Total World Supply	45.9 65.9	46.6 66.8	45.9 66.7	45.9 67.0	46.2 67.4	46.3 68.2	47.5 69.9	48.7 71.4	50.6 73.7	51.6 75.2	51.3 74.2	53.4 76.8	53.5 76.7	52.1 75.6	54.3 77.7
Total Stock Withdrawals	0.0	-0.8	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.2	-1.3	8.0	-0.8	-0.7	0.8	-0.1
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.4	2.5	2.7	2.5	2.5
Net Exports from Former Soviet Union	3.4	3.0	2.1	2.1	2.3	2.4	2.6	3.0	3.3	3.5	3.9	4.5	5.2	5.5	5.9

<sup>&</sup>lt;sup>a</sup>Demand 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.

<sup>&</sup>lt;sup>b</sup>OECD Europe includes the former East Germany.

<sup>&</sup>lt;sup>C</sup>Includes 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, Čanada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

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

Table A4. Annual Average U.S. Energy Prices: Base Case

(Nominal Dollars)

Petroleum Products   Gasoline Retail ** (dollars per gallon)   Gasolin	(Normal Bollaro)								Year							
Imported Average   18.07   21.79   18.74   18.20   16.13   15.53   17.14   20.62   18.49   14.05   19.25   30.29   25.95   26.04   30.06     Natural Gas Wellhead (dollars per thousand cubic feet)		1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Imported Average   18.07   21.79   18.74   18.20   16.13   15.53   17.14   20.62   18.49   14.05   19.25   30.29   25.95   26.04   30.06     Natural Gas Wellhead (dollars per thousand cubic feet)	Crude Oil Prices (dollars per barrel)															
Natural Gas Wellhead (dollars per thousand cubic feet)		18.07	21.79	18.74	18.20	16.13	15.53	17.14	20.62	18.49	12.07	17.26	27.72	22.01	23.76	27.10
Petroleum Products   Gasoline Retail ** (dollars per gallon)   Gasolin	WTI <sup>b</sup> Spot Average	19.78	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	25.95	26.04	30.06
Petroleum Products   Gasoline Retail   Column   Column	Natural Gas Wellhead															
Gasoline Retail <sup>6</sup> (dollars per gallon) All Grades	(dollars per thousand cubic feet)	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96	2.19	3.69	4.12	2.78	3.02
All Grades	Petroleum Products															
Regular Unleaded																
No. 2 Diesel Oil, Retail (dollars per gallon)	All Grades	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.47	1.38	1.51
(dollars per gallon)	Regular Unleaded	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.43	1.35	1.49
No. 2 Heating Oil, Wholesale (dollars per gallon)	No. 2 Diesel Oil, Retail															
(dollars per gallon)	(dollars per gallon)	0.99	1.17	1.13	1.11	1.11	1.11	1.11	1.24	1.19	1.04	1.12	1.49	1.41	1.31	1.44
No. 2 Heating Oil, Retail (dollars per gallon)	No. 2 Heating Oil, Wholesale															
(dollars per gallon)	(dollars per gallon)	0.57	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.49	0.89	0.76	0.72	0.87
No. 6 Residual Fuel Oil, Retail d (dollars per barrel)	No. 2 Heating Oil, Retail															
(dollars per barrel)	(dollars per gallon)	0.88	1.04	0.98	0.93	0.90	0.87	0.86	0.98	0.97	0.84	0.87	1.29	1.22	1.15	1.30
Electric Utility Fuels Coal (dollars per million Btu)	No. 6 Residual Fuel Oil, Retail d															
Coal (dollars per million Btu)	(dollars per barrel)	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	22.30	23.91	26.41
(dollars per million Btu)	Electric Utility Fuels															
Heavy Fuel Oil <sup>e</sup> (dollars per million Btu)	Coal															
(dollars per million Btu)	(dollars per million Btu)	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.23	1.21	1.20
Natural Gas (dollars per million Btu)	Heavy Fuel Oil <sup>e</sup>															
Other Residential         Natural Gas       (dollars per thousand cubic feet)	, ,	2.86	3.22	2.48	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.38	4.27	3.71	3.93	4.28
Natural Gas (dollars per thousand cubic feet) 5.64 5.80 5.82 5.89 6.17 6.41 6.06 6.35 6.95 6.83 6.69 7.77 9.62 7.60 7.98 Electricity	(dollars per million Btu)	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.33	4.43	3.00	3.32
(dollars per thousand cubic feet) 5.64 5.80 5.82 5.89 6.17 6.41 6.06 6.35 6.95 6.83 6.69 7.77 9.62 7.60 7.98 Electricity	Other Residential															
Electricity	Natural Gas															
		5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.77	9.62	7.60	7.98
	(cents per kilowatthour)	7.64	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.24	8.48	8.56	8.59

<sup>&</sup>lt;sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil. <sup>b</sup>West Texas Intermediate.

<sup>&</sup>lt;sup>c</sup>Average self -service cash prices.

<sup>&</sup>lt;sup>d</sup>Average for all sulfur contents.

<sup>&</sup>lt;sup>e</sup>Includes 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: Base Case

(Million Barrels per Day, Except Closing Stocks)

								Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															
Crude Oil Supply															
Domestic Production a	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.82	5.80	5.91	5.91
Alaska		1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	0.96	1.01	1.06
Lower 48		5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.85	4.84	4.90	4.85
Net Commercial Imports b	5.65	5.76	5.67	5.98	6.67	6.95	7.14	7.40	8.12	8.60	8.60	9.01	9.30	9.01	9.50
Net SPR Withdrawals	-0.03	0.01	0.05	-0.01	-0.02	0.00	0.00	0.07	0.01	-0.02	0.02	0.08	-0.02	-0.13	-0.12
Net Commercial Withdrawals		0.05	-0.01	0.02	-0.05	-0.01	0.09	0.05	-0.06	-0.05	0.11	0.00	-0.07	0.05	0.00
Product Supplied and Losses		-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unaccounted-for Crude Oil		0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.15	0.12	0.21	0.17
Chaccounted for Grade Oil	. 0.20	0.20	0.20	0.20	0.17	0.21	0.13	U.LL	0.14	0.11	0.13	0.15	0.12	0.21	0.11
Total Crude Oil Supply	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.13	15.06	15.46
Other Supply															
NGL Production	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.87	1.92	1.96
Other Hydrocarbon and Alcohol Inputs	0.11	0.13	0.15	0.20	0.25	0.26	0.30	0.31	0.34	0.38	0.38	0.38	0.38	0.40	0.41
Crude Oil Product Supplied		0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Processing Gain		0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.90	0.94	0.94
Net Product Imports <sup>c</sup>	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.59	1.35	1.49
Product Stock Withdrawn		-0.14	-0.04	0.06	-0.05	0.00	0.75	0.03	-0.09	-0.17	0.30	0.00	-0.23	0.07	0.05
Troduct Stock Withdrawn	. 0.13	-0.14	-0.04	0.00	-0.03	0.00	0.15	0.03	-0.03	-0.17	0.50	0.00	-0.23	0.07	0.00
Total Supply	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.75	20.31
Demand															
Motor Gasoline d	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.61	8.78	8.98
Jet Fuel	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.66	1.63	1.74
Distillate Fuel Oil		3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.72	3.85	3.75	3.85
Residual Fuel Oil		1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.81	0.70	0.78
Other Oils <sup>e</sup>	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.73	4.87	4.96
Total Demand	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.65	19.73	20.31
Total Petroleum Net Imports	7.20	7.18	6.63	6.96	7.66	8.09	7.89	8.50	9.16	9.76	9.92	10.43	10.91	10.40	11.00
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	341	323	325	318	335	337	303	284	305	324	284	286	312	292	294
Total Motor Gasoline	213	220	219	216	226	215	202	195	210	216	193	196	210	210	208
Jet Fuel		52	49	43	40	47	40	40	44	45	41	45	42	40	41
Distillate Fuel Oil		132	144	141	141	145	130	127	138	156	125	118	145	142	136
Residual Fuel Oil		49	50	43	44	42	37	46	40	45	36	36	41	37	36
Other Oils <sup>f</sup>		227	251	43 292	237	274	348	280	204	212	396	246	178	316	275
alncludes lease condensate.		221	231	LJL	LJI	214	340	200	204	414	330	240	170	310	213

<sup>&</sup>lt;sup>b</sup>Net imports equals gross imports plus SPR imports minus exports.

<sup>°</sup>Includes finished petroleum products, unfinished oils, gasdine blending components, and natural gas plant liquids for processing.

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

<sup>\*</sup>Includes 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, with the following exception: recent petroleum demand and supply data displayed here reflect the incorporation of resubmissions of the data as reported in EIA's Petroleum Supply Monthly, TableC1. 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: Base Case

(Trillion Cubic Feet)

(Tillion Cubic Leet)								Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply															_
Total Dry Gas Production	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	19.02	18.83	18.99	19.43	18.99	19.74
Net Imports	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.54	3.65	3.52	3.58
Supplemental Gaseous Fuels	0.11	0.11	0.11	0.11	0.10	0.10	0.09	0.08	0.07	0.07	0.10	0.09	0.09	0.08	0.08
Total New Supply	18.70	19.37	19.45	19.87	20.41	21.38	21.37	21.72	21.81	22.09	22.35	22.61	23.17	22.60	23.41
Working Gas in Storage															
Opening	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.62
Closing	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.52	1.72	2.90	2.62	2.57
Net Withdrawals	0.34	-0.56	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.21	0.80	-1.18	0.29	0.05
Total Supply	19.04	18.81	19.70	20.09	20.68	21.10	21.83	21.70	21.81	21.53	22.56	23.41	21.99	22.88	23.46
Balancing Item <sup>a</sup>	-0.24	-0.10	-0.66	-0.55	-0.40	-0.39	-0.25	0.26	0.15	-0.26	-0.95	-0.88	-0.53	-0.79	-0.76
Total Primary Supply	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.27	21.61	22.54	21.45	22.09	22.70
Demand															
Lease and Plant Fuel	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.17	1.08	1.13	1.16	1.21	1.22
Pipeline Use	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.65	0.64	0.61	0.67	0.71
Residential	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.99	4.81	4.85	5.13
Commercial	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.22	3.20	3.17	3.30
Industrial (Incl. Nonutilities)	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	8.69	9.01	9.51	8.98	9.64	10.14
Electric Utilities	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.11	3.04	2.69	2.55	2.20
Total Demand	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.27	21.61	22.54	21.45	22.09	22.70

<sup>&</sup>lt;sup>a</sup>The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

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: Base Case

(Million Short Tons)

(Willion Short Toris)							Year								
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply			1		L	l		l l					l		
Production	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1073.6	1121.3	1096.1	1091.4
Appalachia	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	419.4	428.9	409.2	400.1
Interior	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	143.5	147.7	139.4	130.1
Western	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	510.7	544.7	548.3	561.2
Primary Stock Levels <sup>a</sup>															
Opening	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	33.9	32.5
Closing	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	31.9	33.9	32.5	32.7
Net Withdrawals	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	7.6	-2.0	1.4	-0.2
Imports	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	19.8	15.3	14.2
Exports	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	48.7	40.8	40.3
Total Net Domestic Supply	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1035.2	1090.4	1072.0	1065.2
Secondary Stock Levels <sup>b</sup>															
Opening	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	136.5	142.4
Closing	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	144.0	108.1	136.5	142.4	140.1
Net Withdrawals	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.0	-14.6	35.9	-28.4	-5.9	2.3
Waste Coal Supplied to IPPs <sup>c</sup>	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	10.1	10.6	11.1	11.6
Total Supply	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.6	1043.1	1081.2	1072.7	1077.2	1079.1
Demand															
Coke Plants	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	28.9	26.1	24.8	25.3
Electricity Production															
Electric Utilities	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	894.1	859.3	806.3	790.6	791.7
Nonutilities (Excl. Cogen.) d	5.7	7.4	11.4	15.0	17.5	19.9	21.2	22.2	21.6	26.9	52.7	123.3	150.6	192.7	197.1
Retail and General Industry	82.3	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	69.6	69.3	67.5	65.8	64.9
Total Demand <sup>e</sup>	895.4	902.9	899.1	907.4	943.5	950.1	962.0	1006.3	1030.1	1038.3	1044.5	1080.9	1050.5	1073.9	1079.1
Discrepancy f	1.1	-3.5	-7.7	0.5	-7.0	3.9	-1.6	0.4	3.1	-6.7	-1.5	0.4	22.2	3.3	0.0

<sup>&</sup>lt;sup>a</sup>Primary stocks are held at the mines, preparation plants, and distribution points.

<sup>&</sup>lt;sup>b</sup>Secondary stocks are held by users. It includes an estimate of stocks held at utility plants sold to nonutility generators.

Estimated independent power producers (IPPs) consumption of waste coal. This item includes waste coal and coal slurry reprocessed into briquettes.

<sup>&</sup>lt;sup>d</sup>Estimates of coal consumption by IPPs, supplied by the Office of Coal, Nuclear, Electric, and Alternate Fuels, Energy Information Administration (EIA). Quarterly coal consumption estimates for 2000 and projections for 2001 and 2002 are based on (1) estimated consumption by utility power plants sold to nonutility generators during 1999, and (2) annual coal-fired generation at nonutilities from Form EIA-867 (Annual Nonutility Power Producer Report).

<sup>&</sup>lt;sup>e</sup>Total Demand includes estimated IPP consumption.

<sup>&</sup>lt;sup>1</sup>The discrepancy reflects an unaccounted for shipper and receiver reporting difference, assumed to be zero in the forecast period. Prior to 1994, discrepancy may include some waste coal supplied to IPPs that has not been specifically identified.

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: Base Case

(Billion Kilowatt-hours)

,	,							Year							
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Supply											•	•			
Total Utility and Nonutility Net Generation															
Coal	1583.8	1590.3	1589.9	1621.1	1690.0	1691.7	1710.2	1795.7	1844.1	1873.9	1884.3	1967.7	1912.6	1854.1	1901.1
Petroleum	163.9	124.0	119.0	99.4	112.3	105.5	75.3	81.7	93.0	126.9	123.6	108.8	128.0	88.4	108.4
Natural Gas	363.9	378.3	392.6	418.3	428.4	465.9	498.5	455.8	485.4	540.6	556.6	596.6	631.0	689.8	710.1
Nuclear	529.4	577.0	612.6	618.8	610.4	640.5	673.4	674.7	628.6	673.7	731.2	753.9	768.8	773.8	777.2
Hydroelectric	273.7	289.5	285.0	248.9	276.4	256.8	308.3	344.4	354.9	318.9	313.4	273.1	208.1	257.6	293.2
Geothermal and Other a	9389.5	65.7	72.2	76.8	79.4	93.4	92.2	94.7	88.1	83.8	95.5	99.8	109.2	121.0	122.9
Total Generation	2971.9	3024.9	3071.3	3083.4	3196.9	3253.8	3357.8	3447.0	3494.2	3617.9	3704.5	3799.9	3757.8	3784.7	3912.8
Net Imports <sup>c</sup>	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	30.6	34.0	20.3	25.3	31.4
Total Supply	2982.8	3027.2	3091.0	3108.8	3224.7	3298.6	3397.1	3485.0	3530.8	3645.5	3735.1	3834.0	3778.1	3810.0	3944.2
Losses and Unaccounted for d	235.6	210.4	217.9	223.6	236.4	223.1	234.6	234.9	236.2	221.4	234.2	214.0	166.7	201.0	226.7
Demand															
Retail Sales <sup>e</sup>															
Residential	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1192.4	1201.0	1222.8	1247.7
Commercial	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1055.2	1085.0	1085.9	1092.8
Industrial	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1064.2	994.1	958.3	1017.7
Other	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	109.5	116.7	120.9	124.3
Subtotal	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3421.4	3396.8	3388.0	3482.5
Nonutility Use/Sales f	100.4	104.2	111.0	121.8	126.9	140.9	149.2	148.9	149.0	159.8	188.8	198.6	214.6	221.0	235.0
Total Demand	2747.2	2816.7	2873.0	2885.1	2988.4	3075.5	3162.4	3250.1	3294.6	3424.0	3500.9	3620.0	3611.4	3609.0	3717.5
Memos:															
Nonutility Sales															
to Electric Utilities	87.1	112.5	135.3	164.4	187.5	202.2	214.2	220.6	222.7	245.9	342.0	586.0	913.2	1014.6	1136.9
Electric Utility Generation	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3173.7	3015.4	2630.0	2549.1	2540.9
Nonutility Generation	187.6	216.7	246.3	286.1	314.4	343.1	363.3	369.6	371.7	405.7	530.9	784.6	1127.9	1235.6	1371.9

<sup>&</sup>lt;sup>a</sup>Other includes generation from wind, wood, waste, and solar sources.

Net generation.

<sup>&</sup>lt;sup>c</sup>Data for 2000 are estimates.

<sup>&</sup>lt;sup>d</sup>Balancing item, mainly transmission and distribution losses.

<sup>&</sup>lt;sup>e</sup>Total of retail electric Power Monthly and Electric Power Annual. Power marketers are reported in EIA's Electric Power Monthly and Electric Power Annual. Power marketers are reported in EIA's Electric Sales and Revenue, Appendix C. Data for 2000 are estimates.

<sup>&</sup>lt;sup>1</sup>Defined as the sum of nonutility facility use of onsite net electricity generation plus direct sales of power by nonutility generators to third parties, reported annually in Table 7.5 of the Monthly Energy Review (MER). Data for 2000 are estimates.

Notes: Minor discrepancies with other EIA published historical data are due to rounding. Historical data are printed in bold; forecasts are in italics.

Sources: Historical data: Energy Information Administration: latest data available from EIA databases supporting the following report: Electric Power Monthly, DOE/EIA-0226 and Electric Power Annual, DOE/EIA-0348. Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.