

STATEMENT

**ASSOCIATED PETROLEUM INDUSTRIES OF PENNSYLVANIA/
AMERICAN PETROLEUM INSTITUTE**

**BEFORE THE
HOUSE JUDICIARY COMMITTEE
SEPTEMBER 5, 2002**

The American Petroleum Institute would like to thank the Committee for the opportunity to present our views on volatile refined product prices over the past three years.

We will review what led to these problems and discuss what we need to do to lessen the potential for similar or worse problems in the future.

We would like to begin by saying that gasoline prices shot up dramatically starting last March because of supply and demand. Nothing more, nothing less. In the wake of September 11, families were driving more and flying less. Consequently, the demand for gasoline was up year over year during the first quarter of this year. In addition, foreign producers cut crude oil production by 2 million barrels per day at the beginning of the year. This tightened supplies raising the price of crude oil by over \$11 per barrel. This is equivalent to a 27 cent per gallon increase in the cost of crude oil. That alone accounted for most of the roughly 30 cents per gallon spike in gasoline prices.

The increase was painful for many families, yet prices remained almost 30 cents per gallon less than they were a year ago. The increase also paled in comparison to what we experienced two decades ago when measured in today's dollars. The average price of a gallon of gasoline in 1981 was \$2.64, and the price of a barrel of crude oil was about \$69. But in some ways, on the face of it, we were better off then. In the same year, we produced 45 percent more petroleum and consumed 20 percent less than we do today. As a result, the U.S. imported only 36 percent of its petroleum compared to the 60 percent we now get from other producing nations. Refinery capacity was over two million barrels a day higher. There were 315 U.S. refineries, and capacity utilization was only 69 percent compared to the current 93 percent. Since that time, more than half the refineries have shut down, but surviving refineries are much bigger.

Why have things in the industry changed so much?

The impact of what happened in the late 1970s and early 1980s cannot be overstated. Higher prices of the time, a deep recession and a steep decline in consumption of petroleum products brought about major changes. Between 1978 and 1983, for example, petroleum consumption declined by 19 percent to 15.2 million barrels per day. This

decline led to a severe recession in the industry. Thousands of workers were laid off and many expansion projects were cancelled.

Another factor that had a big impact was the Windfall Profits Tax of 1980. That drained \$73 billion dollars that otherwise would have been spent on new exploration, refining or marketing. Huge investments required for environmental controls successfully reduced emissions from all facilities but also sharply cut profits. In the 1990s alone, the industry spent \$90 billion on environmental investments. The industry spent almost \$2 billion alone on upgrading underground storage tanks. These investments were never recovered, and, between 1981 and 1998, the rate of return in the refinery sector was just 4 percent.

Because of these regulatory costs, dozens of refineries and storage facilities were closed and thousands of gasoline stations went out of business. This low rate of return forced companies to do everything they could to become more efficient, explaining many of the mergers that occurred. By merging, companies eliminated duplicate functions and saved billions. In addition, the larger merged companies had more capital to make the huge investments required to explore and drill for oil. To cite one example, a deepwater offshore drilling rig can cost \$1 billion.

By becoming more efficient and developing cutting edge technologies, the industry dramatically cut the costs of finding and refining petroleum. As a result, even with the massive environmental investments, gasoline prices, when adjusted for inflation trended downwards in the last half of the 1990s to their lowest point in history.

Despite this good news, we still have a petroleum supply system that is straining to meet consumer needs. Since the mid-1980s, demand for petroleum products has exceeded refinery capacity even though refineries are bigger and more efficient than ever. Storage facilities for crude oil and refined products continue to shrink due to regulations. We now import about 2.5 million barrels of refined petroleum products each day, and that represents 10 percent of demand. And, according to the Department of Energy's Energy Information Administration, these imports are predicted to grow by 140 percent over the next 20 years.

This would not be a concern except that other countries require different gasoline recipes than we do in the United States. On top of that, different U.S. jurisdictions—federal, state and local—require different kinds of fuels to meet their own environmental needs. The existing refinery, pipeline and terminal systems must supply 16 different types of gasoline. These boutique fuels have hamstrung the delivery system, increasing the possibility that any small change in demand or interruption in supply will set off another explosion of price volatility like those we have seen over the last three years.

And the situation could worsen if still other new regulations are not carefully implemented. New rules lowering sulfur content in gasoline and diesel fuel will limit the availability of imported fuel because most foreign refiners do not yet produce the kind of low sulfur fuel that will be required in the U.S.

All this means that we have reached an important crossroads in our ability to supply American consumers with the fuels they need. Two decades of regulation -- no matter how well intentioned -- have put a tremendous strain on the system, reducing both capacity and flexibility. The price spikes for heating oil and gasoline over the last two years are but manifestations of the underlying problems that we face in supplying consumers. It is a continuing challenge just to build sufficient inventories to provide a comfortable supply buffer of either gasoline or heating oil for the coming season.

The price spikes that occurred for heating oil and gasoline were driven by the interplay between supply and demand for those fuels. Our experience with these spikes reveals that markets for petroleum work. Suppliers work quickly to solve problems and get more product to market. As a result, prices are rarely elevated for sustained periods—and on average continue to be very affordable. But better regulations could reduce the volatility or at least help consumers cope with it.

In conclusion, sharp increases in gasoline prices are caused by shifts in supply and demand partially triggered by unwise regulatory policies, limited refinery capacity and unforeseen problems affecting either the manufacturing or distribution of fuels such as a pipeline breakdown. In the spring of 2000, a variety of supply limitations and demand growth drove prices up and then, as markets worked, more supplies rushed in to meet demand in the Midwest and prices fell.

This year's sharp increases in gasoline prices were again due to supply and demand factors. Despite producing record amounts of gasoline this year, strong demand and foreign producer output cuts drove up the price of crude oil and petroleum products.

Let me close with a plea for a call for adoption of a comprehensive energy policy. Prices of gasoline, natural gas and electricity have declined over the past two months, but we should not be lulled into complacency. No sane homeowner would quit repairing a leaky roof simply because it's stopped raining. Likewise, it would be foolish for our nation and its leaders to forego seeking long-term solutions to our increasing energy needs simply because gasoline prices have gone down. As we prepare for the heating oil season, refineries are operating at a very high level and will require maintenance to ensure safety and compliance with environmental standards. Past experience has taught us that we have little breathing room to prepare.

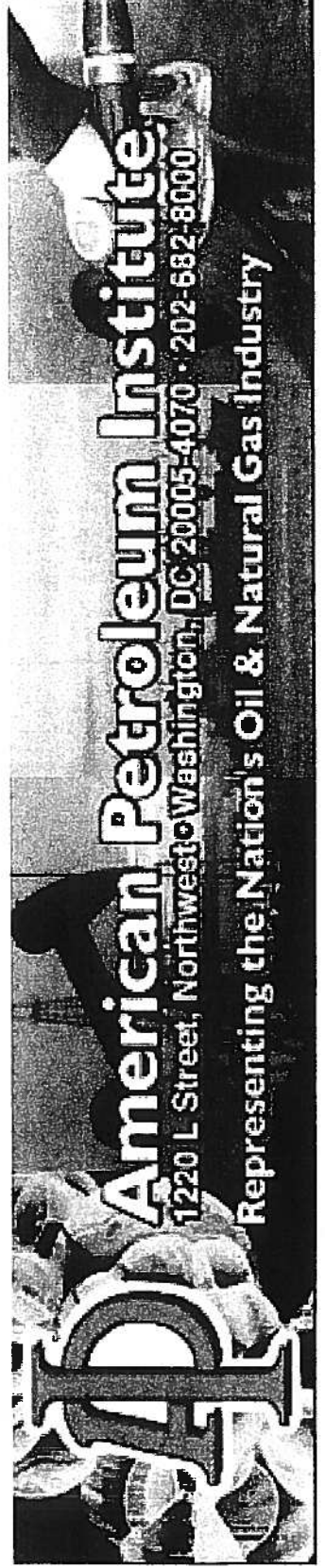
The Department of Energy says we will need 30 percent more energy over the next 20 years. To meet that demand, we will need 35 percent more petroleum or about seven million barrels per day or over 100 billion gallons. To supply this to consumers, we will need more refinery capacity, more pipeline and terminal capacity, more shipping capacity and more port facilities. We must enact a comprehensive policy that adequately promotes cost-effective energy efficiency and conservation, realistic amounts of renewable energy and more supplies of oil, coal, natural gas and nuclear energy. In addition, regulations need to be streamlined to get supplies to consumers more cheaply. Otherwise, we face a risk of more frequent and more severe energy disruptions than we have endured in recent years. ###

Energy Situation

John C. Felmy
Chief Economist and Director
Policy Analysis and Statistics
American Petroleum Institute

Felmyj@api.org

September 5, 2002



Total Gasoline Inventories

	Week ended August 23 Million Barrels	Week ended August 16 Million Barrels	Year Ago Million Barrels	% Change from Last Year	Average 1997-2001 Million Barrels	% Change from Average
National	207.8	209.9	196.3	6	199.8	4
East Coast	57.2	59.2	55.8	3	54.6	5
New England	4.9	5.0	4.2	17	3.9	25
Mid- Atlantic	30.7	31.6	29.1	6	27.7	11
South Atlantic	21.6	22.6	22.5	-4	23.0	-6
Midwest	51.4	51.7	47.8	8	53.3	-4
Gulf Coast	62.0	62.5	58.1	7	58.2	6
Mountain	6.3	6.3	5.3	19	5.4	17
West Coast	30.9	30.3	29.3	5	28.2	9

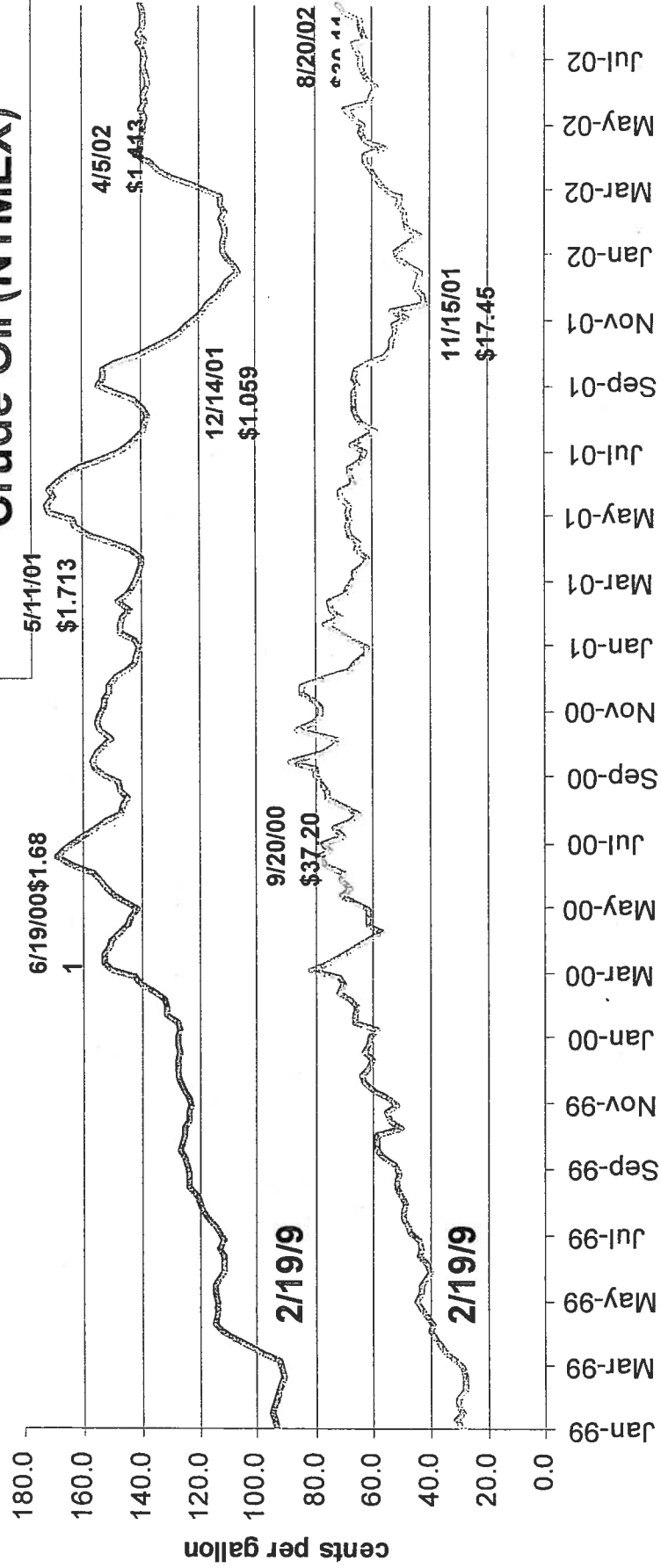
Reformulated Gasoline (RFG) Inventories

	Week ended August 23 Million Barrels	Week ended August 16 Million Barrels	Year Ago Million Barrels	% Change from Last Year	Average 1997-2001 Million Barrels	% Change from Average
National	43.5	43.7	43.1	1	40.6	7
East Coast	19.5	20.5	21.4	-9	17.9	9
New England	3.6	4.0	3.4	6	3.2	13
Mid- Atlantic	12.4	12.7	13.0	-5	10.8	15
South Atlantic	3.5	3.8	5.0	-30	3.9	-9
Midwest	1.2	1.2	2.0	-40	1.8	-32
Gulf Coast	9.8	9.3	9.3	6	9.7	1
Mountain	-	-	-	-	-	-
West Coast	13.0	12.7	10.4	25	11.2	16

Total Distillate Inventories (heating oil and diesel fuel)							
	Week ended Aug 02 Million Barrels	Week ended Jul 26 Million Barrels	Year Ago Million Barrels	% Change from Last Year	Average 1997-2001 Million Barrels	% Change from Average	
National	134.5	132.8	121.2	11	127.3	6	
East Coast	56.5	54.6	47.2	20	52.3	8	
New England	9.6	9.1	8.8	9	11.1	-14	
Mid-Atlantic	32.4	31.5	25.1	29	28.5	14	
South Atlantic	14.5	14.1	13.3	9	12.7	14	
Midwest	30.1	30.9	28.0	8	30.7	-2	
Gulf Coast	33.2	32.5	30.4	9	30.2	10	
Mountain	3.1	3.1	3.3	-6	2.9	7	
West Coast	11.5	11.6	12.3	-7	11.2	3	
High Sulfur Distillate Inventories (heating oil)							
	Week ended Aug 02 Million Barrels	Week ended Jul 26 Million Barrels	Year Ago Million Barrels	% Change from Last Year	Average 1997-2001 Million Barrels	% Change from Average	
National	57.0	54.5	49.5	15	57.9	-2	
East Coast	35.8	33.7	28.6	25	34.1	5	
New England	7.4	6.9	6.8	9	9.2	-20	
Mid-Atlantic	22.9	22.1	16.3	40	19.9	15	
South Atlantic	5.5	4.7	5.6	-2	5.0	10	
Midwest	8.0	8.3	7.7	4	9.2	-13	
Gulf Coast	10.5	9.8	10.2	3	11.3	-7	
Mountain	0.40	0.36	0.68	-42	0.50	-21	
West Coast	2.2	2.3	2.3	-4	2.7	-19	

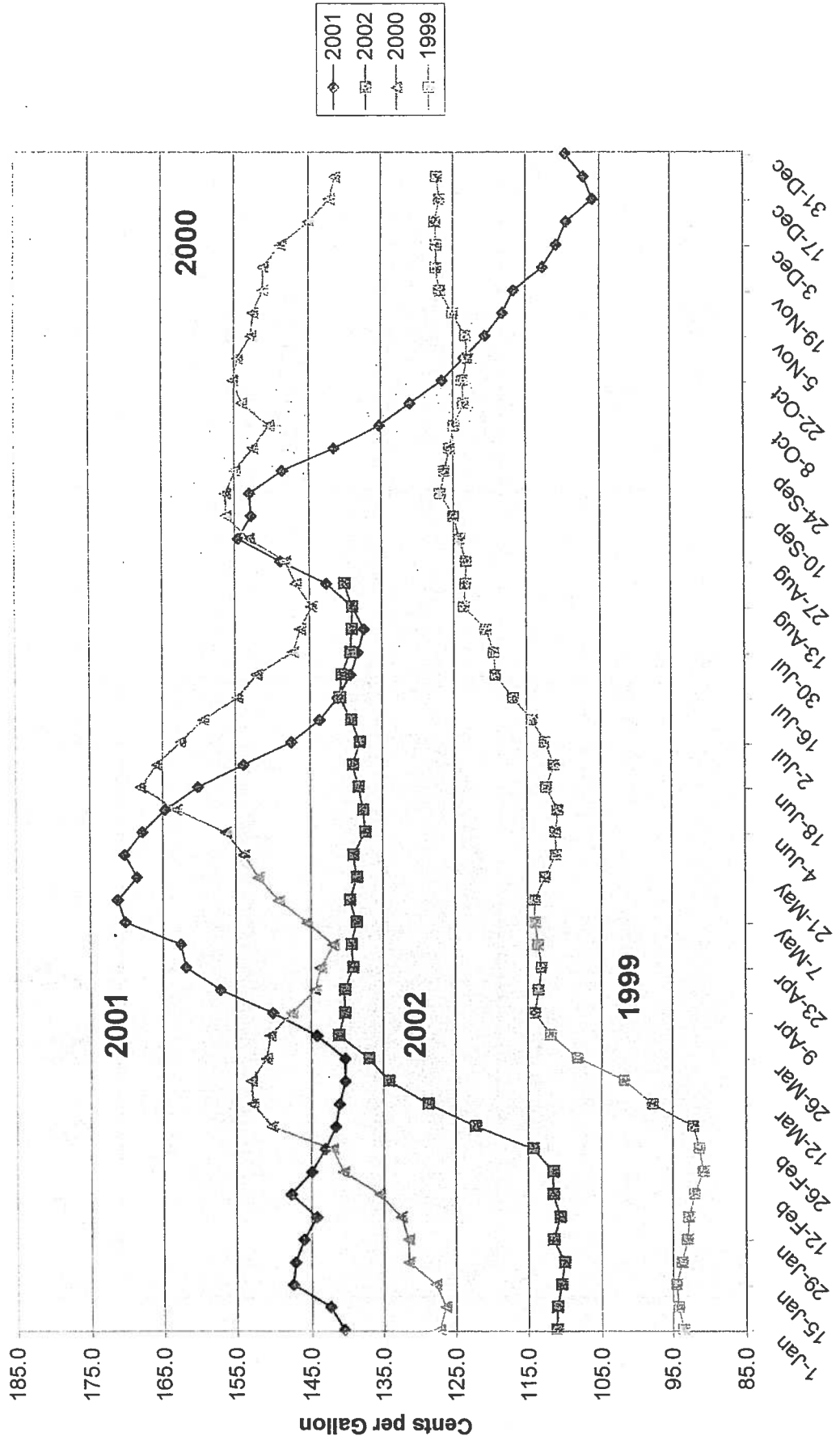
Crude Oil and Gasoline Prices

Regular Gasoline - EIA
 Crude Oil (NYMEX)

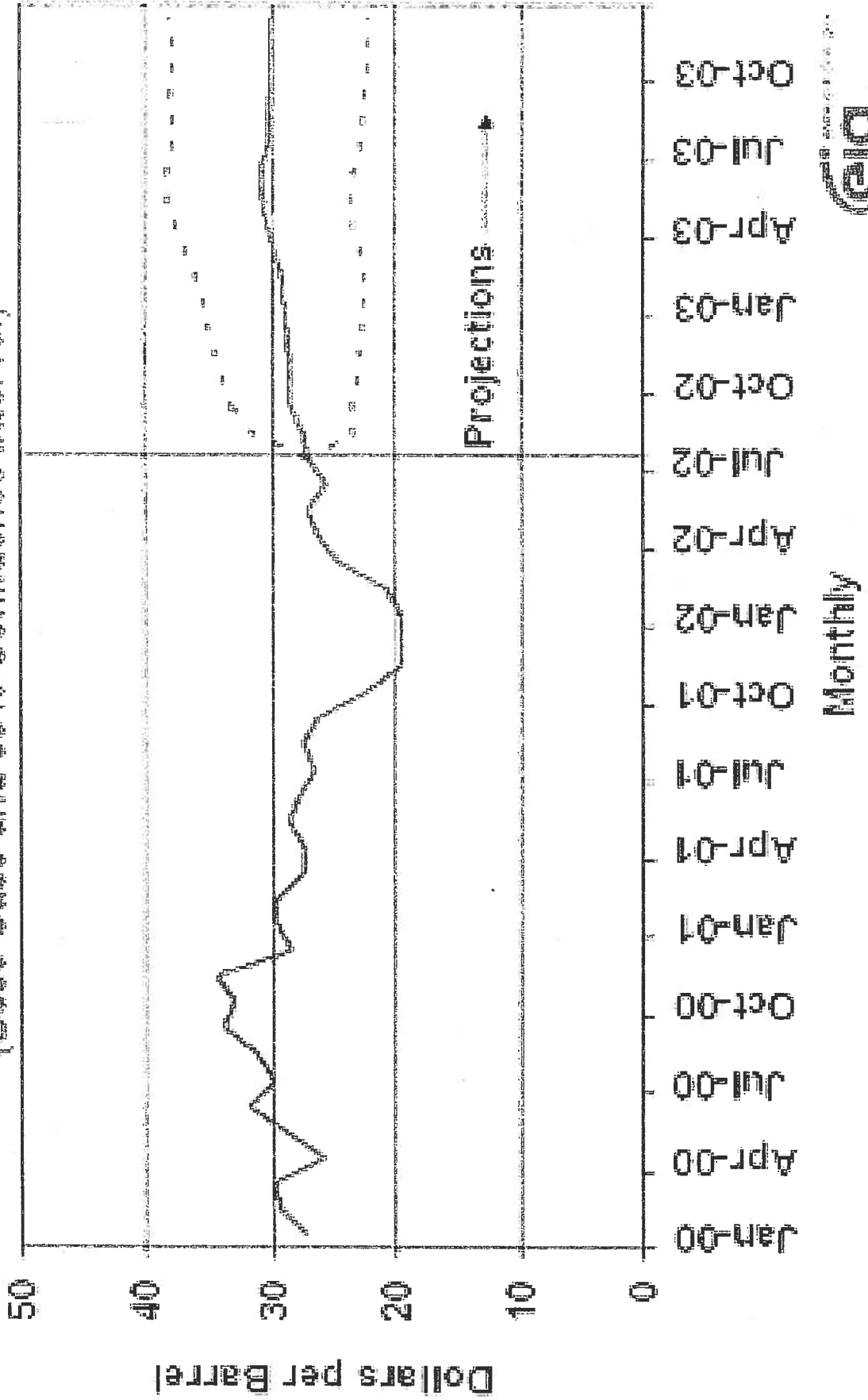


Regular Gasoline Prices - 2001 vs 2002

Source: EIA



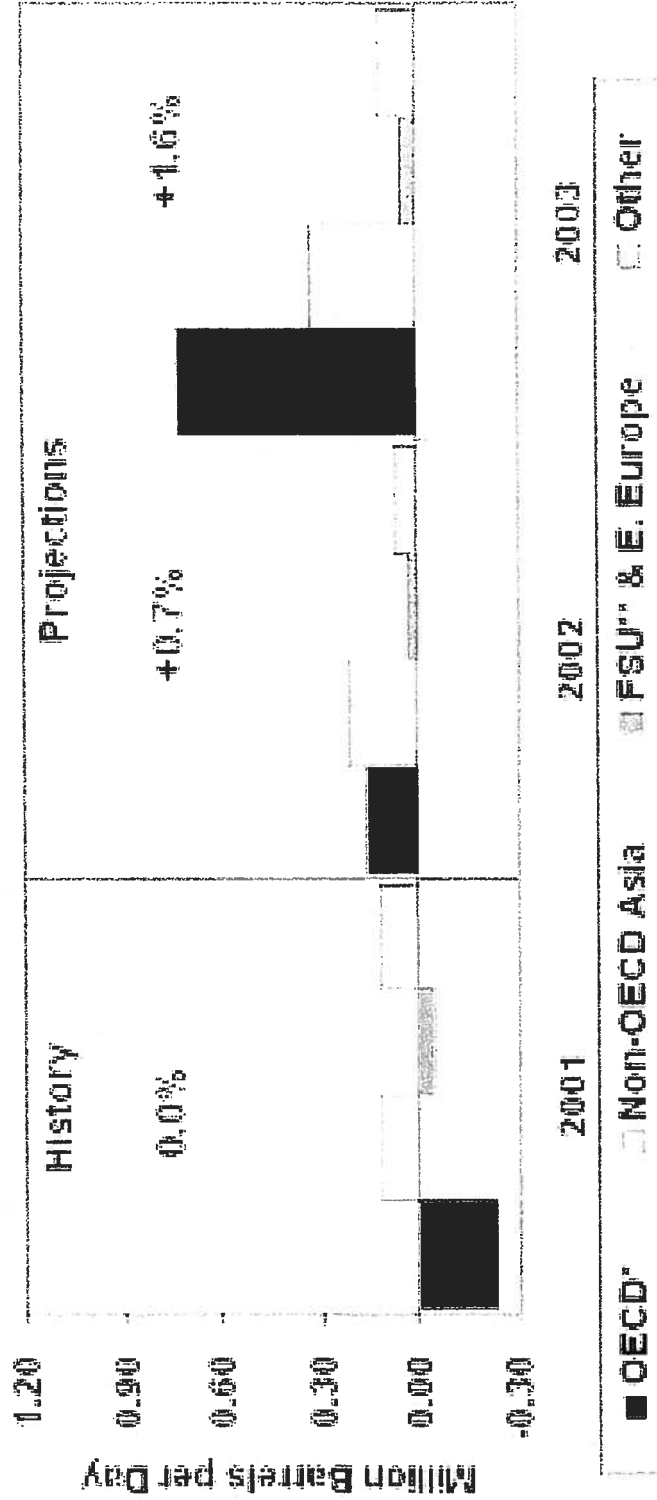
**Figure 1. WTI Crude Oil Price
(Base Case and 95% Confidence Interval)**



Monthly

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

**Figure 4. World Oil Demand Growth
(Change from Year Ago)**

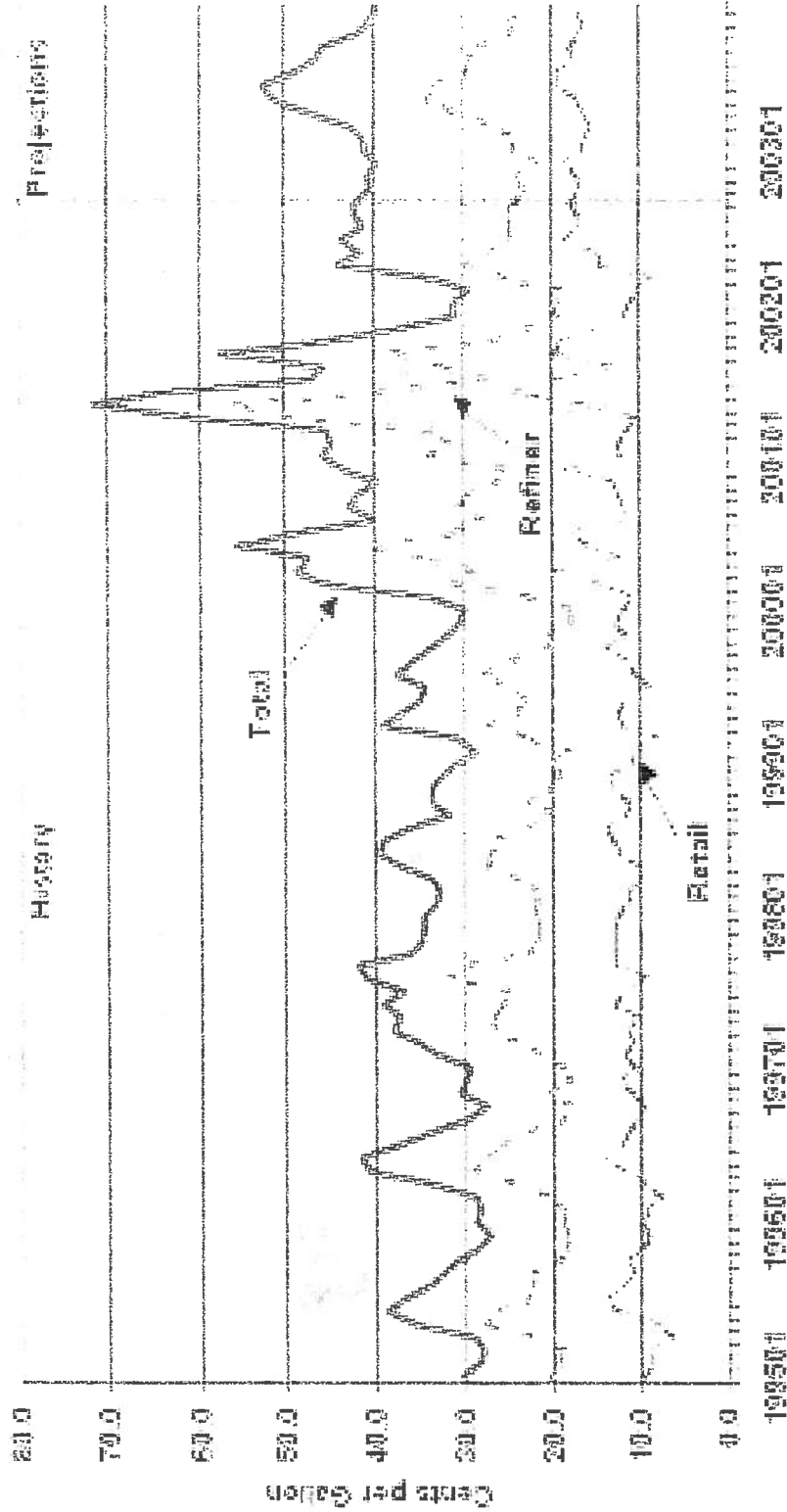


* OECD (non-OECD) includes the United States, Japan, Mexico, Europe, and Canada (except in 2002 and 2003). ** FSU = Former Soviet Union.

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

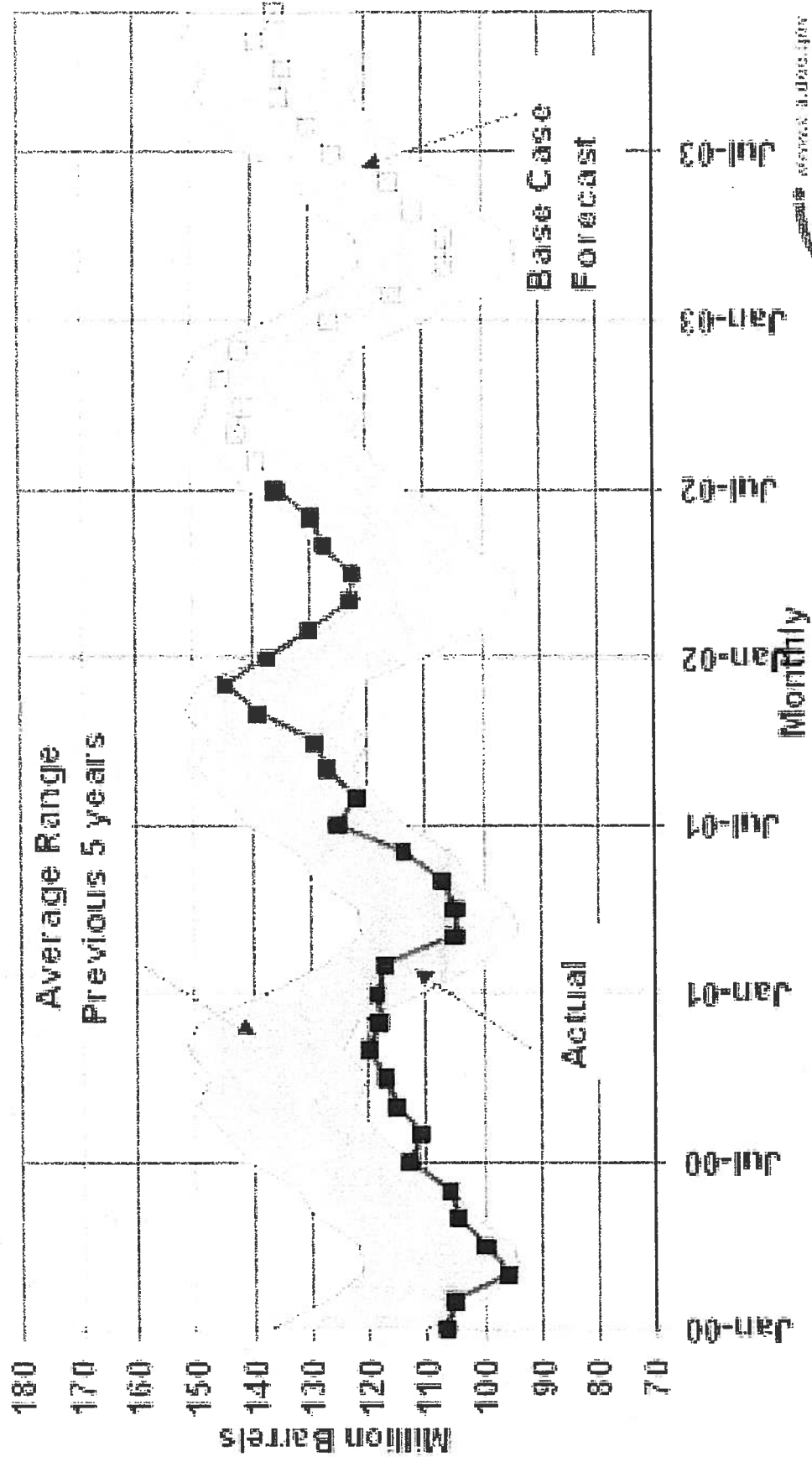


Figure 5. Motor Gasoline Spreads



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

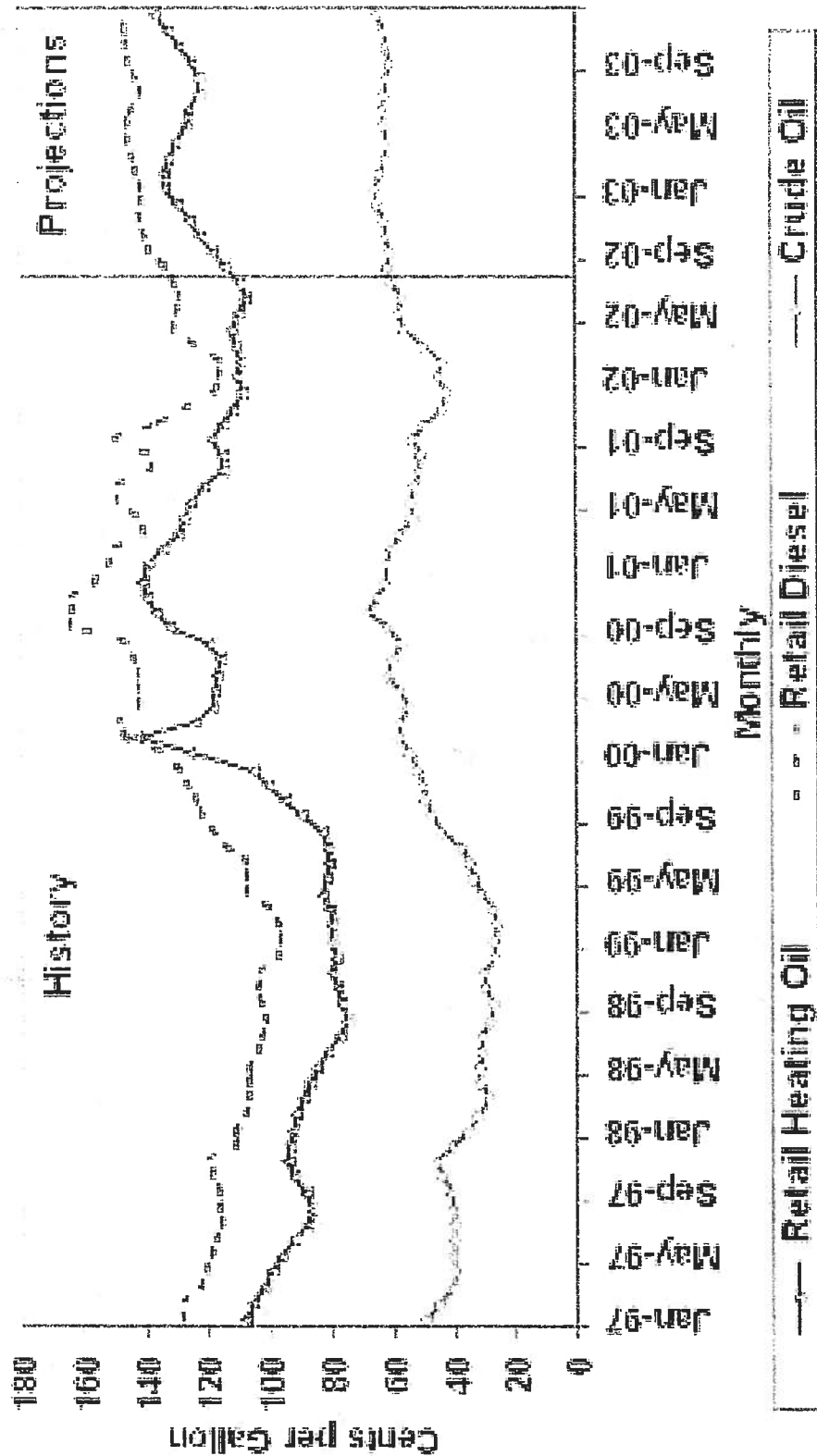
Figure 7. Distillate Fuel Inventories



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



Figure 8. Distillate Fuel Prices

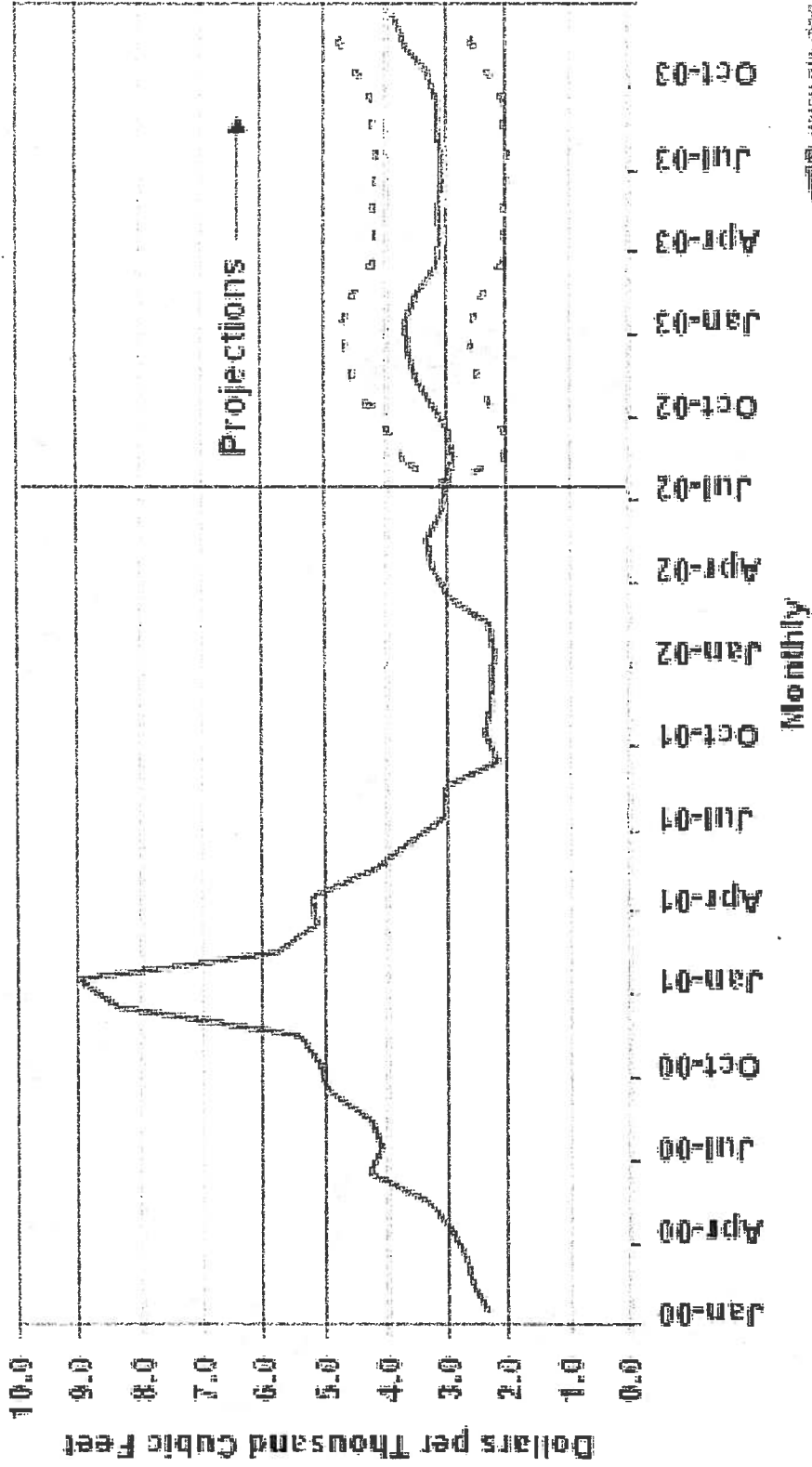


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Sources: History: EIA; Projections: Short-Term Energy Outlook, August 2002.

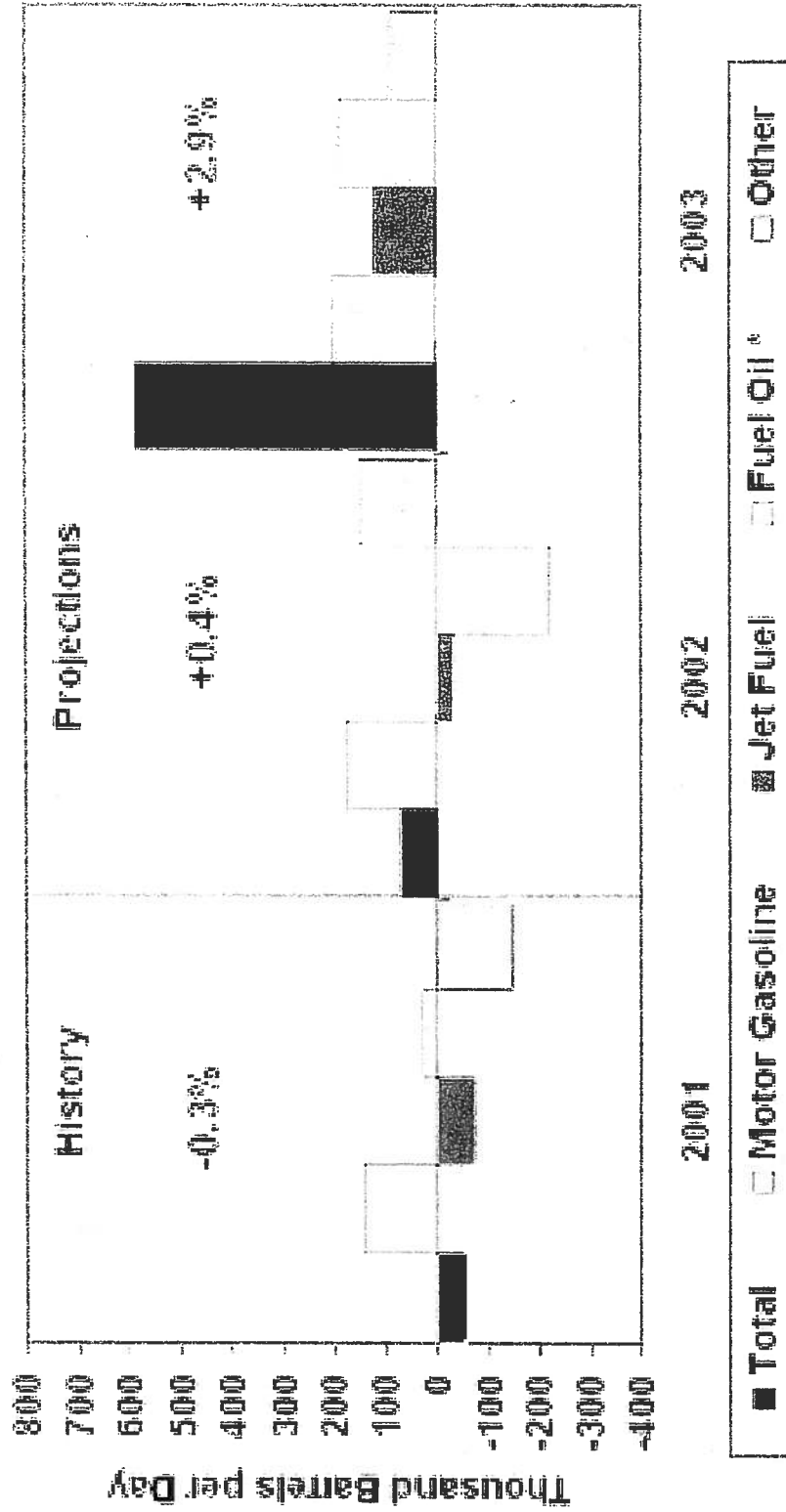
**Figure 9. Natural Gas Spot Prices
(Base Case and 95% Confidence Interval)**



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

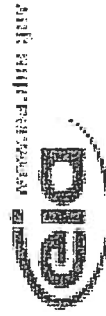


**Figure 10. Petroleum Products Demand and Growth
(Change from Year Ago)**

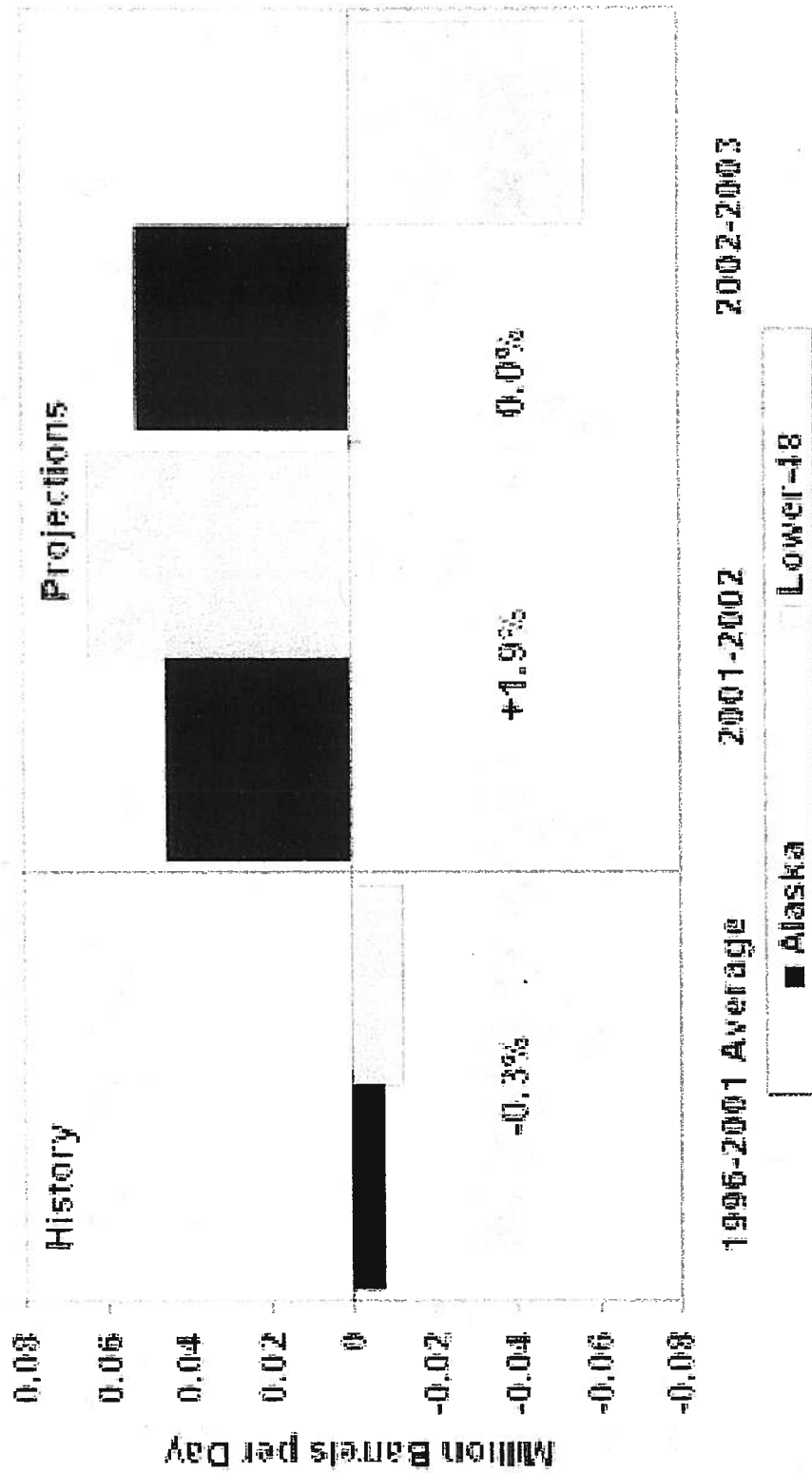


* Sum of distillate and residual fuel

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



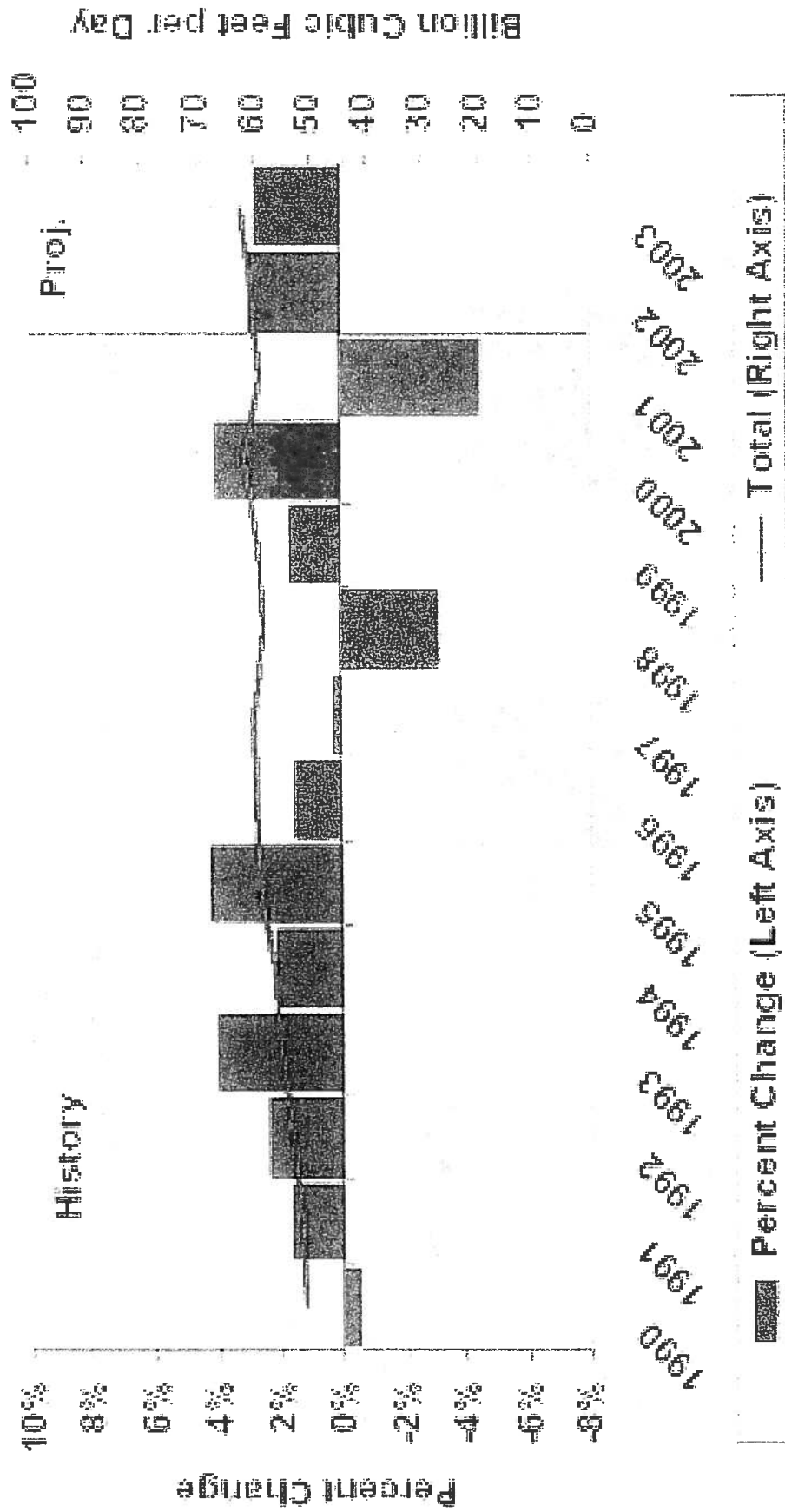
**Figure 11. U.S. Crude Oil Production Growth
(Change from Year Ago)**



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



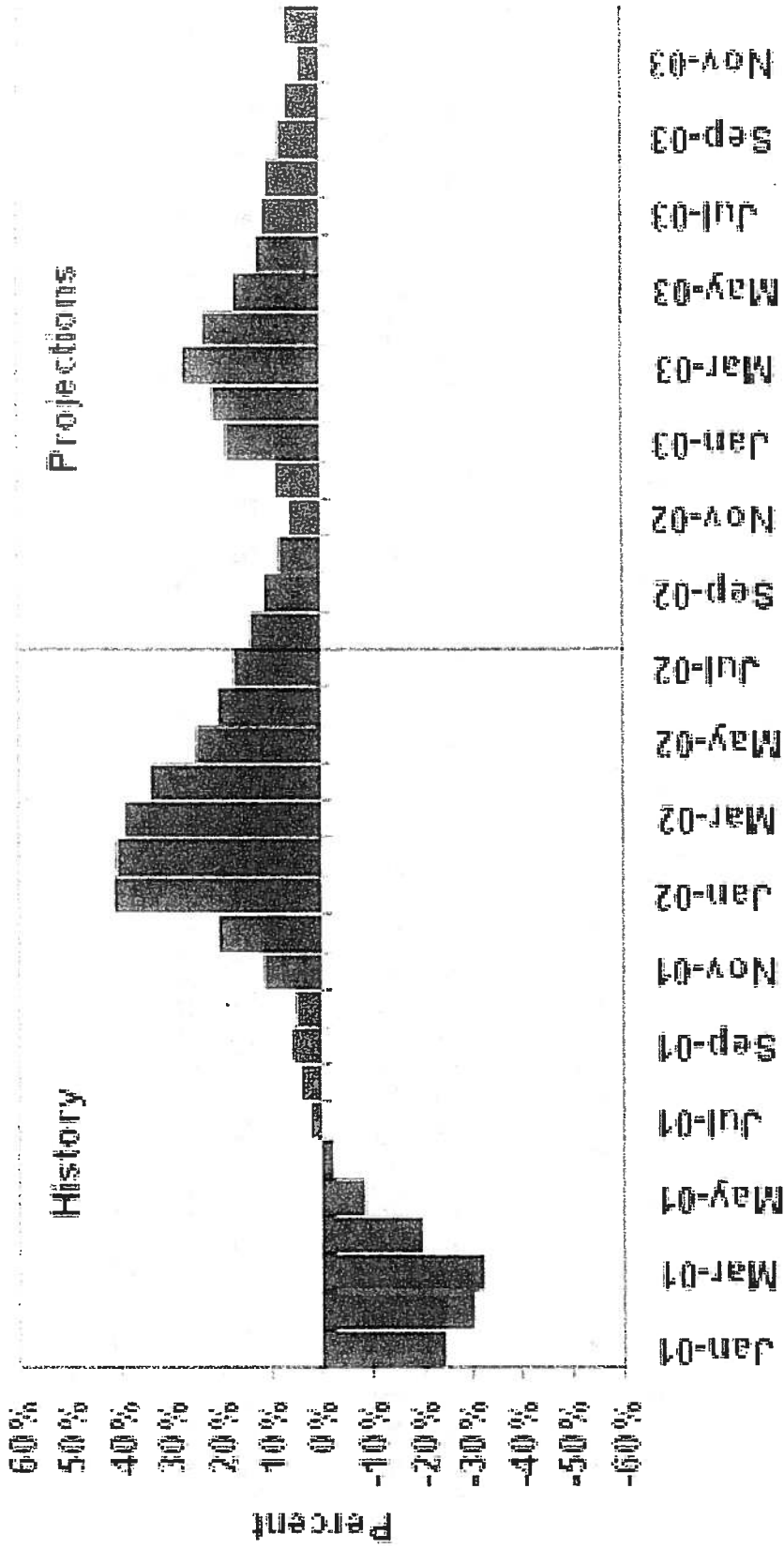
Figure 12. Total Natural Gas Demand Growth Patterns



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

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

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



Monthly



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

What is needed in a Comprehensive National Energy Policy?

- **Conservation and energy efficiency are important but are insufficient to meet our future needs.**
- **Renewable energy is an important but small source of energy. Until it's cost is reduced, it will continue to be a small source.**
- **Even with improved efficiency and more renewable energy, we will still need more conventional energy – oil, coal, natural gas and nuclear.**

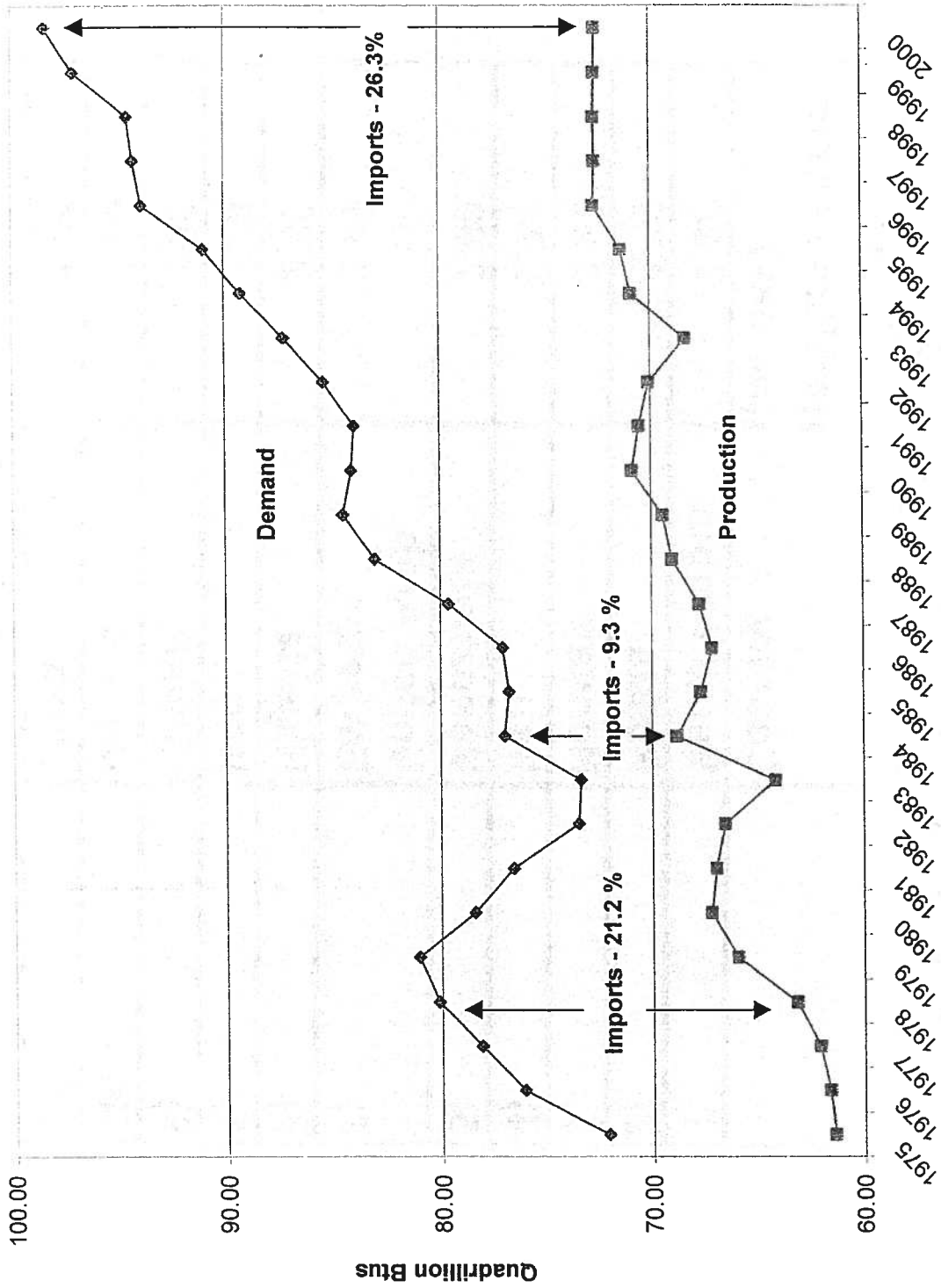
EIA Forecast to 2020

- **Real Gross Domestic Product is projected to increase by 79 percent**
- **Total energy consumption is forecasted to increase by 32 percent**
- **Petroleum demand is projected to increase by 35 percent**
- **Natural gas demand is projected to increase by 48 percent**
- **Coal demand is projected to increase by 22 percent**
- **Electricity demand is projected to increase by 43 percent**
- **Renewable energy supply is projected to increase by 38 percent**
- **Nuclear energy is projected to decline by 7 percent**
- **Energy efficiency (output per unit of energy) is projected to improve by 26 percent**

EIA Forecast to 2020

- Net petroleum imports are projected to increase, providing 62 percent of U.S. demand in 2020.
- Growth in petroleum demand is led by transportation, where efficiency improvements are more than offset by growing travel demand and petroleum's market share increases slightly.
- Crude oil production falls by 3 percent.
- Imports of crude oil grow by 24 percent.
- Petroleum product imports increase by 169 percent.
- Refinery capacity expands from 16.6 to 18.2 million barrels per day

U.S. Energy Demand and Production



Top World Oil Net Exporters, 2001*

	Country	Net Exports (million barrels per day)
1)	Saudi Arabia	7.38
2)	Russia	4.76
3)	Norway	3.22
4)	Iran	2.74
5)	Venezuela	2.60
6)	United Arab Emirates	2.09
7)	Nigeria	2.00
8)	Iraq	2.00
9)	Kuwait	1.80
10)	Mexico	1.65
11)	Libya	1.24
12)	Algeria	1.24

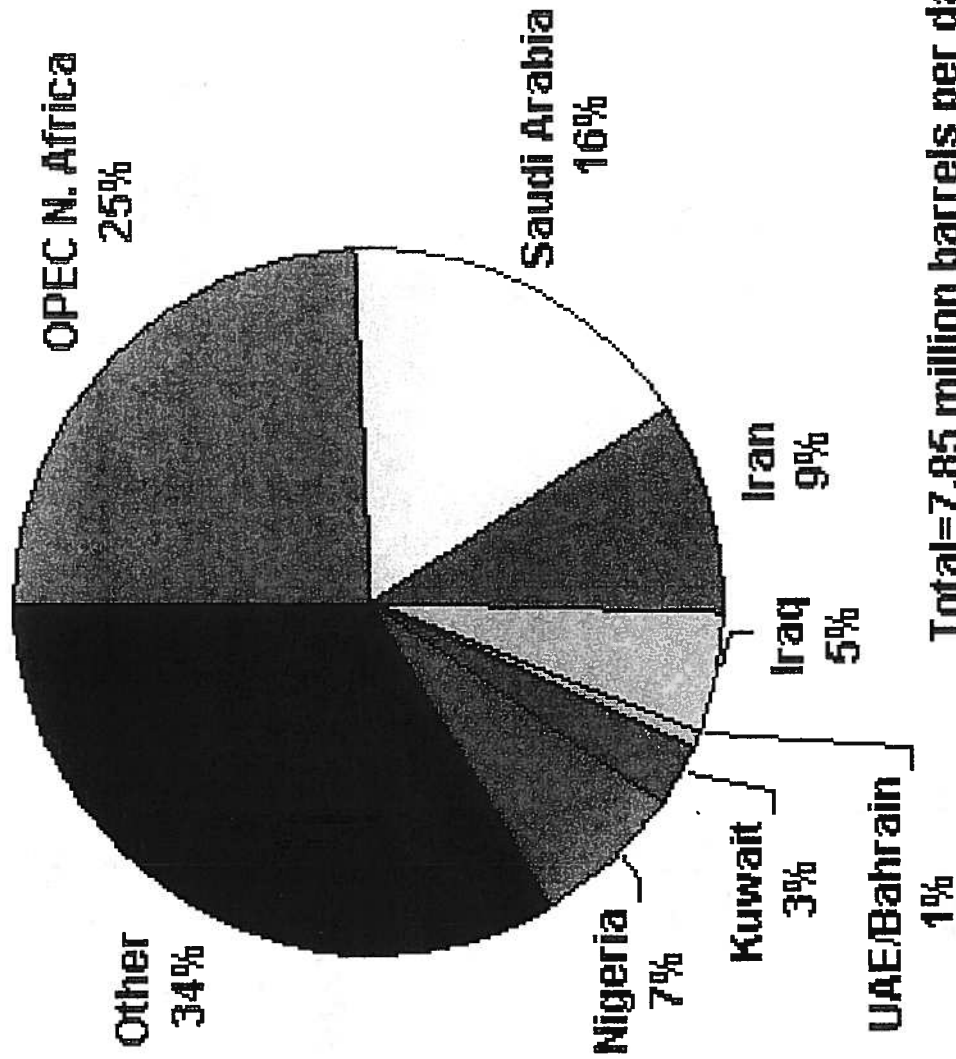
Major Sources of U.S. Petroleum Imports, 2001*
(all volumes in million barrels per day)

	Total Oil Imports	Crude Oil Imports	Petroleum Product Imports
Canada	1.79	1.32	0.47
Saudi Arabia	1.66	1.61	0.05
Venezuela	1.54	1.28	0.26
Mexico	1.42	1.38	0.04
Nigeria	0.86	0.81	0.04
Iraq	0.78	0.78	0.00
Norway	0.33	0.27	0.06
Angola	0.32	0.31	0.07
United Kingdom	0.31	0.23	0.08
Total Imports	11.62	9.15	2.47

Major Suppliers of U.S. Imported Crude Oil and Petroleum Products (MMbpd)

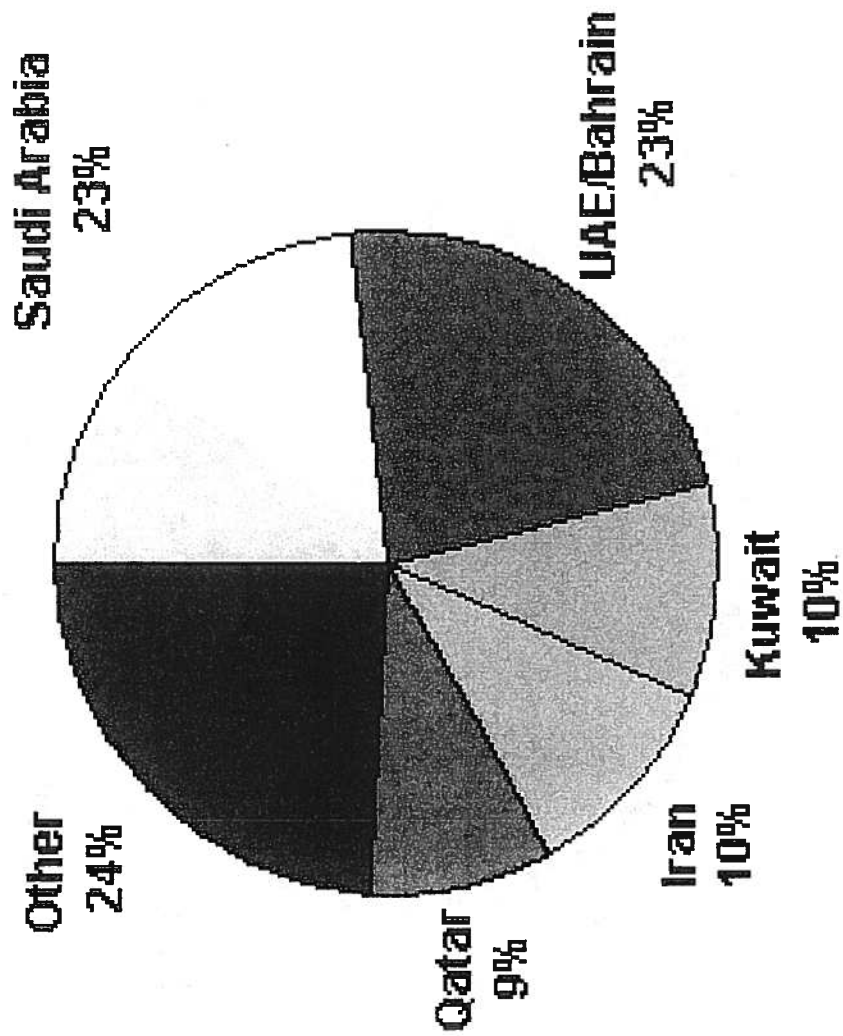
Country	Imports in 1985		Imports in 1995		Imports in 2000	
	Total	Crude	Total	Crude	Total	Crude
Canada	0.770	0.468	1.332	1.040	1.807	1.348
Saudi Arabia	0.168	0.132	1.344	1.260	1.572	1.523
Venezuela	0.605	0.306	1.480	1.151	1.546	1.223
Mexico	0.816	0.715	1.068	1.027	1.373	1.313
Nigeria	0.293	0.280	0.627	0.621	0.896	0.875
Iraq	0.046	0.046	0.000	0.000	0.620	0.620
United Kingdom	0.310	0.278	0.383	0.341	0.366	0.291
Norway	0.032	0.031	0.273	0.258	0.343	0.302
Colombia	0.023	0.000	0.219	0.207	0.342	0.318
Angola	0.110	0.104	0.367	0.360	0.301	0.295
Virgin Islands	0.247	0.000	0.278	0.000	0.291	0.000
Kuwait	0.021	0.004	0.218	0.213	0.272	0.263

OECD European Net Oil Imports by Country, 2001



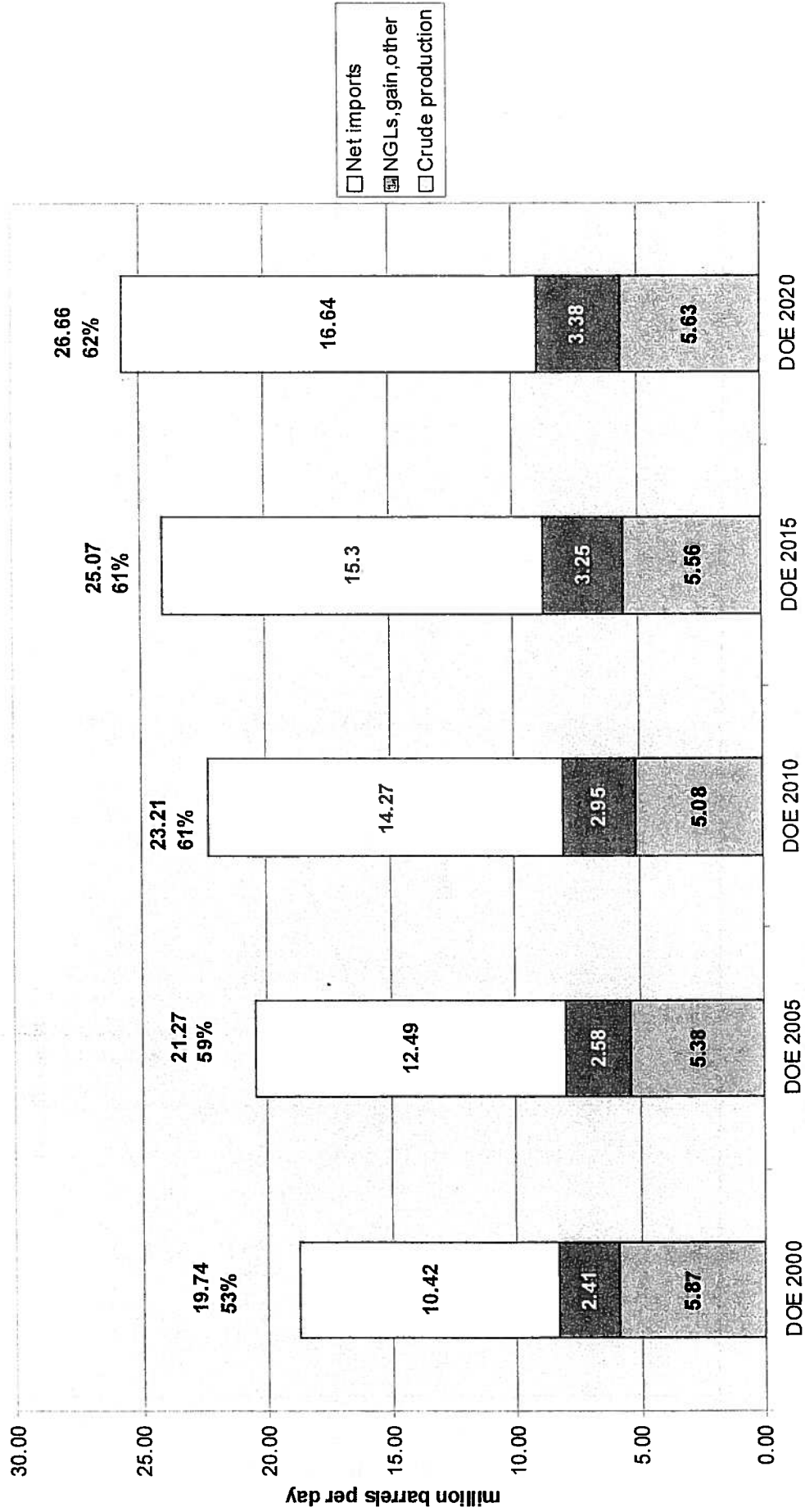
Japanese Net Oil Imports by Country,

2001

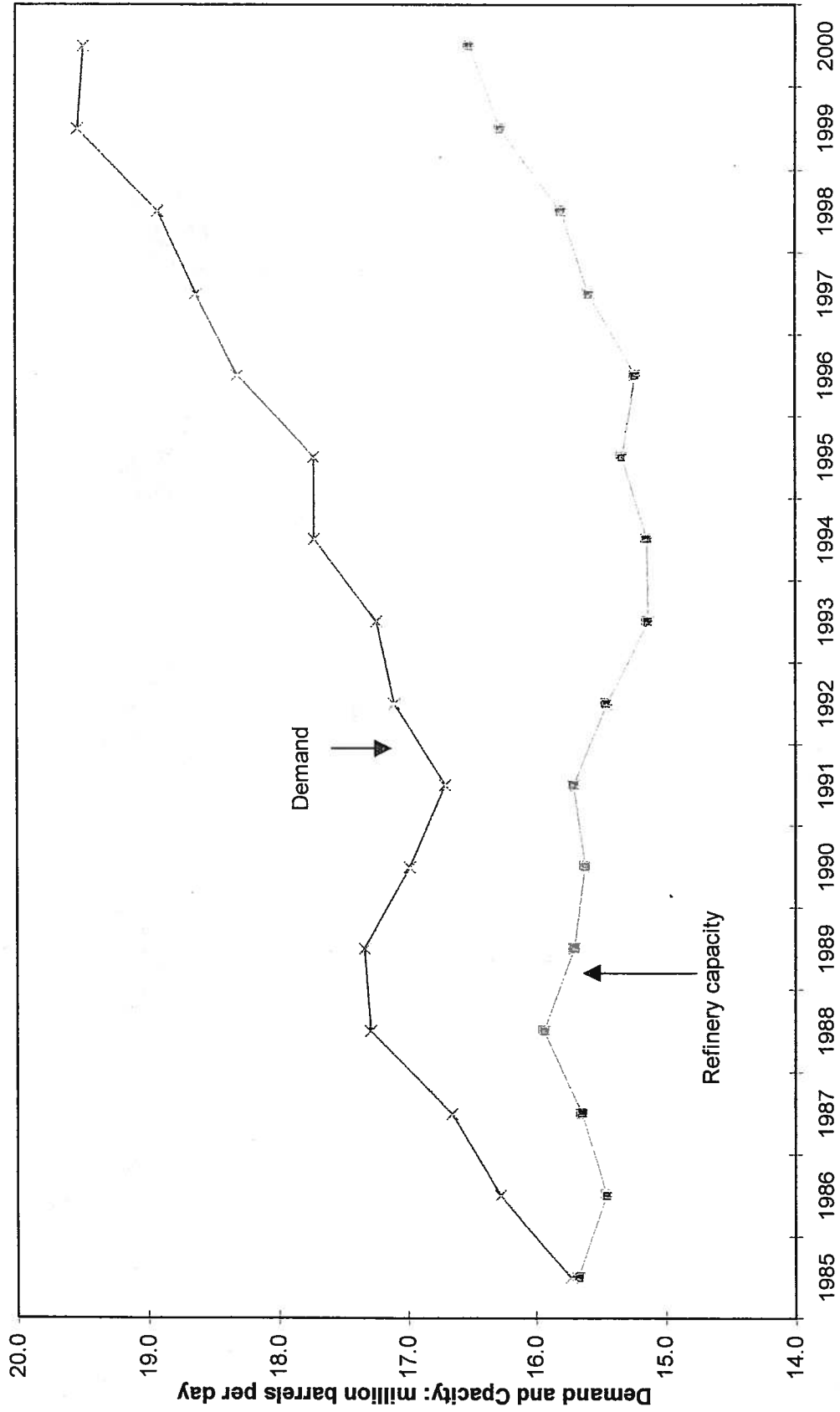


Total=5.37 million barrels per day

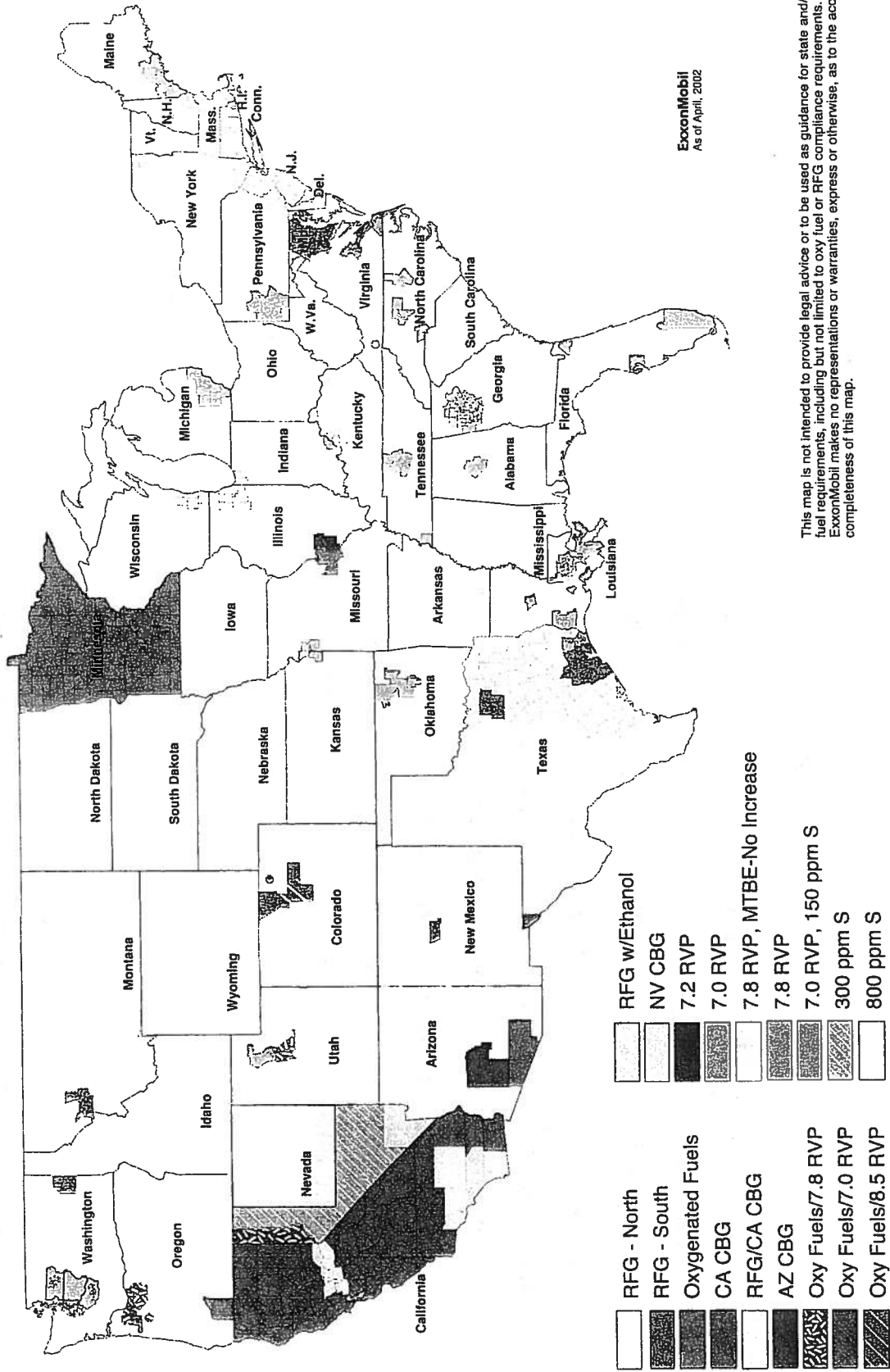
Petroleum balances



US petroleum demand and refining capacity



U.S. Gasoline Requirements



ExxonMobil
As of April, 2002

This map is not intended to provide legal advice or to be used as guidance for state and/or federal fuel requirements, including but not limited to oxy fuel or RFG compliance requirements. ExxonMobil makes no representations or warranties, express or otherwise, as to the accuracy or completeness of this map.

K.W. Gardner RVP requirements are applicable in the Summer.

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Recommendations

- **R&D in Energy Efficiency and Renewable Energy**
- **Promotion of energy saving using existing programs such as EPA's Energy Star**
- **Adequately fund LIHEAP and Weatherization**
- **Expand the Strategic Petroleum Reserve**
- **Develop new domestic sources of oil and natural gas**
- **Streamline regulations for energy infrastructure development**
- **Reform unilateral economic sanctions**
- **Reform tax code to align it with economic reality**
- **Educate Americans on the realities of energy use and production**

Robustness, Redundancy and Diversity