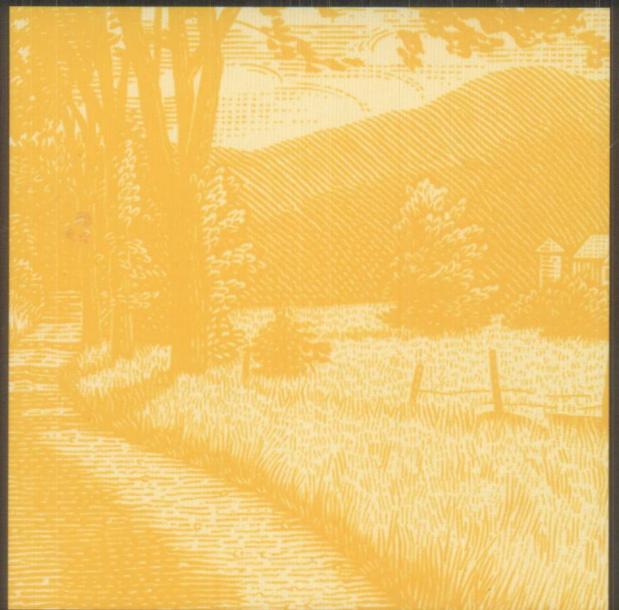


# Short-Term ENERGY OUTLOOK



QUARTERLY PROJECTIONS

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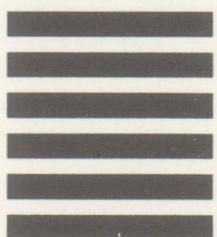
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Energy Information Administration  
Office of Energy Markets and End Use  
U.S. Department of Energy  
Washington, DC 20585

## Second Quarter 1995

### Quarterly Projections

# Short-Term Energy Outlook

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Domestic crude oil production figures are provided by the EIA Dallas Field Office, under the supervision of John H. Wood (214-767-2200). Nuclear electricity generation forecasts are provided by Kenneth Wade (202-254-5514); projections for hydroelectric generation, electricity imports, and nonutility generation are provided by Robin Reichenbach (202-254-5353); and coal production, imports, and exports are provided by Byung Doo Hong (202-254-5365)—all of the EIA Office of Coal, Nuclear, Electric and Alternate Fuels.

The Energy Information Administration began reporting the series "Motor Gasoline Product Supplied" (equated in this report with gasoline demand) on a new basis for monthly data for January 1993 forward. These new-basis data are included in this issue of the *Outlook*. The reporting change reflects data relating to fuel ethanol blended into gasoline as well as certain changes in product classification affecting reporting of motor gasoline from gasoline and miscellaneous products details on the significance of the data restatement.

## Treatment of Petroleum Supply Monthly Reporting Change

The cases are produced using the Short-Term Integrated Forecasting System (STIFS). The STIFS model is driven principally by three sets of assumptions or inputs: estimates of key macroeconomic variables, world oil price assumptions, and assumptions about the severity of weather. Macroeconomic estimates are produced by DRI/McGraw-Hill but are adjusted by EIA to reflect EIA assumptions about the world price of crude oil, energy product prices, and other assumptions which may affect the macroeconomic outlook.

The forecast period for this issue of the *Outlook* extends from the second quarter of 1995 through the fourth quarter of 1996. Values for the first quarter of 1995, however, are preliminary EIA estimates (for example, some monthly values for petroleum supply and disposition are derived in part from weekly data reported in the *Weekly Petroleum Status Report*) or are calculated from model simulations using the latest exogenous information available (for example, electricity sales and generation are simulated using actual weather data). The historical energy data, compiled into the second quarter 1995 version of the Short-Term Energy Review, Petroleum Supply Monthly, and other EIA publications. Minor discrepancies between the integrated Forecasting System (STIFS) database, are mostly EIA data regularly published in the Monthly Energy Review, Petroleum Supply Monthly, and other EIA publications. Minor discrepancies between the STIFS database is archived quarterly and is available from the National Technical Information Service.

## Preface

# Contents

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	Page
Highlights .....	1
Table HL1 - U.S. Energy Supply and Demand Summary .....	2
Feature Article	
Summer Outlook for Motor Gasoline .....	3
The Outlook	
Outlook Assumptions .....	6
Special Assumptions .....	7
International Oil Demand .....	8
International Oil Supply .....	9
World Oil Stocks and Net Trade .....	10
U.S. Oil Demand .....	11
U.S. Oil Supply .....	12
U.S. Energy Prices .....	13
U.S. Oil Demand and Supply Sensitivities .....	16
U.S. Natural Gas Demand .....	17
U.S. Natural Gas Supply .....	18
U.S. Coal Demand and Supply .....	19
U.S. Electricity Demand and Supply .....	20
U.S.-Canada Electricity Trade .....	21
U.S. Renewable Energy Demand .....	22
Tables .....	23
Text References and Notes .....	43
Figure References .....	45
Appendix A	
Computation of Petroleum Demand Sensitivities .....	49

1.	U.S. Macroeconomic and Weather Assumptions	23
2.	U.S. Energy Indicators: Mid World Oil Price Case	24
3.	International Petroleum Supply and Demand: Mid World Oil Price Case	25
4.	U.S. Energy Prices	26
5.	U.S. Petroleum Supply and Demand: Low World Oil Price Case	27
6.	U.S. Petroleum Supply and Demand: Mid World Oil Price Case	28
7.	U.S. Petroleum Supply and Demand: High World Oil Price Case	29
8.	U.S. Petroleum Demand Sensitivities	30
9.	Forecast Components for U.S. Crude Oil Production	30
10.	U.S. Natural Gas Supply and Demand: Mid World Oil Price Case	31
11.	U.S. Coal Supply and Demand: Mid World Oil Price Case	32
12.	U.S. Electricity Supply and Demand: Mid World Oil Price Case	33
13.	U.S. Renewable Energy Use by Sector: Mid World Oil Price Case	34
A1.	Annual U.S. Energy Supply and Demand	35
A2.	Annual U.S. Macroeconomic and Weather Indicators	36
A3.	Annual International Petroleum Supply and Demand	37
A4.	Annual Average U.S. Energy Prices	38
A5.	Annual U.S. Petroleum Supply and Demand	39
A6.	Annual U.S. Natural Gas Supply and Demand	40
A7.	Annual U.S. Coal Supply and Demand	41
A8.	Annual U.S. Electricity Supply and Demand	42

### Annual History and Base Case Projections for Selected Indicators, 1982-1996

Page

Quarterly and Annual History and Projections, 1994-1996

Tables

Contents

# Contents

---

## Figures

Page

1. U.S. Monthly Crude Oil Prices .....	6
2. U.S. Macroeconomic Indicators .....	6
3. World Petroleum Demand .....	8
4. World Oil Demand Changes by Region .....	8
5. World Oil Production .....	9
6. OPEC Oil Production and Capacity .....	9
7. Market Economies' Commercial Oil Stocks .....	10
8. FSU Oil Output, Demand, and Net Exports .....	10
9. U.S. Petroleum Demand .....	11
10. Gasoline Market Indicators .....	11
11. U.S. Crude Oil Production .....	12
12. U.S. Net Oil Imports' Share of Demand .....	12
13. U.S. Oil and Gas Prices .....	13
14. Petroleum Product Prices .....	13
15. Motor Gasoline Price Components .....	14
16. Distillate Inventories .....	14
17. Natural Gas Prices by Sector .....	15
18. Fossil Fuel Prices to Electric Utilities .....	15
19. Total Petroleum Demand: Macro Cases .....	16
20. Total Petroleum Demand: Weather Cases .....	16
21. U.S. Natural Gas Demand Trends .....	17
22. Natural Gas Demand for Power Generation and Other Uses .....	17
23. U.S. Dry Gas Production and Net Imports .....	18
24. Total Gas in Underground Storage .....	18
25. U.S. Coal Demand Trends .....	19
26. Components of U.S. Coal Supply .....	19
27. Electricity Demand Changes by Sector .....	20
28. U.S. Electricity Supply Trends .....	20
29. U.S. Net Imports of Electricity .....	21
30. Renewable Energy Use for Electricity .....	22
31. Renewable Energy Use by Sector .....	22

## Highlights

Growing demand for electricity leads to a 1.9 percent increase in coal use by electric utilities and nonutility power producers (excluding cogenerators) in 1995. Coal use for electricity generation is projected to grow by an additional 2.9 percent in 1996. Over the forecast period, coal-fired generation accounts for approximately 52 percent of electricity produced by electric utilities and nonutilities combined.

Demand for natural gas is expected to continue to grow through the forecast period, but should slow significantly in 1996. Total gas demand is projected to increase by 3.4 percent in 1995, but only by 1.0 percent in 1996.

Electricity demand is expected to continue to rise steadily across all sectors during the forecast period. Normal weather assumptions imply a temporary boost to demand in mid-to-late 1995 and early 1996.

With U.S. petroleum demand projected to increase by 0.6 percent in 1995, and by another 2.6 percent in 1996, petroleum net imports share of U.S. demand is expected to creep to within one percentage point of the 50-percent mark in 1996.

At just under 8 million barrels per day in the third quarter, expected summer driving season demand for gasoline this year would be the highest since 1978. Continued moderation in the growth of overall vehicle efficiency, continued economic expansion, albeit at a less rapid rate than in 1994, and minimal increases in real fuel costs, are expected to spur a 1.8 percent boost in gasoline demand compared with summer 1994.

With the odds favorable for increased heating fuel demand in the 1995-1996 winter, and the apparent success of U.S. gas suppliers to significantly reduce excess inventories, expectations have moved spot prices well below \$2 per thousand cubic feet, except during peak demand months.

From about \$16.75 per barrel in March 1995, the world oil price is not expected to rise much beyond the \$17.50 per barrel mark throughout 1996. Several factors, including the failure of Iraq to agree to U.N. terms for limited oil exports, temporarily bolstered prices in recent weeks. However, despite expected world oil demand increases in 1995 and 1996, sufficient production capacity exists both in and out of OPEC to maintain a rough balance in oil markets for at least the next two years.

Coal Use for Electricity Generation to Rise

Natural Gas Demand Growth Continues, But Sharp Slowdown Expected by 1996

Demand Growth Continues Slowed Down, Electricity Growth Continues Despite Economic Slowdown

U.S. Oil Imports Continue to Close on 50 Percent Mark

Summer Gasoline Demand Headline for 17-Year High, Real Price Increases Minimal

Natural Gas Prices Firming Up, But Risk Future Weakness

Steady World Oil Prices Seen Despite Growing Demand

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

	Price Case <sup>a</sup>	Year				Annual Percentage Change		
		1993	1994	1995	1996	1993-1994	1994-1995	1995-1996
<b>Real Gross Domestic Product (GDP)</b>								
(billion 1987 dollars) . . . . .	Mid	5135	5342	5497	5601	4.0	2.9	1.9
Imported Crude Oil Price (nominal dollars per barrel) . . . . .	Low			14.74	13.73		-5.0	-6.9
	Mid	16.15	15.51	16.81	17.26	-4.0	8.4	2.7
	High			18.86	20.78		21.6	10.2
<b>Petroleum Supply</b>								
Crude Oil Production <sup>b</sup> (million barrels per day) . . . . .	Low			6.31	5.91		-4.8	0.0
	Mid	6.85	6.63	6.46	6.24	-3.2	-2.6	-3.4
	High			6.57	6.48		-0.9	-1.4
Total Petroleum Net Imports (including SPR) (million barrels per day) . . . . .	Low			8.50	9.51		6.4	25.0
	Mid	7.62	7.99	8.28	8.91	4.9	3.6	7.6
	High			8.12	8.49		1.6	4.6
<b>Energy Demand</b>								
World Petroleum . . . . .	Mid	66.7	67.5	68.4	69.7	1.2	1.3	1.9
Petroleum (million barrels per day) . . . . .	Low			17.86	18.53		1.0	5.6
	Mid	17.24	17.68	17.79	18.25	2.6	0.6	2.6
	High			17.74	18.08		0.3	1.9
Natural Gas (trillion cubic feet) . . . . .	Low			21.25	21.08		3.2	0.0
	Mid	20.29	20.60	21.30	21.52	1.5	3.4	1.0
	High			21.35	21.77		3.6	2.0
Coal (million short tons) . . . . .	Mid	931	937	954	977	0.6	1.8	2.4
Electricity <sup>c</sup> (billion kilowatthours) . . . . .	Mid	2861	2928	2989	3078	2.3	2.1	3.0
Adjusted Total Energy Demand <sup>d</sup> (quadrillion Btu) . . . . .	Mid	86.9	88.9	90.3	92.4	2.3	1.7	2.3
Adjusted Total Energy Demand per Dollar of GDP (thousand Btu per 1987 Dollar) . . . . .	Mid	16.93	16.64	16.44	16.49	-1.7	-1.2	0.3
Renewable Energy as Percent of Total . . . . .		6.9	7.2	7.2	7.4			

<sup>a</sup> Refers to the imported cost of crude oil to U.S. refiners assumed for the scenario depicted. In all cases on this table, the mid macroeconomic case and normal weather are used.

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

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

<sup>d</sup> The gross energy concept shown here is revised to match that presented in Energy Information Administration, *Annual Energy Review 1993 (AER)*, DOE/EIA-0384(93), Table 10.1. 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 that published in the *MER* or the *AER*.

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Petroleum Supply Monthly*, DOE/EIA-0109(95/03); *Petroleum Supply Annual 1993*, DOE/EIA-0340(93)/2; *Natural Gas Monthly*, DOE/EIA-0130(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02); and *Quarterly Coal Report*, DOE/EIA-0121(94/4Q). Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0395.

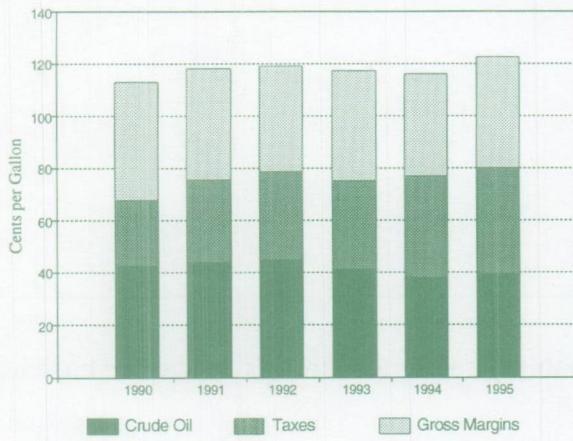
## Summer Outlook for Motor Gasoline



For the 1995 peak summer driving season (April through September), motor gasoline demand is projected to average 7.9 million barrels per day, an increase of 140,000 barrels per day, or 1.8 percent, from that of the previous summer season (see Table FE1). In the third quarter (July-September), average demand is projected to approach 8 million barrels per day. Buoyed by increases in real personal disposable income, highway travel activity is projected to be 2.8 percent higher than last year.<sup>1</sup> Fleet-wide fuel efficiencies are projected to be 1.0 percent higher than last summer, offsetting part of the effect of the increase in highway travel activity on consumption.

The impact of changes in motor gasoline prices on consumption is expected to be slight (Figure FE1). Prices are projected to average \$1.24 per gallon, 5

**Figure FE1. Summer Retail Motor Gasoline Prices**



Mid World Oil Price Case

Sources: History: Compiled from data used in publication of Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035, Tables 9.1 and 9.4. Projection: Second quarter STIFS database.

cents higher than last year. The implementation of reformulated gasoline regulations accounts for between 1 and 2 cents of this increase. In inflation-adjusted terms, however, that represents a increase of only 1.2 percent. Real fuel costs remain unchanged on a cost-per-mile basis.

It is possible that demand might be even stronger than that projected by the *Short-Term Energy Outlook* base-line forecast. Economic growth might exceed expectations and retail prices might be lower than projected in the base case. In fact, substantial increases in Atlantic Basin (especially Caribbean and European) motor gasoline production would depress prices. Nonetheless, the three principal sources of motor gasoline--domestic refinery production, net imports, and inventories--would be able to sustain not only a higher demand growth path as postulated in this forecast, but also temporary, unanticipated demand spikes.

Table FE1 summarizes last year's and projected (base case) supply/demand balances, and contrasts the base case with estimates of summer system capabilities. It shows that domestic field and refinery production is projected to be 7.5 million barrels per day for this summer, an increase of 160,000 barrels per day from last summer. In the base case, refinery utilization rates and gasoline yields are projected to average 94.3 and 46.1 percent, respectively. But potential refinery output is larger than that. Based on recent refinery activity after several years of upgrading efforts, the utilization rates and yield have averaged 95.8 and 47.2 percent for up to three months, allowing for total output (including field production) as high as 7.86 million barrels per day, or 350,000 barrels per day higher than the base case projection. That estimate is comparable to the November 1994 record average of 7.85 million barrels per day.<sup>2</sup>

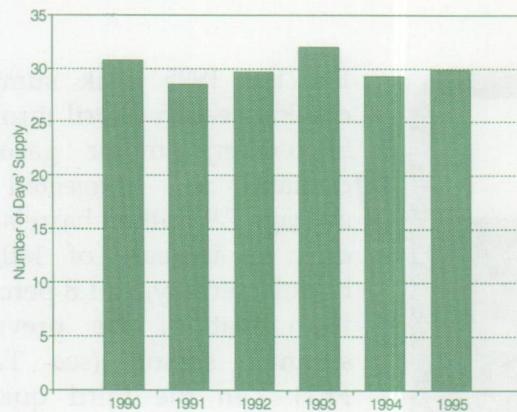
Net imports during the upcoming summer season are projected to average 370,000 barrels per day, similar to the average of the previous summer. In

## Feature Article

comparison, in 1988 summer net imports averaged a record 420,000 barrels per day, and a monthly record of 560,000 barrels per day was recorded in May 1990. Atlantic Basin refineries, especially those in the Caribbean, have added substantial catalytic cracking capacity during the last two years. In addition, European surplus production can supply additional imports.

Stocks (including blending components and oxygenates) are estimated to be 230 million barrels at the beginning of the season, up from 227 million barrels last year. This is the equivalent of 30 days' forward supply (based on summer averages), up slightly from last year's 29 days supply (Figure FE2). At the end of the season, these stocks are projected to be 230 million barrels, the same as at the end of last season.

**Figure FE2. Days' Supply of Stocks: Summer Season**



Mid World Oil Price Case

Sources: History: Compiled from data used in publication of Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S4. Projection: Second quarter STIFS database.

**Table FE1 Summer Motor Gasoline Demand, Supply, and System Capability**  
(Million Barrels per Day)

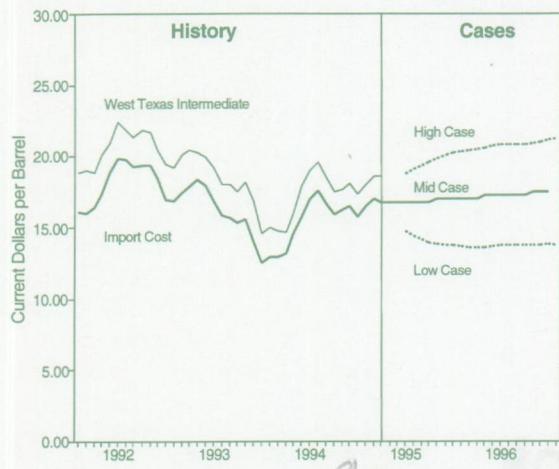
	1994 Actual	1995 Base	Change	Sustainable Summer Capability
Demand .....	7.75	7.89	+0.14	--
Supply				
Field Production .....	0.13	0.15	+0.02	0.16
Refinery Production .....	7.22	7.36	+0.14	7.70
Net Imports .....	0.37	0.37	0.00	0.42
Primary Inventories .....	0.05	0.02	-0.03	0.22
Total Supply .....	7.75	7.89	+0.14	8.59

Note: The base-case projections and estimates of system capability referenced in this article are based on simulations of the Short-Term Integrated Forecasting System.

## The Outlook

# Outlook Assumptions

Figure 1. U.S. Monthly Crude Oil Prices



Sources: Second Quarter 1995 STIFS database and Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

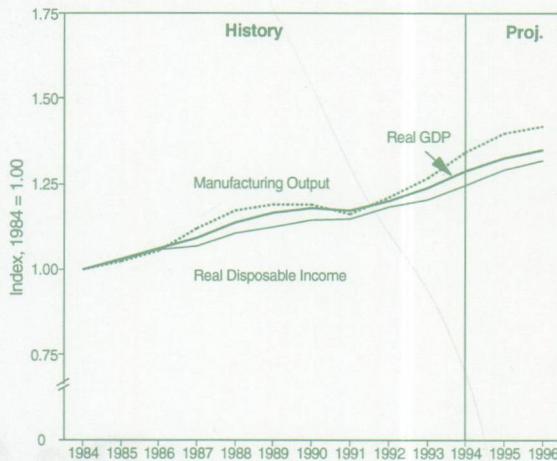
## World Oil Prices

- Three price scenarios are addressed here, as significant uncertainty surrounds the world oil market. In the mid-price case, the world oil price (the average cost of imported crude for U.S. refiners), is expected to rise to \$17.50 in the fourth quarter 1996 from an estimated \$16.75 per barrel in March 1995 (Figure 1 and Table 4).
- The low-price scenario (declining to \$13.70 per barrel in 1996) assumes that growth in world oil demand is minimal due to a worldwide recession, and/or oversupply in world oil markets.
- The high-price scenario (world oil price rises to close to \$21 per barrel by late 1996) assumes that world oil demand increases, or supply shortfalls, cause stocks to be drawn down, resulting in a tight market situation.

## Economic Outlook

- The economy is expected to grow by 2.9 percent in 1995, slowing to 1.9 percent in 1996, as increases in prices and interest rates

Figure 2. U.S. Macroeconomic Indicators



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database, U.S. Commerce Department, and Federal Reserve Board. Details provided in Figure References section, p. 45.

continue to affect investment. Private consumption is the major contributor towards GDP growth (Figure 2 and Table 1).

- Consumer prices are expected to increase by 3.1 percent in 1995 and 3.2 percent in 1996. Due to increased demand for labor, wage inflation begins to rise by mid-1995 although growth in labor costs is not expected to exceed growth in consumer prices. Higher prices and slower employment gains in 1996 dampen gains in disposable income, which rises by 3.4 percent in 1995 and 2.3 percent in 1996.
- Growth in manufacturing production mirrors expected GDP growth, slowing to 4.3 percent in 1995 and 1.4 percent in 1996, compared to the robust 1994 growth of 5.9 percent.

## Weather Assumptions

- Heating and cooling degree-days are assumed normal in the forecast period (beyond March 1995). For 1995, peak-period cooling demand and fourth quarter heating demand are likely to exceed 1994 levels (Table 1).

Federal excise tax of 4.3 cents per gallon of motor fuel is applied to jet fuel used in commercial aviation.

Electricity prices will be slightly higher than would otherwise be the case.

Approximately 4 to 6 cents per gallon higher cost in affected cities.<sup>2</sup>

Motor gasoline prices expected to be 3 to 5 cents per gallon higher in the nonattainment areas, compared with other regions, raising national prices by an average of 1 to 2 cents per gallon during winter months.

Federal excise tax increase of 4.3 cents per gallon for motor gasoline and diesel fuel, and 48.5 cents per gallon natural gas used in motor vehicles.

Market-driven changes will continue. Reliance on stored natural gas for peak demand likely to rise, but pricing expected to be more competitive.

#### Impact on Forecast

This section summarizes the potential impacts of current legislative actions on the short-term energy forecasts for the United States and shows how these impacts are incorporated in this Outlook. The impacts are anticipated to directly affect energy prices, consumption, or production.

#### Energy-Related Policies

#### Special Assumptions for Environmental, Tax, and Other

## Special Assumptions

**Effective Date**

**Motor Fuel Tax Increase**

Autumn 1993  
FERC Order 636-A implemented, rates, and separating pipeline sales and restructuring the way pipelines determine sales and to be more competitive.

#### Description

**Motor Fuel Tax Increase**

1995-1996 winter will be third season for oxygenated gasoline, required to be sold in ozone cites plus opt-in areas.

**Phase I reformulated gasoline in 9 high-**

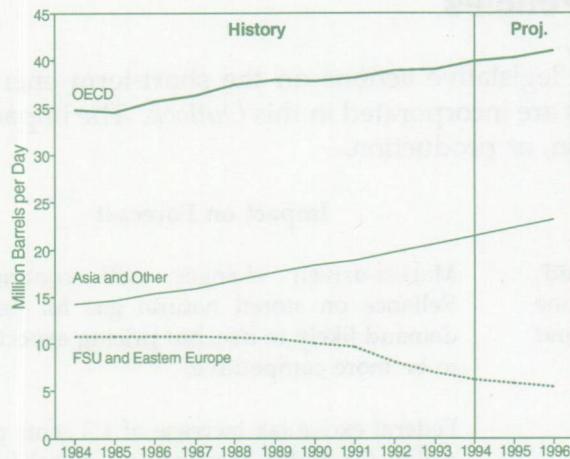
**October 1995**  
Commercial Air Transportation Tax  
Federal excise tax of 4.3 cents per gallon of motor fuel is applied to jet fuel used in commercial aviation.

**Phase I reduction in sulfur dioxide emissions from electric utility steam generation units fired by fossil fuels, by a system of tradable allowances, switching or blending with lower sulfur fuels, and retrofitting with scrubbers.**

**January 1995**  
<sup>1</sup> Energy Information Administration, "Demand, Supply, and Price Outlook for Oxygenated Gasoline, Winter 1992-1993," Monthly Energy Review, DOE/EIA-0035(92/08), (Washington, DC, August 1992), pp. 5 and 9.  
<sup>2</sup> Energy Information Administration, "The Energy Administration's Assessment of Reformulated Gasoline," SR/OOG/94-01/1, (Washington DC, October 1994), p. 56.

# International Oil Demand

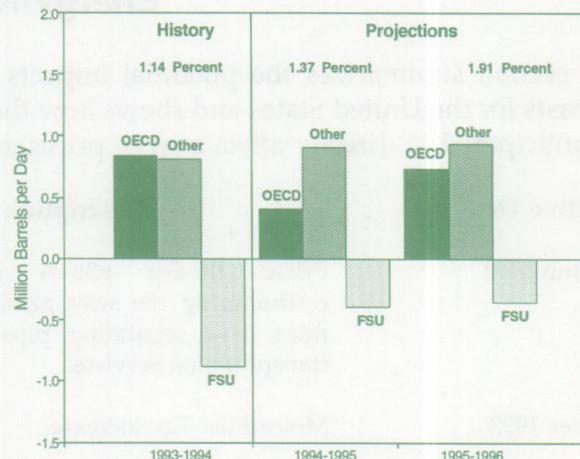
**Figure 3. World Petroleum Demand**



Mid World Oil Price Case

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

**Figure 4. World Oil Demand Changes by Region**



Mid World Oil Price Case

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

- World oil demand is expected to rise by about 900,000 barrels per day in 1995 and an additional 1.3 million barrels per day in 1996, after increasing by only 800,000 barrels per day in 1994. This development reflects increased oil demand growth in the developing world<sup>3</sup> and a smaller decline in demand in the former Soviet Union (FSU). After declining by about 900,000 barrels per day in 1994, oil demand in the FSU and Eastern Europe is expected to decline by about 400,000 barrels per day in 1995 and 300,000 barrels per day in 1996 (Table 3). As these countries attempt to move toward Western-style economies, oil demand should decline by a smaller amount each succeeding year.
- Oil demand in countries of the Organization for Economic Cooperation and Development (OECD) is expected to increase by about 400,000 barrels per day in 1995, with 70 percent of the increase coming from outside the United States. OECD demand is expected to grow by an additional 700,000 barrels per day in 1996, with 60 percent of the increase from the United States (Figure 3).

- Oil demand in Asia<sup>4</sup> is expected to increase by 5 to 6 percent in 1995 and 1996 as the economies of these countries continue to grow by 6 to 10 percent or more each year. In Latin America<sup>5</sup> and Africa, oil demand is estimated to grow by only 1.5 to 2.5 percent in 1995 and 1996, while in the Middle East, oil demand is expected to increase by 4 percent per annum in both 1995 and 1996.<sup>6</sup>
- After rising by nearly 800,000 barrels per day in 1994, oil demand in the non-OECD countries, excluding the FSU and Eastern Europe, is expected to rise by an average of 900,000 barrels per day in 1995 and 1996. Oil demand in these countries continues to increase substantially each year as robust economic growth continues (Figure 4).
- The anticipated effect of the assumed rates of economic growth in the OECD and in the developing countries, combined with a slower decline rate in the economies of the FSU, is a 2.2 million barrels per day increase in world oil demand between 1994 and 1996 (Table 3).

United Nations sanctions were dropped. per day by early 1996 to OPEC capacity if day.<sup>7</sup> Iraq could add nearly 2 million barrels United Arab Emirates (160,000 barrels per Kuwait) (225,000 barrels per day), and the Saudi Arabia (1.5 million barrels per day). Most of the excess capacity in 1996 is in 1995, and only 2.2 million barrels per day in expected to be 2.8 million barrels per day in 1996. Average OPEC excess production capacity is 6).

With OPEC production projected to increase capacity increases less than production (Figure 6). OPEC significantly in 1996, excess OPEC production capacity is expected to decrease in 1996 as expected to increase by over 200,000 barrels per day in 1995, and by another 300,000 barrels per day in 1996.

In the FSU, petroleum production is expected to continue to fall, albeit at an attenuated rate compared to recent years. Following a nearly to compare to recent years. Following a nearly further 400,000 barrels per day in 1996.

• • • • •

U.S. petroleum production is expected to continue declining, falling by 300,000 barrels per day in the two-year period 1995 to 1996. OPEC developing countries is expected to rise by 400,000 barrels per day in 1995, and by another 300,000 barrels per day in 1996. Petroleum production in the North Sea is expected to increase by over 200,000 barrels per day in 1995, and by another 300,000 barrels per day in 1996.

A large share of this increase will come from the Organization of Petroleum Exporting Countries (OPEC). OPEC production is expected to increase by 300,000 barrels per day in 1995, and by almost 1.1 million barrels per day in 1996 (Table 3 and Figure 5).

Following no growth in total world petroleum production in 1994, world oil supply is expected to increase by 400,000 barrels per day in 1995, and by 1.1 million barrels per day in 1996 (Table 3 and Figure 5).

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

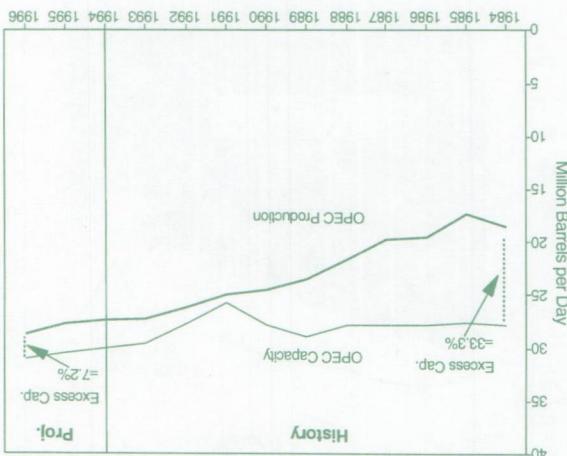


Figure 6. OPEC Oil Production and Capacity

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

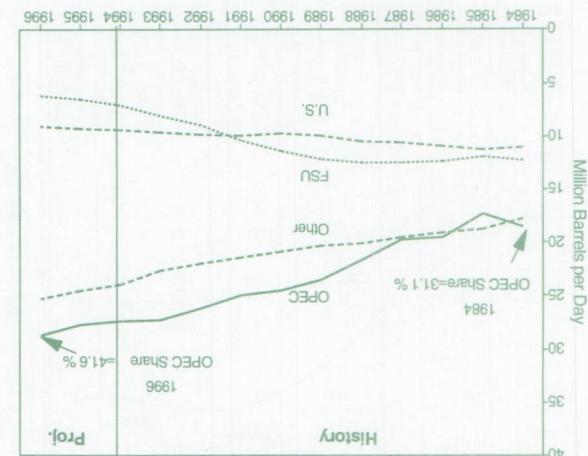
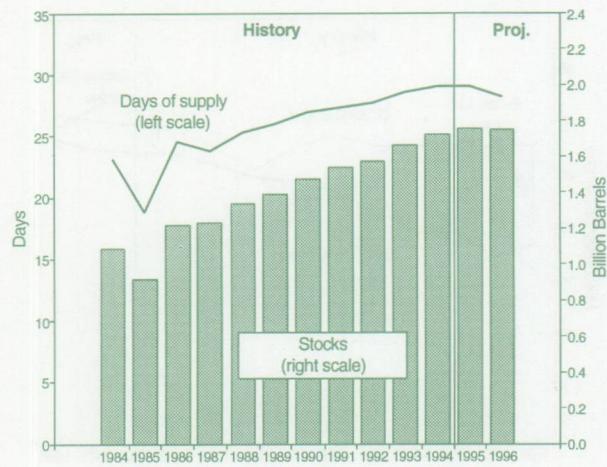


Figure 5. World Oil Production

## International Oil Supply

# World Oil Stocks and Net Trade

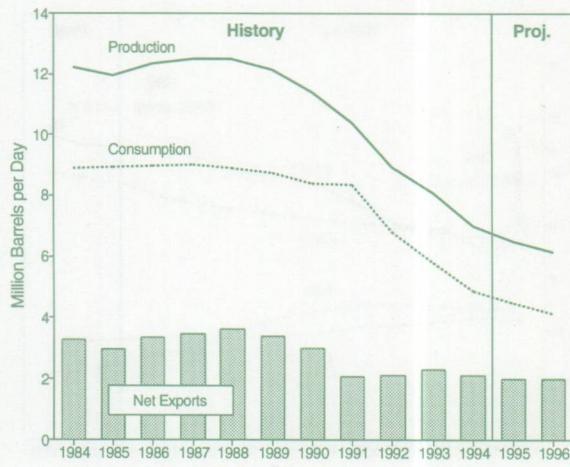
**Figure 7. Market Economies' Commercial Oil Stocks**



Mid World Oil Price Case

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

**Figure 8. FSU Oil Output, Demand, and Net Exports**



Mid World Oil Price Case

Sources: Energy Information Administration, Energy Markets and Contingency Information Division. Details provided in Figure References Section, p. 45.

- With petroleum stock levels in the Market Economies (which exclude the former centrally planned economies) increasing each year since 1986, this *Outlook* projects that stock levels will continue to increase again in 1995, before stabilizing in 1996 (Figure 7).
- "Days of Supply" is the number of days of consumption that can be supplied by non-government stocks above the minimum operating level. Because consumption is expected to increase significantly while stocks are expected to remain relatively stable, the "Days of Supply" is expected to decline in 1996. However, this measure would still remain at adequate levels through the forecast, as end-1996 levels are expected to be slightly less than end-1993 levels.
- Net exports from the FSU are estimated to decline from 2.1 million barrels per day in

1994 to 2.0 million barrels per day in 1995 and 1996 (Figure 8 and Table 3). This reflects the expectation that the decline in consumption expected over the forecast period will be mostly counterbalanced by production losses.

- Since exports of petroleum are a major source of hard currency for the FSU, a strong incentive in maintaining exports, net oil exports from the FSU are expected to remain relatively stable.
- If, however, oil production in the FSU decreases by more than estimated in this forecast, this could add significantly to production requirements in OPEC. The situation in the FSU is one of the main wildcards in the world oil market over the next 2 years.

- While the general decline in residual fuel use is noted, a recovery from the very low levels of recent months is likely, especially in late 1995 and in 1996. A resumption of load growth for utilities operating in oil using regions will likely result in higher utilization of oil-fired (and other fossil fuel) units because of wanting nuclear availability in those areas.<sup>9</sup>
  - Also, growing gas demand and declining gas production capacity will yield greater reliance on oil in industrial and electric power applications, especially by late 1996.
  - Jet fuel demand, which grew nearly 4 percent in 1994, is projected to increase by 3.9 percent in 1995 as flight schedules expand at a more moderate pace in order to increase load factors. Jet fuel demand growth next year should slow along with the economy (Table 6).
  - Due to weather effects, other petroleum products demand is projected to fall by over 1 percent in 1995. Assumptions of normal weather are expected to bring about 2.5 percent growth in 1996.
  - The U.S. petroleum demand continued to rise above pre-recession levels in 1994 (Figure 9 and Table 6), as a 2.6 percent average growth rate lifted demand to its highest level since 1979.<sup>8</sup> Continued growth is expected to push demand well above 18 million barrels per day by 1996, a level reached only three times during the mid-to-late 1970's.
  - Through the first quarter, 1995 has witnessed a slowdown in oil demand, most directly because of very mild weather conditions in the North and East. In addition, excess supply resulted in fuel switching to gas in the industrial and utility sectors. For the rest of the year, significant gains on a year-over-year basis are expected, due to growth in normal weather assumptions. Growth in 1996 may well exceed the 1995 rate, assuming normal weather assumptions. Growth in 1996 factors in the expectation of declining excess gas supply capacity, which should limit fuel growth in the economy. An added normal weather pattern occurs, masking the slower growth in the economy.

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Sources: Second Quarter 1995 STIFS database. Details provided in Figure  
References Section, p. 45.

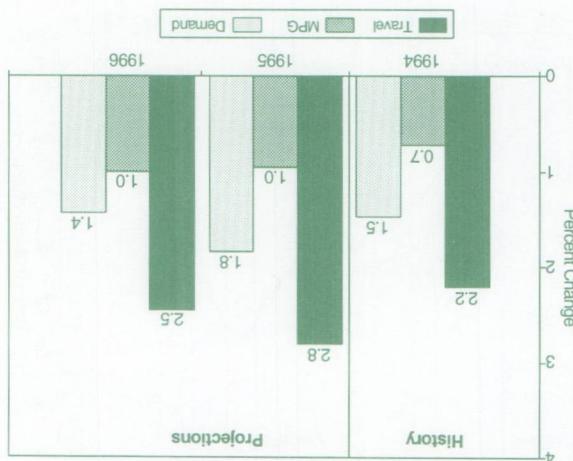


Figure 10. Gasoline Market Indicators

## U.S. Oil Demand

Mid World Oil Price Case  
Sources: Second Quarter 1995 STIFS database. Details pro-  
Riferences Section, p. 45.

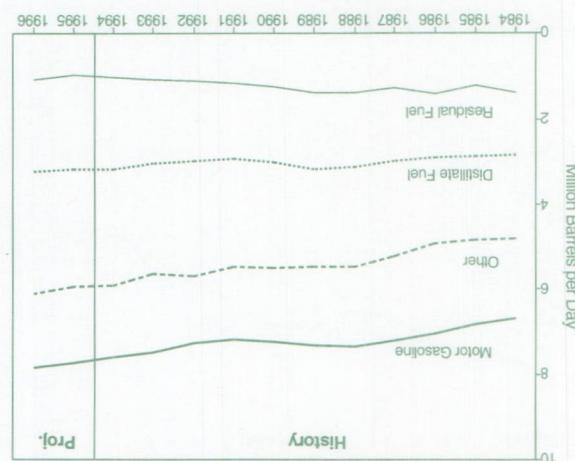
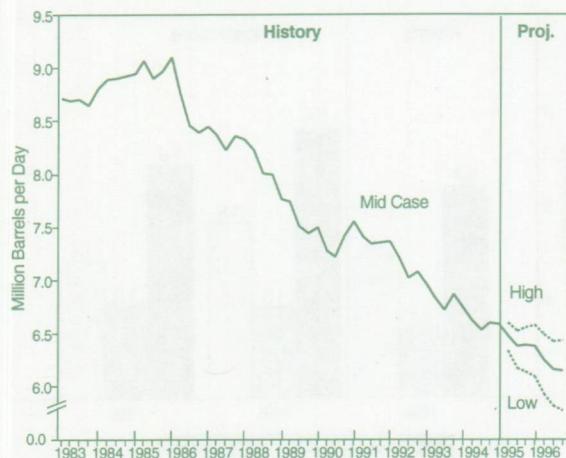


Figure 9. U.S. Petroleum Demand

## U.S. Oil Supply

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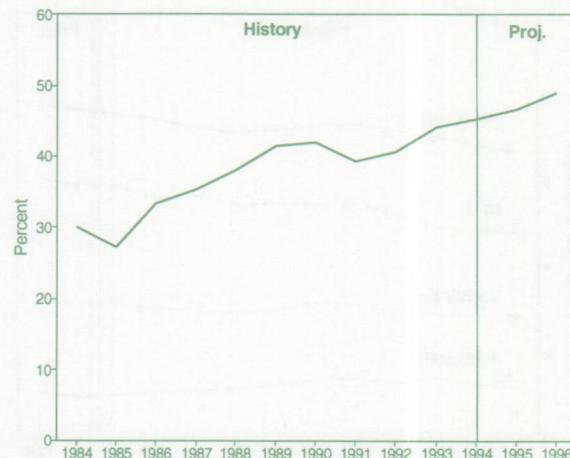
**Figure 11. U.S. Crude Oil Production**



Sources: Second Quarter 1995 STIFS database and Energy Information Administration, Reserves and Natural Gas Division. Details provided in Figure References Section, p. 45.

- At mid-case prices, total U.S. domestic crude oil production is expected to decline by 170,000 barrels per day (2.6 percent) in 1995, and by an additional 220,000 barrels per day (3.4 percent) in 1996 (Table 6 and Figure 11).
- Oil production in the lower 48 States is expected to drop by 100,000 barrels per day in 1995, and by 110,000 barrels per day in 1996. Oil production from new projects in Federal offshore waters (the Santa Ynez unit in the Pacific, and the Auger project in the Gulf of Mexico) is expected to account for about 2.9 percent of total U.S. oil production by the end of 1996. Production from the Point Arguello Field in the Pacific Federal Offshore is expected to be 80,000 barrels per day through the forecast period.<sup>10</sup>
- Oil production in Alaska is expected to decline by 4.5 percent in 1995, and by another 7.4 percent in 1996. Installation of additional gas handling facilities in the giant Prudhoe Bay oil field is complete and no major investments are planned for this field during the forecast period. The Point McIntyre Field is expected to produce about 110,000 barrels per day, and

**Figure 12. U.S. Net Oil Imports' Share of Demand**



Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

- the Niakuk Field is expected to produce about 15,000 barrels per day during the forecast period.<sup>11</sup>
- Crude oil production could be as high as 6.4 million barrels per day by the fourth quarter of 1996, given the high price case (Table 7) and production from new projects in the Federal Offshore, or as low as 5.8 million barrels per day under the low price scenario (Table 5).
- Declining oil production and rising demand in the United States means an increase in net imports of crude oil and products of 920,000 barrels per day between 1994 and 1996. Total net imports should equal 48.8 percent of total petroleum demand in 1996 in the base case (Figure 12). The net import share of demand could range between 51 and 47 percent depending on where actual oil prices land in the low to high price range (Tables 5 and 7).
- According to Baker Hughes, Inc., the rig count for 1994 averaged 775. The rig count is expected to decline to an average of 711 in 1995, but is expected to increase to 756 in 1996.<sup>12</sup>

- Assuming normal weather, natural gas will headed prices should begin to recover from the low prices of the 1994-1995 winter. However, the projected 1996 annual average price is not likely to reach \$2 per thousand cubic feet (Table 4).
- Most petroleum product prices, with the exception of residual fuel oil, are expected to remain essentially flat in 1995, as crude oil prices rise, due to less demand and lower natural gas prices. Petroleum product prices will probably continue to increase in 1996 as long as crude oil prices continue to rise.
- Table 4 and "Outlook Assumptions," p.6.

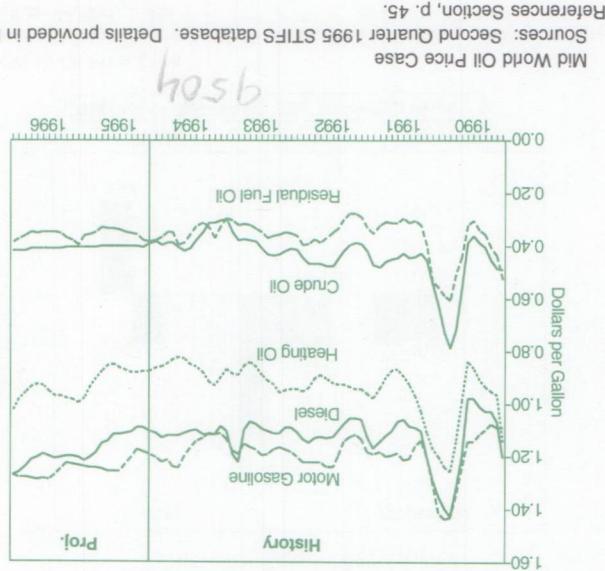


Figure 14. Petroleum Product Prices

## U.S. Energy Prices

- World oil prices fell slightly in 1994 (Figure 13) as increases in OPEC, North Sea and non-OECD production countered demand any price pressure caused by increased demand. Natural gas prices tumbled by 10 percent in 1994 due to mild winter weather and continued improvements in market efficiency. The fourth quarter 1994 wellhead price for natural gas was nearly 20 percent lower than the price in the previous year.<sup>13</sup>
- In the fourth quarter of 1994, operating income for domestic oil producers improved after several quarters of declining income. Major independent operators reported increases in upstream income of about 14 percent while gas industry with mixed results for the year.
- Gas production rose 35 percent over the same period.<sup>14</sup> Despite the upswing in oil prices during the last quarter of 1994, depressed gas prices are likely to leave the domestic oil and gas industry with mixed results for the year.
- From the 1994 average of \$15.50 per barrel, crude oil prices are expected to rise about \$1.30 per barrel in 1995 in response to gas industry with mixed results for the year.

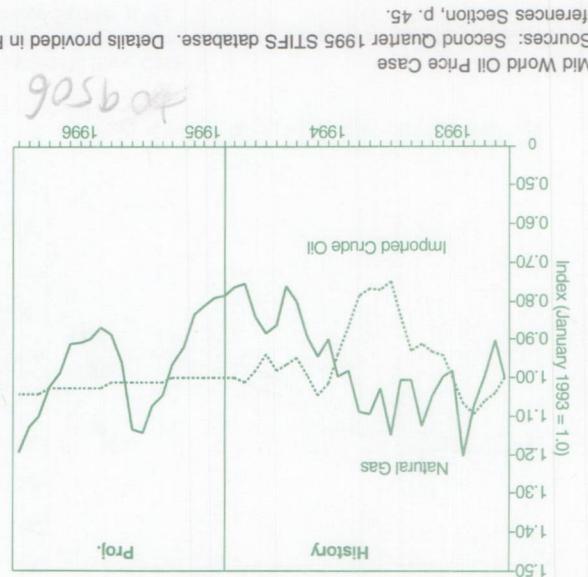


Figure 13. U.S. Oil and Gas Prices

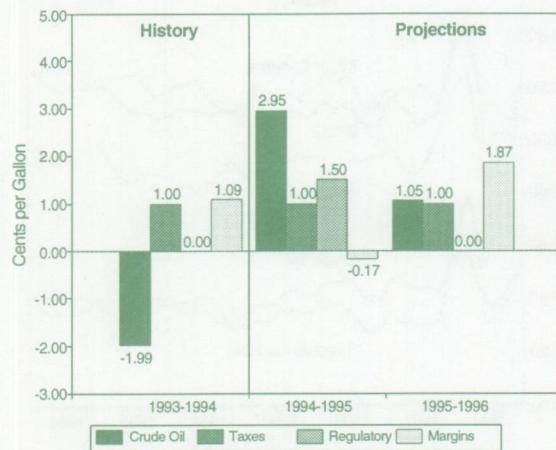
Sources: Second Quarter 1995 STIFS database. Details provided in Figure 13. References Section, p. 45.

Sources: Second Quarter 1995 STIFS database. Details provided in Figure 13. References Section, p. 45.

# U.S. Energy Prices

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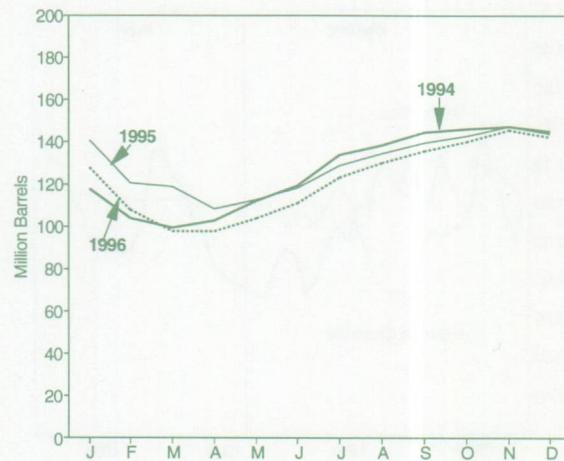
**Figure 15. Motor Gasoline Price Components (Year-to-Year Change)**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

**Figure 16. Distillate Inventories**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

- In 1995, gasoline prices are expected to be about 5 percent above the 1994 average, with another 3 percent increase expected in 1996. The 1995 rise is due to higher crude costs, the increased costs of newly required reformulated gasolines (1-2 cents per gallon nationally), and to higher expected demand (Figure 15). A portion of the demand increase is expected to come from increased economic activity in 1995. The remainder of the increase stems from improved driving weather in the first quarter of 1995, compared to the icy conditions in the East in the first quarter of 1994.
- The additional costs associated with reformulated gasoline have recently been falling, averaging about 1-2 cents per gallon compared to 4-8 cents late last year.<sup>15</sup> This is due to an excess supply of RFG that began last December, when the Environmental Protection Agency (EPA) allowed some areas in the country to opt out of the program, clouding the market for RFG. When the market adjusts production according to demand, the RFG

gasoline price is expected to stabilize at about 3-5 cents per gallon higher than conventional gasoline, adding an additional 1-2 cents per gallon to the average U.S. price.

- Abnormally mild weather on the East Coast from November 1994 through February 1995 led to low consumption and excess stock levels of distillate fuel oil, diminishing margins and lowering prices (Figure 16). As a result, only moderate increases in residential heating oil prices are expected in 1995. In 1996, however, margins are expected to rebound if the winter weather is normal or colder than normal. Prices could rise by 8 cents per gallon for the year.
- Diesel prices, which are closely tied to heating oil prices, were flat in 1994 due not only to low distillate demand, but also to the less-than-expected refiner margins for the low-sulfur diesel product required since late 1993. This probably indicates an excess of desulfurization capacity.

- Coal prices to electric utilities are not expected to rise in 1995 (Figure 18), even after accounting for the additional costs associated with compliance of the Clean Air Act (CAA). Continued increases in mining productivity should offset the CAA costs. In 1996, the price of coal is expected to rise by a modest 2 cents per million cubic feet. Most of this expected increase is due to rising transportation (diesel) costs.
- In 1996, assuming a normal winter, the average annual wellhead price is projected to increase by 20 cents per thousand cubic feet to about 80 cents per thousand cubic feet below year-ago levels.<sup>17</sup>
- Mid World Oil Price Case

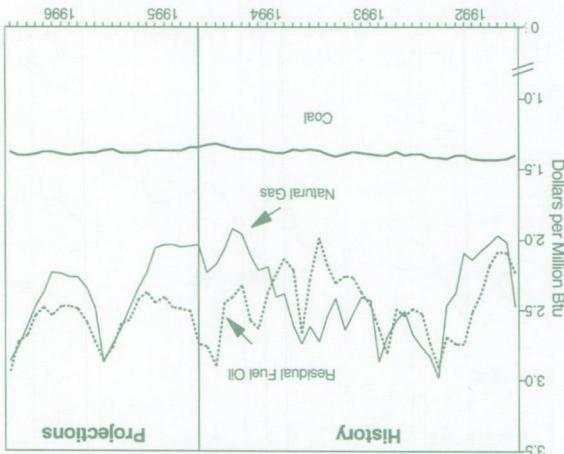


Figure 18. Fossil Fuel Prices to Electric Utilities

## U.S. Energy Prices

- The net effect on natural gas wellhead prices is expected to be a decrease in the annual price of 7 cents per thousand cubic feet (Figure 17 and Table 4). Spot natural gas wellhead price only by the amount of the crude oil price rise over residual fuel prices through 1996. However, this difference should decrease in 1996, as residual fuel prices are expected to rise only by the amount of the crude oil price path.
- Natural gas prices to electric utilities are expected to maintain their price advantage over residual fuel prices throughout 1996. With complicity of the Clean Air Act (CAA), continuing increases in mining productivity should offset the CAA costs. In 1996, the price of coal is expected to rise by a modest 2 cents per million cubic feet. Most of this expected increase is due to rising transportation (diesel) costs.
- Fourth quarter 1994 net income for the U.S. majors, domestic downstream operations fell by 21 percent from the previous year, while independent refiners' income fell by about 47 percent.<sup>16</sup> Gross refiner margins should rise by 21 percent from the previous year, while independent refiners' income fell by about 47 percent. Over the next 2 years, but refiner net income may not increase significantly if reformulated gasoline and low sulfur diesel costs prove difficult to fully recover.
- Mid World Oil Price Case

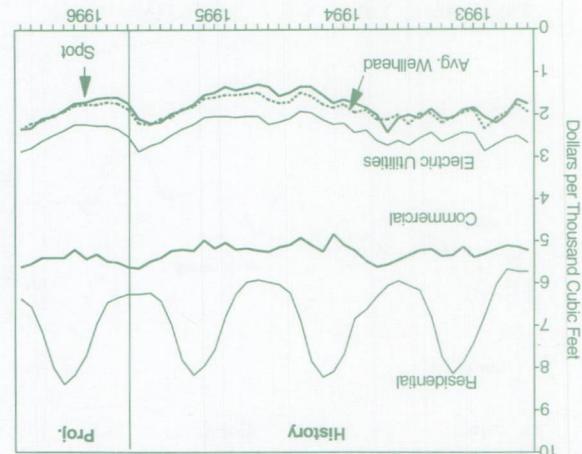


Figure 17. Natural Gas Prices by Sector

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

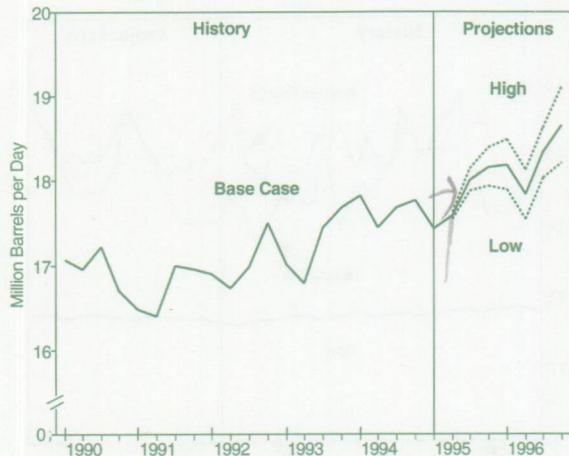
Mid World Oil Price Case

Referrals: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

# U.S. Oil Demand and Supply Sensitivities

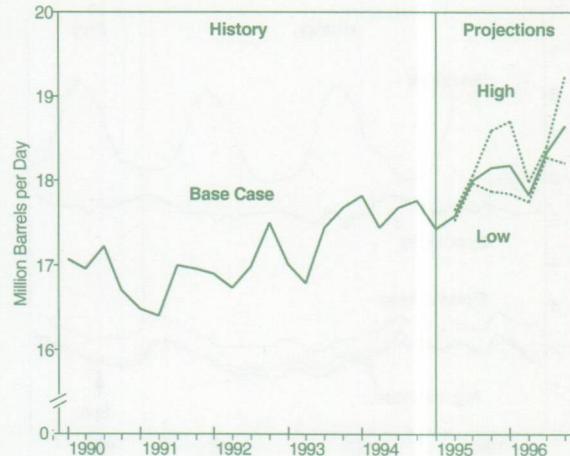
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**Figure 19. Total Petroleum Demand: Macro Cases**



Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

**Figure 20. Total Petroleum Demand: Weather Cases**



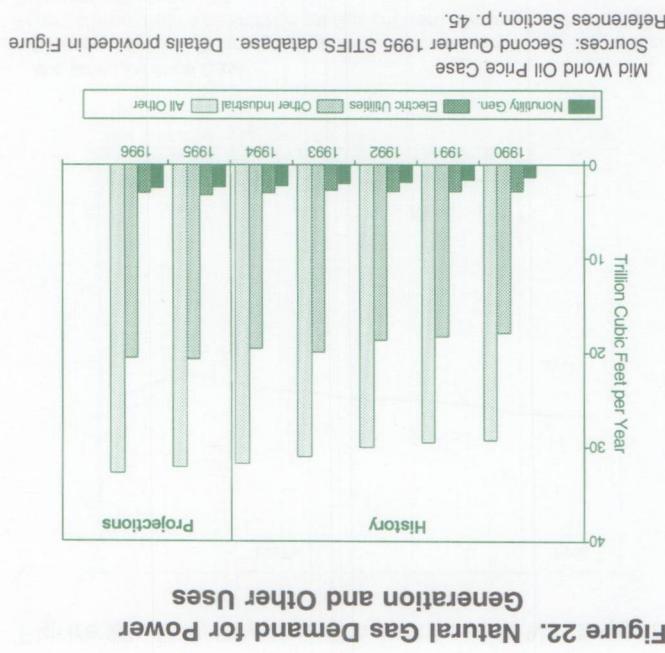
Sources: Second-Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

- The petroleum demand and supply outlook for the mid-price case is based on normal temperatures and a particular set of macroeconomic assumptions. To enhance the usefulness of the mid-case forecast, ranges of possible outcomes for petroleum demand and supply, using alternative macroeconomic, price, and weather assumptions, are also derived (Tables 5 and 7). Plausible macroeconomic and weather-related petroleum demand cases are illustrated in Figures 19 and 20.
- The petroleum price sensitivity assumes that nonpetroleum prices remain constant. The weather sensitivities assume deviations above and below normal that correspond to one-half of the largest quarterly deviations from normal in heating and cooling degree-days over the last 15 years.
- A 1-percent increase in real GDP raises petroleum demand by about 150,000 barrels per day. The impact of shifts in economic growth varies depending upon distribution of incremental growth across energy-intensive

and non-energy-intensive sectors.

- A \$1-per-barrel increase in crude oil prices, assuming no price response from non-petroleum energy sources, reduces demand by about 50,000 barrels per day.
- A \$1-per-barrel increase in crude oil prices boosts domestic oil supply (crude oil and natural gas liquids production) by about 66,000 barrels per day.
- A 1-percent increase in heating degree-days increases demand by about 25,000 barrels per day. The impact of heating degree-day deviations from normal is not likely to be symmetrical. Extremely cold weather could result in indirect effects on fuel oil markets due to potential natural gas supply constraints that have no counterparts in the case of mild weather (Figure 20).
- A 1-percent increase in cooling degree-days increases petroleum demand by about 4,000 barrels per day. (See Appendix A for sensitivity calculation methodology.)

- Commercial sector demand, after rising along with the economy in 1994, is projected to increase more slowly in 1995 due to both economic and weather factors.
- Preliminary data for industrial gas demand in 1994 indicates a surprising weakness in the preliminary data for industrial gas demand in the first quarter.
- Heating demand in the first quarter new natural gas customers as well as higher growth also reflects the continued addition of nonutility generators could be losing market share in the near future due to increased competition in the electric power industry.<sup>19</sup>
- Residential gas demand growth over four quarters, a condition which carried over into first quarter 1995. Residential demand is expected to rise in 1995 due to assumptions of normal weather for the next 3 quarters, but by under 1 percent. In 1996, residential demand is expected to rise in 1995 due to assumptions of utilities rising.<sup>18</sup> anecdotal evidence says generators, electricity output and sales to annual demand data for 1994 show nonutility cogeneration. While preliminary estimates of demand, particularly in the area of industrial cogeneration, 1995 should exhibit an evidence regarding the relative strength of gas is the industrial sector. There is conflicting evidence regarding the relative strength of gas is the industrial sector. There is conflicting
- The risk to the forecast for natural gas demand is relatively low prices and continued growth in the economy slows (Figure 22).



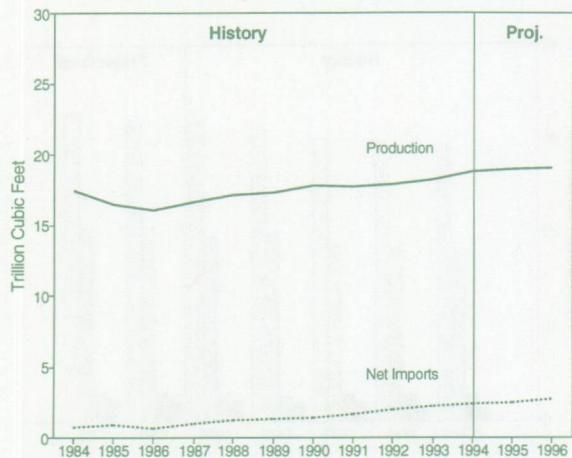
## U.S. Natural Gas Demand



# U.S. Natural Gas Supply

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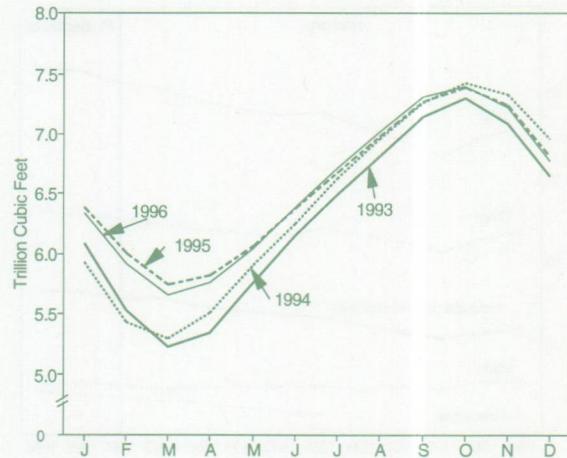
**Figure 23. U.S. Dry Gas Production and Net Imports**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database and Energy Information Administration, Reserves and Natural Gas Division. Details provided in Figure References Section, p. 45.

**Figure 24. Total Gas in Underground Storage**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

- U.S. dry gas production is expected to grow more slowly in 1995 and 1996 than in 1994 in response to declining gas productive capacity. Dry gas production in 1995 is projected at about 18.9 trillion cubic feet, and at 19.1 trillion cubic feet in 1996, reflecting growth increases of less than 1 percent above the previous year's level (Figure 23 and Table 10).
- Low heating demand due to the mild temperatures of this past winter has resulted in relatively high storage levels, which at the end of the season, March 31, were estimated to be 450 billion cubic feet higher than in 1994 (Figure 24). Although colder temperatures in early April have helped U.S. gas suppliers to further reduce inventories, high gas storage levels in both the U.S. and Canada are continuing to influence natural gas prices.
- The gas rig count averaged 331 for the month of March<sup>20</sup>, but has begun rising again in

recent weeks in response to the surprising strength of natural gas futures prices.

- Rising Canadian gas production and exports of competitively priced gas from Canada have tended to take the pressure off domestic U.S. production, and keep a lid on price increases. Net imports are forecast to continue to expand, by 5.5 percent in 1995, and 9.6 percent in 1996. In 1996, net natural gas imports are expected to amount to 12.8 percent of total U.S. demand.
- U.S. dry gas productive capacity has been generally declining since 1992,<sup>21</sup> when gas wellhead prices fell and drilling declined. Productive capacity is expected to continue to decline through the forecast period at projected base case gas wellhead prices.

- Coal production is expected to increase by 1.1 percent in 1995, and by 1.6 percent in 1996, raising the annual output level to 1,058 million short tons in 1996 (Figure 26).
- U.S. coal exports are expected to grow in 1995, increasing by 7.3 percent. Exports should continue growing in 1996, as worldwide demand improves with recovery in the global economy (Table 11).
- Coal demand by the retail and general industry sectors will grow by 1.7 percent in 1995. Consumption in 1996 is expected to decrease by 0.7 percent. Demand growth from utilities to produce electricity in 1995 is projected to meet environmental regulations.
- Total coal demand is expected to increase by 1.3 percent in 1995 (Figure 25).

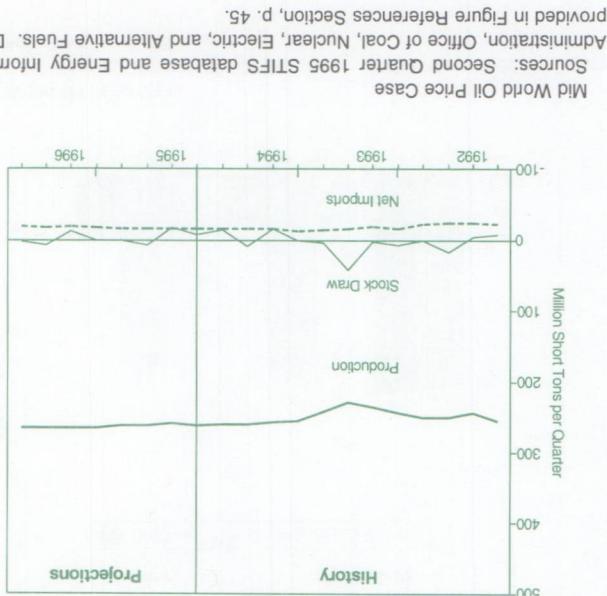


Figure 26. Components of U.S. Coal Supply

## U.S. Coal Demand and Supply

- Demand for coal at coke plants is expected to grow throughout the forecast, as a result of coke plant capacity constraints. The limitations on remaining flat, at 31 million short tons annually, power producers.
- Growing demand for electricity generation from coal-fired power plants is offset by declines in gas-fired electricity generation. Electricity generated by nuclear power is offset by declines in coal-fired electricity generation. Growth in coal used for electricity generation (Table 11). Coal consumed by utility and nonutility generators to produce electricity in 1995 will grow by 2.9 percent in 1996. Growth in coal consumption by utility and nonutility nuclear power, leads to a 1.9 percent increase with decreases in electricity generation from combined cycle powerplants.
- Total coal demand is expected to increase by 1.8 percent in 1995 (Table 11). Increased demand for coal in the electricity sector will help stimulate an additional 2.4 percent increase in coal demand in 1996 (Figure 25).
- Mid-World Oil Price Case

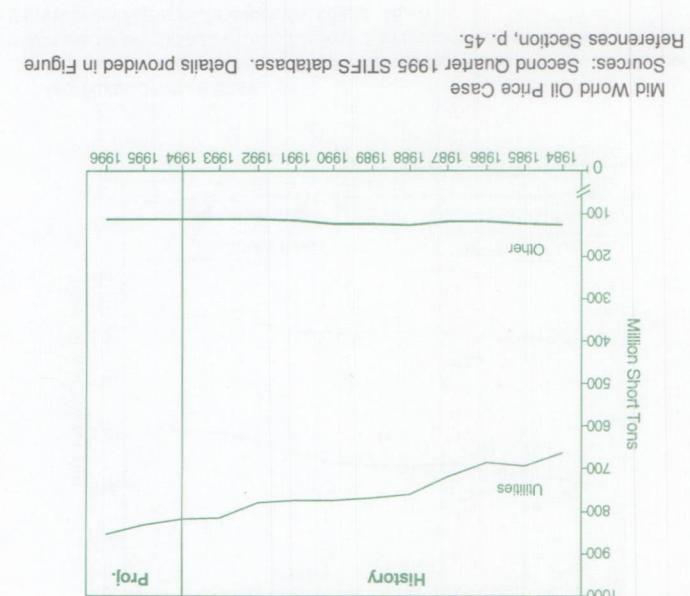


Figure 25. U.S. Coal Demand Trends

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

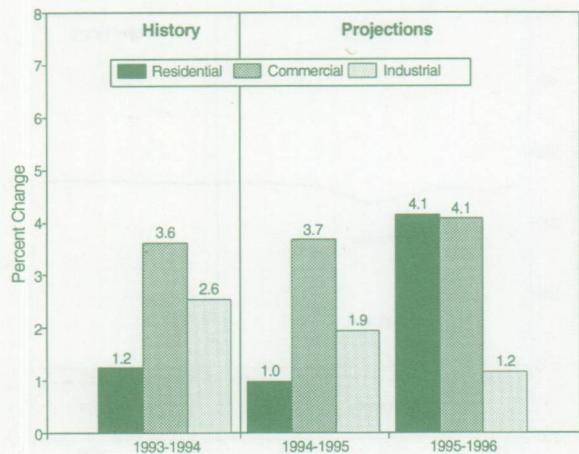
Mid-World Oil Price Case

Administrations, Office of Coal, Nuclear, Electric, and Alternative Fuels. Details provided in Figure References Section, p. 45.

# U.S. Electricity Demand and Supply

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**Figure 27. Regulated Electric Utility Sales**

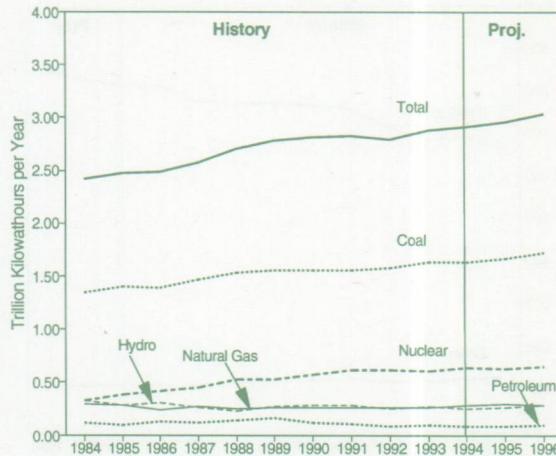


Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

- Total electricity demand is expected to continue to rise steadily through the forecast period, at a rate of 2.1 percent in 1995, and 3.0 percent in 1996.
- Growth in residential demand for electricity in 1995 is projected at 1.0 percent, just slightly lower than in 1994, as weather-related factors, i.e., the mild winter of 1994-95, provide a counterbalance to economic growth. However, in 1996 residential growth is expected to expand at a faster rate of 4.1 percent, despite slower economic growth, due to the assumption of normal weather.
- Commercial sector demand is projected to rise by 3.7 percent in 1995 and 4.1 percent in 1996, due primarily to expanding employment (Figure 27 and Table 12).
- Industrial demand in 1995 is projected to grow by 1.9 percent. In 1996, industrial demand growth is projected to slow to 1.2 percent, reflecting the slowdown in economic growth (Table 12).

**Figure 28. Regulated Electric Utility Generation**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels. Details provided in Figure References Section, p. 45.

- U.S. utilities are expected to generate about 1.7 and 2.6 percent more electricity in 1995 and 1996, respectively. Nonutility generation is expected to increase at even faster rates of 6.6 percent in 1995, and 6.0 percent in 1996, as a result of capacity additions.
- Hydropower and coal generation by electric utilities are expected to recover in 1995 and 1996 from relatively low 1994 levels, edging out oil generation and slowing growth in gas generation (Figure 28). Nuclear power plants, which ran at above expected utilization rates in 1994, are expected to run at lower rates in 1995, but rise in 1996 as Watts Bar 1 and Browns Ferry 3 go online.
- Net imports of electricity from Canada grew significantly in 1994, due mainly to increased interruptible purchases of surplus electricity from Ontario Hydro and Hydro Quebec. Imports are expected to be somewhat lower in 1995 and 1996, due mainly to increased internal demand in Canada.

The U.S. Department of Energy, which issues export authorizations for U.S. utilities, has been issuing similar permits for many years. There is, however, an added stipulation noting the specific intermediate national transmission lines that can be used under each authorization.<sup>24</sup> The Department is currently investigating new ways of evaluating export authorizations consistent with the restructuring of the electric power industry.

In this era of increasing intergration of the North American energy industry, due in part to the free trade agreement between the United States and Canada, this type of export authorization allows a utility more ease in making trade arrangements, thus adding to market efficiency. It also removes some of the inconvenience of the arrangements, since the NEB does not have to be approached for each individual contract.

Of the two permits issued by the NEB, one allows firm transactions while the other permits interruptions. Both permits require that the firm transactions be short-term (no more than 5-year contracts) and place limitations on the yearly total amount of sales (4,300 megawatts of firm energy and 30,000 gigawatt-hours of interruptible sales).<sup>23</sup> The permits were issued for a 16-year period ending in 2010.

permits is that Hydro-Québec was not required to indicate a specific U.S. utility as the purchaser of the electricity, but rather, it can arrange contracts with various U.S. utilities. This new type of permit has been termed a "blanket" permit, and adds a new degree of flexibility to U.S.-Canada electricity markets, allowing the Canadian utility to arrange trade agreements with U.S. utilities in a manner similar to another U.S. utility.

U.S.-Canada Electricity Trade

## U.S. Electricity Demand and Supply

and would still fit the case. Sources: Details provided in Figure References Section, p. 45.

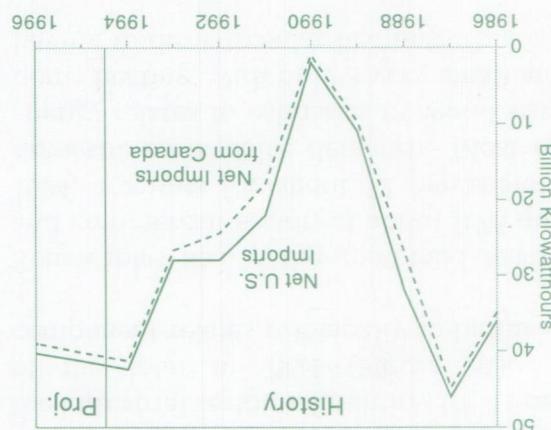


Figure 29. U.S. Net Imports of Electricity

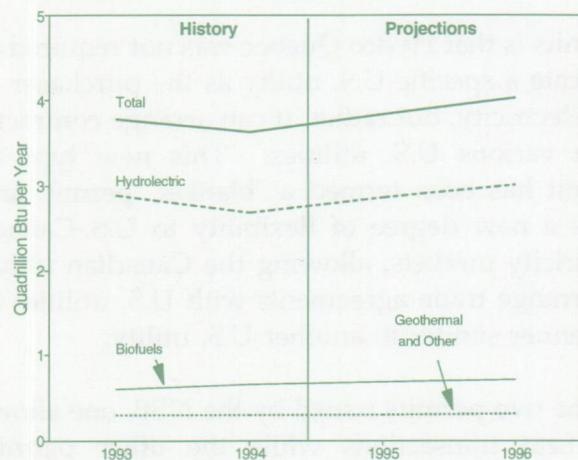
In December 1994, the Canadian National Energy Board (NEB) issued two export permits to Hydro-Quebec that allow the utility to export both firm and interruptible power. The uniqueness of these

"Blanket" Permits for Hydro Quebec

In 1994, net imports of electricity from Canada soared to 42.4 billion kilowatthours,<sup>22</sup> a level reached only once before, in 1987 (Figure 29). These imports are comprised mainly of interruptible purchases from Ontario Hydro and Hydro-Québec into the northeast region of the United States. The provinces of Ontario and Québec continue to experience modest economic growth accompanied by surplus generating capacity. Thus, these high levels of trade are expected to continue, although a slight decline is expected as Canadian internal demand increases.

# U.S. Renewable Energy Demand

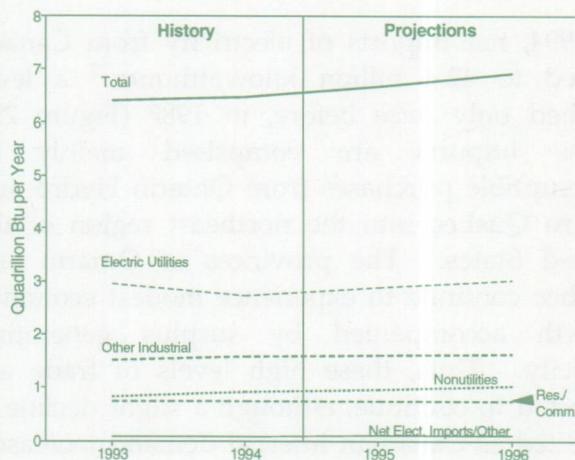
**Figure 30. Renewable Energy Use for Electricity**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database. Details provided in Figure References Section, p. 45.

**Figure 31. Renewable Energy Use by Sector**



Mid World Oil Price Case

Sources: Second Quarter 1995 STIFS database and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels. Details provided in Figure References Section, p. 45.

- Renewable energy use in the United States amounted to approximately 6.40 quadrillion Btu (quads), or about 7.4 percent of total domestic gross energy demand in 1993 (Table 13). In 1994, renewables demand slowed to just 1 percent, due to an overall reduction in hydroelectric power availability. In 1995 and 1996, renewables growth should resume as hydroelectric sources recover and use of biomass nonutility power generation expands.
- More than half of all renewable energy use measured by EIA is associated with the production of electricity. While the biggest component of electricity producers' use of renewables is hydroelectric power generated by electric utilities, a significant and growing share of renewables use is observed at nonutility generating facilities (Figure 30).
- Most of the industrial use of renewables involves biofuels, principally wood and wood by-products. However, all of the major forms of renewables use at nonutilities (including hydropower) seem to be growing.

- On balance, it is expected that of a 0.25 quad increase in total renewables use in the power generation sector over the 3-year period from 1993 through 1996, about 73 percent will have come from expansion of nonutility power.
- Currently, aside from power generation, the most significant area of renewables use is in the industrial sector, accounting for 24 percent of the total in 1994 (Figure 31). This component relates principally to biofuels.
- Renewables use in the combined residential and commercial sector, at about 0.75 quad in 1994, accounts for about 12 percent of total domestic renewables demand. Most of this energy relates to estimates of wood used for home heating, with only a very small amount having to do with solar heating.
- The future of renewable fuel is uncertain, particularly in light of the recent FERC order overturning the California power auction process which gave preferential treatment to renewable qualifying facility contracts.<sup>25</sup>

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

	Macro Case	1994				1995				1996				Year		
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Macroeconomic <sup>a</sup></b>																
Real Gross Domestic Product (billion 1987 dollars) . . . . .	High Mid Low	<b>5261</b>	<b>5314</b>	<b>5367</b>	<b>5427</b>	<b>5467</b>	<b>5510</b>	<b>5556</b>	<b>5613</b>	<b>5663</b>	<b>5696</b>	<b>5734</b>	<b>5782</b>	<b>5536</b>	<b>5718</b>	
Percentage Change from Prior Year . . . . .	High Mid Low	<b>3.7</b>	<b>4.1</b>	<b>4.4</b>	<b>4.0</b>	<b>3.9</b>	<b>3.7</b>	<b>3.5</b>	<b>3.4</b>	<b>3.6</b>	<b>3.4</b>	<b>3.2</b>	<b>3.0</b>	<b>3.6</b>	<b>3.3</b>	
Annualized Percent Change from Prior Quarter . . . . .	High Mid Low	<b>3.3</b>	<b>4.0</b>	<b>4.0</b>	<b>4.5</b>	<b>3.0</b>	<b>3.1</b>	<b>3.3</b>	<b>4.1</b>	<b>3.6</b>	<b>2.3</b>	<b>2.7</b>	<b>3.3</b>			
GDP Implicit Price Deflator (Index, 1987=1.000) . . . . .	High Mid Low	<b>1.250</b>	<b>1.259</b>	<b>1.265</b>	<b>1.269</b>	<b>1.278</b>	<b>1.285</b>	<b>1.289</b>	<b>1.294</b>	<b>1.301</b>	<b>1.308</b>	<b>1.316</b>	<b>1.323</b>	<b>1.287</b>	<b>1.312</b>	
Percentage Change from Prior Year . . . . .	High Mid Low	<b>1.7</b>	<b>2.0</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>	<b>2.1</b>	<b>1.9</b>	<b>2.0</b>	<b>1.8</b>	<b>1.8</b>	<b>2.0</b>	<b>2.2</b>	<b>2.1</b>	<b>2.0</b>	
Real Disposable Personal Income (billion 1987 Dollars) . . . . .	High Mid Low	<b>3779</b>	<b>3812</b>	<b>3841</b>	<b>3910</b>	<b>3951</b>	<b>3973</b>	<b>4007</b>	<b>4061</b>	<b>4109</b>	<b>4134</b>	<b>4156</b>	<b>4189</b>	<b>3998</b>	<b>4147</b>	
Percentage Change from Prior Year . . . . .	High Mid Low	<b>3.3</b>	<b>3.0</b>	<b>3.6</b>	<b>4.3</b>	<b>4.5</b>	<b>4.2</b>	<b>4.3</b>	<b>3.9</b>	<b>4.0</b>	<b>4.1</b>	<b>3.7</b>	<b>3.1</b>	<b>4.2</b>	<b>3.7</b>	
Manufacturing Production (Index, 1987=1.000) . . . . .	High Mid Low	<b>1.168</b>	<b>1.189</b>	<b>1.205</b>	<b>1.226</b>	<b>1.245</b>	<b>1.259</b>	<b>1.278</b>	<b>1.294</b>	<b>1.309</b>	<b>1.317</b>	<b>1.329</b>	<b>1.346</b>	<b>1.269</b>	<b>1.325</b>	
Percentage Change from Prior Year . . . . .	High Mid Low	<b>4.4</b>	<b>5.9</b>	<b>6.6</b>	<b>6.8</b>	<b>6.6</b>	<b>5.9</b>	<b>6.0</b>	<b>5.5</b>	<b>5.1</b>	<b>4.6</b>	<b>4.0</b>	<b>4.0</b>	<b>6.0</b>	<b>4.4</b>	
OECD Economic Growth (percent) <sup>b</sup> . . . . .														<b>3.1</b>	<b>2.9</b>	<b>2.6</b>
<b>Weather <sup>c</sup></b>																
Heating Degree-Days																
U.S. . . . .	<b>2438</b>	<b>488</b>	<b>97</b>	<b>1439</b>	<b>2109</b>	<b>524</b>	<b>89</b>	<b>1636</b>	<b>2354</b>	<b>524</b>	<b>89</b>	<b>1636</b>	<b>4462</b>	<b>4358</b>	<b>4603</b>	
New England . . . . .	<b>3631</b>	<b>860</b>	<b>206</b>	<b>1980</b>	<b>2997</b>	<b>915</b>	<b>171</b>	<b>2269</b>	<b>3306</b>	<b>915</b>	<b>171</b>	<b>2269</b>	<b>6677</b>	<b>6351</b>	<b>6660</b>	
Middle Atlantic . . . . .	<b>3357</b>	<b>674</b>	<b>134</b>	<b>1724</b>	<b>2721</b>	<b>716</b>	<b>105</b>	<b>2026</b>	<b>3028</b>	<b>716</b>	<b>105</b>	<b>2026</b>	<b>5889</b>	<b>5568</b>	<b>5875</b>	
U.S. Gas-Weighted . . . . .	<b>2496</b>	<b>520</b>	<b>116</b>	<b>1527</b>	<b>2164</b>	<b>539</b>	<b>81</b>	<b>1686</b>	<b>2480</b>	<b>539</b>	<b>81</b>	<b>1686</b>	<b>4659</b>	<b>4470</b>	<b>4786</b>	
Cooling Degree-Days (U.S.) . . . . .	<b>34</b>	<b>375</b>	<b>732</b>	<b>69</b>	<b>21</b>	<b>334</b>	<b>758</b>	<b>72</b>	<b>30</b>	<b>334</b>	<b>758</b>	<b>72</b>	<b>1210</b>	<b>1184</b>	<b>1193</b>	

<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. These mid-case macroeconomic projections are then modified by the low and high world oil price cases (as shown in Table 4) and by various explicit economic assumptions, with the low world oil price case applied to the high macroeconomic case, and the high world oil price case applied to the low macroeconomic 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. Mexico is also a member, but data is not available.

<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. Normal is used for the forecast period and is defined as the average number of degree days between 1961 and 1990 for a given period.

Note: Historical data are printed in bold, forecasts are in italic.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, February 1995; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Monthly State, Regional, and National Heating/Cooling Degree Days Weighted by Population*; Federal Reserve System, *Statistical Release G.17(419)*, February 1995. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0395.

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

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Macroeconomic *</b>															
Real Fixed Investment (billion 1987 dollars) .....	873	892	910	937	952	963	974	981	987	991	998	1006	903	967	995
Real Exchange Rate (index) .....	1.290	1.261	1.211	1.202	1.200	1.191	1.196	1.194	1.193	1.192	1.190	1.188	1.241	1.195	1.191
Business Inventory Change (billion 1987 dollars) .....	9.9	0.7	4.5	2.5	11.3	14.7	7.6	0.3	-5.4	-4.0	0.6	2.2	4.4	8.5	-1.7
Wholesale Price Index (index, 1980-1984=1.000) .....	1.197	1.200	1.208	1.215	1.233	1.243	1.250	1.259	1.264	1.267	1.272	1.279	1.205	1.246	1.270
Consumer Price Index (index, 1980-1984=1.000) .....	1.468	1.477	1.490	1.498	1.510	1.523	1.535	1.547	1.560	1.571	1.583	1.595	1.483	1.529	1.577
Petroleum Product Price Index (index, 1980-1984=1.000) .....	0.550	0.581	0.637	0.598	0.592	0.624	0.613	0.617	0.659	0.648	0.629	0.634	0.592	0.612	0.642
Non-Farm Employment (millions) .....	112.0	113.0	113.9	114.8	115.4	115.9	116.4	116.9	117.3	117.8	118.2	118.7	113.4	116.1	118.0
Commercial Employment (millions) .....	74.5	75.4	76.1	76.8	77.4	77.8	78.3	78.8	79.3	79.7	80.2	80.6	75.7	78.1	79.9
Total Industrial Production (index, 1987=1.000) .....	1.156	1.174	1.188	1.204	1.222	1.226	1.225	1.224	1.227	1.233	1.243	1.258	1.181	1.224	1.240
Housing Stock (millions) .....	107.4	107.8	108.1	108.5	108.9	109.2	109.6	109.9	110.2	110.5	110.8	111.1	108.0	109.4	110.7
<b>Miscellaneous</b>															
Gas Weighted Industrial Production (index, 1987=1.000) .....	1.136	1.157	1.161	1.180	1.196	1.196	1.191	1.189	1.186	1.189	1.196	1.212	1.159	1.193	1.196
Vehicle Miles Traveled (million miles per day) .....	5850	6710	6801	6354	6083	6891	7002	6462	6211	7060	7187	6634	6431	6612	6774
Vehicle Fuel Efficiency (miles per gallon) .....	19.38	20.80	20.69	19.79	19.48	21.03	20.92	20.00	19.76	21.21	21.09	20.18	20.19	20.38	20.58
Real Vehicle Fuel Cost (cents per mile) .....	3.92	3.73	3.98	4.09	4.01	3.84	3.90	4.01	4.00	3.81	3.85	3.97	3.93	3.94	3.91
Air Travel Capacity (available ton-miles) .....	340.7	362.4	382.7	366.4	364.5	380.4	400.0	382.3	381.7	393.8	413.3	395.6	363.2	381.9	396.1
Aircraft Utilization (revenue ton-miles) .....	186.3	205.8	222.8	205.1	198.8	216.7	234.0	210.0	201.1	219.8	237.8	213.6	205.1	215.0	218.1
Aircraft Yield (cents per ton-mile) .....	13.90	13.33	11.81	12.80	13.30	12.56	11.57	12.65	13.50	12.67	11.65	12.72	12.96	12.52	12.63
Residential Natural Gas Customers (millions) .....	53.21	52.93	52.59	53.12	53.82	53.63	53.42	53.97	54.73	54.58	54.32	54.90	52.96	53.71	54.63
Commercial Natural Gas Customers (millions) .....	4.52	4.47	4.40	4.50	4.63	4.58	4.51	4.60	4.73	4.67	4.60	4.70	4.47	4.58	4.68
Raw Steel Production (millions) .....	0.27	0.27	0.26	0.28	0.28	0.27	0.26	0.28	0.26	0.26	0.25	0.26	97.93	99.28	94.39

\* 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. These mid-case macroeconomic projections are then modified by the low and high world price cases (as shown in Table 4) and by various explicit economic assumptions, with low world oil price case applied to the high macroeconomic case, and high world oil price case applied to the low macroeconomic case.

Note: Historical data are printed in bold, forecasts are in italic.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, February 1995; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Monthly State, Regional, and National Heating/Cooling Degree Days Weighted by Population*; Federal Reserve System, *Statistical Release G.17(419)*, February 1995. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0395.

**Table 3. International Petroleum Supply and Demand: Mid World Oil Price Case**  
 (Million Barrels per Day, Except Closing Stocks)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Demand *</b>															
OECD															
U.S. (50 States) .....	<b>17.8</b>	<b>17.4</b>	<b>17.7</b>	<b>17.8</b>	<b>17.4</b>	<b>17.6</b>	<b>18.0</b>	<b>18.2</b>	<b>18.2</b>	<b>17.8</b>	<b>18.3</b>	<b>18.7</b>	<b>17.7</b>	<b>17.8</b>	<b>18.3</b>
U.S. Territories .....	<b>0.2</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>	<b>0.3</b>										
Canada .....	<b>1.7</b>	<b>1.6</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>							
Europe <sup>b</sup> .....	<b>13.6</b>	<b>13.3</b>	<b>13.5</b>	<b>14.0</b>	<b>13.8</b>	<b>13.5</b>	<b>13.7</b>	<b>14.1</b>	<b>14.0</b>	<b>13.6</b>	<b>13.8</b>	<b>14.3</b>	<b>13.6</b>	<b>13.8</b>	<b>13.9</b>
Japan .....	<b>6.2</b>	<b>5.1</b>	<b>5.5</b>	<b>5.8</b>	<b>6.3</b>	<b>5.1</b>	<b>5.6</b>	<b>6.1</b>	<b>6.3</b>	<b>5.2</b>	<b>5.7</b>	<b>6.2</b>	<b>5.7</b>	<b>5.8</b>	<b>5.8</b>
Australia and New Zealand .....	<b>0.9</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.0</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>	<b>1.0</b>	<b>0.9</b>	<b>0.9</b>	<b>1.0</b>
Total OECD .....	<b>40.5</b>	<b>38.7</b>	<b>39.6</b>	<b>40.6</b>	<b>40.4</b>	<b>39.1</b>	<b>40.2</b>	<b>41.3</b>	<b>41.4</b>	<b>39.6</b>	<b>40.8</b>	<b>42.1</b>	<b>39.8</b>	<b>40.3</b>	<b>41.0</b>
Non-OECD															
Former Soviet Union .....	<b>5.3</b>	<b>4.5</b>	<b>4.7</b>	<b>5.1</b>	<b>4.8</b>	<b>4.4</b>	<b>4.2</b>	<b>4.6</b>	<b>4.3</b>	<b>4.0</b>	<b>3.9</b>	<b>4.3</b>	<b>4.9</b>	<b>4.5</b>	<b>4.1</b>
Europe .....	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>
China .....	<b>3.1</b>	<b>3.2</b>	<b>3.4</b>	<b>3.5</b>	<b>3.3</b>	<b>3.4</b>	<b>3.6</b>	<b>3.7</b>	<b>3.5</b>	<b>3.6</b>	<b>3.7</b>	<b>3.9</b>	<b>3.3</b>	<b>3.5</b>	<b>3.7</b>
Other Asia .....	<b>6.8</b>	<b>6.6</b>	<b>6.5</b>	<b>7.3</b>	<b>7.2</b>	<b>6.9</b>	<b>6.8</b>	<b>7.6</b>	<b>7.6</b>	<b>7.3</b>	<b>7.2</b>	<b>8.1</b>	<b>6.8</b>	<b>7.1</b>	<b>7.5</b>
Other Non-OECD .....	<b>11.3</b>	<b>11.4</b>	<b>11.4</b>	<b>11.7</b>	<b>11.6</b>	<b>11.7</b>	<b>11.8</b>	<b>12.0</b>	<b>11.9</b>	<b>12.0</b>	<b>12.1</b>	<b>12.3</b>	<b>11.4</b>	<b>11.8</b>	<b>12.1</b>
Total Non-OECD .....	<b>27.8</b>	<b>26.9</b>	<b>27.1</b>	<b>28.7</b>	<b>28.2</b>	<b>27.7</b>	<b>27.5</b>	<b>29.2</b>	<b>28.7</b>	<b>28.2</b>	<b>28.1</b>	<b>29.8</b>	<b>27.6</b>	<b>28.1</b>	<b>28.7</b>
Total World Demand .....	<b>68.3</b>	<b>65.5</b>	<b>66.7</b>	<b>69.3</b>	<b>68.6</b>	<b>66.7</b>	<b>67.8</b>	<b>70.5</b>	<b>70.1</b>	<b>67.8</b>	<b>69.0</b>	<b>72.0</b>	<b>67.5</b>	<b>68.4</b>	<b>69.7</b>
<b>Supply <sup>c</sup></b>															
OECD															
U.S. (50 States) .....	<b>9.4</b>	<b>9.3</b>	<b>9.3</b>	<b>9.5</b>	<b>9.4</b>	<b>9.2</b>	<b>9.2</b>	<b>9.3</b>	<b>9.2</b>	<b>9.0</b>	<b>9.0</b>	<b>9.0</b>	<b>9.4</b>	<b>9.3</b>	<b>9.1</b>
Canada .....	<b>2.3</b>	<b>2.3</b>	<b>2.4</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>2.3</b>	<b>2.3</b>						
North Sea <sup>d</sup> .....	<b>5.2</b>	<b>5.3</b>	<b>5.2</b>	<b>5.8</b>	<b>5.6</b>	<b>5.4</b>	<b>5.5</b>	<b>5.9</b>	<b>5.9</b>	<b>5.7</b>	<b>5.8</b>	<b>6.2</b>	<b>5.4</b>	<b>5.6</b>	<b>5.9</b>
Other OECD .....	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>												
Total OECD .....	<b>18.3</b>	<b>18.3</b>	<b>18.4</b>	<b>19.0</b>	<b>18.8</b>	<b>18.4</b>	<b>18.5</b>	<b>19.0</b>	<b>18.9</b>	<b>18.5</b>	<b>18.6</b>	<b>19.1</b>	<b>18.5</b>	<b>18.7</b>	<b>18.8</b>
Non-OECD															
OPEC .....	<b>27.3</b>	<b>27.3</b>	<b>27.3</b>	<b>27.5</b>	<b>27.5</b>	<b>27.5</b>	<b>27.7</b>	<b>28.1</b>	<b>28.4</b>	<b>28.5</b>	<b>28.8</b>	<b>29.3</b>	<b>27.4</b>	<b>27.7</b>	<b>28.8</b>
Former Soviet Union .....	<b>7.2</b>	<b>7.0</b>	<b>6.9</b>	<b>6.9</b>	<b>6.6</b>	<b>6.4</b>	<b>6.4</b>	<b>6.5</b>	<b>6.2</b>	<b>6.0</b>	<b>6.1</b>	<b>6.2</b>	<b>7.0</b>	<b>6.5</b>	<b>6.1</b>
China .....	<b>2.9</b>	<b>2.9</b>	<b>2.9</b>	<b>3.0</b>	<b>2.9</b>	<b>3.0</b>	<b>3.0</b>								
Mexico .....	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	<b>3.2</b>	<b>3.3</b>	<b>3.2</b>	<b>3.3</b>	<b>3.3</b>							
Other Non-OECD .....	<b>8.5</b>	<b>8.6</b>	<b>8.8</b>	<b>8.9</b>	<b>8.7</b>	<b>8.8</b>	<b>9.0</b>	<b>9.1</b>	<b>9.0</b>	<b>9.1</b>	<b>9.3</b>	<b>9.4</b>	<b>8.7</b>	<b>8.9</b>	<b>9.2</b>
Total Non-OECD .....	<b>49.1</b>	<b>49.0</b>	<b>49.1</b>	<b>49.5</b>	<b>49.1</b>	<b>48.9</b>	<b>49.4</b>	<b>50.0</b>	<b>49.9</b>	<b>49.9</b>	<b>50.6</b>	<b>51.2</b>	<b>49.2</b>	<b>49.4</b>	<b>50.4</b>
Total World Supply .....	<b>67.4</b>	<b>67.3</b>	<b>67.5</b>	<b>68.5</b>	<b>67.9</b>	<b>67.3</b>	<b>67.9</b>	<b>69.0</b>	<b>68.8</b>	<b>68.4</b>	<b>69.2</b>	<b>70.3</b>	<b>67.7</b>	<b>68.0</b>	<b>69.2</b>
<b>Stock Changes and Statistical Discrepancy</b>															
Net Stock Withdrawals or Additions (-)															
U.S. (50 States including SPR) .....	<b>0.8</b>	<b>-0.4</b>	<b>-0.7</b>	<b>0.3</b>	<b>0.5</b>	<b>-0.5</b>	<b>-0.4</b>	<b>0.2</b>	<b>0.7</b>	<b>-0.6</b>	<b>-0.3</b>	<b>0.2</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.0</b>
Other .....	<b>0.8</b>	<b>-1.3</b>	<b>-0.3</b>	<b>0.1</b>	<b>-0.3</b>	<b>-0.5</b>	<b>-0.2</b>	<b>0.8</b>	<b>0.1</b>	<b>-0.6</b>	<b>-0.5</b>	<b>0.9</b>	<b>-0.2</b>	<b>-0.1</b>	<b>0.0</b>
Total Stock Withdrawals .....	<b>1.6</b>	<b>-1.7</b>	<b>-1.0</b>	<b>0.4</b>	<b>0.2</b>	<b>-1.0</b>	<b>-0.7</b>	<b>1.0</b>	<b>0.8</b>	<b>-1.2</b>	<b>-0.8</b>	<b>1.2</b>	<b>-0.2</b>	<b>-0.1</b>	<b>0.0</b>
Statistical Discrepancy .....	<b>-0.6</b>	<b>0.0</b>	<b>0.2</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.0</b>	<b>0.5</b>	<b>0.5</b>
Closing Stocks (billion barrels) <sup>e</sup> .....	<b>5.5</b>	<b>5.7</b>	<b>5.8</b>	<b>5.7</b>	<b>5.7</b>	<b>5.8</b>	<b>5.9</b>	<b>5.8</b>	<b>5.7</b>	<b>5.8</b>	<b>5.9</b>	<b>5.8</b>	<b>5.7</b>	<b>5.8</b>	<b>5.8</b>
Non-OPEC Supply .....	<b>40.0</b>	<b>40.0</b>	<b>40.2</b>	<b>41.0</b>	<b>40.4</b>	<b>39.9</b>	<b>40.2</b>	<b>40.9</b>	<b>40.4</b>	<b>39.9</b>	<b>40.4</b>	<b>41.0</b>	<b>40.3</b>	<b>40.3</b>	<b>40.4</b>
Net Exports from Former Soviet Union .....	<b>1.9</b>	<b>2.5</b>	<b>2.2</b>	<b>1.8</b>	<b>1.8</b>	<b>2.0</b>	<b>2.2</b>	<b>1.9</b>	<b>1.9</b>	<b>2.0</b>	<b>2.2</b>	<b>1.9</b>	<b>2.1</b>	<b>2.0</b>	<b>2.0</b>

<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 eastern 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.

<sup>e</sup> Excludes stocks held in the Former CPEs.

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

Mexico is also a member, but data is not available.

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

SPR: Strategic Petroleum Reserve

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

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

Sources: Energy Information Administration, *International Petroleum Statistics Report*, DOE/EIA-0520(95/03); and *International Energy Annual 1992*, DOE/EIA-0219(92); Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database, March 1995.

**Table 4. U.S. Energy Prices**  
(Nominal Dollars)

	Price Case	1994				1995				1996				Year		
		1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Imported Crude Oil *</b> (dollars per barrel) . . . . .	Low					14.74	13.95	13.80	13.57	13.75	13.75	13.83		14.74	13.73	
	Mid	13.00	15.80	16.71	16.15	16.75	16.75	16.75	17.00	17.00	17.25	17.25	17.50	15.51	16.81	17.26
	High					18.76	19.55	20.20	20.43	20.75	20.75	21.17		18.86	20.78	
<b>Natural Gas Wellhead</b> (dollars per thousand cubic feet) . . . . .	Low					1.45	1.52	1.78	1.65	1.46	1.63	1.88		1.58	1.65	
	Mid	2.08	1.87	1.72	1.63	1.54	1.55	1.77	2.12	1.94	1.74	1.89	2.23	1.82	1.75	1.95
	High					1.74	2.12	2.52	2.41	2.21	2.32	2.65		1.99	2.40	
<b>Petroleum Products</b>																
<b>Gasoline Retail <sup>b</sup></b> (dollars per gallon) . . . . .	Low					1.20	1.19	1.17	1.16	1.20	1.21	1.20		1.19	1.19	
	Mid	1.11	1.15	1.23	1.21	1.18	1.23	1.25	1.24	1.23	1.27	1.28	1.28	1.17	1.23	1.27
	High					1.27	1.32	1.32	1.32	1.36	1.37	1.37		1.27	1.35	
<b>No. 2 Diesel Oil, Retail</b> (dollars per gallon) . . . . .	Low					1.07	1.07	1.13	1.12	1.12	1.13	1.18		1.09	1.14	
	Mid	1.11	1.10	1.12	1.12	1.09	1.11	1.14	1.20	1.20	1.20	1.20	1.26	1.11	1.14	1.22
	High					1.16	1.20	1.27	1.28	1.28	1.28	1.34		1.18	1.30	
<b>No. 2 Heating Oil, Wholesale</b> (dollars per gallon) . . . . .	Low					0.44	0.44	0.50	0.48	0.49	0.49	0.54		0.47	0.50	
	Mid	0.52	0.49	0.51	0.50	0.49	0.49	0.51	0.57	0.56	0.57	0.57	0.61	0.51	0.52	0.58
	High					0.53	0.57	0.64	0.63	0.65	0.64	0.69		0.56	0.65	
<b>No. 2 Heating Oil, Retail</b> (dollars per gallon) . . . . .	Low					0.84	0.80	0.88	0.91	0.89	0.85	0.93		0.86	0.91	
	Mid	0.91	0.87	0.83	0.86	0.88	0.87	0.86	0.95	0.99	0.97	0.93	1.00	0.88	0.90	0.98
	High					0.91	0.92	1.02	1.06	1.04	1.01	1.08		0.93	1.06	
<b>No. 6 Residual Fuel Oil, Retail <sup>c</sup></b> (dollars per barrel) . . . . .	Low					12.86	11.65	12.18	12.45	11.03	11.06	12.28		12.98	11.78	
	Mid	14.38	13.84	15.83	15.32	15.66	14.52	13.99	14.89	16.02	14.64	14.63	15.81	14.78	14.76	15.33
	High					15.94	16.01	17.21	18.51	17.18	17.17	18.29		16.25	17.83	
<b>Electric Utility Fuels</b>																
<b>Coal</b> (dollars per million Btu) . . . . .	Low					1.34	1.32	1.33	1.33	1.35	1.35	1.35		1.33	1.34	
	Mid	1.36	1.38	1.35	1.33	1.33	1.36	1.37	1.37	1.37	1.39	1.38	1.39	1.36	1.36	1.38
	High					1.41	1.42	1.42	1.44	1.45	1.46	1.46		1.41	1.45	
<b>Heavy Fuel Oil <sup>d</sup></b> (dollars per million Btu) . . . . .	Low					2.20	2.05	2.20	2.15	1.91	1.95	2.22		2.27	2.07	
	Mid	2.39	2.26	2.54	2.59	2.64	2.46	2.42	2.65	2.72	2.48	2.52	2.80	2.42	2.54	2.63
	High					2.68	2.74	3.02	3.11	2.88	2.92	3.20		2.76	3.02	
<b>Natural Gas</b> (dollars per million Btu) . . . . .	Low					1.93	1.97	2.30	2.26	1.98	2.10	2.41		2.06	2.16	
	Mid	2.65	2.31	2.10	2.04	2.10	2.04	2.20	2.61	2.56	2.26	2.35	2.73	2.23	2.24	2.45
	High					2.22	2.52	2.97	3.01	2.69	2.74	3.12		2.47	2.87	
<b>Other Residential</b>																
<b>Natural Gas</b> (dollars per thousand cubic feet) . . . . .	Low					6.62	7.83	6.24	6.09	6.64	7.93	6.39		6.32	6.43	
	Mid	6.08	6.89	8.03	6.23	5.96	6.67	7.95	6.42	6.27	6.85	8.16	6.58	6.40	6.40	6.63
	High					6.72	8.23	6.73	6.60	7.26	8.67	6.94		6.55	7.00	
<b>Electricity</b> (cents per kilowatthour) . . . . .	Low					8.6	8.9	8.4	8.1	8.6	8.9	8.5		8.5	8.5	
	Mid	7.9	8.6	8.9	8.3	8.1	8.8	9.0	8.6	8.3	8.9	9.2	8.8	8.4	8.6	8.8
	High					9.4	9.8	9.3	9.2	9.8	10.2	9.6		9.3	9.7	

<sup>a</sup> Cost of imported crude oil to U.S.

<sup>b</sup> Average for all grades and services.

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

<sup>d</sup> Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first quarter of 1995. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. Price cases are derived by simulating all energy product price models under the assumptions of the three world oil price cases using the mid macroeconomic case and normal weather assumptions for all simulations. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); and *Petroleum Marketing Monthly*, DOE/EIA-0380(95/03).

**Table 5. U.S. Petroleum Supply and Demand: Low World Oil Price Case**  
 (Million Barrels per Day, Except Closing Stocks)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup>	6.75	6.62	6.54	6.60	6.59	6.33	6.17	6.14	6.09	5.93	5.82	5.78	<b>6.63</b>	6.31	5.91
Alaska	1.61	1.53	1.50	1.59	1.57	1.45	1.39	1.42	1.41	1.34	1.29	1.30	<b>1.56</b>	1.46	1.33
Lower 48	5.14	5.09	5.04	5.02	5.02	4.88	4.78	4.72	4.69	4.60	4.53	4.48	<b>5.07</b>	4.85	4.57
Net Imports (including SPR) <sup>b</sup>	6.13	7.04	7.63	6.90	6.62	7.47	7.86	7.46	7.26	7.89	8.21	8.20	<b>6.93</b>	7.36	7.89
Gross Imports (excluding SPR)	6.21	7.15	7.71	7.02	6.73	7.57	7.94	7.56	7.37	8.00	8.29	8.30	<b>7.03</b>	7.46	7.99
SPR Imports	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.01</b>	0.00	0.00
Exports	0.09	0.11	0.07	0.12	0.11	0.11	0.08	0.10	0.12	0.11	0.08	0.10	<b>0.10</b>	0.10	0.10
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<b>0.00</b>	0.01	0.01
SPR Stock Withdrawn or Added (-)	-0.04	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	<b>-0.01</b>	-0.01	-0.01
Other Stock Withdrawn or Added (-)	-0.02	0.17	-0.09	-0.08	-0.01	0.01	-0.01	0.03	0.00	-0.02	-0.01	0.03	<b>0.00</b>	0.01	0.00
Product Supplied and Losses	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	<b>-0.01</b>	-0.01	-0.01
Unaccounted-for Crude Oil	0.33	0.34	0.29	0.41	0.36	0.27	0.27	0.26	0.26	0.27	0.27	0.27	<b>0.34</b>	0.29	0.27
Total Crude Oil Supply	13.13	14.15	14.37	13.82	13.55	14.07	14.28	13.89	13.60	14.06	14.28	14.27	<b>13.87</b>	13.95	14.05
<b>Other Supply</b>															
NGL Production	1.65	1.71	1.77	1.78	1.74	1.70	1.71	1.74	1.72	1.71	1.71	1.72	<b>1.73</b>	1.72	1.72
Other Hydrocarbon and Alcohol Inputs	0.26	0.21	0.26	0.29	0.32	0.28	0.30	0.36	0.32	0.29	0.31	0.36	<b>0.25</b>	0.31	0.32
Crude Oil Product Supplied	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<b>0.01</b>	0.01	0.01
Processing Gain	0.70	0.76	0.77	0.82	0.78	0.78	0.79	0.78	0.75	0.78	0.80	0.80	<b>0.76</b>	0.78	0.78
Net Product Imports <sup>c</sup>	1.26	1.19	1.08	0.71	0.51	1.34	1.44	1.28	1.23	1.68	1.66	1.92	<b>1.06</b>	1.14	1.62
Gross Product Imports <sup>c</sup>	2.08	1.96	1.90	1.66	1.57	2.29	2.31	2.25	2.18	2.58	2.54	2.89	<b>1.90</b>	2.11	2.55
Product Exports	0.83	0.77	0.82	0.95	1.06	0.96	0.88	0.97	0.94	0.90	0.88	0.98	<b>0.84</b>	0.97	0.92
Product Stock Withdrawn or Added (-) <sup>d</sup>	0.83	-0.59	-0.58	0.34	0.53	-0.54	-0.42	0.22	0.68	-0.55	-0.24	0.22	<b>0.00</b>	-0.05	0.03
Total Supply	17.84	17.45	17.69	17.76	17.42	17.64	18.11	18.28	18.31	17.98	18.53	19.29	<b>17.68</b>	17.86	18.53
<b>Demand</b>															
Motor Gasoline	7.19	7.68	7.83	7.64	7.43	7.83	8.01	7.74	7.54	7.98	8.17	7.88	<b>7.59</b>	7.76	7.89
Jet Fuel	1.51	1.53	1.54	1.54	1.53	1.56	1.64	1.62	1.61	1.59	1.66	1.65	<b>1.53</b>	1.59	1.63
Distillate Fuel Oil	3.53	3.03	2.96	3.15	3.38	3.06	3.01	3.26	3.49	3.11	3.06	3.48	<b>3.17</b>	3.18	3.28
Residual Fuel Oil	1.24	0.98	0.88	0.91	0.89	0.97	0.96	1.12	1.26	1.05	1.08	1.44	<b>1.00</b>	0.99	1.21
Other Oils <sup>e</sup>	4.35	4.22	4.48	4.53	4.19	4.21	4.49	4.53	4.41	4.24	4.56	4.85	<b>4.40</b>	4.36	4.52
Total Demand	17.82	17.45	17.69	17.76	17.42	17.64	18.11	18.28	18.31	17.98	18.53	19.29	<b>17.68</b>	17.86	18.53
Total Petroleum Net Imports	7.38	8.23	8.72	7.61	7.13	8.80	9.30	8.74	8.49	9.57	9.87	10.11	<b>7.99</b>	8.50	9.51
<b>Closing Stocks (million barrels)</b>															
Crude Oil (excluding SPR) <sup>f</sup>	338	322	330	337	338	337	338	335	335	337	338	335	<b>337</b>	335	335
Total Motor Gasoline	214	212	205	215	212	211	209	223	225	223	209	222	<b>215</b>	223	222
Finished Motor Gasoline	176	177	169	175	170	174	170	183	185	185	170	183	<b>175</b>	183	183
Blending Components	38	35	36	40	43	37	39	39	40	38	39	39	<b>40</b>	39	39
Jet Fuel	38	42	45	47	39	41	44	46	46	46	46	48	<b>47</b>	46	48
Distillate Fuel Oil	100	120	145	145	119	118	139	143	98	111	135	141	<b>145</b>	143	141
Residual Fuel Oil	41	39	44	42	36	40	44	47	40	43	43	45	<b>42</b>	47	45
Other Oils <sup>g</sup>	258	291	317	276	270	316	330	284	273	310	322	278	<b>276</b>	284	278
Total Stocks (excluding SPR)	987	1025	1086	1062	1015	1063	1102	1079	1017	1069	1092	1069	<b>1062</b>	1079	1069
Crude Oil in SPR	590	592	592	592	592	593	594	595	596	598	599	600	<b>592</b>	595	600
Total Stocks (including SPR)	1578	1617	1677	1654	1607	1656	1697	1674	1614	1667	1691	1669	<b>1654</b>	1674	1669

<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 an estimate of minor product stock change based on monthly data.

<sup>e</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

<sup>f</sup> Includes crude oil in transit to refineries.

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

Sources: Historical data: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109(93/01-95/03); and *Weekly Petroleum Status Report*, DOE/EIA-0208(various issues).

**Table 6. U.S. Petroleum Supply and Demand: Mid World Oil Price Case**  
 (Million Barrels per Day, Except Closing Stocks)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup>	6.75	6.62	6.54	6.60	6.59	6.49	6.38	6.39	6.38	6.25	6.17	6.15	6.63	6.46	6.24
Alaska	1.61	1.53	1.50	1.59	1.57	1.49	1.43	1.46	1.45	1.38	1.34	1.34	1.56	1.49	1.38
Lower 48	5.14	5.09	5.04	5.02	5.02	5.00	4.95	4.93	4.93	4.87	4.83	4.81	5.07	4.97	4.86
Net Imports (including SPR) <sup>b</sup>	6.13	7.04	7.63	6.90	6.62	7.30	7.65	7.14	6.89	7.52	7.86	7.66	6.93	7.18	7.48
Gross Imports (excluding SPR)	6.21	7.15	7.71	7.02	6.73	7.41	7.74	7.25	7.00	7.63	7.95	7.76	7.03	7.28	7.59
SPR Imports	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Exports	0.09	0.11	0.07	0.12	0.11	0.11	0.08	0.10	0.12	0.11	0.08	0.10	0.10	0.10	0.10
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
SPR Stock Withdrawn or Added (-)	-0.04	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Other Stock Withdrawn or Added (-)	-0.02	0.17	-0.09	-0.08	-0.01	0.01	-0.01	0.03	0.00	-0.02	-0.01	0.03	0.00	0.01	0.00
Product Supplied and Losses	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Unaccounted-for Crude Oil	0.33	0.34	0.29	0.41	0.36	0.27	0.27	0.26	0.26	0.27	0.27	0.27	0.34	0.29	0.27
Total Crude Oil Supply	13.13	14.15	14.37	13.82	13.55	14.06	14.28	13.82	13.51	14.00	14.28	14.10	13.87	13.93	13.98
Other Supply															
NGL Production	1.65	1.71	1.77	1.78	1.74	1.70	1.71	1.74	1.73	1.71	1.71	1.74	1.73	1.72	1.72
Other Hydrocarbon and Alcohol Inputs	0.26	0.21	0.26	0.29	0.32	0.28	0.30	0.36	0.32	0.29	0.31	0.36	0.25	0.31	0.32
Crude Oil Product Supplied	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Processing Gain	0.70	0.76	0.77	0.82	0.78	0.78	0.79	0.77	0.75	0.78	0.80	0.79	0.76	0.78	0.78
Net Product Imports <sup>c</sup>	1.26	1.19	1.08	0.71	0.51	1.30	1.34	1.23	1.20	1.60	1.46	1.45	1.06	1.10	1.43
Gross Product Imports <sup>d</sup>	2.08	1.96	1.90	1.66	1.57	2.25	2.22	2.20	2.14	2.50	2.33	2.43	1.90	2.06	2.35
Product Exports	0.83	0.77	0.82	0.95	1.06	0.96	0.88	0.97	0.94	0.90	0.88	0.98	0.84	0.97	0.92
Product Stock Withdrawn or Added (-) <sup>e</sup>	0.83	-0.59	-0.58	0.34	0.53	-0.54	-0.42	0.22	0.68	-0.56	-0.24	0.21	0.00	-0.05	0.02
Total Supply	17.84	17.45	17.69	17.76	17.42	17.58	18.01	18.15	18.19	17.84	18.32	18.66	17.68	17.79	18.25
Demand															
Motor Gasoline	7.19	7.68	7.83	7.64	7.43	7.80	7.97	7.69	7.48	7.92	8.11	7.83	7.59	7.73	7.84
Jet Fuel	1.51	1.53	1.54	1.54	1.53	1.56	1.64	1.62	1.61	1.59	1.66	1.64	1.53	1.59	1.62
Distillate Fuel Oil	3.53	3.03	2.96	3.15	3.38	3.06	3.00	3.24	3.48	3.10	3.03	3.34	3.17	3.17	3.24
Residual Fuel Oil	1.24	0.98	0.88	0.91	0.89	0.95	0.92	1.08	1.21	0.99	0.99	1.18	1.00	0.96	1.09
Other Oils <sup>f</sup>	4.35	4.22	4.48	4.53	4.19	4.21	4.49	4.52	4.40	4.23	4.54	4.67	4.40	4.35	4.46
Total Demand	17.82	17.45	17.69	17.76	17.42	17.58	18.01	18.15	18.19	17.84	18.32	18.66	17.68	17.79	18.25
Total Petroleum Net Imports	7.38	8.23	8.72	7.61	7.13	8.60	8.99	8.37	8.08	9.12	9.32	9.11	7.99	8.28	8.91
Closing Stocks (million barrels)															
Crude Oil (excluding SPR) <sup>g</sup>	338	322	330	337	338	337	338	335	335	337	338	335	337	335	335
Total Motor Gasoline	214	212	205	215	212	211	209	223	225	223	209	222	215	223	222
Finished Motor Gasoline	176	177	169	175	170	174	170	183	185	185	170	183	175	183	183
Blending Components	38	35	36	40	43	37	39	39	40	38	39	39	40	39	39
Jet Fuel	38	42	45	47	39	41	44	46	46	46	46	48	47	46	48
Distillate Fuel Oil	100	120	145	145	119	118	139	144	98	111	136	142	145	144	142
Residual Fuel Oil	41	39	44	42	36	40	44	47	40	43	43	45	42	47	45
Other Oils <sup>g</sup>	258	291	317	276	270	316	330	285	273	311	323	280	276	285	280
Total Stocks (excluding SPR)	987	1025	1086	1062	1015	1063	1103	1080	1018	1071	1094	1072	1062	1080	1072
Crude Oil in SPR	590	592	592	592	592	593	594	595	596	598	599	600	592	595	600
Total Stocks (including SPR)	1578	1617	1677	1654	1607	1656	1697	1675	1615	1669	1693	1672	1654	1675	1672

<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 an estimate of minor product stock change based on monthly data.

<sup>e</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

<sup>f</sup> Includes crude oil in transit to refineries.

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

Sources: Historical data: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109(93/01-95/03); and *Weekly Petroleum Status Report*, DOE/EIA-0208(various issues).

**Table 7. U.S. Petroleum Supply and Demand: High World Oil Price Case**  
 (Million Barrels per Day, Except Closing Stocks)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Crude Oil Supply															
Domestic Production <sup>a</sup>	<b>6.75</b>	<b>6.62</b>	<b>6.54</b>	<b>6.60</b>	6.59	6.60	6.52	6.56	6.58	6.49	6.43	6.44	<b>6.63</b>	<b>6.57</b>	<b>6.48</b>
Alaska	<b>1.61</b>	<b>1.53</b>	<b>1.50</b>	<b>1.59</b>	1.57	1.52	1.46	1.49	1.49	1.42	1.37	1.37	<b>1.56</b>	<b>1.51</b>	<b>1.41</b>
Lower 48	<b>5.14</b>	<b>5.09</b>	<b>5.04</b>	<b>5.02</b>	5.02	5.08	5.06	5.06	5.09	5.07	5.06	5.07	<b>5.07</b>	<b>5.06</b>	<b>5.07</b>
Net Imports (including SPR) <sup>b</sup>	<b>6.13</b>	<b>7.04</b>	<b>7.63</b>	<b>6.90</b>	6.62	7.18	7.50	6.91	6.62	7.24	7.60	7.23	<b>6.93</b>	<b>7.06</b>	<b>7.17</b>
Gross Imports (excluding SPR)	<b>6.21</b>	<b>7.15</b>	<b>7.71</b>	<b>7.02</b>	6.73	7.29	7.58	7.02	6.74	7.35	7.68	7.33	<b>7.03</b>	<b>7.16</b>	<b>7.28</b>
SPR Imports	<b>0.03</b>	<b>0.02</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>
Exports	<b>0.09</b>	<b>0.11</b>	<b>0.07</b>	<b>0.12</b>	0.11	0.11	0.08	0.10	0.12	0.11	0.08	0.10	<b>0.10</b>	<b>0.10</b>	<b>0.10</b>
Other SPR Supply	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>
SPR Stock Withdrawn or Added (-)	<b>-0.04</b>	<b>-0.02</b>	<b>0.00</b>	<b>0.00</b>	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	<b>-0.01</b>	<b>-0.01</b>	<b>-0.01</b>
Other Stock Withdrawn or Added (-)	<b>-0.02</b>	<b>0.17</b>	<b>-0.09</b>	<b>-0.08</b>	-0.01	0.01	-0.01	0.03	0.00	-0.02	-0.01	0.03	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>
Product Supplied and Losses	<b>-0.01</b>	<b>-0.01</b>	<b>-0.01</b>	<b>-0.01</b>	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	<b>-0.01</b>	<b>-0.01</b>	<b>-0.01</b>
Unaccounted-for Crude Oil	<b>0.33</b>	<b>0.34</b>	<b>0.29</b>	<b>0.41</b>	0.36	0.27	0.27	0.26	0.26	0.27	0.27	0.27	<b>0.34</b>	<b>0.29</b>	<b>0.26</b>
Total Crude Oil Supply	<b>13.13</b>	<b>14.15</b>	<b>14.37</b>	<b>13.82</b>	13.55	14.05	14.27	13.75	13.45	13.96	14.28	13.96	<b>13.87</b>	<b>13.91</b>	<b>13.91</b>
Other Supply															
NGL Production	<b>1.65</b>	<b>1.71</b>	<b>1.77</b>	<b>1.78</b>	1.74	1.70	1.71	1.75	1.73	1.71	1.72	1.76	<b>1.73</b>	<b>1.72</b>	<b>1.73</b>
Other Hydrocarbon and Alcohol Inputs	<b>0.26</b>	<b>0.21</b>	<b>0.26</b>	<b>0.29</b>	0.32	0.28	0.30	0.36	0.32	0.29	0.31	0.36	<b>0.25</b>	<b>0.31</b>	<b>0.32</b>
Crude Oil Product Supplied	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	<b>0.01</b>	<b>0.01</b>	<b>0.01</b>
Processing Gain	<b>0.70</b>	<b>0.76</b>	<b>0.77</b>	<b>0.82</b>	0.78	0.78	0.79	0.77	0.74	0.78	0.80	0.78	<b>0.76</b>	<b>0.78</b>	<b>0.77</b>
Net Product Imports <sup>c</sup>	<b>1.26</b>	<b>1.19</b>	<b>1.08</b>	<b>0.71</b>	0.51	1.26	1.27	1.20	1.16	1.54	1.32	1.26	<b>1.06</b>	<b>1.06</b>	<b>1.32</b>
Gross Product Imports <sup>c</sup>	<b>2.08</b>	<b>1.96</b>	<b>1.90</b>	<b>1.66</b>	1.57	2.21	2.15	2.17	2.11	2.44	2.20	2.23	<b>1.90</b>	<b>2.03</b>	<b>2.24</b>
Product Exports	<b>0.83</b>	<b>0.77</b>	<b>0.82</b>	<b>0.95</b>	1.06	0.96	0.88	0.97	0.94	0.90	0.88	0.98	<b>0.84</b>	<b>0.97</b>	<b>0.92</b>
Product Stock Withdrawn or Added (-) <sup>d</sup>	<b>0.83</b>	<b>-0.59</b>	<b>-0.58</b>	<b>0.34</b>	0.53	-0.54	-0.43	0.22	0.68	-0.56	-0.25	0.20	<b>0.00</b>	<b>-0.06</b>	<b>0.02</b>
Total Supply	<b>17.84</b>	<b>17.45</b>	<b>17.69</b>	<b>17.76</b>	17.42	17.54	17.92	18.06	18.09	17.72	18.19	18.32	<b>17.68</b>	<b>17.74</b>	<b>18.08</b>
Demand															
Motor Gasoline	<b>7.19</b>	<b>7.68</b>	<b>7.83</b>	<b>7.64</b>	7.43	7.78	7.93	7.65	7.43	7.87	8.06	7.77	<b>7.59</b>	<b>7.70</b>	<b>7.78</b>
Jet Fuel	<b>1.51</b>	<b>1.53</b>	<b>1.54</b>	<b>1.54</b>	1.53	1.56	1.63	1.62	1.61	1.59	1.65	1.64	<b>1.53</b>	<b>1.59</b>	<b>1.62</b>
Distillate Fuel Oil	<b>3.53</b>	<b>3.03</b>	<b>2.96</b>	<b>3.15</b>	3.38	3.05	2.99	3.24	3.47	3.09	3.02	3.28	<b>3.17</b>	<b>3.17</b>	<b>3.21</b>
Residual Fuel Oil	<b>1.24</b>	<b>0.98</b>	<b>0.88</b>	<b>0.91</b>	0.89	0.93	0.88	1.04	1.17	0.94	0.92	1.04	<b>1.00</b>	<b>0.94</b>	<b>1.02</b>
Other Oils <sup>e</sup>	<b>4.35</b>	<b>4.22</b>	<b>4.48</b>	<b>4.53</b>	4.19	4.21	4.49	4.52	4.40	4.23	4.54	4.59	<b>4.40</b>	<b>4.35</b>	<b>4.44</b>
Total Demand	<b>17.82</b>	<b>17.45</b>	<b>17.69</b>	<b>17.76</b>	17.42	17.54	17.92	18.06	18.09	17.72	18.19	18.32	<b>17.68</b>	<b>17.74</b>	<b>18.08</b>
Total Petroleum Net Imports	<b>7.38</b>	<b>8.23</b>	<b>8.72</b>	<b>7.61</b>	7.13	8.44	8.77	8.11	7.78	8.77	8.92	8.49	<b>7.99</b>	<b>8.12</b>	<b>8.49</b>
Closing Stocks (million barrels)															
Crude Oil (excluding SPR) <sup>f</sup>	<b>338</b>	<b>322</b>	<b>330</b>	<b>337</b>	338	337	338	335	335	337	338	335	<b>337</b>	<b>335</b>	<b>335</b>
Total Motor Gasoline	<b>214</b>	<b>212</b>	<b>205</b>	<b>215</b>	212	211	209	223	225	223	209	222	<b>215</b>	<b>223</b>	<b>222</b>
Finished Motor Gasoline	<b>176</b>	<b>177</b>	<b>169</b>	<b>175</b>	170	174	170	183	185	185	170	183	<b>175</b>	<b>183</b>	<b>183</b>
Blending Components	<b>38</b>	<b>35</b>	<b>36</b>	<b>40</b>	43	37	39	39	40	38	39	39	<b>40</b>	<b>39</b>	<b>39</b>
Jet Fuel	<b>38</b>	<b>42</b>	<b>45</b>	<b>47</b>	39	41	44	46	46	46	46	48	<b>47</b>	<b>46</b>	<b>48</b>
Distillate Fuel Oil	<b>100</b>	<b>120</b>	<b>145</b>	<b>145</b>	119	118	140	144	98	112	136	143	<b>145</b>	<b>144</b>	<b>143</b>
Residual Fuel Oil	<b>41</b>	<b>39</b>	<b>44</b>	<b>42</b>	36	40	44	47	40	43	45	42	<b>47</b>	<b>45</b>	<b>45</b>
Other Oils <sup>g</sup>	<b>258</b>	<b>291</b>	<b>317</b>	<b>276</b>	270	316	330	285	274	312	324	281	<b>276</b>	<b>285</b>	<b>281</b>
Total Stocks (excluding SPR)	<b>987</b>	<b>1025</b>	<b>1086</b>	<b>1062</b>	1015	1064	1104	1081	1019	1072	1096	1074	<b>1062</b>	<b>1081</b>	<b>1074</b>
Crude Oil in SPR	<b>590</b>	<b>592</b>	<b>592</b>	<b>592</b>	592	593	594	595	596	598	599	600	<b>592</b>	<b>595</b>	<b>600</b>
Total Stocks (including SPR)	<b>1578</b>	<b>1617</b>	<b>1677</b>	<b>1654</b>	1607	1656	1698	1676	1616	1670	1695	1674	<b>1654</b>	<b>1676</b>	<b>1674</b>

<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 an estimate of minor product stock change based on monthly data.

<sup>e</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.

<sup>f</sup> Includes crude oil in transit to refineries.

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

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

Sources: Historical data: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109(93/01-95/03); and *Weekly Petroleum Status Report*, DOE/EIA-0208(various issues).

**Table 8. U.S. Petroleum Demand Sensitivities**

	1995	1996
	Three Quarters <sup>a</sup>	Four Quarters <sup>a</sup>
<b>Economic Activity</b>		
Gross Domestic Product (billion 1987 dollars) .....	5,453 - 5,560	5,484 - 5,718
Resulting Change in Petroleum Demand (million barrels per day) <sup>b</sup> .....	0.26	0.67
<b>Energy Prices</b>		
Imported Crude Oil (nominal dollars per barrel) <sup>c</sup> .....	\$14.16 - \$19.50	\$13.73 - \$20.78
Resulting Change in Petroleum Demand (million barrels per day) <sup>b</sup> .....	-0.17	-0.45
Due to Changes in the Crude Oil Price .....		
<b>Weather</b>		
Heating Degree-Days <sup>d</sup> .....	16.39 - 20.57	20.31 - 24.03
Resulting Change in Petroleum Demand (million barrels per day) .....	0.37	0.48
Cooling Degree-Days <sup>d</sup> .....	5.57 - 6.58	5.57 - 6.58
Resulting Change in Petroleum Demand (million barrels per day) <sup>b</sup> .....	0.05	0.09

<sup>a</sup> In the weather case, calculations apply to certain quarters only, as follows: for heating degree-days: for 1995 the fourth quarter only is used; for 1996 the average of first and fourth quarters only are used; for cooling degree-days in 1995 and 1996, the average of the second and third quarters is used.

<sup>b</sup> Ranges of petroleum product supplied associated with varying each determinant (or determinants), holding other things equal.

<sup>c</sup> Cost of imported crude oil to U.S. refiners.

<sup>d</sup> Heating and cooling degree-days are U.S. 1990 population-weighted.

Source: Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division, Short-Term Integrated Forecasting System.

**Table 9. Forecast Components for U.S. Crude Oil Production  
(Million Barrels per Day)**

	High Price Case	Low Price Case	Difference		
			Total	Uncertainty	Price Impact
United States .....	6.44	5.78	0.66	0.17	0.49
Lower 48 States .....	5.07	4.48	0.58	0.14	0.45
Alaska .....	1.37	1.30	0.08	0.04	0.04

Note: Components provided are for the fourth quarter 1996; totals are from Tables 5 and 7. 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 10. U.S. Natural Gas Supply and Demand: Mid World Oil Price Case**  
(Trillion Cubic Feet)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Total Dry Gas Production <sup>a</sup>	4.70	4.69	4.68	4.77	4.65	4.58	4.74	4.98	4.79	4.65	4.73	4.91	18.85	18.95	19.08
Net Imports	0.60	0.58	0.59	0.61	0.63	0.61	0.59	0.67	0.73	0.67	0.63	0.72	2.38	2.51	2.75
Supplemental Gaseous Fuels	0.04	0.03	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.03	0.02	0.03	0.13	0.13	0.11
Total New Supply	5.34	5.30	5.30	5.42	5.32	5.23	5.36	5.69	5.55	5.35	5.39	5.66	21.36	21.59	21.95
Underground Working Gas Storage															
Opening	6.65	5.30	6.25	7.26	6.96	5.75	6.37	7.27	6.82	5.66	6.39	7.31	6.65	6.96	6.82
Closing	5.30	6.25	7.26	6.96	5.75	6.37	7.27	6.82	5.66	6.39	7.31	6.78	6.96	6.82	6.78
Net Withdrawals	1.35	-0.95	-1.01	0.30	1.21	-0.62	-0.90	0.46	1.16	-0.73	-0.92	0.53	-0.31	0.14	0.04
Total Supply <sup>a</sup>	6.69	4.36	4.29	5.72	6.53	4.60	4.46	6.14	6.71	4.62	4.47	6.20	21.05	21.73	21.99
Balancing Item <sup>b</sup>	0.14	0.05	-0.15	-0.49	0.12	0.13	-0.18	-0.50	0.11	0.19	-0.18	-0.58	-0.45	-0.43	-0.47
Total Primary Supply <sup>a</sup>	6.82	4.41	4.14	5.23	6.65	4.73	4.28	5.65	6.81	4.80	4.29	5.61	20.60	21.30	21.52
<b>Demand</b>															
Lease and Plant Fuel	0.31	0.31	0.31	0.31	0.31	0.30	0.30	0.31	0.32	0.30	0.30	0.30	1.24	1.21	1.22
Pipeline Use	0.21	0.14	0.13	0.16	0.20	0.15	0.14	0.17	0.19	0.15	0.14	0.16	0.63	0.67	0.65
Residential	2.41	0.79	0.38	1.24	2.11	0.88	0.43	1.43	2.24	0.92	0.44	1.45	4.83	4.84	5.05
Commercial	1.28	0.56	0.40	0.76	1.15	0.60	0.42	0.85	1.25	0.62	0.43	0.87	3.00	3.02	3.17
Industrial (Incl. Cogenerators)	2.04	1.81	1.82	1.97	2.18	1.95	1.89	2.09	2.15	1.96	1.92	2.06	7.64	8.11	8.09
Cogenerators <sup>c</sup>	0.47	0.50	0.49	0.48	0.50	0.53	0.52	0.51	0.53	0.56	0.55	0.54	1.94	2.06	2.18
Electricity Production															
Electric Utilities	0.51	0.74	1.04	0.70	0.60	0.77	1.02	0.72	0.57	0.76	0.98	0.68	2.99	3.12	2.99
Nonutilities (Excl. Cogen.)	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.08	0.28	0.31	0.34
Total Demand	6.82	4.41	4.14	5.23	6.65	4.73	4.28	5.65	6.81	4.80	4.29	5.61	20.60	21.30	21.52

<sup>a</sup> Excludes nonhydrocarbon gases removed.

<sup>b</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.

<sup>c</sup> Quarterly estimates and projections for gas consumption by nonutility generators are based on estimates for quarterly gas-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867. Detail on independent power producers' share of nonutility generation derived from reference case simulation of the National Energy Modeling System, Office of Integrated Analysis and Forecast, Energy Information Administration.

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

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Natural Gas Monthly*, DOE/EIA-0130(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02); Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Oil and Gas, Reserves and Natural Gas Division.

**Table 11. U.S. Coal Supply and Demand: Mid World Oil Price Case**  
(Million Short Tons)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Production .....	<b>254.4</b>	<b>256.3</b>	<b>260.0</b>	<b>259.7</b>	<b>260.9</b>	<b>258.3</b>	<b>261.4</b>	<b>261.0</b>	<b>264.5</b>	<b>264.0</b>	<b>264.9</b>	<b>264.5</b>	<b>1030.4</b>	<b>1041.5</b>	<b>1057.9</b>
Primary Stock Levels <sup>a</sup>															
Opening .....	<b>25.3</b>	<b>34.1</b>	<b>35.8</b>	<b>33.0</b>	<b>33.2</b>	<b>36.0</b>	<b>35.0</b>	<b>34.0</b>	<b>33.0</b>	<b>35.0</b>	<b>35.0</b>	<b>34.0</b>	<b>25.3</b>	<b>33.2</b>	<b>33.0</b>
Closing .....	<b>34.1</b>	<b>35.8</b>	<b>33.0</b>	<b>33.2</b>	<b>36.0</b>	<b>35.0</b>	<b>34.0</b>	<b>33.0</b>	<b>35.0</b>	<b>35.0</b>	<b>34.0</b>	<b>34.0</b>	<b>33.2</b>	<b>33.0</b>	<b>34.0</b>
Net Withdrawals .....	<b>-8.9</b>	<b>-1.6</b>	<b>2.8</b>	<b>-0.3</b>	<b>-2.8</b>	<b>1.0</b>	<b>1.0</b>	<b>1.0</b>	<b>-2.0</b>	<b>(S)</b>	<b>1.0</b>	<b>(S)</b>	<b>-7.9</b>	<b>0.2</b>	<b>-1.0</b>
Imports .....	<b>1.8</b>	<b>1.6</b>	<b>2.3</b>	<b>1.9</b>	<b>1.9</b>	<b>2.0</b>	<b>7.6</b>	<b>7.8</b>	<b>7.9</b>						
Exports .....	<b>14.9</b>	<b>17.9</b>	<b>19.7</b>	<b>18.8</b>	<b>18.7</b>	<b>19.3</b>	<b>19.0</b>	<b>19.5</b>	<b>20.3</b>	<b>21.0</b>	<b>20.5</b>	<b>20.7</b>	<b>71.4</b>	<b>76.6</b>	<b>82.6</b>
Total Net Domestic Supply .....	<b>232.5</b>	<b>238.3</b>	<b>245.4</b>	<b>242.4</b>	<b>241.3</b>	<b>241.9</b>	<b>245.3</b>	<b>244.4</b>	<b>244.1</b>	<b>244.9</b>	<b>247.3</b>	<b>245.8</b>	<b>958.7</b>	<b>972.9</b>	<b>982.1</b>
Secondary Stock Levels <sup>b</sup>															
Opening .....	<b>120.5</b>	<b>112.3</b>	<b>126.7</b>	<b>121.2</b>	<b>136.1</b>	<b>140.9</b>	<b>160.0</b>	<b>154.4</b>	<b>155.0</b>	<b>153.8</b>	<b>167.0</b>	<b>160.7</b>	<b>120.5</b>	<b>136.1</b>	<b>155.0</b>
Closing .....	<b>112.3</b>	<b>126.7</b>	<b>121.2</b>	<b>136.1</b>	<b>140.9</b>	<b>160.0</b>	<b>154.4</b>	<b>155.0</b>	<b>153.8</b>	<b>167.0</b>	<b>160.7</b>	<b>159.7</b>	<b>136.1</b>	<b>155.0</b>	<b>159.7</b>
Net Withdrawals .....	<b>8.2</b>	<b>-14.4</b>	<b>5.5</b>	<b>-14.9</b>	<b>-4.8</b>	<b>-19.0</b>	<b>5.5</b>	<b>-0.6</b>	<b>1.2</b>	<b>-13.2</b>	<b>6.3</b>	<b>1.0</b>	<b>-15.6</b>	<b>-18.9</b>	<b>-4.7</b>
Total Supply .....	<b>240.7</b>	<b>223.9</b>	<b>250.9</b>	<b>227.5</b>	<b>236.5</b>	<b>222.9</b>	<b>250.8</b>	<b>243.9</b>	<b>245.3</b>	<b>231.7</b>	<b>253.6</b>	<b>246.8</b>	<b>943.1</b>	<b>954.0</b>	<b>977.4</b>
<b>Demand</b>															
Coke Plants .....	<b>7.8</b>	<b>8.0</b>	<b>7.9</b>	<b>8.1</b>	<b>7.7</b>	<b>7.8</b>	<b>7.9</b>	<b>7.7</b>	<b>7.7</b>	<b>7.8</b>	<b>7.8</b>	<b>7.5</b>	<b>31.7</b>	<b>31.1</b>	<b>30.8</b>
Electricity Production															
Electric Utilities .....	<b>207.9</b>	<b>196.3</b>	<b>218.6</b>	<b>194.5</b>	<b>204.6</b>	<b>192.9</b>	<b>221.3</b>	<b>211.6</b>	<b>212.7</b>	<b>201.6</b>	<b>223.8</b>	<b>214.2</b>	<b>817.3</b>	<b>830.4</b>	<b>852.3</b>
Nonutilities (Excl. Cogen.) <sup>c</sup> .....	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>2.5</b>	<b>3.1</b>	<b>3.1</b>	<b>3.1</b>	<b>3.1</b>	<b>7.4</b>	<b>10.0</b>	<b>12.5</b>
Retail and General Industry <sup>d</sup> .....	<b>21.9</b>	<b>18.9</b>	<b>19.2</b>	<b>21.1</b>	<b>21.7</b>	<b>19.6</b>	<b>19.1</b>	<b>22.0</b>	<b>21.8</b>	<b>19.3</b>	<b>18.9</b>	<b>22.0</b>	<b>81.1</b>	<b>82.5</b>	<b>81.9</b>
Total Demand .....	<b>239.4</b>	<b>225.0</b>	<b>247.6</b>	<b>225.5</b>	<b>236.5</b>	<b>222.9</b>	<b>250.8</b>	<b>243.9</b>	<b>245.3</b>	<b>231.7</b>	<b>253.6</b>	<b>246.8</b>	<b>937.5</b>	<b>954.0</b>	<b>977.4</b>
Discrepancy <sup>e</sup> .....	<b>1.3</b>	<b>-1.0</b>	<b>3.3</b>	<b>2.1</b>	<b>(S)</b>	<b>5.6</b>	<b>(S)</b>	<b>(S)</b>							

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

<sup>b</sup> Secondary stocks are held by users.

<sup>c</sup> Consumption of coal by Independent Power Producers (IPPs). In 1993, IPP consumption was estimated to be 1.5 million tons per quarter. Quarterly estimates and projections for coal consumption by nonutility generators are based on estimates for quarterly coal-fired generation at nonutilities, supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867.

<sup>d</sup> Synfuels plant demand in 1993 was 1.7 million tons per quarter, and is assumed to remain at that level in 1994, 1995, and 1996.

<sup>e</sup> Historical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference. Forecast discrepancy identically zero by assumption.

Notes: Rows and columns may not add due to independent rounding. (S) indicates amounts of less than 50,000 tons in absolute value. Historical data are printed in bold, forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); and *Quarterly Coal Report*, DOE/EIA-0121(94/4Q); Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

**Table 12. U.S. Electricity Supply and Demand: Mid World Oil Price Case**  
(Billion Kilowatthours)

	1994				1995				1996				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1994	1995	1996
<b>Supply</b>															
Net Utility Generation															
Coal	<b>417.4</b>	<b>393.6</b>	<b>435.6</b>	<b>388.8</b>	413.4	385.9	442.7	425.8	430.1	406.3	449.5	434.9	<b>1635.5</b>	<b>1667.8</b>	<b>1720.8</b>
Petroleum	<b>32.2</b>	<b>24.6</b>	<b>20.4</b>	<b>13.9</b>	23.3	22.1	24.6	20.7	26.7	24.6	28.2	25.0	<b>91.0</b>	<b>90.7</b>	<b>104.5</b>
Natural Gas	<b>49.5</b>	<b>71.7</b>	<b>100.9</b>	<b>69.1</b>	57.6	72.9	96.6	67.9	54.1	71.8	92.7	64.3	<b>291.1</b>	<b>295.0</b>	<b>282.9</b>
Nuclear	<b>155.6</b>	<b>143.5</b>	<b>174.9</b>	<b>166.5</b>	156.3	159.9	166.9	151.1	165.2	149.2	174.4	157.8	<b>640.4</b>	<b>634.2</b>	<b>646.6</b>
Hydroelectric	<b>61.1</b>	<b>70.9</b>	<b>56.4</b>	<b>55.1</b>	65.4	71.9	61.1	61.4	72.1	75.2	63.4	62.8	<b>243.6</b>	<b>259.8</b>	<b>273.5</b>
Geothermal and Other <sup>a</sup>	<b>2.3</b>	<b>2.2</b>	<b>2.3</b>	<b>2.3</b>	6.1	1.9	2.0	2.0	2.0	1.9	2.0	1.9	<b>9.0</b>	<b>12.1</b>	<b>7.8</b>
Subtotal	<b>718.3</b>	<b>706.4</b>	<b>790.5</b>	<b>695.6</b>	722.1	714.6	793.9	728.9	750.2	729.0	810.1	746.7	<b>2910.7</b>	<b>2959.5</b>	<b>3036.0</b>
Nonutility Generation <sup>b</sup>															
Coal	<b>13.9</b>	<b>14.7</b>	<b>14.6</b>	<b>14.3</b>	14.9	15.7	15.6	15.3	15.8	16.7	16.6	16.3	<b>57.6</b>	<b>61.6</b>	<b>65.4</b>
Petroleum	<b>3.5</b>	<b>3.7</b>	<b>3.7</b>	<b>3.6</b>	3.8	4.0	4.0	3.9	4.1	4.4	4.3	4.3	<b>14.4</b>	<b>15.8</b>	<b>17.1</b>
Natural Gas	<b>46.0</b>	<b>48.6</b>	<b>48.3</b>	<b>47.4</b>	49.1	51.9	51.5	50.6	52.1	55.1	54.7	53.7	<b>190.3</b>	<b>203.2</b>	<b>215.6</b>
Renewables/Other	<b>22.3</b>	<b>23.6</b>	<b>23.4</b>	<b>23.0</b>	23.6	24.9	24.7	24.3	24.8	26.2	26.0	25.6	<b>92.3</b>	<b>97.5</b>	<b>102.7</b>
Subtotal	<b>85.7</b>	<b>90.6</b>	<b>89.9</b>	<b>88.3</b>	91.4	96.6	95.9	94.2	96.9	102.4	101.6	99.8	<b>354.6</b>	<b>378.1</b>	<b>400.8</b>
Total Generation	<b>804.0</b>	<b>797.0</b>	<b>880.4</b>	<b>784.0</b>	813.5	811.2	889.8	823.1	847.1	831.4	911.8	846.5	<b>3265.3</b>	<b>3337.6</b>	<b>3436.8</b>
Net Imports	<b>11.4</b>	<b>9.8</b>	<b>10.7</b>	<b>10.4</b>	11.2	9.6	10.4	10.2	10.9	9.3	10.2	9.9	<b>42.4</b>	<b>41.3</b>	<b>40.3</b>
Total Supply	<b>815.4</b>	<b>806.8</b>	<b>891.1</b>	<b>794.4</b>	824.7	820.8	900.2	833.2	857.9	840.8	921.9	856.4	<b>3307.7</b>	<b>3378.9</b>	<b>3477.0</b>
Lost and Unaccounted for <sup>c</sup>	<b>47.6</b>	<b>76.4</b>	<b>51.0</b>	<b>57.4</b>	54.2	64.5	58.4	58.6	51.5	65.3	59.8	60.7	<b>232.3</b>	<b>235.6</b>	<b>237.3</b>
<b>Demand</b>															
Electric Utility Sales															
Residential	<b>273.7</b>	<b>220.3</b>	<b>285.0</b>	<b>228.1</b>	260.1	233.2	277.7	246.1	278.3	241.6	285.7	253.5	<b>1007.1</b>	<b>1017.0</b>	<b>1059.2</b>
Commercial	<b>194.6</b>	<b>199.9</b>	<b>230.5</b>	<b>198.3</b>	201.8	205.3	235.0	211.5	213.6	213.2	242.9	218.5	<b>823.3</b>	<b>853.5</b>	<b>888.3</b>
Industrial	<b>240.3</b>	<b>249.5</b>	<b>261.9</b>	<b>250.3</b>	247.4	254.9	264.7	254.6	251.2	255.9	267.1	259.2	<b>1002.1</b>	<b>1021.5</b>	<b>1033.4</b>
Other	<b>23.6</b>	<b>23.0</b>	<b>25.2</b>	<b>23.6</b>	23.9	23.5	25.3	24.0	24.3	23.5	25.5	24.2	<b>95.5</b>	<b>96.6</b>	<b>97.5</b>
Subtotal	<b>732.2</b>	<b>692.8</b>	<b>802.7</b>	<b>700.3</b>	733.1	716.8	802.6	736.1	767.4	734.2	821.2	755.5	<b>2928.1</b>	<b>2988.7</b>	<b>3078.3</b>
Nonutility Gener. for Own Use <sup>b</sup>	<b>35.6</b>	<b>37.7</b>	<b>37.4</b>	<b>36.7</b>	37.4	39.5	39.2	38.5	39.0	41.2	40.9	40.2	<b>147.4</b>	<b>154.6</b>	<b>161.4</b>
Total Demand	<b>767.9</b>	<b>730.4</b>	<b>840.1</b>	<b>737.0</b>	770.5	756.3	841.8	774.6	806.4	775.4	862.2	795.7	<b>3075.5</b>	<b>3143.3</b>	<b>3239.7</b>
Memo:															
Utility Purchases from Nonutilities <sup>b</sup>	<b>50.1</b>	<b>52.9</b>	<b>52.6</b>	<b>51.6</b>	54.1	57.1	56.7	55.7	57.9	61.1	60.7	59.6	<b>207.2</b>	<b>223.6</b>	<b>239.3</b>

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

<sup>b</sup>Electricity received from nonutility sources, including cogenerators and small power producers. Quarterly estimates and projections for nonutility net sales, own use, and generation by fuel source supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867.

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

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

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02);

Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels.

**Table 13. U.S. Renewable Energy Use by Sector: Mid World Oil Price Case**  
 (Quadrillion Btu)

	Year				Annual Percentage Change		
	1993	1994	1995	1996	1993-1994	1994-1995	1995-1996
<b>Electric Utilities</b>							
Hydroelectric Power <sup>a</sup>	<b>2.765</b>	<b>2.553</b>	2.723	2.867	-7.7	6.7	5.3
Geothermal Energy	<b>0.159</b>	<b>0.146</b>	0.130	0.127	-8.2	-11.0	-2.3
Biofuels <sup>b</sup>	<b>0.021</b>	<b>0.021</b>	0.016	0.017	0.0	-23.8	6.3
Solar and Wind Energy <sup>c</sup>	(S)	(S)	(S)	(S)	NM	NM	NM
Total	<b>2.944</b>	<b>2.720</b>	2.869	3.012	-7.6	5.5	5.0
<b>Nonutility Power Generator</b>							
Hydroelectric Power <sup>a</sup>	<b>0.119</b>	<b>0.124</b>	0.134	0.145	4.2	8.1	8.2
Geothermal, Solar and Wind Energy	<b>0.142</b>	<b>0.156</b>	0.167	0.177	9.9	7.1	6.0
Biofuels <sup>b</sup>	<b>0.574</b>	<b>0.633</b>	0.664	0.695	10.3	4.9	4.7
Total	<b>0.835</b>	<b>0.913</b>	0.966	1.017	9.3	5.8	5.3
Total Power Generation	<b>3.779</b>	<b>3.633</b>	3.834	4.029	-3.9	5.5	5.1
<b>Other Sectors</b>							
Residential and Commercial <sup>d</sup>	<b>0.735</b>	<b>0.745</b>	0.725	0.745	1.4	-2.7	2.8
Industrial <sup>e</sup>	<b>1.519</b>	<b>1.572</b>	1.593	1.625	3.5	1.3	2.0
Transportation <sup>f</sup>	<b>0.076</b>	<b>0.079</b>	0.090	0.093	3.9	13.9	3.3
Total	<b>2.330</b>	<b>2.396</b>	2.409	2.463	2.8	0.5	2.2
Net Imported Electricity <sup>g</sup>	<b>0.293</b>	<b>0.439</b>	0.428	0.417	49.8	-2.5	-2.6
Total Renewable Energy Demand	<b>6.402</b>	<b>6.467</b>	6.671	6.908	1.0	3.2	3.6

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

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

<sup>c</sup> Also includes photovoltaic thermal energy.

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

<sup>e</sup> Includes industrial hydroelectric power, geothermal energy, biofuels, solar and wind energy consumed in the industrial sector, including consumption by nonutility power generators.

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

<sup>g</sup> Net imports of electricity are included in renewables because they stem principally from hydroelectric power generators in Canada. However, it should be noted that in actuality, only about 77 percent of gross imports of electricity from Canada were attributable to renewable energy sources in 1993, based on statistics from Natural Resources Canada, *Electric Power in Canada, 1993*, (Ottawa: 1994), p. 89.

(S) Less than 500 billion Btu.

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

Notes: Minor discrepancies with other published EIA historical data are due to independent rounding. (S) indicates amounts of less than 500 billion Btu. NM indicates percent change calculations not meaningful or undefined at precision level of this table. Historical data are printed in bold, forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: 1993: Estimates derived from Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration; Projections: Renewables growth in sectors other than electric utilities taken from Energy Information Administration, *Annual Energy Outlook 1994* database and Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration.

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

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Real Gross Domestic Product (GDP) (billion 1987 dollars) .....	3760	3907	4149	4280	4404	4540	4719	4838	4897	4868	4979	5135	5342	5497	5601
Imported Crude Oil Price <sup>a</sup> (nominal dollars per barrel) .....	33.55	29.30	28.88	26.99	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.15	15.51	16.81	17.26
<b>Petroleum Supply</b>															
Crude Oil Production <sup>b</sup> (million barrels per day) .....	8.65	8.69	8.88	8.97	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.63	6.46	6.24
Total Petroleum Net Imports (including SPR) (million barrels per day) .....	4.31	4.31	4.71	4.29	5.44	5.92	6.59	7.20	7.15	6.58	6.94	7.62	7.99	8.28	8.91
<b>Energy Demand</b>															
World Petroleum (million barrels per day) .....	59.5	58.7	59.8	60.1	61.8	63.0	64.9	66.0	66.2	66.8	66.6	66.7	67.5	68.4	69.7
U.S. Petroleum (million barrels per day) .....	15.50	15.46	15.76	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.68	17.79	18.25
Natural Gas (trillion cubic feet) .....	18.00	16.83	17.95	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.29	20.60	21.30	21.52
Coal (million short tons) .....	707	737	791	818	804	837	884	890	895	888	892	931	937	954	977
Electricity <sup>c</sup> (billion kilowatthours) .....	2086	2151	2286	2324	2369	2457	2578	2647	2713	2762	2763	2861	2928	2989	3078
Total Energy Demand <sup>d</sup> (quadrillion Btu) .....	71.2	70.8	74.2	74.0	74.3	76.9	80.2	81.3	81.3	81.1	82.2	83.8	85.5	86.9	88.9
Total Energy Demand per Dollar of GDP (thousand Btu per 1987 Dollar) .....	18.92	18.13	17.88	17.29	16.88	16.94	17.01	16.81	16.60	16.67	16.50	16.32	16.00	15.81	15.86
Adjusted Total Energy Demand <sup>d</sup> (quadrillion Btu) .....	NA	83.9	84.0	85.2	86.9	88.9	90.3	92.4							
Adjusted Total Energy Demand per Dollar of GDP (thousand Btu per 1987 Dollar) .....	NA	17.12	17.25	17.10	16.93	16.64	16.44	16.49							

<sup>a</sup> Refers to the imported cost of crude oil to U.S. refineries assumed for the scenario depicted. In all cases on this table, the mid macroeconomic case and normal weather are used.

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

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

<sup>d</sup> "Total Energy Demand" refers to the aggregate energy presented in Energy Information Administration, *Annual Energy Review (AER)*, DOE/EIA-0384, Table 1.3. "Adjusted Total Energy Demand" refers to a broader consistent concept, found in Energy Information Administration, *Annual Energy Review, 1993*, DOE/EIA-0384(93), Table 1, which includes certain dispersed renewable energy items, data for which are not available over an extended period or on a high frequency basis. 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 that published in the *MER* or the *AER*.

SPR: Strategic Petroleum Reserve.

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

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Petroleum Supply Monthly*, DOE/EIA-0109(95/03); *Petroleum Supply Annual 1993*, DOE/EIA-0340(93)/2; *Natural Gas Monthly*, DOE/EIA-0130(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02); and *Quarterly Coal Report*, DOE/EIA-0121(94/4Q). Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0395.

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

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Macroeconomic <sup>a</sup></b>															
Real Gross Domestic Product (billion 1987 dollars) . . . . .	3760	3907	4149	4280	4404	4540	4719	4838	4897	4868	4979	5135	5342	5497	5601
GDP Implicit Price Deflator (Index, 1987=1.000) . . . . .	0.838	0.871	0.910	0.944	0.969	1.000	1.038	1.086	1.133	1.176	1.209	1.235	1.261	1.290	1.321
Real Disposable Personal Income (billion 1987 Dollars) . . . . .	2820	2894	3080	3162	3262	3290	3404	3465	3524	3538	3648	3704	3835	3968	4058
Manufacturing Production (Index, 1987=1.000) . . . . .	0.766	0.809	0.893	0.916	0.943	1.000	1.047	1.064	1.061	1.040	1.081	1.130	1.197	1.249	1.266
Real Fixed Investment (billion 1987 dollars) . . . . .	558	595	690	724	727	723	753	754	741	685	723	805	903	967	995
Real Exchange Rate (index) . . . . .	2.208	2.144	2.144	2.113	1.700	1.443	1.284	1.295	1.253	1.250	1.232	1.279	1.241	1.195	1.191
Business Inventory Change (billion 1987 dollars) . . . . .	-12.8	0.6	27.5	-3.7	-2.1	6.6	15.1	18.6	3.0	-6.2	-10.2	-0.8	4.4	8.5	-1.7
Wholesale Price Index (index, 1980-1984=1.000) . . . . .	1.000	1.013	1.037	1.032	1.002	1.028	1.069	1.122	1.163	1.165	1.172	1.189	1.205	1.246	1.270
Consumer Price Index (index, 1980-1984=1.000) . . . . .	0.965	0.996	1.039	1.076	1.097	1.137	1.184	1.240	1.308	1.363	1.404	1.446	1.483	1.529	1.577
Petroleum Product Price Index (index, 1980-1984=1.000) . . . . .	1.000	0.899	0.874	0.832	0.532	0.568	0.539	0.612	0.748	0.671	0.647	0.620	0.592	0.612	0.642
Non-Farm Employment (millions) . . . . .	89.6	90.1	94.4	97.4	99.3	102.0	105.2	107.9	109.4	108.3	108.6	110.5	113.4	116.1	118.0
Commercial Employment (millions) . . . . .	53.8	54.9	58.0	60.8	62.9	65.2	67.8	70.0	71.3	70.8	71.2	73.1	75.7	78.1	79.9
Total Industrial Production (index, 1987=1.000) . . . . .	0.819	0.849	0.928	0.944	0.953	1.000	1.045	1.061	1.061	1.043	1.077	1.121	1.181	1.224	1.240
Housing Stock (millions) . . . . .	91.1	92.4	94.5	96.3	98.0	99.8	101.6	102.9	103.5	104.5	105.5	106.6	108.0	109.4	110.7
<b>Weather <sup>b</sup></b>															
Heating Degree-Days															
U.S. . . . .	4619	4627	4514	4642	4295	4334	4653	4726	4016	4200	4441	4700	4462	4358	4603
New England . . . . .	6697	6305	6442	6571	6517	6546	6715	6887	5848	5960	6844	6728	6677	6351	6660
Middle Atlantic . . . . .	5866	5733	5777	5660	5665	5699	6088	6134	4998	5177	5964	5948	5889	5568	5875
U.S. Gas-Weighted . . . . .	4853	4810	4704	4856	4442	4391	4779	4856	4139	4337	4458	4754	4659	4470	4786
Cooling Degree-Days (U.S.) . . . . .	1136	1260	1214	1194	1249	1269	1283	1156	1260	1331	1040	1218	1210	1184	1193

<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. These mid-case macroeconomic projections are then modified by the low and high world oil price cases (as shown in Table 5) and by various explicit economic assumptions, with the low world oil price case applied to the high macroeconomic case, and the high world oil price case applied to the low macroeconomic case.

<sup>b</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 1980 population. Normal is used for the forecast period and is defined as the average number of degree days between 1951 and 1980 for a given period.

Note: Historical data are printed in bold, forecasts are in italic.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, February 1995; U.S. Department of Commerce, National Oceanic and Atmospheric Administration, *Monthly State, Regional, and National Heating/Cooling Degree Days Weighted by Population*; Federal Reserve System, *Statistical Release G.17(419)*, February 1995. Macroeconomic projections are based on DRI/McGraw-Hill Forecast CONTROL0395.

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

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Demand <sup>a</sup></b>															
OECD															
U.S. (50 States) . . . . .	15.3	15.2	15.7	15.7	16.3	16.7	17.3	17.3	17.0	16.8	17.1	17.2	17.7	17.8	18.3
Europe <sup>b</sup> . . . . .	12.4	12.1	12.1	12.0	12.5	12.6	12.7	12.8	12.9	13.4	13.6	13.6	13.6	13.8	13.9
Japan . . . . .	4.6	4.4	4.6	4.4	4.4	4.5	4.8	5.0	5.1	5.3	5.4	5.4	5.7	5.8	5.8
Other OECD . . . . .	2.5	2.4	2.4	2.4	2.4	2.5	2.6	2.7	2.7	2.7	2.7	2.8	2.9	2.9	3.0
Total OECD . . . . .	34.8	34.1	34.8	34.6	35.6	36.3	37.4	37.9	37.8	38.1	38.8	39.0	39.8	40.3	41.0
Non-OECD															
Former Soviet Union . . . . .	9.1	9.0	8.9	9.0	9.0	9.0	8.9	8.7	8.4	8.4	6.8	5.8	4.9	4.5	4.1
Europe . . . . .	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.7	1.3	1.3	1.2	1.2	1.3	1.3
China . . . . .	1.7	1.7	1.7	1.9	2.0	2.1	2.3	2.4	2.3	2.5	2.7	3.1	3.3	3.5	3.7
Other Asia . . . . .	3.5	3.5	3.7	3.7	3.9	4.1	4.4	4.9	5.3	5.7	6.1	6.4	6.8	7.1	7.5
Other Non-OECD . . . . .	8.6	8.7	8.9	9.1	9.5	9.7	10.1	10.4	10.7	10.8	10.9	11.2	11.4	11.8	12.1
Total Non-OECD . . . . .	24.7	24.7	25.1	25.5	26.2	26.8	27.5	28.2	28.4	28.6	27.8	27.7	27.6	28.1	28.7
Total World Demand . . . . .	59.5	58.7	59.8	60.1	61.8	63.0	64.9	66.0	66.2	66.8	66.6	66.7	67.5	68.4	69.7
<b>Supply <sup>c</sup></b>															
OECD															
U.S. (50 States) . . . . .	10.8	10.8	11.1	11.2	10.9	10.6	10.5	9.9	9.7	9.9	9.8	9.6	9.4	9.3	9.1
Canada . . . . .	1.6	1.7	1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.3	2.3	2.3
North Sea <sup>d</sup> . . . . .	2.7	3.1	3.4	3.6	3.8	3.8	3.8	3.7	3.9	4.0	4.3	4.6	5.4	5.6	5.9
Other OECD . . . . .	1.1	1.2	1.3	1.4	1.3	1.4	1.4	1.3	1.5	1.5	1.5	1.4	1.5	1.5	1.5
Total OECD . . . . .	16.2	16.8	17.6	18.0	17.9	17.8	17.7	17.0	17.0	17.5	17.8	17.8	18.5	18.7	18.8
Non-OECD															
OPEC . . . . .	19.9	18.5	18.5	17.3	19.5	19.7	21.6	23.5	24.5	25.0	26.2	27.3	27.4	27.7	28.8
Former Soviet Union . . . . .	12.2	12.3	12.2	11.9	12.3	12.5	12.5	12.1	11.4	10.4	8.9	8.1	7.0	6.5	6.1
China . . . . .	2.0	2.1	2.3	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	3.0	3.0	3.0
Mexico . . . . .	3.0	3.0	3.1	3.0	2.8	2.9	2.9	3.0	3.2	3.2	3.2	3.2	3.2	3.3	3.3
Other Non-OECD . . . . .	4.9	9.5	5.9	6.4	6.7	6.8	7.2	7.5	7.7	7.8	8.1	8.4	8.7	8.9	9.2
Total Non-OECD . . . . .	42.0	41.3	42.0	41.2	43.9	44.6	47.0	48.9	49.4	49.2	49.2	49.8	49.2	49.4	50.4
Total World Supply . . . . .	58.2	58.1	59.6	59.3	61.8	62.4	64.7	65.9	66.4	66.7	66.9	67.7	67.7	68.0	69.2
Total Stock Withdrawals . . . . .	1.2	0.4	-0.2	0.3	-0.9	-0.1	-0.4	-0.2	-0.3	-0.2	-0.1	-0.3	-0.2	-0.1	0.0
Statistical Discrepancy . . . . .	0.1	0.3	0.4	0.5	0.9	0.7	0.6	0.4	0.0	0.3	-0.1	-0.6	0.0	0.5	0.5
Closing Stocks (billion barrels) <sup>e</sup> . . . . .	4.9	4.8	4.8	4.7	5.1	5.1	5.2	5.3	5.4	5.5	5.5	5.7	5.7	5.8	5.8
Net Exports from Former Soviet Union . . . . .	3.2	3.4	3.3	3.0	3.4	3.5	3.6	3.4	3.0	2.1	2.1	2.3	2.1	2.0	2.0

<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 eastern 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.

<sup>e</sup> Excludes stocks held in the Former CPEs.

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

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

SPR: Strategic Petroleum Reserve

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

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

Sources: Energy Information Administration, *International Petroleum Statistics Report*, DOE/EIA-0520(95/03); and *International Energy Annual 1992*, DOE/EIA-0219(92); Organization for Economic Cooperation and Development, Annual and Monthly Oil Statistics Database, March 1995.

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

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Imported Crude Oil <sup>a</sup></b> (dollars per barrel) .....	33.55	29.30	28.88	26.99	14.00	18.13	14.57	18.08	21.75	18.70	18.20	16.15	15.51	16.81	17.26
<b>Natural Gas Wellhead</b> (dollars per thousand cubic feet) .....	2.46	2.59	2.65	2.51	1.94	1.66	1.69	1.69	1.71	1.64	1.74	2.03	1.82	1.75	1.95
<b>Petroleum Product</b>															
<b>Gasoline Retail <sup>b</sup></b> (dollars per gallon) .....	1.28	1.22	1.20	1.20	0.93	0.96	0.96	1.06	1.22	1.20	1.19	1.17	1.17	1.23	1.27
<b>No. 2 Diesel Oil, Retail</b> (dollars per gallon) .....	NA	1.14	1.15	1.15	0.88	0.93	0.91	0.99	1.16	1.13	1.10	1.11	1.11	1.14	1.22
<b>No. 2 Heating Oil, Wholesale</b> (dollars per gallon) .....	NA	0.81	0.82	0.78	0.49	0.53	0.47	0.56	0.70	0.62	0.58	0.54	0.51	0.52	0.58
<b>No. 2 Heating Oil, Retail</b> (dollars per gallon) .....	NA	NA	1.09	1.05	0.84	0.80	0.81	0.90	1.06	1.02	0.93	0.91	0.88	0.90	0.98
<b>No. 6 Residual Fuel Oil, Retail <sup>c</sup></b> (dollars per barrel) .....	28.40	27.33	28.89	25.57	14.46	17.76	14.04	16.20	18.66	14.32	14.21	13.99	14.78	14.76	15.33
<b>Electric Utility Fuel</b>															
<b>Coal</b> (dollars per million Btu) .....	1.65	1.65	1.66	1.65	1.58	1.51	1.47	1.44	1.45	1.45	1.41	1.38	1.36	1.36	1.38
<b>Heavy Fuel Oil <sup>d</sup></b> (dollars per million Btu) .....	4.84	4.57	4.81	4.26	2.40	2.98	2.41	2.85	3.22	2.49	2.46	2.36	2.42	2.54	2.63
<b>Natural Gas</b> (dollars per million Btu) .....	3.38	3.47	3.58	3.43	2.35	2.24	2.26	2.36	2.32	2.15	2.33	2.56	2.23	2.24	2.45
<b>Other Residential</b>															
<b>Natural Gas</b> (dollars per thousand cubic feet) .....	5.05	6.04	6.12	6.12	5.83	5.55	5.47	5.64	5.80	5.82	5.89	6.16	6.40	6.40	6.63
<b>Electricity</b> (cents per kilowatthour) .....	6.8	7.2	7.6	7.8	7.4	7.4	7.5	7.6	7.8	8.1	8.2	8.3	8.4	8.6	8.8

<sup>a</sup> Cost of imported crude oil to U.S.

<sup>b</sup> Average for all grades and services.

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

<sup>d</sup> Includes fuel oils No. 4, No. 5, and No. 6 and topped crude fuel oil prices.

Notes: Data are estimated for the first quarter of 1995. Prices exclude taxes, except prices for gasoline, residential natural gas, and diesel. Price cases are derived by simulating all energy product price models under the assumptions of the three world oil price cases using the mid macroeconomic case and normal weather assumptions for all simulations. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); and *Petroleum Marketing Monthly*, DOE/EIA-0380(95/03).

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

	Year													1992	1993	1994	1995	1996
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994					
<b>Supply</b>																		
Crude Oil Supply																		
Domestic Production <sup>a</sup>	8.65	8.69	8.88	8.97	8.68	8.35	8.14	7.61	7.36	7.42	7.17	6.85	6.63	6.46	6.24			
Alaska	1.70	1.71	1.72	1.83	1.87	1.96	2.02	1.87	1.77	1.80	1.71	1.58	1.56	1.49	1.38			
Lower 48	6.95	6.97	7.16	7.15	6.81	6.39	6.12	5.74	5.58	5.62	5.46	5.26	5.07	4.97	4.86			
Net Imports (including SPR) <sup>b</sup>	4.31	4.31	4.71	4.29	5.44	5.92	6.59	7.20	7.15	6.58	6.94	6.67	7.99	8.29				
Other SPR Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.01	0.01		
Stock Draw (Including SPR)	0.21	0.25	0.19	0.18	0.02	0.03	0.10	0.03	0.07	-0.05	0.03	-0.01	0.01	0.02	0.01			
Product Supplied and Losses	-0.06	-0.06	-0.06	-0.06	-0.05	-0.03	-0.04	-0.03	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01			
Unaccounted-for Crude Oil	0.07	0.11	0.18	0.15	0.14	0.14	0.20	0.20	0.26	0.20	0.26	0.17	0.34	0.29	0.27			
Total Crude Oil Supply	11.77	11.69	12.04	12.00	12.72	12.85	13.25	13.40	13.41	13.30	13.41	13.61	13.87	13.93	13.98			
Other Supply																		
NGL Production	1.55	1.56	1.63	1.61	1.55	1.60	1.62	1.55	1.56	1.66	1.70	1.74	1.73	1.72	1.72			
Other Hydrocarbon and Alcohol Inputs	0.07	0.08	0.08	0.11	0.11	0.12	0.11	0.11	0.13	0.15	0.20	0.25	0.25	0.31	0.32			
Crude Oil Product Supplied	0.06	0.07	0.06	0.06	0.05	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01			
Processing Gain	0.57	0.49	0.55	0.56	0.62	0.64	0.66	0.66	0.70	0.71	0.77	0.76	0.76	0.78	0.78			
Net Product Imports <sup>c</sup>	1.05	1.15	1.47	1.29	1.41	1.39	1.63	1.50	1.38	0.96	0.94	0.93	1.06	1.10	1.43			
Product Stock Withdrawn or Added (-) <sup>d</sup>	0.28	0.15	-0.08	0.15	-0.12	0.09	0.03	0.13	-0.14	-0.04	0.06	-0.05	0.00	-0.05	0.02			
Total Supply	15.50	15.46	15.76	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.68	17.79	18.25			
<b>Demand</b>																		
Motor Gasoline <sup>e</sup>	6.45	6.58	6.69	6.78	6.94	7.19	7.36	7.40	7.31	7.23	7.38	7.48	7.59	7.73	7.84			
Jet Fuel	1.01	1.05	1.18	1.22	1.31	1.38	1.45	1.49	1.52	1.47	1.45	1.47	1.53	1.59	1.62			
Distillate Fuel Oil	2.67	2.69	2.84	2.87	2.91	2.98	3.12	3.16	3.02	2.92	2.98	3.04	3.17	3.17	3.24			
Residual Fuel Oil	1.72	1.42	1.37	1.20	1.42	1.26	1.38	1.37	1.23	1.16	1.09	1.08	1.00	0.96	1.09			
Other Oils <sup>f</sup>	3.55	3.65	3.64	3.61	3.61	3.83	4.00	3.98	3.98	4.24	4.17	4.40	4.35	4.46				
Total Demand <sup>g</sup>	15.50	15.46	15.76	15.78	16.33	16.72	17.34	17.37	17.04	16.77	17.10	17.24	17.68	17.79	18.25			
Total Petroleum Net Imports	6.53	5.45	5.78	6.00	5.70	6.83	7.56	8.09	8.58	8.11	7.52	7.62	7.99	8.28	8.91			
Closing Stocks (million barrels)																		
Crude Oil (excluding SPR) <sup>h</sup>	350	344	345	321	331	349	330	341	323	325	318	335	337	335	335			
Total Motor Gasoline	235	222	243	223	233	226	228	213	220	219	216	226	215	223	222			
Jet Fuel	37	39	42	40	50	50	44	41	52	49	43	40	47	46	48			
Distillate Fuel Oil	179	140	161	144	155	134	124	106	132	144	141	141	145	144	142			
Residual Fuel Oil	66	49	53	50	47	47	45	44	49	50	43	44	42	47	45			
Other Oils <sup>h</sup>	270	281	261	247	265	260	267	257	261	267	263	273	276	285	280			

<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 an estimate of minor product stock change based on monthly data.<sup>e</sup> For years prior to 1993, motor gasoline includes an estimate of fuel ethanol blended into gasoline and certain product reclassifications, not reported elsewhere in EIA. See Appendix B in Energy Information Administration, Short-Term Energy Outlook, EIA/DOE-0202(93/3Q), for details on this adjustment.<sup>f</sup> Includes crude oil product supplied, natural gas liquids, liquefied refinery gas, other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate, and residual fuel oil.<sup>g</sup> Includes crude oil in transit to refineries.<sup>h</sup> Includes stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphtas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

SPR: Strategic Petroleum Reserve

NGL: Natural Gas Liquids

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

Sources: Historical data: Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109(93/01-95/03); and *Weekly Petroleum Status Report*, DOE/EIA-0208(various issues).

**Table A6. Annual U.S. Natural Gas Supply and Demand**

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Supply</b>															
Total Dry Gas Production <sup>a</sup>	17.82	16.09	17.47	16.45	16.06	16.62	17.10	17.31	17.81	17.70	17.84	18.24	18.85	18.95	19.08
Net Imports	0.88	0.86	0.79	0.89	0.69	0.94	1.22	1.27	1.45	1.64	1.92	2.21	2.38	2.51	2.75
Supplemental Gaseous Fuels	0.15	0.13	0.11	0.13	0.11	0.10	0.10	0.11	0.12	0.11	0.12	0.12	0.13	0.13	0.11
Total New Supply	18.85	17.09	18.36	17.47	16.86	17.66	18.42	18.69	19.38	19.45	19.88	20.57	21.36	21.59	21.95
Underground Working Gas Storage															
Opening	6.57	6.88	6.44	6.71	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.96	6.82
Closing	6.88	6.44	6.71	6.45	6.57	6.55	6.65	6.33	6.94	6.78	6.64	6.65	6.96	6.82	6.78
Net Withdrawals	-0.31	0.44	-0.26	0.26	-0.12	0.02	-0.10	0.33	-0.61	0.16	0.14	-0.01	-0.31	0.14	0.04
Total Supply <sup>a</sup>	18.54	17.53	18.10	17.73	16.74	17.68	18.32	19.02	18.77	19.61	20.02	20.56	21.05	21.73	21.99
Balancing Item <sup>b</sup>	-0.54	-0.69	-0.15	-0.45	-0.52	-0.47	-0.29	-0.22	-0.05	-0.58	-0.47	-0.27	-0.45	-0.43	-0.47
Total Primary Supply <sup>a</sup>	18.00	16.83	17.95	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.29	20.60	21.30	21.52
<b>Demand</b>															
Lease and Plant Fuel	1.11	0.98	1.08	0.97	0.92	1.15	1.10	1.07	1.24	1.13	1.17	1.18	1.24	1.21	1.22
Pipeline Use	0.60	0.49	0.53	0.50	0.49	0.52	0.61	0.63	0.66	0.60	0.59	0.62	0.63	0.67	0.65
Residential	4.63	4.38	4.56	4.43	4.31	4.31	4.63	4.78	4.39	4.56	4.69	4.96	4.83	4.84	5.05
Commercial	2.61	2.43	2.52	2.43	2.32	2.43	2.67	2.72	2.62	2.73	2.80	2.86	3.00	3.02	3.17
Industrial (Incl. Nonutilities)	5.83	5.64	6.15	5.90	5.58	5.95	6.38	6.82	7.02	7.23	7.53	7.99	7.92	8.42	8.43
Cogenerators <sup>c</sup>	NA	1.11	1.30	1.43	1.67	1.77	1.94	2.06	2.18						
Other Nonutil. Gen. <sup>c</sup>	NA	0.07	0.08	0.14	0.18	0.25	0.28	0.31	0.34						
Electric Utilities	3.23	2.91	3.11	3.04	2.60	2.84	2.64	2.79	2.79	2.79	2.77	2.68	2.99	3.12	2.99
Total Demand	18.00	16.83	17.95	17.28	16.22	17.21	18.03	18.80	18.72	19.03	19.54	20.29	20.60	21.30	21.52

<sup>a</sup> Excludes nonhydrocarbon gases removed.

<sup>b</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 italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Natural Gas Monthly*, DOE/EIA-0130(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02); Form EIA-867(annual nonutility items).

**Table A7. Annual U.S. Coal Supply and Demand**

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Supply</b>															
Production .....	838.1	782.1	895.9	883.6	890.3	918.8	950.3	980.7	1029.1	996.0	997.5	945.4	1030.4	1041.5	1057.9
Primary Stock Levels <sup>a</sup>															
Opening .....	24.1	36.8	33.9	34.1	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	33.0
Closing .....	36.8	33.9	34.1	33.1	32.1	28.3	30.4	29.0	33.4	33.0	34.0	25.3	33.2	33.0	34.0
Net Withdrawals .....	-12.6	2.9	-0.2	1.0	1.0	3.8	-2.1	1.4	-4.4	0.4	-1.0	8.7	-7.9	0.2	-1.0
Imports .....	0.7	1.3	1.3	2.0	2.2	1.7	2.1	2.9	2.7	3.4	3.8	7.3	7.6	7.8	7.9
Exports .....	106.3	77.8	81.5	92.7	85.5	79.6	95.0	100.8	105.8	109.0	102.5	74.5	71.4	76.6	82.6
Total Net Domestic Supply .....	719.9	708.4	815.6	793.9	808.0	844.7	855.3	884.2	921.6	890.9	897.8	886.9	958.7	972.9	982.1
Secondary Stock Levels <sup>b</sup>															
Opening .....	185.3	195.3	168.7	197.2	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	155.0
Closing .....	195.3	168.7	197.2	170.2	175.2	185.5	158.4	146.1	168.2	167.7	163.7	120.5	136.1	155.0	159.7
Net Withdrawals .....	-10.0	26.6	-28.6	27.0	-5.0	-10.2	27.0	12.3	-22.1	0.5	4.0	43.2	-15.6	-18.9	-4.7
Total Supply .....	710.0	735.0	787.0	820.8	803.1	834.4	882.3	896.5	899.4	891.4	901.8	930.2	943.1	954.0	977.4
<b>Demand</b>															
Coke Plants .....	40.9	37.0	44.0	41.1	35.9	37.0	41.9	40.5	38.9	33.9	32.4	31.3	31.7	31.1	30.8
Electricity Production															
Electric Utilities .....	593.7	625.2	664.4	693.8	685.1	717.9	758.4	766.9	773.5	772.3	779.9	813.5	817.3	830.4	852.3
Nonutilities (Excl. Cogen.) .....	NA	NA	NA	4.6	7.4	10.0	12.5								
Retail and General Industry <sup>c</sup> .....	72.3	74.4	82.9	83.2	83.3	82.1	83.4	82.3	83.1	81.5	80.2	81.1	81.1	82.5	81.9
Total Demand <sup>d</sup> .....	706.9	736.7	791.3	818.0	804.2	836.9	883.6	889.7	895.5	887.6	892.4	930.5	937.5	954.0	977.4
Discrepancy <sup>e</sup> .....	3.1	-1.6	-4.3	2.8	-1.2	-2.5	-1.3	6.8	3.9	3.7	9.4	-0.4	5.6	S	S

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

<sup>b</sup> Secondary stocks are held by users.

<sup>c</sup> Synfuels plant demand in 1993 was 1.7 million tons per quarter, and is assumed to remain at that level in 1994, 1995, and 1996.

<sup>d</sup> Total excludes any shipments to independent power producers not calculated in Retail and General Industry for years prior to 1993.

<sup>e</sup> Historical period discrepancy reflects an unaccounted-for shipper and receiver reporting difference, plus any shipment to independent power producers not captured in Retail and General Industry.

Notes: Rows and columns may not add due to independent rounding. (S) indicates amounts of less than 50,000 tons. Historical data are printed in bold, forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); and *Quarterly Coal Report*, DOE/EIA-0121(94/4Q).

**Table A8. Annual U.S. Electricity Supply and Demand**

	Year														
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Supply</b>															
Net Utility Generation															
Coal .....	1192.0	1259.4	1341.7	1402.1	1385.8	1463.8	1540.7	1553.7	1559.6	1551.2	1575.9	1639.2	1635.5	1667.8	1720.8
Petroleum .....	146.8	144.5	119.8	100.2	136.6	118.5	148.9	158.3	117.0	111.5	88.9	99.5	91.0	90.7	104.5
Natural Gas .....	305.3	274.1	297.4	291.9	248.5	272.6	252.8	266.6	264.1	264.2	263.9	258.9	291.1	295.0	282.9
Nuclear .....	282.8	293.7	327.6	383.7	414.0	455.3	527.0	529.4	576.9	612.6	618.8	610.3	640.4	634.2	646.6
Hydroelectric .....	309.2	332.1	321.2	281.1	290.8	249.7	222.9	265.1	279.9	275.5	239.6	265.1	243.6	259.8	273.5
Geothermal and Other <sup>a</sup> .....	5.2	6.5	8.6	10.7	11.5	12.3	12.0	11.3	10.7	10.1	10.2	9.6	9.0	12.1	7.8
Subtotal .....	2241.2	2310.3	2416.3	2469.8	2487.3	2572.1	2704.3	2784.3	2808.2	2825.0	2797.2	2882.5	2910.7	2959.5	3036.0
Nonutility Generation <sup>b</sup> .....	NA	191.6	222.0	253.6	296.0	325.2	354.6	378.1	400.8						
Total Generation .....	NA	2975.9	3030.2	3078.7	3093.2	3207.8	3265.3	3337.6	3436.8						
Net Imports .....	29.3	35.3	39.7	40.9	35.9	46.3	31.8	11.0	2.0	22.3	28.3	28.4	42.4	41.3	40.3
Total Supply .....	2276.5	2358.6	2474.0	2536.8	2560.5	2666.8	2804.1	2986.8	3032.1	3100.9	3121.6	3236.2	3307.7	3378.9	3477.0
Lost and Unaccounted for <sup>c</sup> .....	190.1	207.7	188.2	212.8	191.8	209.5	226.0	231.5	206.1	217.1	226.6	237.0	232.3	235.6	237.3
<b>Demand</b>															
Electric Utility Sales															
Residential .....	729.5	750.9	780.1	793.9	819.1	850.4	892.9	905.5	924.0	955.4	935.9	994.8	1007.1	1017.0	1059.2
Commercial .....	526.4	543.8	582.6	606.0	630.5	660.4	699.1	725.9	751.0	765.7	761.3	794.6	823.3	853.5	888.3
Industrial .....	744.9	776.0	837.8	836.8	830.5	858.2	896.5	925.7	945.5	946.6	972.7	977.2	1002.1	1021.5	1033.4
Other .....	85.6	80.2	85.2	87.3	88.6	88.2	89.6	89.8	92.0	94.3	93.4	94.9	95.5	96.6	97.5
Subtotal .....	2086.4	2151.0	2285.8	2324.0	2368.8	2457.3	2578.1	2646.8	2712.6	2762.0	2763.4	2861.5	2928.1	2988.7	3078.3
Nonutility Generation for Own Use <sup>b</sup> .....	NA	108.5	113.5	121.8	131.6	137.8	147.4	154.6	161.4						
Total Demand .....	NA	2755.3	2826.0	2883.8	2895.0	2999.2	3075.5	3143.3	3239.7						
Memo:															
Utility Purchases from Nonutilities <sup>b</sup> .....	6.0	13.0	18.0	26.0	37.3	48.3	68.0	83.1	108.6	131.8	164.4	187.5	207.2	223.6	239.3

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

<sup>b</sup>Electricity received from nonutility sources, including cogenerators and small power producers. Quarterly estimates and projections for nonutility net sales, own use, and generation by fuel source supplied by the Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration (EIA), based on annual data reported to EIA on Form EIA-867.

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

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

Sources: Historical data: Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(95/03); *Electric Power Monthly*, DOE/EIA-0226(95/02); Form EIA-867 (annual nonutility items); Projections: Energy Information Administration, Short-Term Integrated Forecasting System database, and Office of Coal, Nuclear, Electric and Alternate Fuels Energy Information Administration.

## Text References and Notes

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### Summer Outlook for Motor Gasoline

<sup>1</sup>These and other projections in this article are based on simulations of the Short-Term Integrated Forecasting System and are consistent with its base case projections.

<sup>2</sup>Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (Washington, DC) various issues.

### International Oil Demand

<sup>3</sup>Developing world is defined as all countries not included in either the OECD or FSU, and excluding China, which is listed separately.

<sup>4</sup>Asia is defined as including: Afghanistan, American Samoa, Bangladesh, Bhutan, Brunei, Cambodia, Fiji, French Polynesia, Hong Kong, India, Indonesia, North Korea, South Korea, Laos, Macau, Malaysia, Maldives, Mongolia, Myanmar, Nauru, Nepal, New Caledonia, Pakistan, Papua New Guinea, Philippines, Western Samoa, Singapore, Solomon Islands, Sri Lanka, Taiwan, Thailand, U.S. Pacific Islands, Vanuatu, Vietnam, Wake Island. It does not include China, which is listed separately, or Australia and New Zealand, which are included in the OECD.

<sup>5</sup>Latin America is defined as including all of the countries of Central and South America, plus Mexico, but excluding Puerto Rico and the U.S. Virgin Islands.

<sup>6</sup>Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.

### International Oil Supply

<sup>7</sup>Excess capacity data by country provided by Energy Information Administration, Energy Markets and Contingency Information Division.

### U.S. Oil Demand

<sup>8</sup>Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035 (Washington, DC, February 1995), Table 3.1a.

<sup>9</sup>Principal oil-using areas include the New England, Mid Atlantic and South Atlantic Census Divisions. For those areas, total electric utility output is expected to rise by about 4.5 percent between 1994 and 1996. At the same time, nuclear output is expected to decline by more than 6 percent, and output by fossil fuel units are expected to grow by about 10 percent. This would include recovery in oil plant utilization. Source: Energy Information Administration, Energy Markets and Contingency Information Division internal data.

### U.S. Oil Supply

<sup>10</sup>Estimate provided by the Energy Information Administration, Reserves and Natural Gas Division.

<sup>11</sup>Estimate provided by the Energy Information Administration, Reserves and Natural Gas Division.

<sup>12</sup>Drilling rig projections provided by the Energy Information Administration, Reserves and Natural Gas Division.

### U.S. Energy Prices

<sup>13</sup>Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130(95/03), Table 4.

<sup>14</sup>Energy Information Administration, *U.S. Energy Industry Financial Developments: 1994 Fourth Quarter*, DOE/EIA-0543(94/4Q) (Washington, DC, 1994), Tables 2 and 3.

## **Text References and Notes**

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<sup>15</sup>Platt's Oilgram Price Report, November 15, 1994, page 8; and March 16, 1995, page 8.

<sup>16</sup>Energy Information Administration, *U.S. Energy Industry Financial Developments, 1994 Fourth Quarter*, DOE/EIA-0543 (94/4Q) (Washington, DC), Table 3.

<sup>17</sup>Natural Gas Week, April 3, 1995, "Composite Average Spot Wellhead Price", p. 4.

### **U.S. Natural Gas Demand**

<sup>18</sup>Edison Electric Institute, *Quarterly Statistical Report*, (Washington, DC, March 17, 1995), p. 1.

<sup>19</sup>Agis Salpukas, "In Power Industry, Changes Batter Independents," New York Times, March 17, 1995, p. D1.

### **U.S. Natural Gas Supply**

<sup>20</sup>Natural Gas Week, April 3, 1995, p. 16.

<sup>21</sup>Energy Information Administration, Reserves and Natural Gas Division.

### **U.S. Electricity Demand and Supply**

<sup>22</sup>Preliminary data from the Canadian National Energy Board.

<sup>23</sup>Canadian National Energy Board, *Reasons for Decision: Hydro Quebec*, (Calgary, Alberta, December 1994), pp. 22-27.

<sup>24</sup>Authorizations for international electricity trade in both Canada and the United States are needed only for exports of electricity, not for imports.

### **U.S. Renewable Energy Demand**

<sup>25</sup>"FERC Overturns California Auction Process, Shaking Up States, Independent Power," *Electric Utility Week* (February 27, 1995), pp. 1, 12 and 13, and "70's Dreams, 90's Realities--Renewable Energy: A Luxury Now. A Necessity Later?" *New York Times* (April 11, 1995), pp. D1 and D8.

## Figure References

The following is a list of references for the figures appearing in this issue of the *Short-Term Energy Outlook*. Except where noted, all data for figures are taken from datasets containing monthly values of each variable depicted, aggregated to quarterly or annual values as required using appropriate weights. The datasets are created by particular runs of the Short-Term Integrated Forecasting System (STIFS) Model, depending on the scenario or set of scenarios depicted. Also, except when noted, all figures refer to the base or "BBB" case. Other cases referred to are: the high world oil price "BHB"; low world oil price "BLB"; severe weather "BBL"; mild weather "BBS"; strong economic growth "HBB"; weak economic growth "LBB"; weak economic growth with high world oil prices "WHB"; and strong economic growth with low world oil prices "PLB."

1. **History:** Import cost: Compiled from monthly data for the refiner acquisition cost of imported crude oil used in publication of Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487, Table 1 for historical series; for recent values, *Petroleum Marketing Monthly*, DOE/EIA-0380, Table 1; West Texas Intermediate spot price, *Oil and Gas Journal Database*, March 8, 1995. **Projections:** Second quarter 1995 STIFS database, BBB, BLB, and BHB cases; and Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
2. **History:** Manufacturing Production: Federal Reserve System, Statistical Release G 17; GDP: U.S. Department of Commerce Bureau of Economic Analysis, *National Income and Product Accounts of the U.S.* **Projections:** DRI/McGraw-Hill Forecast CONTROL0395, modified by EIA's Office of Integrated Analysis and Forecasting with STIFS energy price forecasts.
3. **History:** Compiled from annual data used in publication of Energy Information Administration, *International Energy Annual*, DOE/EIA-0219, Table 8 for historical series; for recent values, *International Petroleum Statistics Report*, DOE/EIA-0520, Table 2.4; Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Administration. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
4. **History:** Compiled from annual data used in publication of Energy Information Administration, *International Energy Annual*, DOE/EIA-0219, Table 8 for historical series; for recent values, *International Petroleum Statistics Report*, DOE/EIA-0520, Table 2.4; and Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Administration. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
5. **History:** Compiled from annual data used in publication of Energy Information Administration, *International Petroleum Statistics Report*, DOE/EIA-0520, Table 4.1 for historical series and recent data; and Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
6. **History:** Compiled from annual data used in publication of Energy Information Administration, *International Petroleum Statistics Report*, DOE/EIA-0520, Table 4.2 for historical series and recent data;

## Figure References

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Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Administration. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.

7. **History:** Compiled from annual data used in publication of Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035, Table 10.3 for historical series and recent data. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
8. **History:** Compiled from annual data used in publication of Energy Information Administration, *International Energy Annual*, DOE/EIA-0219, Table 1; Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division. **Projections:** Energy Information Administration, Office of Energy Markets and End Use, Energy Markets and Contingency Information Division.
9. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Tables S4 through S10; *Petroleum Supply Monthly*, DOE/EIA-0109, Tables S4 through S10, adjusted in years prior to 1993 for new (1993) reporting basis for fuel ethanol blended into motor gasoline (See *Short-Term Energy Outlook*, DOE/EIA-0202(93/3Q), Appendix B). **Projections:** Second quarter 1995 STIFS database, case "BBB."
10. **History:** Travel: Compiled from monthly data used in the Federal Highway Administration publication, *Traffic Volume Trends*; Demand: Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Table S4 for historical series, adjusted for 1993 reporting basis (see note 9 above); for recent values, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S4; MPG is calculated as Travel (in miles)/Demand (in gallons). **Projections:** Second quarter 1995 STIFS database, case "BBB."
11. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Table S1 for historical series; for recent values, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S1. **Projections:** Second quarter 1995 STIFS database, cases "BBB," "WHB," and "PLB;" and EIA's Reserves and Natural Gas Division.
12. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Table S1 for historical series; for recent values, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S1. **Projections:** Second quarter 1995 STIFS database, case "BBB." The imports share variable is calculated as the ratio of total net petroleum imports divided by total petroleum demand.
13. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487, Table 1, and *Natural Gas Monthly*, DOE/EIA-0130, Table 4, for historical series; for recent values, *Petroleum Marketing Monthly*, DOE/EIA-0380, Table 1. **Projections:** Second quarter 1995 STIFS database.

## Figure References

14. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Marketing Annual*, DOE/EIA-0487, Tables 2, 4, and, 15, for historical series; for recent values, *Petroleum Marketing Monthly*, DOE/EIA-0380, Tables 2, 4 and 15. **Projections:** Second quarter 1995 STIFS database.
15. **History:** Crude oil cost component: compiled from monthly data used in publication of Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380, Table 1; Motor fuel taxes component: Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380, Table EN1; regulatory component (oxygenated and reformulated gasoline programs) calculations provided by Tancred C. Lidderdale, Energy Markets and Contingency Information Division, Energy Information Administration. **Projections:** Second quarter 1995 STIFS database.
16. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S5. **Projections:** Second quarter 1995 STIFS database, case "BBB."
17. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130, Table 4. **Projections:** Second quarter 1995 STIFS database, case "BBB."
18. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226, Table 60. **Projections:** Second quarter 1995 STIFS database, case "BBB."
19. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Table S1 for historical series adjusted for 1993 reporting basis (see note 9 above); for recent values, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S1. **Projections:** Second quarter 1995 STIFS database, cases "BBB," "BBS," and "BBL."
20. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Petroleum Supply Annual, Volume 1*, DOE/EIA-0340/1, Table S1 for historical series adjusted for 1993 reporting basis (see note 9 above); for recent values, *Petroleum Supply Monthly*, DOE/EIA-0109, Table S1. **Projections:** Second quarter 1995 STIFS database, cases "BBB," "HBB," and "LBB."
21. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Natural Gas Annual, Volume 2*, DOE/EIA-0131, Table 3 for historical series; for recent values, Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130. **Projections:** Second quarter 1995 database, case "BBB."
22. **History:** Nonutility Generators, 1989-1993: Energy Information Administration, Form EIA-867 (1993); other volumes compiled from monthly data used in publication of Energy Information Administration, *Natural Gas Annual, Volume 2*, DOE/EIA-0131, Table 3 for historical series; for recent values, Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130. **Projections:** Nonutility Generators: Office of Coal, Nuclear, Electric and Alternate Fuels, Energy Information Administration; other volumes: Second quarter 1995 STIFS database, case "BBB."

## Figure References

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23. **History:** Production and net imports of natural gas compiled from monthly data used in publication of Energy Information Administration, *Natural Gas Annual, Volume 2*, DOE/EIA-0131/2, Table 2 for historical series; for recent production data, *Natural Gas Monthly*, DOE/EIA-0130. **Projections:** Second quarter 1995 STIFS database, case "BBB."
24. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Natural Gas Annual, Volume 2*, DOE/EIA-0131, Table 3 for historical series; for recent values, Energy Information Administration, *Natural Gas Monthly*, DOE/EIA-0130. **Projections:** Second quarter 1995 STIFS database, case "BBB."
25. **History:** Compiled from quarterly data used in publication of Energy Information Administration, *Quarterly Coal Report*, DOE/EIA-0121, Table 45. **Projections:** Second quarter 1995 STIFS database, case "BBB." Note: Nonutility, coke plant, retail and general industry demand for coal is included in "Other."
26. **History:** Compiled from quarterly data used in publication of Energy Information Administration, *Quarterly Coal Report*, DOE/EIA-0121, Table 1. **Projections:** Second quarter 1995 STIFS database, case "BBB"; and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.
27. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226, Table 51. **Projections:** Second quarter 1995 STIFS database, case "BBB."
28. **History:** Compiled from monthly data used in publication of Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226, Table 3 and Form EIA-759. **Projections:** Second quarter 1995 STIFS database, case "BBB"; and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels for hydroelectric and nuclear power forecasts.
29. **Net Imports from Canada:** Natural Resources Canada, *Electricity Power in Canada* (Ottawa, Ontario, 1988 and 1994). **Net U.S. Imports:** Energy Information Administration, *Annual Energy Review 1993*, DOE/EIA-0384(93) (Washington, DC, July 1994). **Preliminary 1994 Data and Projections:** Energy Information Administration, Office of Coal, Nuclear, Electric, and Alternate Fuels.
30. **History:** Compiled from data used in publication of Energy Information Administration, *Annual Energy Review*, DOE/EIA-0384, Table 10.1; Second quarter 1995 STIFS database, and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels. **Projections:** Second quarter 1995 STIFS database and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.
31. **History:** Compiled from data used in publication of Energy Information Administration, *Annual Energy Review*, DOE/EIA-0384, Table 10.1; and Second quarter 1995 STIFS database and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels. **Projections:** Second quarter 1995 STIFS database and Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

### Computation of Petroleum Demand Sensitivities

Table 8 summarizes the response of forecasts of U.S. total petroleum demand to changes in assumptions for economic growth, world crude oil prices, and weather. The values in this table are computed using the Short-Term Integrated Forecasting Model (STIFS). The STIFS model is documented in EIA's *Short-Term Integrated Forecasting System: 1993 Model Documentation Report* (DOE/EIA-M041, May 1993). The purpose of the model is to generate forecasts of U.S. energy supply, demand, and prices. Key inputs include assumptions for the imported price of crude oil, the rate of U.S. economic growth, and weather (cooling and heating degree-days). Forecasts are generated for production, imports, exports, demand, and prices for refined petroleum products, natural gas, coal, and electricity.

A key relationship between petroleum demand and economic activity is shown in Table 8. Gross domestic product (GDP) is varied from low to high for each of the two projection years, and the resulting change in petroleum demand is calculated. For each of the 2 years, the percentage difference in GDP is computed as the difference between the low and high case levels shown in Table 8, divided by the midpoint of this range. Thus, the percentage difference in GDP for 1995 is as follows:  $(5560 - 5453) / ((5560 + 5453) / 2)$ , or 1.9 percent. For each period, the petroleum demand difference (in million barrels per day) is divided by the percentage difference in GDP. For 1995, the average petroleum demand difference is 260,000 barrels per day; thus, a 1-percent change in GDP corresponds to a change in demand

of  $(260,000 / 1.9)$ , or 137,000 barrels per day. For 1996, a 4.2-percent change in GDP corresponds to a change in demand of 670,000 barrels per day; thus, a 1-percent change in GDP corresponds to a demand change of 160,000 barrels per day. The average of the 1995 and 1996 results (weighting the 1995 results by 275 days and the 1996 results by 366 days) is 150,000 barrels per day per 1 percent difference in GDP. Table 8 also shows the differences in petroleum demand due to changes in energy prices caused by varying the world crude oil price. The change in petroleum demand (in million barrels per day) is divided by the change in the crude oil price (in dollars per barrel), and the result is averaged over the two projection years to get an estimate of the change in petroleum demand per dollar of change in the crude oil price.

The influence of weather on petroleum demand is also calculated, using the mid-case values for economic activity and imported crude oil prices. The percentage changes in heating or cooling degree-days are computed and divided by the changes in petroleum demand, and the result is averaged over the two projection periods to get an estimate of the change in petroleum demand per 1-percent change in heating and cooling degree-days. The changes in demand due to changes in heating degree-days apply only to the heating season, roughly the first and fourth quarters of the year, while the changes in demand due to changes in cooling degree-days apply only to the cooling season, roughly the second and third quarters of the year.

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