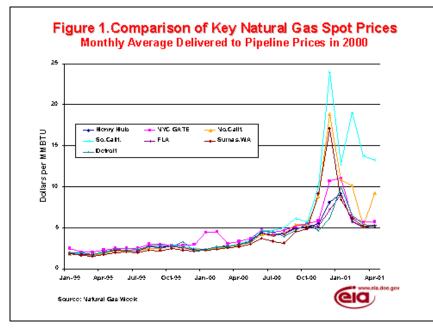


### **E** Short-Term Energy Outlook



### June 2001

### Overview

### **Natural Gas Markets**

High levels of natural gas storage injections during April and May and lower demand have led to a higher than previously anticipated storage build thus far, causing spot natural gas prices to fall in May to under \$4 per thousand cubic feet currently. Contributing factors in these events have been the relatively mild weather in most of the U.S. and also lost demand in the industrial and utility Electric utility demand for sectors. natural gas is estimated to have fallen by an average of about 16 percent in

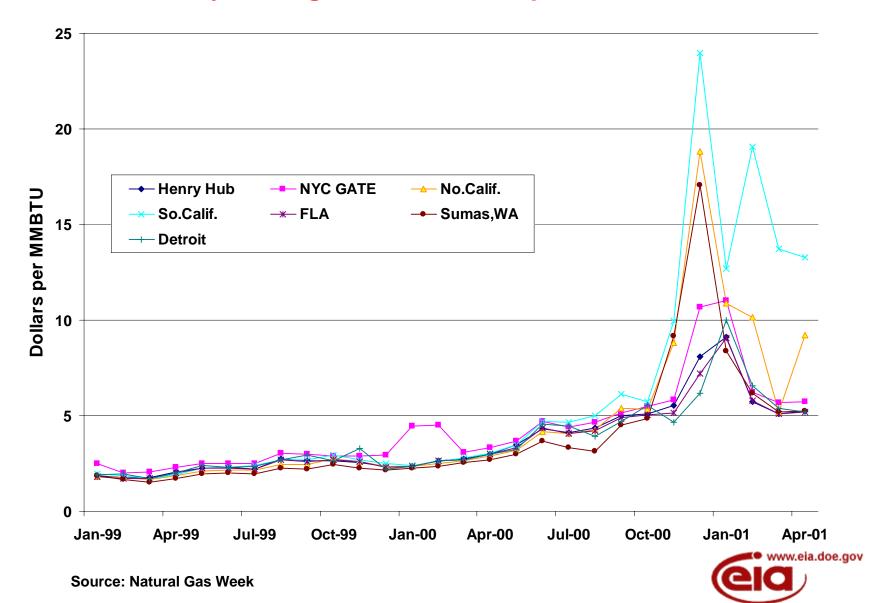
the first five months of 2001 from year-ago levels, as electric utilities turned away from natural gas in favor of other fuels due to high prices. Industrial demand growth, which was generally flat or negative in the first 4 months of this year, began to turn around in May as gas prices fell and the differential between gas and fuel oil prices narrowed.

However, the advent of higher temperatures in regions that use large amounts of gas for power generation could raise the competition for gas supply between cooling and storage sources and lead to the resurgence or at least stabilization of gas prices. Spot natural gas prices at key regional market points have come down dramatically since the spikes of December 2000/January 2001. But southern California border prices remained the highest in the nation in May, averaging \$12 per thousand btu (Figure 1). Factors that may keep gas prices from resurging toward higher levels this summer are: the likelihood that conditions will be cooler in Texas this summer than last summer; the tendency for new gas-fired generating plants installed since 1999 to be more efficient than average existing plants, and the potential negative efforts on gas demand in California if electric outages cause significant economic damage in that State.

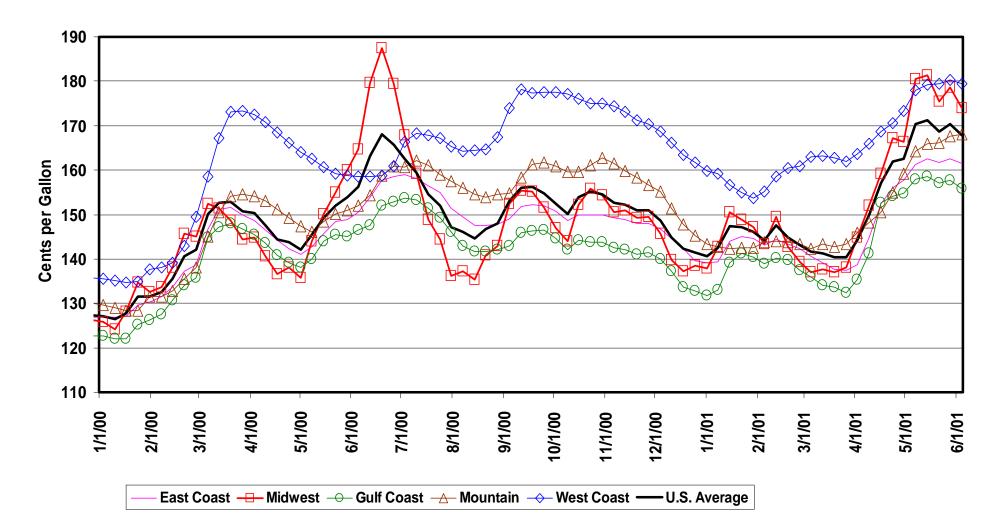
### **Gasoline Prices**

Regular gasoline prices averaged \$1.68 per gallon in the United States at the beginning of June (Figure 2). Prices have wavered between \$1.68 and \$1.71 for 5 weeks now, possibly signaling a plateau in prices that will be near the upper bound for the weekly U.S. average this summer. Sharp regional differences in prices have emerged once again. Regular gasoline averaged between \$1.55 and \$1.58 per gallon in the South Atlantic and Gulf Coast regions in May. Meanwhile, Midwest and West Coast prices averaged about 30 cents per gallon higher. During the 1996-2000 time period, the average maximum regular gasoline price differential in May between any of these regions was 25 cents per gallon. Over the past 2 months, gasoline inventories have generally improved, with end-May stocks coming in at close to year-ago levels and only 5 million barrels (2 percent) below normal, compared to 18 million barrels (8 percent) below normal at the

### Figure 1.Comparison of Key Natural Gas Spot Prices Monthly Average Delivered to Pipeline Prices in 2000

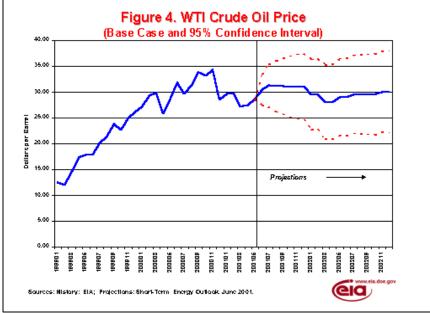


## **Figure 2. Retail Gasoline Prices by Region**





end of March <u>(Figure 3)</u>. The improvement in inventories has been concentrated in the Gulf Coast region, suggesting that some of the abnormal regional differences in price may remain for a while. Still, expected continued improvement in gasoline supply should lead to gradually falling prices over the remainder of the summer.



### International

**Crude Oil Prices** The U.S. average imported crude oil price in May was about \$25.50 per barrel, up \$3 per barrel from April levels, while the U.S. benchmark West Texas Intermediate crude oil price averaged about \$29 per barrel (Figure 4). The OPEC basket price, which tracks closely with the imported crude oil price, averaged about \$26 per barrel.

Rising world oil prices are being driven by low world oil inventories and OPEC decisions to restrict further production. Several OPEC

members have announced that production quota increases are not expected during summer 2001. With no major increases in world oil production, oil prices this summer are projected to rise by another \$2- \$3 per barrel from May levels, and maintain these levels for the rest of the year. With no major changes in OPEC behavior expected for 2002, the U.S. average imported crude oil price could fluctuate near \$25 - \$27 per barrel for most of 2002.

**World Oil Inventories.** OECD commercial stocks are currently below levels seen during most of the past decade. EIA does not attempt to estimate oil inventory levels on a global basis. However, the direction in which OECD commercial oil inventories are headed is discerned from EIA's world oil supply and demand estimates. These estimates indicate that OECD commercial stocks, particularly in the United States, will likely remain below normal levels for most of 2001 and 2002 and these low inventory levels are expected to put upward pressure on prices much as they did in 2000.

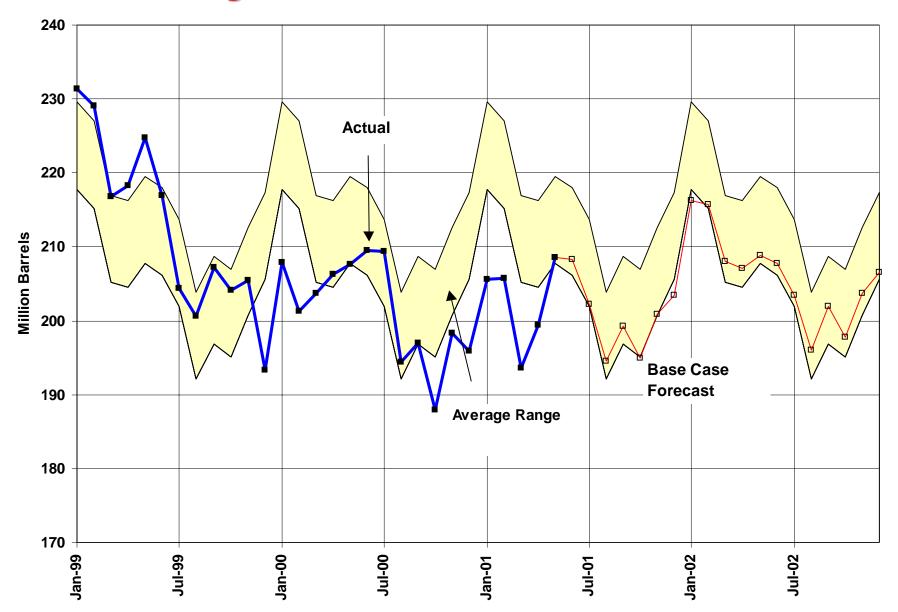
### **International Oil Supply**

The OPEC 10 (OPEC excluding Iraq) agreed on June 5 to leave production quotas unchanged despite Iraq's decision to suspend all Iraqi oil exports sanctioned under the U.N.'s oil-for-food program effective June 4. However, OPEC agreed to review the impact of Iraqi oil export cuts at an extraordinary meeting on July 3.

Iraqi efforts to end U.N. sanctions resulted in lowered exports from December 2000 - February 2001. Iraq rejected the latest efforts to revise the sanctions - the "smart sanctions" proposals advanced by the United States and the United Kingdom, and also rejected a 1-month rollover of the United Nations (U.N.) oil-for-food program that was adopted to allow for further study of the proposal. On June 4, 2001 Iraq suspended its oil exports under the U.N. oil-for-food program, and stopped pumping oil into the Iraq/Turkey pipeline. No long-term stoppage of Iraqi exports is assumed in this Outlook. It is also assumed that Iraqi production in 2001 will not exceed the 3 million barrels per day level reached as recently as October 2000.

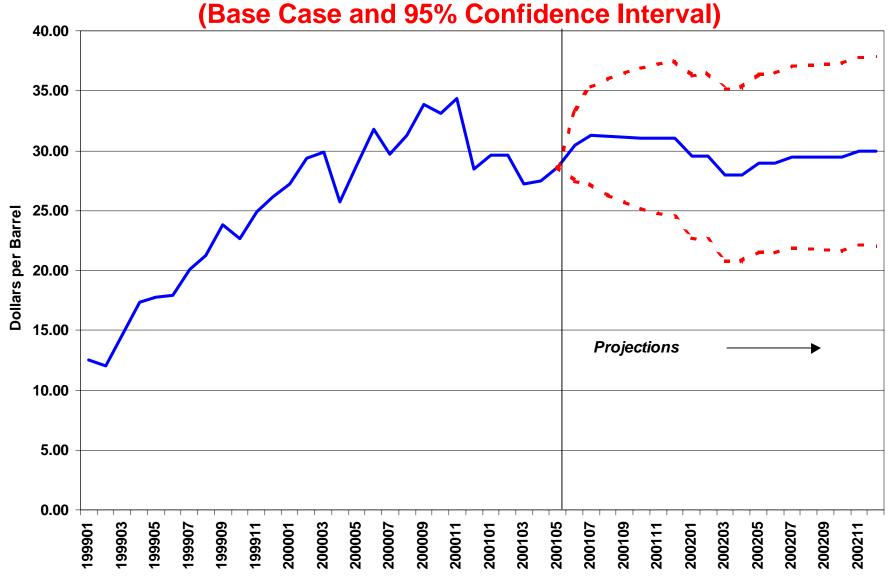
OPEC members offset their February and April quota cuts to a large extent by producing above quotas. EIA estimates that although the OPEC 10 cut their production by over 200,000 barrels per day in May, OPEC 10

## **Figure 3. U.S. Gasoline Inventories**





# Figure 4. WTI Crude Oil Price





production was still over 600,000 barrels above quota levels cuts (Figure 5). EIA's analysis indicates that even prior to the Iraqi suspension of exports, world oil markets would have continued to be tight. With the loss in Iraqi exports, OPEC production above current quota levels is expected to increase regardless of whether OPEC raises production quotas or triggers its price-band mechanism. The loss of all Iraqi U.N.-sanctioned oil exports for even 1 month, equivalent to the loss of 60 million barrels of oil, is sizable enough to cancel much if not all of the inventory build that world oil markets normally expect for this time of year.

The assessment of non-OPEC production is lower than those made earlier in the year. In particular, problems in Angola (delays in developing large deep-water finds), Brazil (loss of a large offshore oil platform), and Colombia (continued bombings of pipelines and other infrastructure) have lowered the outlook for non-OPEC supply in 2001. Non-OPEC production is expected to increase by another 0.4 million barrels per day in 2001, with much of this increase coming from Russia. Although the Caspian Pipeline Consortium has begun filling its new pipeline to transport oil from Kazakhstan to world markets, this is not expected to support greater Caspian production levels until end-2001.

**International Oil Demand.** World oil demand in 2001 is expected to grow at a slower rate than during the past year because of a gradual economic slowdown in the industrialized countries (Figure 6). As in the last Outlook, EIA projects world oil demand growth of 1.3 million barrels per day in 2001 (higher than the IEA's May prediction of demand growth of 1 million barrels per day), with similar demand growth expected for 2002. Non-OECD Asia is still expected to be the leading region for oil demand growth over the next two years, although this growth now appears to be weaker than previously assumed.

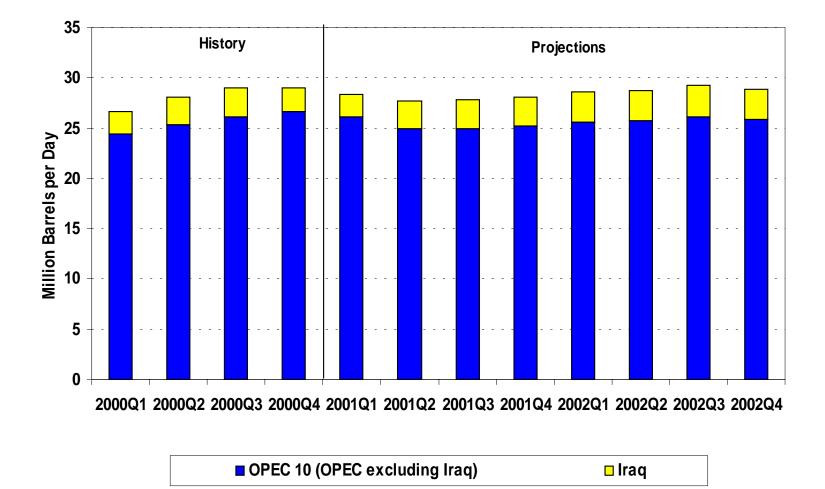
### **U. S. Energy Prices**

### **Gasoline Prices**

We now expect national average monthly prices for regular gasoline to range between \$1.52 and \$1.77 per gallon this summer (Figure 7). The mean of this range (\$1.61 per gallon) for the entire summer would be about 6 percent above the record set last year. This year, like last year, the high national average prices have been skewed by especially high pump prices in the Midwest (over \$2.00 per gallon at times), which, in turn, were the result of critical regional supply problems. Unanticipated supply problems, such as the recent refinery shutdowns in Louisiana, Tennessee, and Illinois, will cause short-term price spikes in the spot market that will eventually turn up at the pump in the areas served by those facilities.

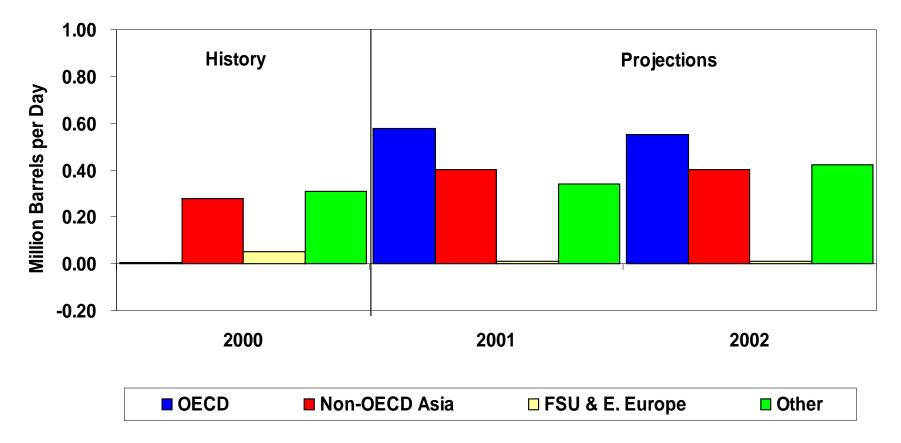
From late March through the beginning of May, spot gasoline prices climbed over 20 cents per gallon, which in turn led to widespread increases in U.S. pump prices for April and the first half of May (Figure 8). By the second week of May, the spot market price reversed course, dropping by nearly 20 cents per gallon in response to increased production and imports of gasoline. The result at the pump was a drop in the price of nearly 3 cents per gallon during the third week of May. Subsequently, several unscheduled refinery shutdowns occurred and the spot price rebounded, gaining nearly 15 cents per gallon during the latter part of May. These spot market price changes have already spilled into the retail market, as prices at the pump increased by nearly 2 cents per gallon during the last week of May. Further weekly increases in pump prices are possible. The rapid rise in spot prices in April resulted in record spreads (spot price less crude oil cost), which in turn encouraged suppliers to step up gasoline production and ultimately led to a drop in From April to May, for example, the spread between the spot price of New York Harbor the price. gasoline and the spot prices of West Texas Intermediate crude oil had fallen from a record 38 cents per gallon to 25 cents per gallon, though some of this decrease was due to the rise in crude oil prices. Supplies are expected to improve and the chances that spot and retail prices will settle down (perhaps even decline by early- to mid-June from current levels) are good. Still and all, the average price for this summer will almost certainly exceed last year's average of \$1.53 per gallon and set a new record. Assuming no major supply disruptions in the near future, we expect pump prices to hit their zenith in May or June. With

## Figure 5. OPEC Crude Oil Production 2000-2002



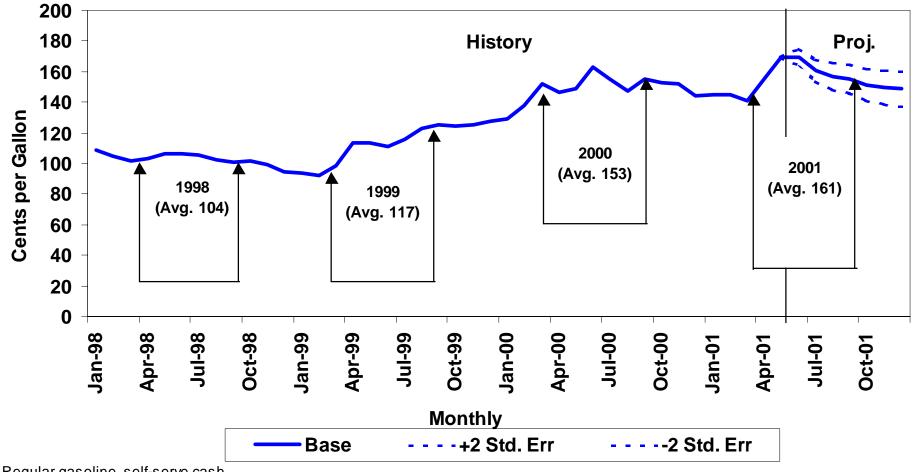


## Figure 6. World Oil Demand (Change from Year Ago)





### Figure 7. U.S. Average Retail Motor Gasoline Price Cases\* (Base Case and 95% Confidence Range)



\* Regular gasoline, self-serve cash.



#### 160.0 140.0 120.0 Los Angeles Harbor **Cents per Gallon** 100.0 80.0 60.0 **Gulf Coast** 40.0 **NYC Harbor** 20.0 0.0 3/21/95 6/21/95 9/21/95 12/21/95 3/21/96 6/21/96 9/21/96 12/21/96 3/21/98 6/21/98 9/21/98 12/21/98 3/21/99 6/21/99 9/21/99 12/21/99 3/21/00 6/21/00 9/21/00 12/21/00 3/21/97 6/21/97 9/21/97 12/21/97 3/21/01 v.eia.doe.gov \* 7-day moving average of daily spot price quotes 7 Trading Days Ending

## Figure 8. Spot Gasoline Prices\*

Source: Reuters

increases in gasoline supply, we also expect pump prices to decline through the remainder of the summer, falling by 14 cents per gallon (to about where they were in April) by September.

**Distillate Fuel Oil (Diesel and Heating Oil).** The recent spikes in motor gasoline prices have affected the retail price of diesel fuel oil. Since gasoline markets are currently tight, refiners have been accentuating gasoline production at the cost of distillate production. Inventories of distillate fuel are somewhat tight, as distillate production has begun to languish, resulting in a price premium for the fuel. Therefore, retail diesel prices are expected to remain fairly high, averaging \$1.48 per gallon (or 2 cents higher than last year), during this driving season.

Natural Gas. Last winter (October 2000-March 2001) natural gas prices at the wellhead averaged \$5.74 per thousand cubic feet, about two and one-half times the previous winter's price. Natural gas prices (Figure 9) began climbing early last summer, primarily in response to consumption increases coupled with tightened supplies, including low levels of underground gas storage that would be available for the heating season. Spot gas prices have fallen precipitously over the last two months and were averaging less than \$4.00 per thousand cubic feet at the end of May. Although storage levels started out this year on the low side, recent mild spring weather throughout much of the nation along with the lower market prices have led to a higher than anticipated underground storage build. In fact, storage injections hit record highs in April and the first part of May. Gas that would have been used for heating if the spring weather was cold, or for generating electric power if the weather was hot, was injected into underground storage. For the spring and summer, average wellhead prices are projected to decline, averaging \$4.14 per thousand cubic feet. This represents a sizeable downward revision of about 50 cents per thousand cubic feet from our previous report. Nevertheless, we continue to believe that it may be a while before wellhead prices revisit the level of under \$2.50 per thousand cubic feet exhibited a little over one year ago. Demand growth over the next several years for this relatively clean fuel should keep prices relatively strong. In 2001, the annual average wellhead price is projected to average about \$4.75 per thousand cubic feet. For the year 2002, we expect the storage situation to improve somewhat and with that, we expect a decline in the average annual wellhead price to \$4.24 per thousand cubic feet.

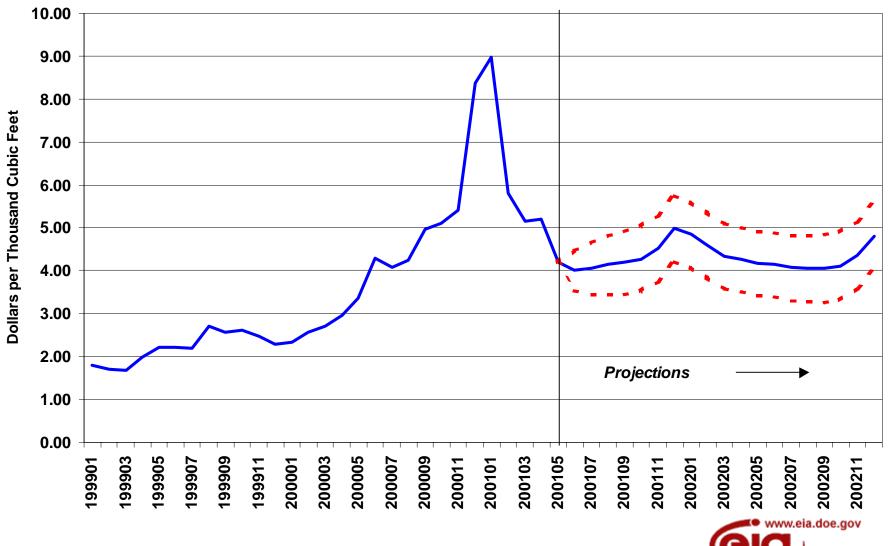
**Electric Utility Fuels**. The jump in gas prices last summer and fall has pushed delivered gas prices above heavy fuel oil prices on a cost per Btu basis (Figure 10). As these circumstances are likely to continue, though at a narrower rate, we see a recovery this year (30 percent increase in 2001), in the amount of heavy fuel oil used for power generation over the relatively tiny levels seen since late 1999. Also for the year 2001, the cost of coal to electric utilities is actually projected to gain slightly after years of slow but continual decline, as electric generation from coal, like oil, has been growing in lieu of expensive or unavailable natural gas. On an inflation-adjusted basis, however, coal prices should still show a modest decline this year.

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

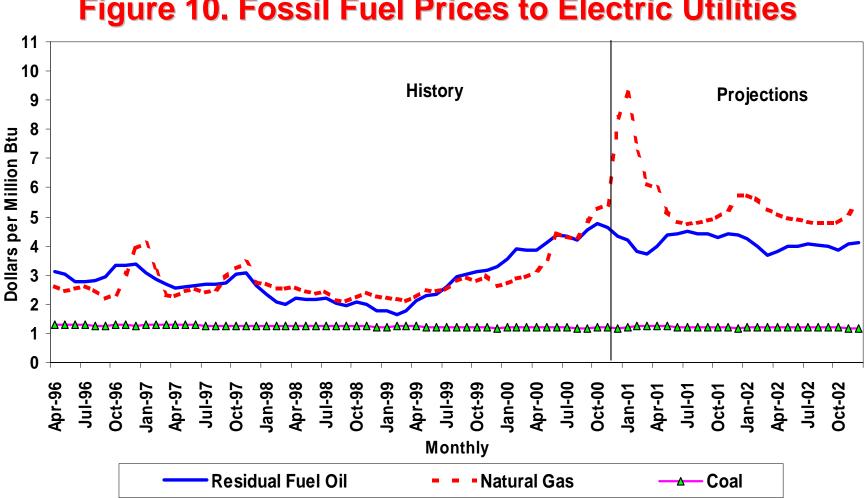
Having exhibited about 0.8 percent growth last year, total domestic petroleum demand is projected to increase by 310,000 barrels per day, or 1.6 percent, in the current year and by a further 380,000 barrels per day, or 1.9 percent, in 2002 (Figure 11). These projections reflect continued -- but much slower -- economic growth in the current year followed by an acceleration of economic growth in 2002. Moreover, both crude oil and product prices, after adjustment for inflation, are expected to continue to decline slowly throughout the forecast interval, contributing to the acceleration in oil demand growth.

In the current year, motor gasoline demand is projected to increase by 1.2 percent. Although sluggish, that increase is twice that of the previous year, during which consumers reacted to the sharp increases in retail prices. Despite brisk increases in real disposable income, the lagged effects of continued substantial price increases during the last several months are expected to constrain growth to only 0.5 percent from that of

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



Sources: History: Natural Gas Week; Projections: Short-Term Energy Outlook, June 2001.

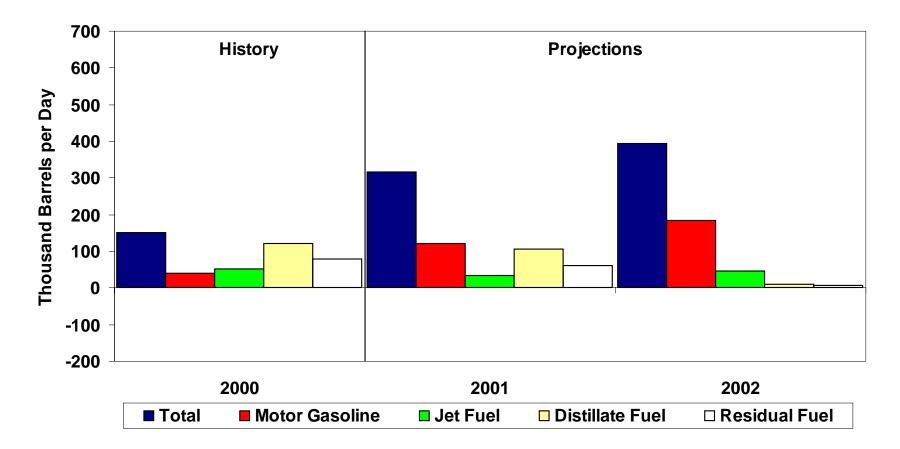


### **Figure 10. Fossil Fuel Prices to Electric Utilities**

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Sources: History: EIA; Projections: Short-Term Energy Outlook, June 2001.

### Figure 11. Petroleum Products Demand (Change from Year Ago)





the previous summer. Nonetheless, growth in gasoline demand is expected to begin accelerating in the fourth quarter. That growth is brought about in part not only by the decline in fuel costs from their late spring peaks but also by an acceleration in economic growth stimulated in part by anticipated tax refunds. Reflecting continued economic recovery and further price declines, motor gasoline demand in 2002 is expected to increase by a further 1.9 percent.

During the forecast period, total jet fuel demand growth is projected to average 2.3 percent, down from the 3.1-percent average of the previous 2 years growth. The slowdown is principally due to slower economic growth. Commercial aviation demand, the largest component of jet fuel demand, is expected to average 2.5 percent, reflecting an average 4.3-percent growth in available airline capacity partly offset by continued increases in fuel efficiency brought about by deliveries of new aircraft. Military jet fuel demand is expected to remain unchanged during the forecast interval.

Distillate demand growth is expected to climb by 2.9 percent during the current year and remain flat in 2002. Demand was boosted sharply in the first quarter of this year by large amounts of switching out of natural gas and into distillate fuel by power generators and industrial users. Continued growth in transportation distillate next year is expected to be offset by two main factors: sharp reductions in fuel switching to distillate next winter compared to the unusually high amounts seen in first quarter 2001, and declines in space-heating fuel demand under assumptions of normal weather.

Having risen by almost 10 percent in 2000 as a result of high natural gas prices, residual fuel oil is expected to grow by a further 7 percent during the current year, with little or no further growth expected in 2002. Power-generation purchasing behavior accounts for much of the growth as a result of economics that favor fuel oil in that sector, particularly this year.

### U.S. Oil Supply

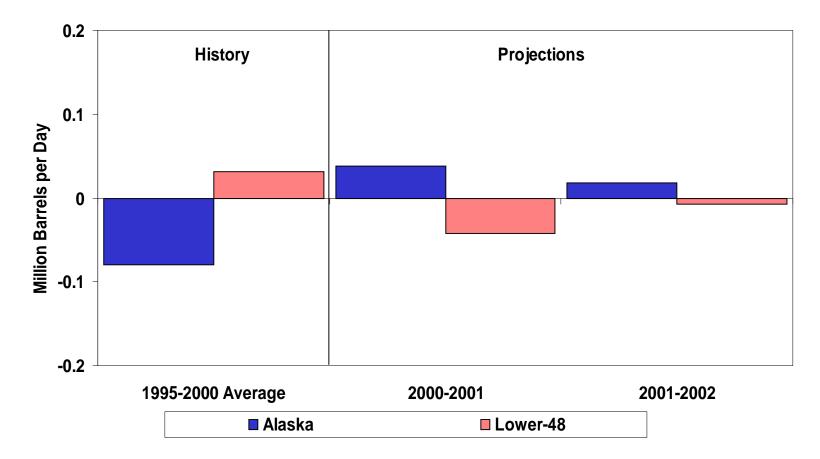
Some temporary gains in output from Alaska and comparatively small declines in Lower-48 output are expected to hold U.S. crude oil output at about year 2000 levels through 2002. Average domestic oil production is expected to decrease by 3,000 barrels per day, or less than 0.1 percent, in 2001, to a level of 5.83 million barrels of oil per day. For 2002, a 0.2 percent increase is expected, resulting in a production rate of 5.84 million barrels of oil per day average for the year (Figure 12).

Lower-48 States oil production is expected to decrease by 42,000 barrels per day to a rate of 4.82 million barrels per day in 2001, followed by a decrease of 8,000 barrels per day in 2002. Shell started production in 1999 in their Ursa field, which will peak in production late in the year 2001. Shell's Brutus platform is expected to start production in the third quarter of 2001 with peak oil production of 100,000 barrels per day in 2002. Oil production from the Mars, Troika, Ursa, and Brutus Federal Offshore fields is expected to account for about 8.2 percent of the lower-48 oil production by the fourth quarter of 2002.

Alaska is expected to account for 17.6 percent of the total U.S. oil production in 2002. Its oil production is expected to increase by 4.2 percent in 2001 and increase again by 1.6 percent in 2002. The increase in 2001 is the result of adding two new satellite fields, Colville River (Alpine) and Prudhoe Bay (Aurora). Alpine averaged its expected peak of 80,543 barrels per day during March. Aurora peak production should occur late this year. Another satellite field, North Star, is expected to come on in early to mid 2002 and will peak at a rate of 65,000 barrels per day later that year. Production from the Kuparuk River field plus like production from West Sak, Tabasco and Tarn fields is expected to stay at an average of 214,000 barrels per day in 2001 and 222,000 in 2002.

### Natural Gas Demand and Supply

## Figure 12. U.S. Crude Oil Production (Change from Year Ago)





U.S. natural gas demand is projected to grow by 1.8 percent this year, compared with estimated 5.0 percent growth in 2000 (Figure 13). This is mainly due to the somewhat slower economic growth this year. In addition, the negative impact on gas demand of high prices at the beginning of the year and the likelihood that weather-induced demand increases will be smaller this year (particularly in the second half of the year) contribute to lower demand growth in 2001. Growth in 2002 is expected to rise by another 3.4 percent as the economy picks up again from its dip in 2001 and as new gas-fired power generation requirements continue to mount.

Electric utility demand for gas was falling during the first 5 months of 2001 from year-ago levels but is expected to reverse itself by September due to new gas-fired power generation requirements. Industrial demand growth, which was generally flat or negative in the first 4 months of this year, began to turn around in May as gas prices fell from well over \$5 per thousand cubic feet to under \$4. Electricity or natural gas intensive industries, such as copper and aluminum smelters, fertilizer producers and chemicals manufacturers, turned away from natural gas due to high prices at the beginning of the year. This is expected to change since natural gas prices came down in May, and the price differential between natural gas and distillate prices is narrowing, making gas more competitive with fuel oil in the industrial and electricity generating sectors.

The higher levels of storage injections, which were over 100 billion cubic feet (bcf) per week during the four weeks of May, are believed to be the result of the mild April and May weather, and also a result of lost demand for gas in the industrial and utility sectors. Based on EIA survey data and recent information from the American Gas Association on early-season storage additions, we estimate that, on an EIA survey basis, working gas in storage at the end of May was 1,494 bcf (Figure 14). Heavy injections into storage during recent weeks have eased concerns about storage levels going into the fall, and together with mild weather have caused spot and near futures prices to fall to under \$4.00 per thousand cubic feet (mcf) from recent peaks well over \$5.00 per mcf. Continued high storage injections are expected for the remainder of the summer and gas storage levels at the beginning of the heating season (Nov. 1) are expected to be higher than they were at that time last year. This summer, however, the event of very hot temperatures and above-normal cooling demand in regions that use large amounts of gas for power generation would heighten the competition for gas between cooling and storage demand sources and lead to increases in gas prices.

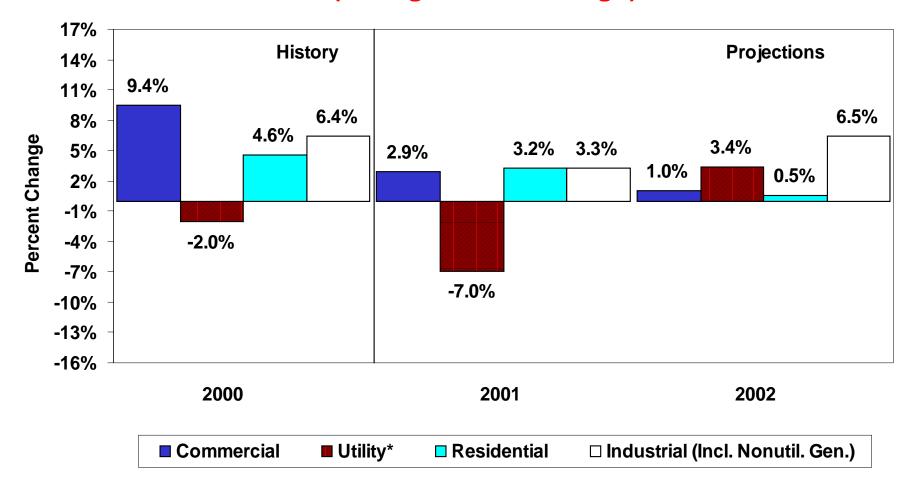
Domestic gas production for 2001 and 2002 is expected to rise as production responds to the high rates of drilling experienced over the past year. According to Baker Hughes, the gas rig count rose to 1,030 during the week ending May 25, an all time record high. Production is estimated to have risen by 2.4 percent in 2000 and it is forecast to continue to increase by 3.4 percent in 2001 and 3.1 percent in 2002.

Net imports of natural gas are projected to rise by about 11 percent in 2001 and by 5.8 percent in 2002. For this summer, we project that natural gas imports will be 14 percent above last summer's as demand for storage refill is expected to be high.

### **Electricity Demand and Supply**

Total annual electricity demand growth (retail sales plus industrial generation for own use) is projected at about 2.5 percent in 2001 and 2.2 percent in 2002 (Figure 15). This is compared with estimated demand in 2000 that was 3.3 percent higher than the previous year's level. Electricity demand growth is expected to be slower in the forecast years than it was in 2000 partly because economic growth is slowing from its higher 2000 level, but in 2002, the assumption of normal weather causes slower growth in residential demand compared with the two preceding years. Industrial demand for electricity is expected to be down in 2001 but revive in 2002 along with the economy.

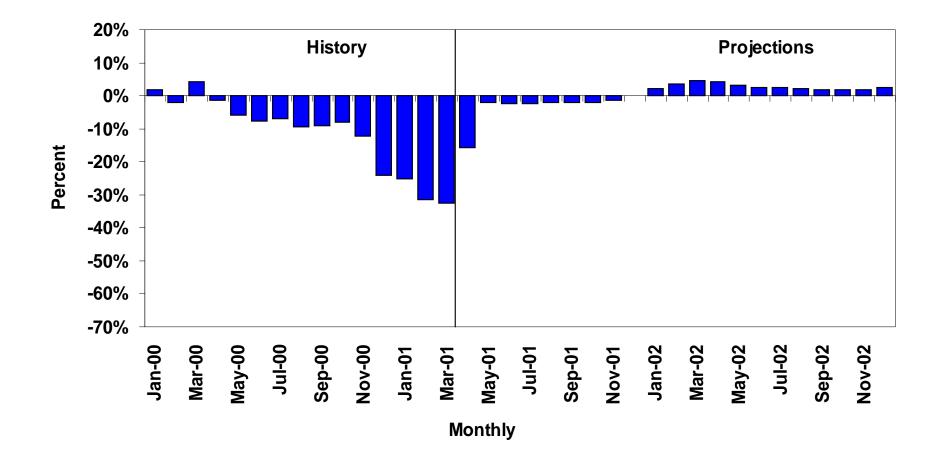
## Figure 13. Natural Gas Demand by Sector (Change from Year Ago)



\* Electric utility gas demand changes in recent years in part reflect sale of assets to the nonutility sector

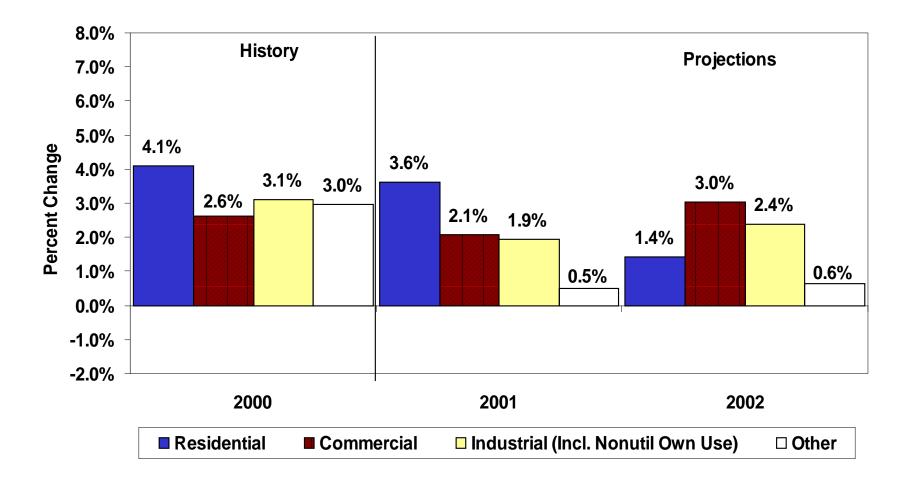


## **Figure 14. Working Gas in Storage** (Difference from Previous 5-Year Average)



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## Figure 15. U.S. Electricity Demand by Sector (Change from Year Ago)



This summer's overall cooling degree-days (CDD) are projected to be 2.6 percent above normal based on April and May temperatures, or about 1.5 percent above last summer's CDD total. Summer electricity demand is expected to be 2.2 percent higher than last summer based on economic factors as well as weather, i.e., rising GDP, albeit less rapid than last year, higher housing stocks and employment (Table 10).

Hydropower generation in the crucial Pacific Northwest is expected to be down by 7.5 percent from last summer, due mainly to lower water levels. According to the National Oceanic and Atmospheric Association (NOAA), this winter was the second driest winter on record, after the 1976/77 winter. In addition, California electricity needs during this past winter further drained reservoirs, depriving the region of hydroelectric generation resources for this spring and summer.

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

	-	Year			Annua	al Percentage	e Change
	1999	2000	2001	2002	1999-2000	2000-2001	2001-2002
Real Gross Domestic Product (GDP)							
(billion chained 1996 dollars)	8876	9319	9514	9768	5.0	2.1	2.7
Imported Crude Oil Price <sup>a</sup>							
(nominal dollars per barrel)	17.22	27.72	26.37	26.25	61.0	-4.9	-0.5
Petroleum Supply (million barrels per day)							
Crude Oil Production <sup>b</sup>	5.88	5.83	5.83	5.84	-0.9	0.0	0.2
Total Petroleum Net Imports							
(including SPR)	9.91	10.43	10.93	11.25	5.2	4.8	2.9
Energy Demand							
World Petroleum							
(million barrels per day)	74.9	75.6	76.9	78.3	0.9	1.7	1.8
Petroleum			/				
(million barrels per day)	19.52	19.67	19.99	20.38	0.8	1.6	2.0
Natural Gas		00.70	00.40	04.00	5.0	4.0	0.5
(trillion cubic feet)	21.70	22.78	23.18	24.00	5.0	1.8	3.5
Coal <sup>c</sup>		(000					
(million short tons)	1045	1080	1115	1115	3.3	3.2	0.0
Electricity (billion kilowatthours)	224.0	0000	0.457	0507	0.0	47	0.0
Retail Sales <sup>d</sup> Nonutility Use/Sales <sup>e</sup>	3312 178	3398 206	3457 236	3527 247	2.6 15.7	1.7 14.6	2.0 4.7
Total	3490	200 3604	3693	3774	3.3	2.5	2.2
Total Energy Demand <sup>f</sup> (quadrillion Btu)	97.2	98.9	100.2	102.0	1.7	1.3	1.8
	-					-	-
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	10.95	10.61	10.53	10.44	-3.1	-0.8	-0.9
					-		
Renewable Energy as Percent of Total <sup>g</sup>	7.2	6.9	6.8	7.0			

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

<sup>b</sup>Includes lease condensate.

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

<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>e</sup>Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 2000 are estimates.

<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>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 Statistics Report* DOE/EIA-0520; *Weekly Petroleum Status Report*, DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0501.

#### Table 1. U.S. Macroeconomic and Weather Assumptions

		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Macroeconomic <sup>a</sup>															
Real Gross Domestic Product															
(billion chained 1996 dollars - SAAR)	9192	9319	9374	9394	9440	9472	9544	9600	9646	9719	9810	9898	9319	9514	9768
Percentage Change from Prior Year	5.3	6.1	5.3	3.4	2.7	1.6	1.8	2.2	2.2	2.6	2.8	3.1	5.0	2.1	2.7
Annualized Percent Change															
from Prior Quarter	4.7	5.5	2.3	0.9	2.0	1.4	3.0	2.4	1.9	3.0	3.8	3.6			
GDP Implicit Price Deflator															
(Index, 1996=1.000)	1.062	1.068	1.073	1.077	1.086	1.092	1.097	1.102	1.109	1.112	1.117	1.122	1.070	1.094	1.115
Percentage Change from Prior Year	1.8	2.1	2.3	2.3	2.3	2.3	2.2	2.3	2.1	1.8	1.9	1.8	2.1	2.3	1.9
Real Disposable Personal Income															
(billion chained 1996 Dollars - SAAR)	6443	6502	6541	6555	6588	6607	6834	6773	6832	6889	6956	7024	6510	6700	6925
Percentage Change from Prior Year	2.9	3.1	3.1	2.2	2.2	1.6	4.5	3.3	3.7	4.3	1.8	3.7	2.8	2.9	3.4
Manufacturing Production															
(Index, 1996=1.000)	1.216	1.239	1.251	1.267	1.249	1.246	1.255	1.265	1.273	1.288	1.303	1.316	1.243	1.254	1.295
Percentage Change from Prior Year	4.5	5.1	6.5	6.1	2.8	0.6	0.3	-0.2	1.9	3.4	3.8	4.0	5.5	0.9	3.3
OECD Economic Growth (percent) <sup>b</sup>													3.6	2.6	2.7
Weather <sup>c</sup>															
Heating Degree-Days															
U.S		485	96	1856	2279	460	86	1622	2234	518	86	1622	4460	4447	
New England		909	200	2383	3231	881	167	2238	3174	883	167	2237	6499	6517	
Middle Atlantic		692	126	2194	2884	640	105	2003	2891	700	105	2002	5725	5632	5698
U.S. Gas-Weighted		512	100	1957	2417	482	90	1714	2351	555	90	1714	4684	4703	4710
Cooling Degree-Days (U.S.)	45	380	759	69	23	372	781	76	33	347	782	76	1253	1252	1237

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

<sup>b</sup>OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

<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 WEFA Group, "World Economic Outlook," Volume 1. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0501.

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

		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Macroeconomic <sup>a</sup>															
Real Fixed Investment															
(billion chained 1996 dollars-SAAR)	1731	1779	1792	1787	1794	1780	1782	1781	1788	1800	1823	1849	1772	1784	1815
Real Exchange Rate															
(index)	1.163	1.210	1.247	1.113	1.107	1.110	1.107	1.103	1.100	1.090	1.080	1.070	1.183	1.107	1.085
Business Inventory Change															
(billion chained 1996 dollars-SAAR)	10.3	17.6	21.0	12.2	-0.4	-3.6	-0.1	2.7	-2.7	-1.7	2.5	4.4	15.3	-0.4	0.6
Producer Price Index															
(index, 1982=1.000)	1.301	1.321	1.334	1.351	1.378	1.390	1.395	1.397	1.399	1.395	1.394	1.398	1.327	1.390	1.397
Consumer Price Index															
(index, 1982-1984=1.000)	1.702	1.717	1.730	1.743	1.761	1.775	1.784	1.794	1.803	1.808	1.816	1.825	1.723	1.778	1.813
Petroleum Product Price Index															
(index, 1982=1.000)	0.830	0.899	0.954	0.974	0.902	0.940	0.905	0.922	0.910	0.873	0.856	0.888	0.914	0.917	0.882
Non-Farm Employment															
(millions)	130.6	131.6	131.6	131.8	132.2	132.2	132.4	132.7	133.0	133.2	133.6	134.0	131.4	132.4	133.4
Commercial Employment	04.0	04 7	00.4	00 5	00.0	00.4	00.5	00.0	011	044	040	05.0	04.0	00.4	04.0
(millions) Total Industrial Production	91.2	91.7	92.1	92.5	93.0	93.1	93.5	93.9	94.1	94.4	94.8	95.2	91.9	93.4	94.6
(index, 1996=1.000)	4 4 9 7	4 240	4 224	1 2 2 0	1 22 1	1 00 1	1 2 2 0	1 2 40	1 2 46	1 950	1 071	1 201	1011	1 220	1 265
Housing Stock	1.187	1.210	1.221	1.238	1.224	1.221	1.230	1.240	1.246	1.200	1.271	1.284	1.214	1.229	1.265
(millions)	115.7	115.8	116.2	116.8	1175	117.9	1182	1185	118.7	1100	110 3	1105	116.1	118.0	119.1
	113.7	115.0	110.2	110.0	117.5	117.9	110.2	110.5	110.7	119.0	119.5	119.5	110.1	110.0	119.1
Miscellaneous															
Gas Weighted Industrial Production															
(index, 1996=1.000)	1.096	1.096	1.091	1.111	1.096	1.098	1.108	1.117	1.122	1.130	1.142	1.154	1.098	1.105	1.137
Vehicle Miles Traveled <sup>b</sup>															
(million miles/day)	6839	7681	7689	7221	6940	7674	7877	7378	7095	7817	8006	7563	7358	7470	7622
Vehicle Fuel Efficiency															
(index, 1999=1.000)	0.996	1.010	0.983	0.984	0.989	1.010	0.992	0.984	0.992	0.996	0.994	0.990	0.993	0.994	0.993
Real Vehicle Fuel Cost															
(cents per mile)	4.18	4.29	4.30	4.36	4.19	4.47	4.25	4.22	4.11	4.02	3.98	4.03	4.28	4.28	4.04
Air Travel Capacity															
(mill. available ton-miles/day)	455.0	474.7	485.4	481.8	477.4	494.9	509.5	499.9	492.7	514.1	533.1	524.1	474.3	495.5	516.1
Aircraft Utilization															
(mill. revenue ton-miles/day)	256.3	287.1	291.4	281.5	265.9	283.7	300.8	286.1	283.7	303.2	317.6	303.9	279.1	284.2	302.2
Airline Ticket Price Index															
(index, 1982-1984=1.000)	2.309	2.419	2.474	2.375	2.399	2.355	2.392	2.430	2.479	2.494	2.503	2.525	2.394	2.394	2.500
Raw Steel Production															
(millions tons)	29.02	29.53	27.45	25.01	25.59	26.77	26.83	27.35	27.67	27.90	27.96	27.93	111.02	106.53	111.46

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

<sup>b</sup>Includes all highway travel.

SAAR: Seasonally-adjusted annualized rate.

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

Sources: Historical data: latest data available from: U.S. Department of Commerce, Bureau of Economic Analysis; U.S. Department of Commerce, National Oceanic and Atmospheric Administration; Federal Reserve System, Statistical Release G.17(419); U.S. Department of Transportation; American Iron and Steel Institute. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0501.

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

(Million Barrels per Day, Except OECD Commercial Stocks)

(Million Barreis per Day, Excer		2000	Omme		SIUCKS	<i>)</i> 2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Demand <sup>a</sup>		2.1.4	ora				oru				0.4		2000	2001	2002
OECD															
U.S. (50 States)	. 19.3	19.5	20.0	19.9	19.8	19.8	20.1	20.2	20.2	20.2	20.5	20.6	19.7	20.0	20.4
U.S. Territories	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4
Canada	. 2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.0	2.2	2.2	2.0	2.1	2.1
Europe	. 14.6	14.0	14.4	14.6	14.7	14.0	14.5	15.0	14.8	13.9	14.4	15.1	14.4	14.5	14.5
Japan	6.0	5.0	5.4	5.6	6.1	5.0	5.4	5.6	6.2	5.1	5.3	5.7	5.5	5.5	5.6
Australia and New Zealand	. 1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total OECD	. 43.1	41.7	43.1	43.6	44.1	42.0	43.3	44.4	44.7	42.6	43.8	45.0	42.9	43.5	44.0
Non-OECD															
Former Soviet Union	3.9	3.7	3.7	3.7	3.8	3.7	3.7	3.7	3.9	3.7	3.7	3.7	3.7	3.7	3.8
Europe	. 1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6
China	4.6	4.6	4.6	4.6	4.6	4.8	4.7	4.8	5.0	5.0	4.9	5.0	4.6	4.7	5.0
Other Asia	8.9	9.0	8.8	9.1	9.3	9.3	9.0	9.4	9.6	9.6	9.3	9.7	9.0	9.2	9.6
Other Non-OECD	. 13.7	13.9	14.0	13.9	13.9	14.2	14.3	14.4	14.2	14.5	14.6	14.5	13.9	14.2	14.4
Total Non-OECD	. 32.6	32.8	32.6	32.9	33.2	33.5	33.2	33.9	34.3	34.4	34.1	34.5	32.7	33.5	34.3
Total World Demand	. 75.7	74.4	75.7	76.4	77.3	75.5	76.6	78.3	79.0	76.9	77.9	79.5	75.6	76.9	78.3
Supply <sup>b</sup>															
OECD															
U.S. (50 States)	9.1	9.1	9.1	9.0	8.8	9.0	8.9	9.0	9.0	9.1	9.0	9.1	9.1	8.9	9.0
Canada	2.7	2.7	2.7	2.8	2.8	2.7	2.8	2.9	2.8	2.8	2.9	3.0	2.7	2.8	2.9
North Sea <sup>c</sup>	6.6	6.2	6.2	6.4	6.4	5.8	5.9	6.4	6.0	5.8	5.9	6.3	6.4	6.1	6.0
Other OECD	. 1.7	1.7	1.6	1.6	1.5	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.6	1.3	1.2
Total OECD	20.2	19.6	19.6	19.8	19.6	18.8	18.9	19.5	19.0	18.9	19.0	19.5	19.8	19.2	19.1
Non-OECD															
OPEC	. 29.3	30.8	31.6	31.7	31.1	30.1	30.8	31.2	31.5	31.0	31.6	31.7	30.9	30.8	31.4
Former Soviet Union	. 7.9	8.0	8.2	8.5	8.7	8.6	8.8	8.8	8.7	8.8	9.0	9.0	8.1	8.7	8.9
China	. 3.3	3.3	3.2	3.2	3.3	3.2	3.2	3.3	3.1	3.1	3.1	3.1	3.2	3.2	3.1
Mexico	. 3.5	3.5	3.5	3.4	3.6	3.7	3.7	3.6	4.0	4.0	4.0	3.9	3.5	3.7	4.0
Other Non-OECD	. 11 <b>.</b> 2	11.2	11.4	11.6	11.5	11.4	11.6	11.7	11.7	11.9	12.1	12.2	11.3	11.6	12.0
Total Non-OECD	. 55.1	56.7	58.0	58.4	58.2	57.1	58.2	58.6	59.0	58.8	59.8	59.9	57.0	58.0	59.4
Total World Supply	. 75.3	76.3	77.6	78.2	77.7	75.9	77.0	78.1	78.0	77.7	78.8	79.5	76.9	77.2	78.5
Stock Changes															
Net Stock Withdrawals or Additions (-	)														
U.S. (50 States including SPR)	0.2	-0.6	0.0	0.6	-0.1	-0.7	-0.1	0.3	0.2	-0.6	-0.3	0.3	0.1	-0.1	-0.1
Other	0.3	-1.3	-1.9	-2.4	-0.4	0.3	-0.4	-0.1	0.8	-0.1	-0.6	-0.3	-1.3	-0.1	0.0
Total Stock Withdrawals	0.5	-1.9	-1.9	-1.8	-0.4	-0.4	-0.5	0.2	1.0	-0.8	-0.9	0.0	-1.3	-0.3	-0.2
OECD Comm. Stocks, End (bill. bbls.)	. 2.4	2.5	2.6	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.6
Non-OPEC Supply	45.9	45.6	45.9	46.5	46.6	45.9	46.3	47.0	46.5	46.7	47.2	47.8	46.0	46.4	47.0
Net Exports from Former Soviet Union	. 4.0	4.3	4.5	4.8	4.9	4.9	5.1	5.1	4.8	5.1	5.3	5.3	4.4	5.0	5.1
<sup>a</sup> Demand for petroleum by the OECD	) count	ries is a	svnonvn	nous wit	h "netrole		luct sunn	lied " wh	ich is def	ined in th	e alossa	ry of the	FIA Po	troleum	Supply

<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>b</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.

<sup>c</sup>Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

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

SPR: Strategic Petroleum Reserve

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

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

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

### Table 4. U. S. Energy Prices

(Nominal Dollars)

rude Oil Prices Imported Average <sup>a</sup> WTI <sup>b</sup> Spot Average	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Imported Average <sup>a</sup>	00.04														2002
Imported Average <sup>a</sup>															
		26 55	29 12	28 25	24 12	25 20	28.00	28.00	25 00	25 67	26 50	26.83	27 72	26 37	26.2
	20.02	20.70	51.01	01.00	20.02	20.00	01.10	01.00	20.01	20.07	20.00	20.00	00.20	20.00	20.2
atural Gas Wellhead															
lollars per thousand cubic feet)	2.26	3.06	3.87	5.20	6.36	4.35	3.95	4.38	4.54	4.14	4.00	4.26	3.61	4.74	4.24
etroleum Products															
Gasoline Retail <sup>c</sup> (dollars per gallon)															
All Grades	1.44	1.57	1.56	1.54	1.47	1.69	1.61	1.53	1.49	1.52	1.54	1.50	1.53	1.58	1.5
Regular Unleaded	1.40	1.53	1.52	1.50	1.43	1.65	1.57	1.50	1.45	1.49	1.51	1.47	1.49	1.54	1.4
No. 2 Diesel Oil, Retail															
(dollars per gallon)	1.42	1.41	1.50	1.58	1.45	1.46	1.50	1.52	1.45	1.43	1.44	1.47	1.48	1.48	1.4
No. 2 Heating Oil, Wholesale															
(dollars per gallon)	0.85	0.78	0.91	0.97	0.83	0.75	0.84	0.90	0.84	0.77	0.78	0.86	0.88	0.83	0.8
No. 2 Heating Oil, Retail															
(dollars per gallon)	1.31	1.17	1.23	1.40	1.35	1.18	1.19	1.32	1.31	1.19	1.14	1.27	1.31	1.30	1.2
No. 6 Residual Fuel Oil, Retail <sup>d</sup>															
(dollars per barrel)	23.62	24.57	25.10	27.41	25.12	26.14	26.74	27.47	25.79	23.96	24.17	25.31	25.34	26.35	24.8
lectric Utility Fuels															
Coal															
dollars per million Btu)	1.21	1.21	1.18	1.20	1.23	1.24	1.21	1.20	1.21	1.22	1.19	1.18	1.20	1.22	1.2
Heavy Fuel Oil <sup>e</sup>															
dollars per million Btu)	3.74	4.18	4.34	4.52	3.96	4.27	4.45	4.37	3.99	3.93	4.03	4.04	4.27	4.22	3.9
Natural Gas															
(dollars per million Btu)	2.85	3.78	4.46	6.33	7.45	5.26	4.82	5.29	5.55	5.00	4.82	5.14	4.33	5.48	5.0
ther Residential															
Natural Gas															
dollars per thousand cubic feet)	6.53	7.78	10.07	8.71	10.05	10.62	10.80	8.51	8.66	9.54	10.75	8.90	7.72	9.77	9.0
Electricity															
cents per kilowatthour)	7.76	8.35	8.57	8.11	8.10	8.77	8.99	8.51	8.14	8.71	8.95	8.46	8.21	8.60	8.5
<sup>a</sup> Refiner acquisition cost (RAC) of importe	ed crude	oil.													
<sup>b</sup> West Texas Intermediate.															
<sup>c</sup> Average self-service cash prices.															
<sup>d</sup> Average for all sulfur contents.															
<sup>e</sup> Includes fuel oils No. 4, No. 5, and No. 6 Notes: Data are estimated for the fourth g															

forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

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

### Table 5. U.S. Petroleum Supply and Demand: Mid World Oil Price Case

(Million Barrels per Day, Except Closing Stocks)

(Willion Barrels per Bay, Except e		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Crude Oil Supply															
Domestic Production <sup>a</sup>	5.86	5.84	5.79	5.84	5.85	5.85	5.76	5.86	5.84	5.86	5.84	5.82	5.83	5.83	5.84
Alaska	1.02	0.97	0.91	0.99	0.99	1.00	0.97	1.08	1.03	1.03	1.02	1.02	0.97	1.01	1.03
Lower 48	4.84	4.87	4.88	4.85	4.86	4.85	4.80	4.78	4.80	4.83	4.82	4.80	4.86	4.82	4.81
Net Imports (including SPR) <sup>b</sup>	8.20	9.27	9.59	9.05	8.91	9.53	9.50	9.09	9.12	9.87	9.84	9.44	9.03	9.26	9.57
Other SPR Supply	0.02	0.00	0.02	0.00	0.02	0.01	0.05	0.09	0.00	0.10	0.10	0.13	0.01	0.04	0.08
SPR Stock Withdrawn or Added (-)	-0.02	0.01	-0.02	0.32	-0.02	-0.01	-0.05	-0.09	0.00	-0.10	-0.10	-0.13	0.07	-0.04	-0.08
Other Stock Withdrawn or Added (-)	-0.13	0.03	0.13	-0.08	-0.16	-0.16	0.19	0.04	-0.18	-0.01	0.17	0.02	-0.01	-0.02	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	0.21	0.27	0.12	0.31	0.19	0.38	0.22	0.21	0.21	0.22	0.22	0.22	0.23	0.25	0.22
Total Crude Oil Supply	14.14	15.40	15.63	15.10	14.75	15.58	15.61	15.11	14.99	15.84	15.98	15.37	15.07	15.27	15.54
Other Supply															
NGL Production	1.97	1.94	1.93	1.79	1.64	1.88	1.81	1.85	1.88	1.88	1.84	1.93	1.91	1.80	1.88
Other Inputs	0.36	0.38	0.39	0.37	0.38	0.37	0.37	0.39	0.37	0.37	0.37	0.39	0.38	0.38	0.38
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	0.00
Processing Gain	0.95	0.95	0.94	0.96	0.93	0.95	0.94	0.92	0.91	0.94	0.94	0.92	0.95	0.93	0.93
Net Product Imports <sup>c</sup>	1.51	1.43	1.29	1.36	1.97	1.53	1.62	1.58	1.69	1.69	1.77	1.58	1.40	1.67	1.68
Product Stock Withdrawn or Added	0.33	-0.62	-0.14	0.41	0.13	-0.53	-0.25	0.39	0.37	-0.54	-0.35	0.37	0.00	-0.07	-0.04
(-)															
Total Supply	19.27	19.49	20.04	19.99	19.80	19.78	20.10	20.25	20.21	20.18	20.55	20.57	19.70	19.98	20.38
Demand															
Motor Gasoline	8.08	8.61	8.70	8.49	8.25	8.61	8.83	8.67	8.41	8.89	8.97	8.83	8.47	8.59	8.78
Jet Fuel	1.65	1.69	1.79	1.77	1.73	1.72	1.79	1.80	1.79	1.76	1.83	1.84	1.73	1.76	1.81
Distillate Fuel Oil	3.77	3.56	3.62	3.82	4.20	3.65	3.55	3.80	4.02	3.69	3.64	3.89	3.69	3.80	3.81
Residual Fuel Oil		0.81	0.98	1.05	1.01	0.96	0.95	0.95	1.06	0.98	1.02	0.84	0.91	0.97	0.97
Other Oils <sup>d</sup>	4.99	4.81	4.94	4.75	4.60	4.85	4.98	5.02	4.93	4.86	5.10	5.16	4.87	4.86	5.01
Total Demand	19.27	19.48	20.03	19.88	19.80	19.78	20.10	20.25	20.21	20.18	20.55	20.57	19.67	19.99	20.38
Total Petroleum Net Imports	9.71	10.70	10.88	10.40	10.88	11.06	11.12	10.67	10.81	11.55	11.61	11.02	10.43	10.93	11.25
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	296	294	282	290	304	319	302	298	315	316	300	298	290	298	298
Total Motor Gasoline	204	210	197	196	194	208	199	204	208	208	202	207	196	204	207
Finished Motor Gasoline	157	165	154	153	146	160	156	160	160	164	159	163	153	160	163
Blending Components	47	45	43	43	48	48	44	43	48	44	43	43	43	43	43
Jet Fuel	40	44	42	45	40	41	43	44	41	42	44	45	45	44	45
Distillate Fuel Oil	96	106	115	118	105	108	122	124	94	105	124	126	118	124	126
Residual Fuel Oil		37	38	36	39	43	44	45	42	42	44	45	36	45	45
Other Oils <sup>e</sup>		271	288	248	253	279	294	251	248	284	300	258	248	251	258
Total Stocks (excluding SPR)	907	961	962	932	935	998	1004	965	947	997	1014	978	932	965	978
Crude Oil in SPR		569	570	541	542	543	548	557	557	566	575	588	541	557	588
Heating Oil Reserve		0	0	2	2	2	2	2	2	2	2	2	2	2	2
Total Stocks (including SPR)		1530	1532	- 1473	1477	- 1541	1552	1521	- 1504	1563	- 1589	1565	- 1473	1521	1565
alpoludos losso condensato															

<sup>a</sup>Includes lease condensate.

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

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

<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.

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*, 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.

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

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

(Percent Deviation Base Case)

		+ 10	% Prices	+ 109	% Weather <sup>e</sup>
Demand Sector	+1% GDP	Crude Oil <sup>c</sup>	N.Gas Wellhead <sup>d</sup>	Fall/Winter <sup>f</sup>	Spring/Summer
Petroleum					
Total	0.6%	-0.3%	0.1%	1.1%	0.1%
Motor Gasoline	0.1%	-0.3%	0.0%	0.0%	0.0%
Distillate Fuel	0.8%	-0.2%	0.0%	2.7%	0.1%
Residual Fuel	1.6%	-3.4%	2.6%	2.0%	2.7%
Natural Gas					
Total	1.1%	0.3%	-0.4%	4.4%	1.0%
Residential	0.1%	0.0%	0.0%	8.2%	0.0%
Commercial	0.9%	0.0%	0.0%	7.3%	0.0%
Industrial	1.7%	0.2%	-0.5%	1.3%	0.0%
Electric Utility	1.8%	1.6%	-1.5%	1.0%	4.0%
Coal					
Total	0.7%	0.0%	0.0%	1.7%	1.7%
Electric Utility	0.6%	0.0%	0.0%	1.9%	1.9%
Electricity					
Total	0.6%	0.0%	0.0%	1.5%	1.7%
Residential	0.1%	0.0%	0.0%	3.2%	3.6%
Commercial	0.9%	0.0%	0.0%	1.0%	1.4%
Industrial	0.8%	0.0%	0.0%	0.3%	0.2%

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

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

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

<sup>d</sup>Average unit value of marketed natural gas production reported by States.

<sup>e</sup>Refers to percent changes in degree-days.

<sup>f</sup>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 7. Forecast Components for U.S. Crude Oil Production

(Million Barrels per Day)

				Difference	
	High Price Case	Low Price Case	Total	Uncertainty	Price Impact
Linited States	6.14	5.50	0.64	0.08	0.56
United States	6.14 5.10	5.50 4.50	0.60	0.08	0.58 0.53
Alaska	1.04	1.00	0.04	0.02	0.02

Note: Components provided are for the fourth quarter 2002. Totals may not add to sum of components due to independent rounding. Source: Energy Information Administration, Office of Oil and Gas, Reserves and Natural Gas Division.

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

(Trillion Cubic Feet)

		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Total Dry Gas Production	4.71	4.73	4.80	4.83	4.78	4.88	4.95	5.12	5.07	5.04	5.05	5.17	19.08	19.73	20.34
Net Imports	0.87	0.82	0.88	0.95	0.95	0.93	1.02	1.02	1.02	1.04	1.05	1.05	3.53	3.93	4.16
Supplemental Gaseous Fuels	0.03	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.10	0.11	0.12
Total New Supply	5.61	5.57	5.71	5.81	5.76	5.84	5.99	6.18	6.13	6.11	6.13	6.25	22.71	23.77	24.62
Working Gas in Storage															
Opening	2.51	1.15	1.71	2.47	1.72	0.74	1.80	2.66	2.27	1.15	1.90	2.77	2.51	1.72	2.27
Closing	1.15	1.71	2.47	1.72	0.74	1.80	2.66	2.27	1.15	1.90	2.77	2.33	1.72	2.27	2.33
Net Withdrawals	1.36	-0.56	-0.77	0.75	0.98	-1.06	-0.86	0.39	1.12	-0.75	-0.87	0.45	0.79	-0.55	-0.06
Total Supply	6.97	5.02	4.94	6.56	6.74	4.77	5.13	6.58	7.25	5.36	5.26	6.70	23.50	23.22	24.56
Balancing Item <sup>a</sup>	-0.03	-0.02	-0.22	-0.44	0.56	0.26	-0.23	-0.63	0.20	-0.08	-0.05	-0.63	-0.71	-0.04	-0.57
Total Primary Supply	6.95	5.00	4.72	6.12	7.29	5.04	4.90	5.94	7.45	5.28	5.20	6.07	22.78	23.18	24.00
Demand															
Lease and Plant Fuel	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.29	0.29	0.28	0.28	0.30	1.10	1.13	1.15
Pipeline Use	0.24	0.17	0.16	0.21	0.25	0.17	0.17	0.20	0.24	0.17	0.17	0.20	0.77	0.79	0.79
Residential	2.17	0.77	0.39	1.61	2.49	0.83	0.37	1.42	2.44	0.85	0.37	1.46	4.94	5.10	5.13
Commercial	1.27	0.62	0.47	0.97	1.41	0.64	0.47	0.91	1.41	0.66	0.47	0.92	3.33	3.43	3.46
Industrial (Incl. Nonutility Use)	2.43	2.33	2.35	2.47	2.39	2.37	2.60	2.53	2.57	2.52	2.77	2.68	9.58	9.90	10.53
Electric Utilities	0.57	0.83	1.07	0.58	0.48	0.75	1.03	0.59	0.50	0.79	1.14	0.51	3.05	2.84	2.93
Total Demand	6.95	5.00	4.72	6.12	7.29	5.04	4.90	5.94	7.45	5.28	5.20	6.07	22.78	23.18	24.00
a_, , , , , , , , , , , , , , , , , , ,															

<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: Mid World Oil Price Case

(Million Short Tons)

		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Production	274.0	262.2	271.0	268.3	293.2	281.6	282.9	289.0	289.5	286.3	299.8	281.9	1075.5	1146.6	1157.5
Appalachia	109.5	107.0	101.8	102.6	110.5	112.8	103.6	108.0	111.7	112.5	107.3	103.1	420.9	434.9	434.5
Interior	36.1	35.2	37.6	35.8	38.8	36.1	37.5	36.7	34.5	35.0	37.9	34.0	144.7	149.2	141.4
Western	128.5	120.0	131.5	129.9	143.9	132.6	141.7	144.2	143.3	138.8	154.7	144.8	509.9	562.5	581.6
Primary Stock Levels <sup>a</sup>															
Opening	39.5	44.4	40.4	37.1	34.2	46.9	42.1	34.6	31.3	37.0	37.0	36.2	39.5	34.2	31.3
Closing	44.4	40.4	37.1	34.2	46.9	42.1	34.6	31.3	37.0	37.0	36.2	35.2	34.2	31.3	35.2
Net Withdrawals		4.0	3.3	2.9	-12.7	4.8	7.5	3.3	-5.8	(S)	0.8	1.0	5.3	2.9	-4.0
Imports	2.8	2.7	3.6	3.4	3.6	3.2	3.2	3.2	3.4	3.4	3.4	3.5	12.5	13.3	13.7
Exports	13.6	14.4	15.8	14.7	13.9	15.0	15.2	15.1	14.9	15.1	15.4	15.3	58.5	59.2	60.7
Total Net Domestic Supply	258.3	254.5	262.0	259.9	270.3	274.6	278.3	280.4	272.2	274.6	288.7	271.0	1034.8	1103.6	1106.5
Secondary Stock Levels <sup>b</sup>															
Opening	143.5	139.9	136.2	118.9	106.9	101.5	116.8	101.1	106.9	107.2	116.9	100.4	143.5	106.9	106.9
Closing	139.9	136.2	118.9	106.9	101.5	116.8	101.1	106.9	107.2	116.9	100.4	109.4	106.9	106.9	109.4
Net Withdrawals	3.6	3.7	17.4	12.0	5.3	-15.3	15.7	-5.8	-0.2	-9.8	16.5	-8.9	36.6	-0.1	-2.4
Waste Coal Supplied to IPPs $^{\rm c}$	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	10.1	10.6	11.1
Total Supply	264.4	260.7	281.9	274.4	278.2	262.0	296.6	277.3	274.7	267.6	308.0	264.9	1081.5	1114.1	1115.2
Demand															
Coke Plants	7.3	7.4	7.5	7.1	6.6	6.7	7.0	6.7	7.0	6.9	7.1	6.7	29.3	27.0	27.7
Electricity Production															
Electric Utilities		202.1	227.3	214.2	218.2	204.3	233.1	213.6	212.6	209.2	243.7	200.7	857.6	869.1	866.2
Nonutilities (Excl. Cogen.) <sup>d</sup>	25.6	27.6	35.1	35.0	36.2	34.3	39.7	37.4	36.9	34.9	40.5	38.1	123.3	147.6	150.4
Retail and General Industry		16.4	16.8	18.6	18.1	16.7	16.8	19.6	18.2	16.7	16.7	19.5	70.0	71.2	71.0
Total Demand <sup>e</sup>		253.5	286.6	274.9	279.1	262.0	296.6	277.3	274.7	267.6	308.0	264.9	1080.2	1115.0	1115.2
Discrepancy <sup>f</sup>	-0.8	7.3	-4.7	-0.4	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	-0.8	0.0

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

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

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

<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).

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

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

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

(Billion Kilowatt-hours)

		2000				2001				2002				Year	
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2000	2001	2002
Supply															
Net Utility Generation															
Coal	425.7	401.2	445.9	419.5	433.6	405.0	457.9	420.5	421.2	415.5	480.9	392.0	1692.3	1717.0	1709.6
Petroleum	11.0	16.4	23.3	21.9	33.1	20.2	23.7	17.5	23.5	23.2	29.9	12.3	72.6	94.5	88.9
Natural Gas	54.4	79.1	100.5	55.8	45.3	70.7	97.4	55.8	47.0	75.4	108.0	48.0	289.8	269.3	278.4
Nuclear	185.0	177.4	182.0	161.1	170.6	164.3	175.0	160.5	167.2	156.0	177.9	163.2	705.4	670.4	664.3
Hydroelectric	66.9	73.0	57.4	50.2	60.3	70.1	58.6	59.3	69.7	74.4	62.5	61.6	247.5	248.3	268.1
Geothermal and Other <sup>a</sup>	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.6	0.6	2.2	2.2	2.2
Subtotal	743.4	747.6	809.6	709.1	743.4	730.9	813.2	714.2	729.2	745.1	859.7	677.6	3009.8	3001.8	3011.6
Nonutility Generation <sup>b</sup>															
Coal	55.4	58.3	79.4	79.2	75.9	76.0	88.9	75.7	86.5	87.4	87.4	101.1	272.4	316.5	362.4
Petroleum	8.0	6.6	8.9	13.2	9.7	9.7	11.3	9.6	10.0	10.1	10.1	11.7	36.6	40.4	41.8
Natural Gas		71.8	90.6	78.4	73.0	83.5	114.4	90.1	84.1	83.5	95.2	128.9	306.0	361.1	391.7
Other Gaseous Fuels $^{\circ}$	3.3	3.7	4.6	4.0	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	15.7	8.5	8.9
Nuclear	5.2	5.0	16.7	21.6	21.1	20.3	21.7	19.9	20.7	19.3	22.0	20.2	48.5	82.9	82.2
Hydroelectric		5.8	5.5	4.8	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	21.5	18.0	18.0
Geothermal and Other <sup>d</sup>	20.2	20.1	20.9	20.7	22.1	22.0	22.3	22.7	22.1	22.0	22.3	22.7	81.9	89.1	89.1
Subtotal	162.7	171.2	226.6	221.8	208.4	218.2	265.2	224.7	230.1	228.9	243.6	291.2	782.4	916.4	993.9
Total Generation	906.2	918.8	1036.2	931.0	951.8	949.0	1078.4	938.9	959.3	974.0	1103.4	968.8	3792.2	3918.2	4005.5
Net Imports <sup>e</sup>	9.2	8.7	13.1	4.6	7.7	8.8	12.0	7.6	7.3	8.3	11.7	8.6	35.6	36.2	35.9
Total Supply	915.4	927.5	1049.3	935.6	959.5	957.9	1090.4	946.5	966.6	982.3	1115.1	977.4	3827.8	3954.4	4041.4
Losses and Unaccounted for $^{\rm f}$	60.7	73.9	40.4	48.8	54.2	80.7	63.7	63.1	54.7	83.0	65.8	64.3	223.8	261.7	267.7
Demand															
Retail Sales <sup>g</sup>															
Residential	290.7	263.5	352.8	284.7	318.5	276.8	360.6	279.0	317.3	281.7	369.4	284.1	1191.6	1234.9	1252.6
Commercial	236.2	251.7	289.6	250.9	251.0	253.0	291.6	254.0	252.8	263.7	307.3	257.6	1028.4	1049.7	1081.5
Industrial	259.0	266.6	276.8	265.6	255.2	264.2	276.2	266.2	257.9	270.0	281.8	271.7	1068.0	1061.7	1081.5
Other	26.0	26.9	30.0	27.3	26.7	26.8	30.0	27.1	26.7	27.0	30.3	27.4	110.1	110.7	111.4
Subtotal	811.8	808.6	949.2	828.5	851.4	820.9	958.4	826.2	854.8	842.5	988.8	840.9	3398.1	3457.0	3526.9
Nonutility Use/Sales <sup>h</sup>	42.8	45.0	59.6	58.4	53.9	56.3	68.3	57.2	57.1	56.8	60.5	72.3	205.9	235.7	246.8
Total Demand	854.6	853.6	1008.8	886.9	905.4	877.2	1026.7	883.4	911.9	899.3	1049.3	913.2	3604.0	3692.6	3773.7
Memo:															
Nonutility Sales to															
Electric Utilities <sup>b</sup>	119.9	126.2	167.0	163.5	154.4	161.9	196.9	167.5	173.0	172.1	183.1	218.9	576.6	680.7	747.1

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

<sup>c</sup>Includes refinery still gas and other process or waste gases and liquefied petroleum gases.

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

<sup>e</sup>Data for 2000 are estimates.

<sup>t</sup>Balancing item, mainly transmission and distribution losses.

<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>h</sup>Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA 860B, "Annual Electric Generator Report - Nonutility(1998 and 1999) and EIA-867, "Annual Nonutility Power Producer Report,"(prior to 1998). 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.

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.

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

(Quadrillion Btu)

		Year			Annual	Percentage	Change
	1999	2000	2001	2002	1999-2000	2000-2001	2001-2002
Electric Utilities				•	-	•	•
Hydroelectric Power <sup>a</sup>	3.079	2.593	2.601	2.809	-15.8	0.3	8.0
Geothermal, Solar and Wind Energy <sup>b</sup>	0.036	0.003	0.004	0.004	-91.7	33.3	0.0
Biofuels <sup>c</sup>	0.021	0.020	0.021	0.021	-4.8	5.0	0.0
Total	3.136	2.617	2.625	2.834	-16.5	0.3	8.0
Nonutility Power Generators							
Hydroelectric Power <sup>a</sup>	0.149	0.222	0.186	0.186	49.0	-16.2	0.0
Geothermal, Solar and Wind Energy <sup>b</sup>	0.373	0.355	0.333	0.333	-4.8	-6.2	0.0
Biofuels <sup>c</sup>	0.523	0.642	0.729	0.729	22.8	13.6	0.0
Total	1.045	1.219	1.249	1.249	16.7	2.5	0.0
Total Power Generation	4.180	3.836	3.874	4.082	-8.2	1.0	5.4
Other Sectors <sup>d</sup>							
Residential and Commercial <sup>e</sup>	0.553	0.576	0.547	0.577	4.2	-5.0	5.5
Industrial <sup>f</sup>	1.942	2.003	2.008	2.058	3.1	0.2	2.5
Transportation <sup>g</sup>	0.100	0.114	0.115	0.117	14.0	0.9	1.7
Total	2.595	2.693	2.670	2.751	3.8	-0.9	3.0
Net Imported Electricity <sup>h</sup>	0.219	0.255	0.259	0.258	16.4	1.6	-0.4
Total Renewable Energy Demand	6.994	6.784	6.803	7.091	-3.0	0.3	4.2

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

<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>C</sup>Biofuels are fuelwood, wood byproducts, waste wood, municipal solid waste, manufacturing process waste, and alcohol fuels.

<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.

<sup>e</sup>Includes biofuels and solar energy consumed in the residential and commercial sectors.

<sup>f</sup>Consists primarily of biofuels for use other than in electricity cogeneration.

<sup>g</sup>Ethanol blended into gasoline.

<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

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.

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

								Year							
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Real Gross Domestic Product (GDP) (billion chained 1996 dollars)	6368	6592	6708	6676	6880	7063	7348	7544	7813	8159	8516	8876	9319	9514	9768
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel)	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.22	27.72	26.37	26.25
Petroleum Supply															
Crude Oil Production <sup>b</sup> (million barrels per day) Total Petroleum Net Imports (including SPR)	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.83	5.83	5.84
(million barrels per day)	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.43	10.93	11.25
Energy Demand															
World Petroleum (million barrels per day) U.S. Petroleum	64.8	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	73.0	73.6	74.9	75.6	76.9	78.3
(million barrels per day) Natural Gas	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.67	19.99	20.38
(trillion cubic feet)	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.70	22.78	23.18	24.00
(million short tons) Electricity (billion kilowatthours)	877	895	903	899	907	943	950	962	1006	1030	1038	1045	1080	1115	1115
Retail Sales <sup>c</sup>	2578	2647	2713	2762	2763	2861	2935	3013	3101	3146	3264	3312	3398	3457	3527
Nonutility Own Use <sup>d</sup>	NA	93	95	102	108	116	138	145	145	148	156	178	206	236	247
Total	NA	2740	2807	2864	2871	2978	3073	3159	3246	3294	3420	3490	3604	3693	3774
Total Energy Demand <sup>e</sup>															
(quadrillion Btu)	NA	84.2	84.2	84.5	85.6	87.4	89.2	90.9	93.9	94.2	95.2	97.2	98.9	100.2	102.0
Total Energy Demand per Dollar of GDP (thousand Btu per 1996 Dollar)	NA	12.77	12.55	12.66	12.44	12.37	12.14	12.07	12.02	11.54	11.18	10.95	10.61	10.53	10.44

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

<sup>b</sup>Includes lease condensate.

<sup>c</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>d</sup>Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA-867, "Annual Nonutility Power Producer Report." Data for 2000 are estimates.

<sup>e</sup> "Total Energy Demand" refers to the aggregate energy concept presented in Energy Information Administration, *Annual Energy Review*, 1999, DOE/EIA-0384(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 compehensive measure of total energy demand can be found in EIA's *AER*. The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations performed for gross energy consumption in Energy Information Administration, *Monthly Energy Review (MER*). Consequently, the historical data may not precisely match those published in the *MER* or the *AER*.

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

Sources: Historical data: Latest data available from Bureau of Economic Analysis; Energy Information Administration; latest data available from EIA databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Natural Gas Monthly*, DOE/EIA-0130; *Electric Power Monthly*, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; *International Petroleum Statistics Report* DOE/EIA-520, and Weekly Petroleum *Status Report* DOE/EIA-0208. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0501.

								Year							
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Macroeconomic															
Real Gross Domestic Product															
(billion chained 1996 dollars)	6368	6592	6708	6676	6880	7063	7348	7544	7813	8159	8516	8876	9319	9514	9768
GDP Implicit Price Deflator															
(Index, 1996=1.000)	0.802	0.833	0.865	0.897	0.919	0.941	0.960	0.981	1.000	1.020	1.032	1.048	1.070	1.094	1.115
Real Disposable Personal Income															
(billion chained 1996 Dollars)	4784	4907	5014	5033	5189	5261	5397	5539	5678	5854	6134	6331	6510	6700	6925
Manufacturing Production															
(Index, 1996=1.000)	0.801	0.816	0.812	0.793	0.825	0.855	0.907	0.955	1.000	1.070	1.123	1.178	1.243	1.254	1.295
Real Fixed Investment															
(billion chained 1996 dollars)	887	911	895	833	886	958	1046	1109	1213	1329	1485	1621	1772	1784	1815
Real Exchange Rate															
(Index, 1996=1.000)	NA	NA	0.963	0.966	0.960	1.001	0.981	0.927	1.000	1.102	1.122	1.083	1.183	1.107	1.085
Business Inventory Change															
(billion chained 1996 dollars)	17.0	14.2	8.9	-6.8	-4.7	3.6	12.1	14.1	10.1	15.2	25.6	0.1	15.3	-0.4	0.6
Producer Price Index															
(index, 1982=1.000)	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.247	1.277	1.275	1.244	1.255	1.327	1.390	1.397
Consumer Price Index															
(index, 1982-1984=1.000)	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.525	1.570	1.606	1.631	1.666	1.723	1.778	1.813
Petroleum Product Price Index															
(index, 1982=1.000)	0.539	0.612	0.748	0.671	0.647	0.620	0.591	0.608	0.701	0.680	0.513	0.609	0.914	0.917	0.882
Non-Farm Employment															
(millions)	105.2	107.9	109.4	108.3	108.6	110.7	114.1	117.2	119.6	122.7	125.8	128.8	131.4	132.4	133.4
Commercial Employment															
(millions)	67.8	70.0	71.3	70.8	71.2	73.2	76.1	78.8	81.1	83.9	86.6	89.5	91.9	93.4	94.6
Total Industrial Production															
(index, 1996=1.000)	0.8	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	1.3
Housing Stock															
(millions)	101.6	102.9	103.5	104.5	105.5	106.8	108.2	109.6	111.0	112.5	114.1	115.7	116.1	118.0	119.1
Weather <sup>a</sup>															
Heating Degree-Days															
U.S	4653	4726	4016	4200	4441	4700	4483	4531	4713	4542	3951	4169	4460	4447	4459
New England	6715	6887	5848	5960	6844	6728	6672	6559	6679	6662	5680	5952	6499	6517	6462
Middle Atlantic	6088	6134	4998	5177	5964	5948	5934	5831	5986	5809	4812	5351	5725	5632	5698
U.S. Gas-Weighted	4804	4856	4139	4337	4458	4754	4659	4707	4980	4802	4183	4399	4684	4703	4710
Cooling Degree-Days (U.S.)	1283.0	1156.0	1260.0	1331.0	1040.0	1218.0	1220.0	1293.0	1180.0	1156.0	1410.0	1297.0	1253.0	1251.7	1236.7

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

<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/McGraw-Hill Forecast CONTROL0501.

#### Table A3. Annual International Petroleum Supply and Demand Balance

(Millions Barrels per Day, Except OECD Commercial Stocks)

								Year							
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Demand <sup>a</sup>		•					•								-
OECD															
U.S. (50 States)	17.3	17.3	17.0	16.7	17.0	17.2	17.7	17.7	18.3	18.6	18.9	19.5	19.7	20.0	20.4
Europe <sup>b</sup>	12.4	12.5	12.6	13.4	13.6	13.5	13.6	14.1	14.3	14.4	14.7	14.5	14.4	14.5	14.5
Japan	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.7	5.9	5.7	5.5	5.6	5.5	5.5	5.6
Other OECD	2.6	2.7	2.7	2.7	2.7	2.8	2.9	3.0	3.0	3.1	3.1	3.3	3.3	3.4	3.5
Total OECD	37.1	37.6	37.5	38.1	38.8	39.0	39.9	40.6	41.4	41.8	42.3	42.9	42.9	43.5	44.0
Non-OECD															
Former Soviet Union	8.9	8.7	8.4	8.4	6.8	5.6	4.8	4.6	4.0	3.9	3.8	3.7	3.7	3.7	3.8
Europe	2.2	2.1	1.7	1.4	1.3	1.3	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.6	1.6
China	2.3	2.4	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.6	4.7	5.0
Other Asia	4.4	4.9	5.3	5.7	6.2	6.8	7.3	7.9	8.5	9.0	8.7	9.0	9.0	9.2	9.6
Other Non-OECD	10.0	10.3	10.5	10.6	11.0	11.4	11.8	12.1	12.4	12.9	13.3	13.6	13.9	14.2	14.4
Total Non-OECD	27.7	28.3	28.2	28.5	28.0	28.0	28.4	29.3	30.0	31.2	31.4	32.1	32.7	33.5	34.3
Total World Demand	64.8	65.9	65.7	66.6	66.8	67.0	68.3	69.9	71.4	73.0	73.6	74.9	75.6	76.9	78.3
Supply °															
OECD U.S. (50 States)	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.4	9.4	9.5	9.3	9.0	9.1	8.9	9.0
Canada	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.7	2.8	2.9
North Sea <sup>d</sup>	3.8	3.7	3.9	4.1	4.5	4.8	5.5	5.9	6.3	6.2	6.2	6.3	6.4	6.1	6.0
Other OECD	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.3	1.2
Total OECD	17.8	17.1	17.1	17.5	17.9	18.0	18.7	19.2	19.7	19.9	19.7	19.4	19.8	19.2	19.1
Non-OECD	17.0			17.5	11.5	10.0	10.7	13.2	10.7	10.0	13.1	13.4	10.0	10.2	10.1
OPEC	21.5	23.3	24.5	24.6	25.8	26.6	27.0	27.6	28.3	29.9	30.4	29.3	30.9	30.8	31.4
Former Soviet Union	12.5	12.1	11.4	10.4	8.9	8.0	7.3	7.1	7.1	7.1	7.2	7.6	8.1	8.7	8.9
China	2.7	2.8	2.8	2.8	2.8	2.9	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.2	3.1
Mexico	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.5	3.7	4.0
Other Non-OECD	7.3	12.0	8.0	8.1	8.4	8.7	9.2	9.9	10.2	10.5	10.8	11.3	11.3	11.6	12.0
Total Non-OECD	47.0	48.9	49.7	49.1	49.1	49.4	49.6	50.7	52.0	54.2	55.2	54.8	57.0	58.0	59.4
Total World Supply	64.8	65.9	66.8	66.7	67.0	67.4	68.3	69.9	71.8	74.1	74.9	74.2	76.9	77.2	78.5
Total Stock Withdrawals	0.1	0.0	-1.1	-0.1	-0.3	-0.4	0.0	0.0	-0.4	-1.1	-1.3	0.8	-1.3	-0.3	-0.2
OECD Comm. Stocks, End (bill. bbls.)	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.7	2.7	2.7	2.8	2.5	2.5	2.5	2.6
Net Exports from Former Soviet Union	3.6	3.4	3.0	2.1	2.1	2.3	2.4	2.6	3.0	3.3	3.5	3.9	4.4	5.0	5.1

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

<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.

<sup>d</sup>Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

OECD: Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Iteland, Iteland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The Czech Republic, Hungary, Mexico, Poland, and South Korea are all members of OECD, but are not yet included in our OECD estimates.

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

SPR: Strategic Petroleum Reserve

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

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

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

(Energy Information Administration/Short-Term Energy Outlook -- June 2001)

### Table A4. Annual Average U.S. Energy Prices

(Nominal Dollars)

								Year							
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Crude Oil Prices															
Imported Average <sup>a</sup>	14.57	18.08	21.75	18.70	18.20	16.14	15.52	17.14	20.61	18.50	12.08	17.22	27.72	26.37	26.25
WTI <sup>b</sup> Spot Average	15.98	19.78	24.48	21.60	20.54	18.49	17.16	18.41	22.11	20.61	14.45	19.25	30.29	29.98	29.25
Natural Gas Wellhead															
(dollars per thousand cubic feet)	1.69	1.69	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.95	2.17	3.61	4.74	4.24
Petroleum Products Gasoline Retail <sup>b</sup> (dollars per gallon)															
All Grades	0.92	1.02	1.17	1.15	1.14	1.13	1.13	1.16	1.25	1.24	1.07	1.18	1.53	1.58	1.51
Regular Unleaded No. 2 Diesel Oil, Retail	0.91	0.99	1.13	1.10	1.09	1.07	1.08	1.11	1.20	1.20	1.03	1.14	1.49	1.54	1.48
(dollars per gallon) No. 2 Heating Oil, Wholesale	0.91	0.99	1.16	1.12	1.10	1.11	1.11	1.10	1.22	1.19	1.04	1.12	1.48	1.48	1.45
(dollars per gallon) No. 2 Heating Oil, Retail	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.51	0.64	0.59	0.42	0.51	0.88	0.83	0.82
(dollars per gallon) No. 6 Residual Fuel Oil, Retail <sup>c</sup>	0.81	0.90	1.06	1.02	0.93	0.91	0.88	0.87	0.99	0.99	0.85	0.88	1.31	1.30	1.26
(dollars per barrel)	14.04	16.20	18.66	14.32	14.21	14.00	14.79	16.49	19.01	17.82	12.83	16.02	25.34	26.35	24.80
Electric Utility Fuels Coal															
(dollars per million Btu) Heavy Fuel Oil <sup>d</sup>	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.32	1.29	1.27	1.25	1.22	1.20	1.22	1.20
(dollars per million Btu) Natural Gas	2.41	2.85	3.22	2.49	2.46	2.36	2.40	2.60	3.01	2.79	2.07	2.39	4.27	4.22	3.99
(dollars per million Btu)	2.26	2.36	2.32	2.15	2.33	2.56	2.23	1.98	2.64	2.76	2.38	2.57	4.33	5.48	5.05
Other Residential Natural Gas															
(dollars per thousand cubic feet) Electricity	5.47	5.64	5.80	5.82	5.89	6.17	6.41	6.06	6.35	6.95	6.83	6.69	7.72	9.77	9.02
(cents per kilowatthour)	7.49	7.64	7.85	8.05	8.23	8.34	8.40	8.40	8.36	8.43	8.26	8.16	8.21	8.60	8.58

<sup>a</sup>Refiner acquisition cost (RAC) of imported crude oil.

<sup>b</sup>West Texas Intermediate.

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

<sup>d</sup>Average for all sulfur contents.

 $^{e}\mbox{Includes}$  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-0326.

### Table A5. Annual U.S. Petroleum Supply and Demand

(Million Barrels per Day, Except Closing Stocks)

								Year							
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Crude Oil Supply															
Domestic Production <sup>a</sup>	8.14	7.61	7.36	7.42	7.17	6.85	6.66	6.56	6.46	6.45	6.25	5.88	5.83	5.83	5.84
Alaska	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.48	1.39	1.30	1.17	1.05	0.97	1.01	1.03
Lower 48	6.12	5.74	5.58	5.62	5.46	5.26	5.10	5.08	5.07	5.16	5.08	4.83	4.86	4.82	4.81
Net Imports (including SPR) <sup>b</sup>	4.95	5.70	5.79	5.67	5.99	6.69	6.96	7.14	7.40	8.12	8.60	8.61	9.03	9.26	9.57
Other SPR Supply	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.04	0.08
Stock Draw (Including SPR)	0.00	-0.09	0.02	-0.01	0.00	-0.08	-0.02	0.09	0.05	-0.06	-0.07	0.09	-0.02	-0.02	0.00
Product Supplied and Losses	-0.04	-0.03	-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
Unaccounted-for Crude Oil	0.20	0.20	0.26	0.20	0.26	0.17	0.27	0.19	0.22	0.14	0.11	0.19	0.23	0.25	0.22
Total Crude Oil Supply	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.97	14.19	14.66	14.89	14.80	15.07	15.27	15.54
Other Supply															
NGL Production	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.76	1.83	1.82	1.76	1.85	1.91	1.80	1.88
Other Inputs	0.11	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	0.38
Crude Oil Product Supplied	0.04	0.03	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
Processing Gain	0.66	0.66	0.68	0.71	0.77	0.77	0.77	0.77	0.84	0.85	0.89	0.89	0.95	0.93	0.93
Net Product Imports <sup>c</sup>	1.63	1.50	1.38	0.96	0.94	0.93	1.09	0.75	1.10	1.04	1.17	1.30	1.40	1.67	1.68
Product Stock Withdrawn	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	0.15	0.03	-0.09	-0.17	0.30	0.00	-0.07	-0.04
Total Supply	17.33	17.37	17.04	16.76	17.10	17.26	17.72	17.72	18.31	18.62	18.92	19.52	19.70	19.98	20.38
Demand															
Motor Gasoline <sup>d</sup>	7.36	7.40	7.31	7.23	7.38	7.48	7.60	7.79	7.89	8.02	8.25	8.43	8.47	8.59	8.78
Jet Fuel	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.51	1.58	1.60	1.62	1.67	1.73	1.76	1.81
Distillate Fuel Oil	3.12	3.16	3.02	2.92	2.98	3.04	3.16	3.21	3.37	3.44	3.46	3.57	3.69	3.80	3.81
Residual Fuel Oil	1.38	1.37	1.23	1.16	1.09	1.08	1.02	0.85	0.85	0.80	0.89	0.83	0.91	0.97	0.97
Other Oils <sup>e</sup>	4.03	3.95	3.95	3.99	4.20	4.17	4.41	4.36	4.63	4.77	4.69	5.01	4.87	4.86	5.01
Total Demand	17.34	17.37	17.04	16.77	17.10	17.24	17.72	17.72	18.31	18.62	18.92	19.52	19.67	19.99	20.38
Total Petroleum Net Imports	6.59	7.20	7.16	6.63	6.94	7.62	8.05	7.89	8.50	9.16	9.76	9.91	10.43	10.93	11.25
Closing Stocks (million barrels)															
Crude Oil (excluding SPR)	330	341	323	325	318	335	337	303	284	305	324	284	290	298	298
Total Motor Gasoline	228	213	220	219	216	226	215	202	195	210	216	193	196	204	207
Jet Fuel	44	41	52	49	43	40	47	40	40	44	45	41	45	44	45
Distillate Fuel Oil	124	106	132	144	141	141	145	130	127	138	156	125	118	124	126
Residual Fuel Oil	45	44	49	50	43	44	42	37	46	40	45	36	36	45	45
Other Oils <sup>†</sup>	267	257	261	267	263	273	275	258	250	259	291	246	248	251	258
a, , , , , , , , ,															

<sup>a</sup>Includes lease condensate.

Includes lease contensate.
Net imports equals gross imports plus SPR imports minus exports.
And the provide state in a strate of the lending 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.
fincludes stocks of all other oils, such as aviation gasoline, lerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, and miscellaneous oils.

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

(Trillion Cubic Feet)

								Year							
ſ	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															<u>.</u>
Total Dry Gas Production	17.10	17.31	17.81	17.70	17.84	18.10	18.82	18.60	18.85	18.90	18.71	18.62	19.08	19.73	20.34
Net Imports	1.22	1.27	1.45	1.64	1.92	2.21	2.46	2.69	2.78	2.84	2.99	3.42	3.53	3.93	4.16
Supplemental Gaseous Fuels	0.10	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.11	0.12
Total New Supply	18.42	18.69	19.38	19.45	19.88	20.42	21.39	21.40	21.75	21.84	21.80	22.14	22.71	23.77	24.62
Working Gas in Storage															
Opening	2.76	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.51	1.72	2.27
Closing	2.85	2.51	3.07	2.82	2.60	2.32	2.61	2.15	2.17	2.17	2.73	2.51	1.72	2.27	2.33
Net Withdrawals	-0.09	0.34	-0.56	0.24	0.23	0.28	-0.28	0.45	-0.02	0.00	-0.56	0.22	0.79	-0.55	-0.06
Total Supply	18.33	19.03	18.82	19.70	20.11	20.70	21.11	21.85	21.73	21.84	21.25	22.36	23.50	23.22	24.56
Balancing Item <sup>a</sup>	-0.30	-0.23	-0.11	-0.66	-0.56	-0.42	-0.40	-0.27	0.24	0.11	0.01	-0.67	-0.71	-0.04	-0.57
Total Primary Supply	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.70	22.78	23.18	24.00
Demand															
Lease and Plant Fuel	1.10	1.07	1.24	1.13	1.17	1.17	1.12	1.22	1.25	1.20	1.16	1.08	1.10	1.13	1.15
Pipeline Use	0.61	0.63	0.66	0.60	0.59	0.62	0.69	0.70	0.71	0.75	0.64	0.74	0.77	0.79	0.79
Residential	4.63	4.78	4.39	4.56	4.69	4.96	4.85	4.85	5.24	4.98	4.52	4.73	4.94	5.10	5.13
Commercial	2.67	2.72	2.62	2.73	2.80	2.86	2.90	3.03	3.16	3.21	3.00	3.04	3.33	3.43	3.46
Industrial (Incl. Nonutilities)	6.38	6.82	7.02	7.23	7.53	7.98	8.17	8.58	8.87	8.83	8.69	9.00	9.58	9.90	10.53
Electric Utilities	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.20	2.73	2.97	3.26	3.11	3.05	2.84	2.93
Total Demand	18.03	18.80	18.72	19.03	19.54	20.28	20.71	21.58	21.96	21.95	21.26	21.70	22.78	23.18	24.00

<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

(Million Short Tons)

							Year								
]	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply															
Production	950.3	980.7	1029.1	996.0	997.5	945.4	1033.5	1033.0	1063.9	1089.9	1117.5	1100.4	1075.5	1146.6	1157.5
Appalachia	NA	464.8	489.0	457.8	456.6	409.7	445.4	434.9	451.9	467.8	460.4	425.6	420.9	434.9	434.5
Interior	NA	198.1	205.8	195.4	195.7	167.2	179.9	168.5	172.8	170.9	168.4	162.5	144.7	149.2	141.4
Western	NA	317.9	334.3	342.8	345.3	368.5	408.3	429.6	439.1	451.3	488.8	512.3	509.9	562.5	581.6
Primarv Stock Levels <sup>a</sup>															
Opening	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	34.2	31.3
Closing	30.4	29.0	33.4	33.0	34.0	25.3	33.2	34.4	28.6	34.0	36.5	39.5	34.2	31.3	35.2
Net Withdrawals	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	-1.2	5.8	-5.3	-2.6	-2.9	5.3	2.9	-4.0
Imports	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.2	7.1	7.5	8.7	9.1	12.5	13.3	13.7
Exports	95.0	100.8	105.8	109.0	102.5	74.5	71.4	88.5	90.5	83.5	78.0	58.5	58.5	59.2	60.7
Total Net Domestic Supply	855.3	884.2	921.6	890.9	897.8	886.9	961.8	950.4	986.3	1008.5	1045.7	1048.1	1034.8	1103.6	1106.5
Secondarv Stock Levels <sup>b</sup>															
Opening	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	106.4	129.4	143.5	106.9	106.9
Closing	158.4	146.1	168.2	167.7	163.7	120.5	136.1	134.6	123.0	125.0	129.4	143.5	106.9	106.9	109.4
Net Withdrawals	27.0	12.3	-22.1	0.5	4.0	43.2	-15.7	1.5	11.7	16.6	-23.0	-14.1	36.6	-0.1	-2.4
Waste Coal Supplied to IPPs <sup>c</sup>	0.0	0.0	0.0	0.0	6.0	6.4	7.9	8.5	8.8	8.1	9.0	9.6	30.0 10.1	10.6	-2.4
Waste Coal Subblied to IPPS *	0.0	0.0	0.0	0.0	0.0	0.4	7.9	0.0	0.0	0.1	9.0	9.0	10.1	10.0	11.1
Total Supply	882.3	896.5	899.4	891.4	907.8	936.5	954.0	960.4	1006.7	1033.2	1031.6	1043.6	1081.5	1114.1	1115.2
Demand															
Coke Plants	41.9	40.5	38.9	33.9	32.4	31.3	31.7	33.0	31.7	30.2	28.2	28.1	29.3	27.0	27.7
Electricity Production							• • • •								
Electric Utilities	758.4	766.9	773.5	772.3	779.9	813.5	817.3	829.0	874.7	900.4	910.9	894.1	857.6	869.1	866.2
Nonutilities (Excl. Coaen.) <sup>d</sup>	NA	5.7	7.4	11.4	15.0	17.5	19.9	21.2	22.2	21.6	26.9	52.7	123.3	147.6	150.4
Retail and General Industry	76.3	82.3	83.1	81.5	80.2	81.1	81.2	78.9	77.7	78.0	72.3	70.4	70.0	71.2	71.0
Total Demand <sup>e</sup>	876.5	895.4	902.9	899.1	907.4	943.5	950.1	962.0	1006.3	1030.1	1038.3	1045.3	1080.2	1115.0	1115.2
Discrepancy <sup>f</sup>	5.8	1.1	-3.5	-7.7	0.5	-7.0	3.9	-1.6	0.4	3.1	-6.7	-1.7	1.3	-0.8	0.0

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

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

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

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

<sup>f</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

(Billion Kilowatt-hours)

							Year								
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply Net Utility Generation															
Coal	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1652.9	1737.5	1787.8	1807.5	1767.7	1692.3	1717.0	1709.6
Petroleum	148.9	158.3	117.0	111.5	88.9	99.5	91.0	60.8	67.3	77.8	110.2	86.9	72.6	94.5	88.9
Natural Gas	252.8	266.6	264.1	264.2	263.9	258.9	291.1	307.3	262.7	283.6	309.2	296.4	289.8	269.3	278.4
Nuclear	527.0	529.4	576.9	612.6	618.8	610.3	640.4	673.4	674.7	628.6	673.7	725.0	705.4	670.4	664.3
Hydroelectric	222.9	265.1	279.9	275.5	239.6	265.1	243.7	293.7	328.0	337.2	304.4	293.9	247.5	248.3	268.1
Geothermal and Other <sup>a</sup>	12.0	11.3	10.7	10.1	10.2	9.6	8.9	6.4	7.2	7.5	7.2	3.7	2.2	2.2	2.2
Subtotal	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2994.5	3077.4	3122.5	3212.2	3173.7	3009.8	3001.8	3011.6
Nonutility Generation <sup>b</sup>	NA	187.6	216.7	246.3	286.1	287.7	343.1	363.3	369.6	371.7	405.7	532.5	782.4	916.4	993.9
Total Generation	2704.3	2971.9	3024.9	3071.3	3083.4	3170.2	3253.8	3357.8	3447.0	3494.2	3617.9	3706.1	3792.2	3918.2	4005.5
Net Imports <sup>C</sup>	31.8	11.0	2.3	19.6	25.4	27.8	44.8	39.2	38.0	36.6	27.6	30.6	35.6	36.2	35.9
Total Supply	2736.0	2982.8	3027.2	3091.0	3108.8	3198.0	3298.6	3397.1	3485.0	3530.8	3645.5	3736.7	3827.8	3954.4	4041.4
Losses and Unaccounted for <sup>d</sup>	NA	243.2	207.3	215.0	223.6	220.4	225.7	238.4	239.0	237.0	225.0	246.7	223.8	261.7	267.7
Demand															
Retail Sales <sup>e</sup>															
Residential	892.9	905.5	924.0	955.4	935.9	994.8	1008.5	1042.5	1082.5	1075.9	1130.1	1144.9	1191.6	1234.9	1252.6
Commercial	699.1	725.9	751.0	765.7	761.3	794.6	820.3	862.7	887.4	928.6	979.4	1002.0	1028.4	1049.7	1081.5
Industrial	896.5	925.7	945.5	946.6	972.7	977.2	1008.0	1012.7	1033.6	1038.2	1051.2	1058.2	1068.0	1061.7	1081.5
Other	89.6	89.8	92.0	94.3	93.4	94.9	97.8	95.4	97.5	102.9	103.5	107.0	110.1	110.7	111.4
Subtotal	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2934.6	3013.3	3101.1	3145.6	3264.2	3312.1	3398.1	3457.0	3526.9
Nonutility Use/Sales <sup>f</sup>	NA	92.9	107.3	113.9	121.8	116.1	138.4	145.4	144.9	148.2	156.2	177.9	205.9	235.7	246.8
Total Demand	NA	2739.7	2819.9	2875.9	2885.2	2977.6	3073.0	3158.7	3246.0	3293.8	3420.5	3490.0	3604.0	3692.6	3773.7
Memo:															
Nonutility Sales															
to Electric Utilities	NA	94.7	109.4	132.4	164.4	171.6	204.7	217.9	224.7	223.5	249.5	354.6	576.6	680.7	747.1

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

<sup>b</sup>Net generation.

<sup>c</sup>Data for 2000 are estimates.

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

<sup>e</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 Power Monthly* and *Electric Power Annual*. Power marketers' 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 Power Monthly* and *Electric Power Annual*. Power marketers' 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 Power Monthly* and *Electric Power Annual*. Power marketers' 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 Power Monthly* and *Electric Power Annual*. Power marketers' 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 Power Monthly* and *Electric Power Annual*. Power marketers' 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 Electric Power Monthly and *Electric Power Annual*. Power marketers' sales for historical periods are reported in Electric Power Monthly and *Electric Power Annual*. Power marketers' sales for historical periods are reported in Electric Power Monthly and *Electric Power Annual*. Power marketers' sales for historical periods are reported in Electric Power Monthly and *Electric Power Annual*. Power marketers' sales for historical periods are reported in Electric Power Monthly and *Electric Power Annual*. Power marketers' sales for historical periods are reported in E

<sup>1</sup>Defined as the difference between total nonutility electricity generation and sales to electric utilities by nonutility generators, reported on Form EIA 860B, "Annual Electric Generator Report - Nonutility"(1998 and 1999) and EIA-867, "Annual Nonutility Power Producer Report,"(prior to 1998). 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.