

CRS Issue Brief for Congress

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Gasoline Prices: Policies and Proposals

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Gasoline Prices: Policies and Proposals

SUMMARY

The high price of gasoline was a major consideration during the debate on major energy legislation, which ended August 8 as the President signed the Energy Policy Act of 2005, H.R. 6. However, prices continued to surge, spiking at the end of August when Hurricane Katrina shut down refining operations in the Gulf of Mexico.

A large number of factors combined to put pressure on gasoline prices, including increased world demand for crude oil and U.S. refinery capacity inadequate to supply gasoline to a recovering national economy. The war and continued violence in Iraq added uncertainty and a threat of supply disruption that added pressure particularly to the commodity futures markets.

Numerous provisions in legislative proposals in the 108th Congress addressed perceived problems in the oil and gasoline markets. A comprehensive energy policy bill was reported out of conference and approved by the House, but several issues kept the bill from passing the Senate. Among the most controversial were provisions regarding the use of ethanol and the additive methyl tertiary butyl ether (MTBE) in motor fuel, proposals to open up part of the Arctic National Wildlife Refuge (ANWR) to oil and gas development, measures concerning corporate average fuel economy (CAFE) standards, and proposals to

aid construction of new refineries and to harmonize state “boutique fuels” standards.

In the 109th Congress, the House passed a comprehensive bill, H.R. 6, with many of the same provisions of the bill considered in the previous Congress. As before, MTBE and ANWR, included in the House-passed bill, remained controversial. In the Senate version of H.R. 6, the MTBE safe harbor provision was omitted, and the measure was dropped in conference. The Senate bill contains a provision, not in the House-passed version, directing the President to take measures to reduce total demand for petroleum by one million barrels per day (mbd) by 2015, but that measure also was dropped in conference. Supporters of ANWR development are pursuing the measure as part of the budget process.

The gasoline price surge heightened discussion of energy policy, but the urgency of previous energy crises has been lacking. In part this may be due to the fact that there has been no physical shortage of gasoline, and no lines at the pump. In addition, the expectation of former crises, that prices were destined to grow ever higher, has not been prevalent. However, the persistence of high gasoline and oil prices into a second summer has raised alarms over the economic consequences of the situation.

MOST RECENT DEVELOPMENTS

With passage of the Energy Policy Act of 2005 (H.R. 6), signed by President Bush August 8, most congressional initiatives concerning gasoline demand and supply have been dealt with. One remaining issue was the proposal to open part of the Arctic National Wildlife Refuge (ANWR) to oil and gas development, which is expected to be included in the budget reconciliation act to be considered after Congress returns from the August recess.

Meanwhile, passage of the energy bill appeared to have little immediate effect on oil and gasoline prices. The price of crude oil was in the range of \$70 a barrel on the New York Mercantile Exchange in late August, and the price of gasoline surged close to \$3.00 a gallon.

A major factor pushing prices higher was Hurricane Katrina in the Gulf of Mexico, which caused shutdown of refining capacity and closed some pipelines as well as disrupting oil and gas production offshore. (For details see CRS Report RS22233, *Oil and Gas: Supply Issues After Katrina*, by Robert L. Bamberger and Lawrence Kumins.)

The Senate Energy and Natural Resources Committee scheduled a hearing for September 6 on gasoline costs and factors contributing to current high prices, such as global oil demand, constraints on refinery capacity and increased speculation in the futures market. The House Energy and Commerce Committee plans a hearing September 7 on the energy consequences of Hurricane Katrina.

BACKGROUND AND ANALYSIS

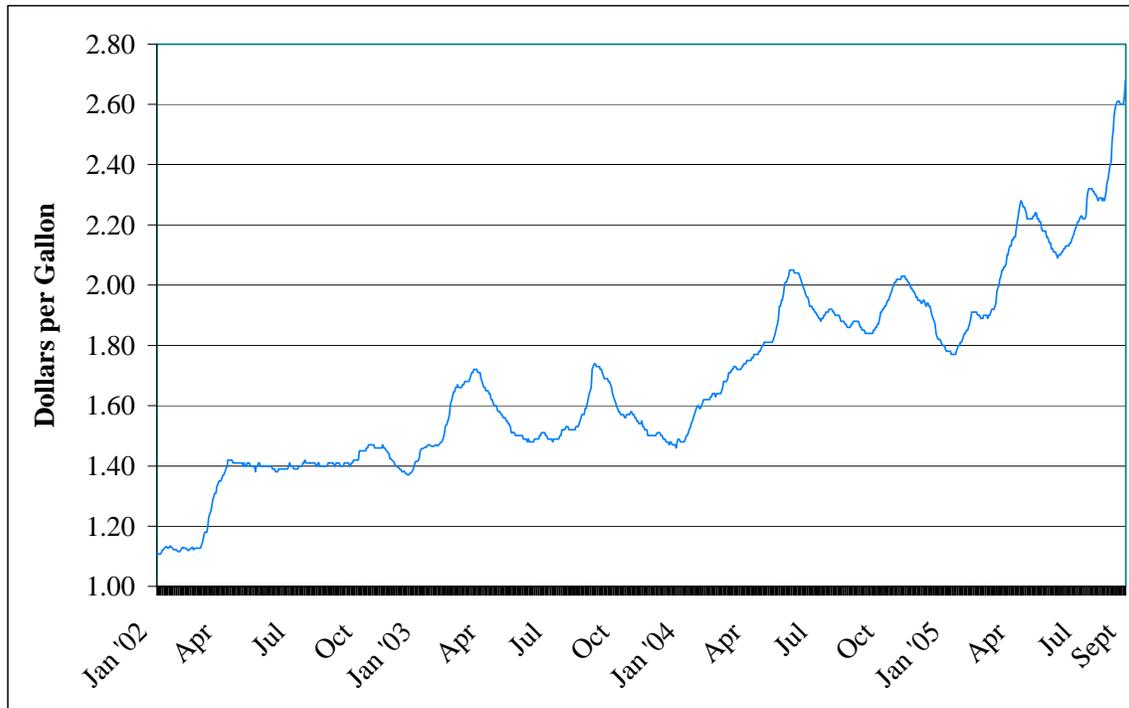
The run-up of gasoline prices that began in spring 2004 (see **Figure 1**) climaxed a period of almost five years during which gasoline prices demonstrated a great deal of regional volatility but less of an increase at the national level. In 2004 a large number of factors combined to exert pressure on gasoline prices in all parts of the country. Some of these factors have affected the price of crude oil, and others the cost of producing and marketing gasoline.

Past energy crises have demonstrated that oil is traded in a world market, in which events in remote areas affect the price of crude for almost everyone. In the 12-18 months leading up to the crisis, these events included:

- Decisions by the Organization of Petroleum Exporting Countries (OPEC) cartel, after having reduced production quotas in 2002, to raise them only slowly and reluctantly;
- Unexpected demand growth in China;
- Disruptions in oil production in major exporters, including Venezuela, Iraq and Nigeria;
- Decline in the value of the U.S. dollar, the currency in which oil is traded in the world market, compared to other major currencies, particularly the Euro.

- Uncertainty and fear of major disruptions in Iraq and Saudi Arabia, in the context of the war in Iraq and the threat of terrorism.

Figure 1. Average Daily Nationwide Price of Unleaded Gasoline, January 2002 - September 2005



Note: Prices include federal, state and local taxes.

Source: *Daily Fuel Gauge Report*, American Automobile Association, [<http://www.fuelgauge.com>], compiled by CRS.

As often happens when commodity prices are volatile, speculation in futures contracts accentuated the upward price pressure and appeared to continue high prices longer than would be expected as market fundamentals push toward lower prices.

Just as a number of factors led to increased crude prices, a combination of features in the U.S. refinery industry contributed to an increase in gasoline prices.

- U.S. demand for gasoline has increased as economic growth has resumed.
- Domestic refining capacity has declined, both in number of refineries — from 324 in 1981 to 153 in 2002 — and in total capacity — from 18.62 million barrels per day (mbd) in 1981 to 16.78 mbd in 2002.
- The structure of the refining industry has changed. In 1981 most refining capacity was owned and operated by integrated oil companies that supplied their own crude oil, refined it, distributed it, and marketed the products. Refining was only one part of the company's profit-making operation, and frequently was not an important profit maker. Now the refining industry is characterized more by independently owned, nonintegrated firms. When

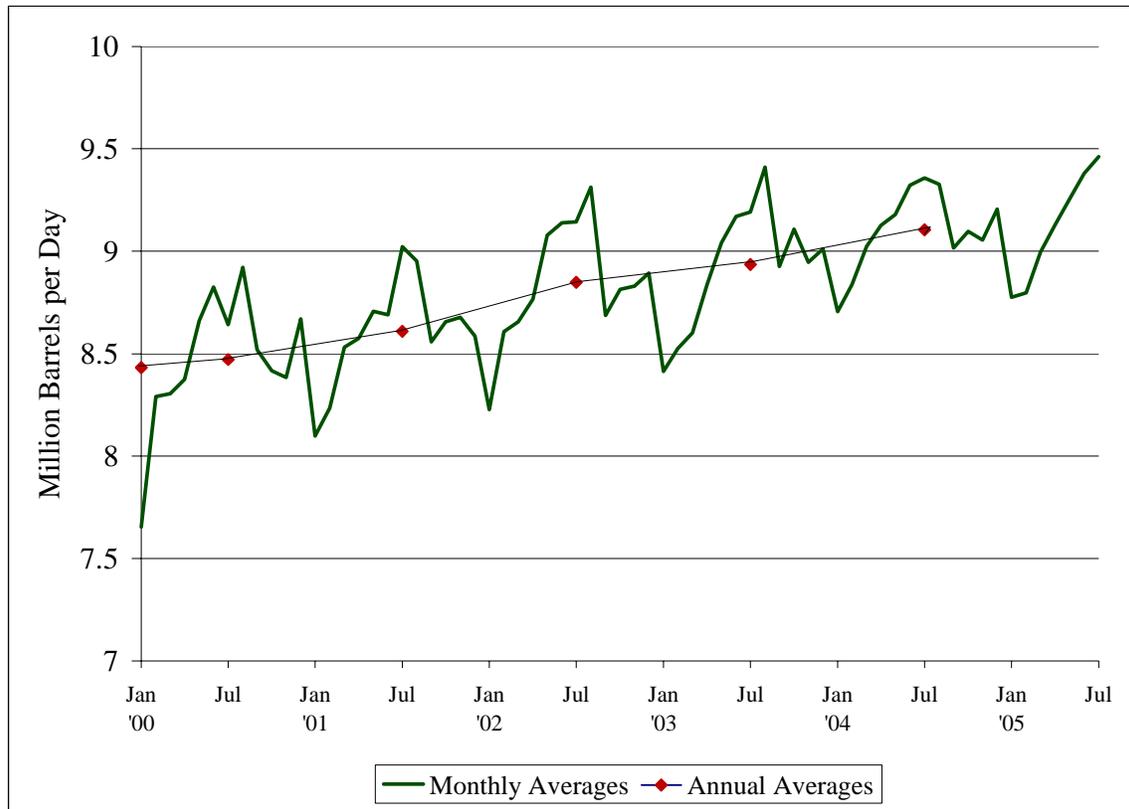
refineries are the sole source of revenue to the owners, it becomes more important that the operation be profitable, leading to pressure to raise prices.

- The refining industry has been operating with lower inventories of both crude oil and gasoline, as a means of cutting costs. The side effect has been reduced ability to meet unanticipated demand, leading to greater price pressure.
- Gasoline markets are fragmented regionally because air quality requirements have led to numerous different formulations to meet varying standards. In meeting demand for these regional formulations, called “boutique fuels,” refiners lose flexibility to meet local variations in demand elsewhere, leading to increased price pressure.
- With domestic refining capacity constraints, a greater proportion of gasoline demand is being met with imported products. Foreign refiners typically manufacture products designed to sell in the international market, not the special product “boutique fuels” demanded by a significant share of the U.S. market.
- Refiners have had increased costs in the past year to comply with new requirements to limit sulfur content and to switch from the oxygenate additive MTBE to ethanol.

These various factors pushed the nationwide average price of gasoline over \$2 per gallon in May 2004. By mid-June, Energy Information Administrator Guy Caruso was able to note a slight decline in prices, and tell a Senate Energy Committee hearing that, “absent major disruptions, oil and gasoline markets may be turning a corner.”¹ However, persistent high crude prices pushed gasoline prices over \$2 again in October, and yet again in March 2005. By April 2005, Caruso was suggesting that increasing world demand for oil might keep the price of crude above \$50 per barrel through 2006.²

¹ Guy Caruso, statement before the Senate Committee on Energy and Natural Resources, June 15, 2004.

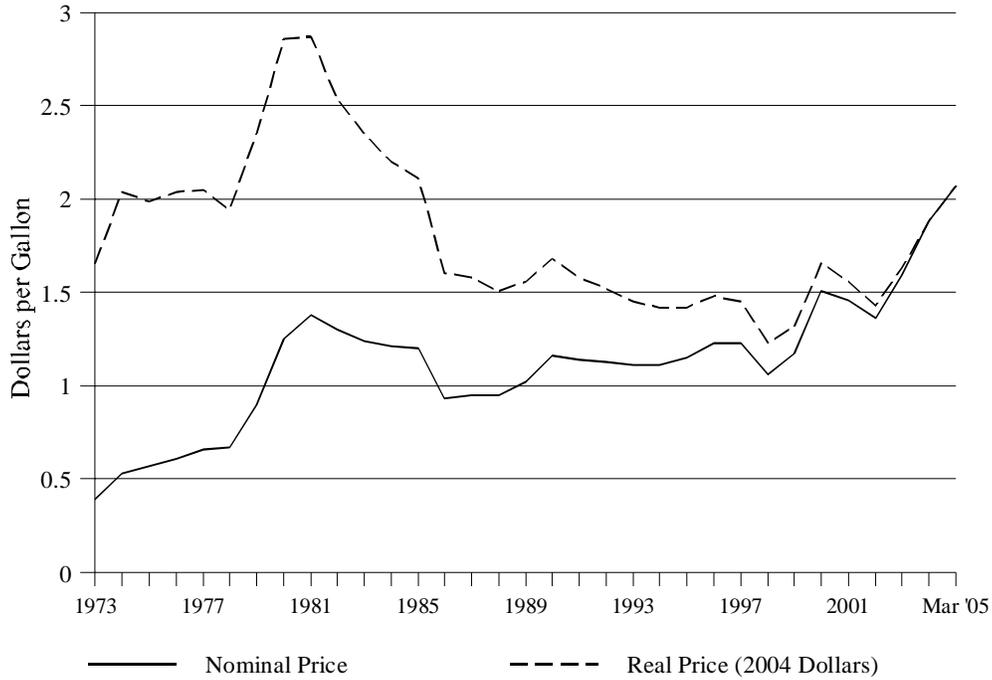
² “EIA: Oil to remain above \$50 through ‘06.” *Oil Daily*, April 8, 2005, p. 1. Report of a speech by Guy Caruso at the National Press Club in Washington, D.C., April 7, 2005.

Figure 2. Consumption of Motor Gasoline, 2000 - July 2005

Source: EIA, *Monthly Energy Review*, January 2003, January 2004 and August 2005, Table 3.4.

The price surge intensified discussion of energy policy and led to further calls for passage of energy legislation. However, the urgency of previous energy crises has been lacking. Throughout the period, U.S. gasoline consumption has continued to rise, although the usual summer peak in consumption appears to have been somewhat blunted in 2004, as shown in **Figure 2**. In part this may be because, although the price of gasoline in nominal terms set a record, in real terms it was less than in the Iranian crisis years of the early 1980s (see **Figure 3**). Further, unlike the earlier crises, there was no physical shortage of gasoline, and no lines at the pump. In addition, as **Figure 4** indicates, the proportion of consumer expenditure on oil and gasoline had declined from the high levels of the 1970s and early 1980s. Perhaps most important, the common view during the earlier crises was that oil prices not only were high, but were destined to become ever higher in the coming years. This view is no longer prevalent, and the general expectation has been that the run-up of prices in 2004 is a temporary phenomenon, although lasting longer than expected.

Figure 3. Nominal and Real Price of Gasoline, 1973-2004 and March 2005



Source: EIA, *Monthly Energy Review*, May 2005, Tables 1.6 and 9.4, calculated by CRS.

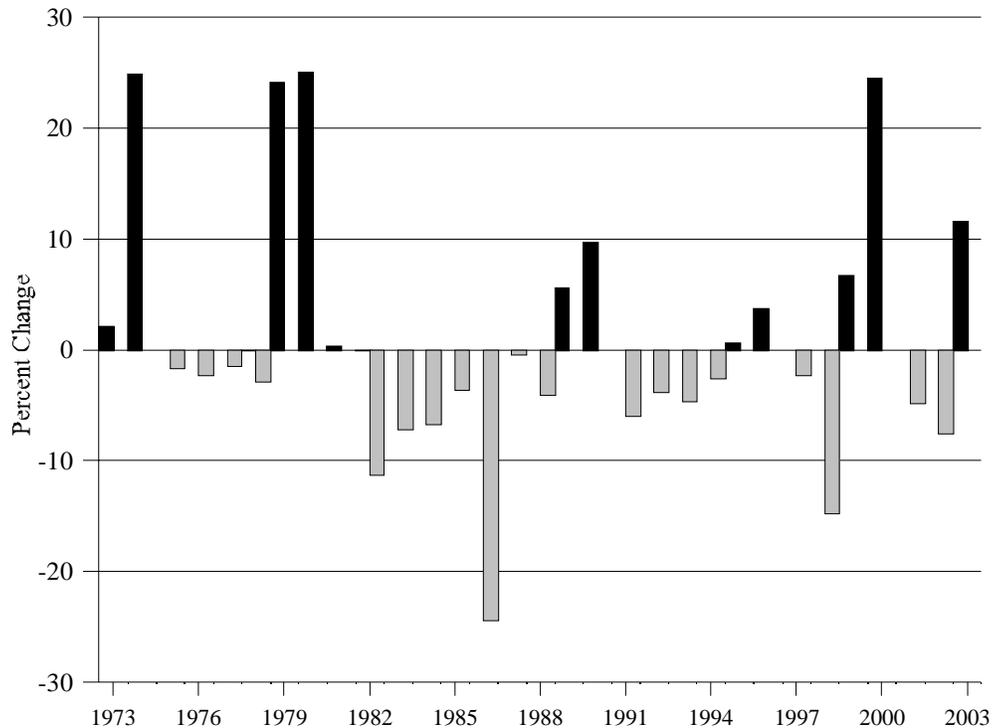
Figure 4. Consumer Spending on Oil as % of GDP, 1970 - 2001



Source: Calculated by CRS with data from EIA, *Annual Energy Review* 2005, Table 3.5. GDP from Bureau of Economic Analysis, Department of Commerce.

As shown in **Figure 5**, gasoline prices historically have increased less than the general rate of inflation, as measured by the Consumer Price Index (CPI). After the surge in 1973, and again after the 1979-1980 run-up, gasoline prices grew very slowly and even declined, dropping sharply in 1986. A sudden increase in 2000 was similarly followed by slow or declining prices. During the current run-up, for which data are not yet available, gasoline price increases have far outpaced the general CPI increase.

Figure 5. Percent Change in Gasoline Prices Compared to the Consumer Price Index, 1973-2003



Source: EIA, *Annual Energy Review* 2003, Table 5.24. CPI from the Bureau of Labor Statistics. Calculated by CRS.

Policy Options

The several energy crises of the past led to major legislative action, twice in the 1970s and once following the 1991 Gulf War. The current legislative situation differs from the previous actions because the Congress had been considering major energy legislation for three years before the situation became a nationwide concern. The various versions of a comprehensive energy bill, which failed to pass in the 108th Congress, all contained measures addressing some of the problems putting pressure on gasoline prices. In addition, a number of stand-alone legislative proposals to deal with some of the specific problems noted above were introduced in the 108th Congress. Most of these measures were included in the 109th Congress's energy bill, the Energy Policy Act of 2005, H.R. 6.

As in previous legislative energy debates, a major policy divide exists between those who view the gasoline-fueled automobile as a temporary necessity to be tolerated only until a substitute fuel or alternative means of transportation can be developed, and those who expect oil to be the same dominant transportation fuel in the indefinite future that it is at

present. Compromise agreements have been reached via a combination of measures that enhance the development of alternatives or restrain the growth in demand for oil, on the one hand, and those that increase production or reduce the cost of supplying that demand, on the other. However, individual measures often carry with them complicating features that make passage more difficult. In addition, major legislation often becomes the vehicle for measures that typically would not find enough support to pass as individual bills, or which may be added to gain support for the whole measure. In the legislative climate of the 108th Congress, balancing the various interests involved proved too difficult a task, despite the influence of a nationwide energy crisis in an election year. Under the stimulation of continued high oil and gasoline prices, the 109th Congress pursued the goal again, this time successfully.

Major Oil-Related Issues for the 109th Congress

A number of issues were major barriers to passage of omnibus energy legislation, and had to be resolved in the 109th Congress. Among oil-related issues, proposals to open part of the Arctic National Wildlife Refuge (ANWR) to oil and gas development, and measures concerning Corporate Average Fuel Economy (CAFE) standards stimulated major debate. A primary stumbling block was the issue involving ethanol as an automobile fuel, and the related problems involving the gasoline fuel additive MTBE.

Ethanol and MTBE. The roots of the controversy lie in the Clean Air Act Amendments of 1990, which mandated that “reformulated” gasoline required in some localities to improve air quality contain 2% oxygen. This requirement could be met by adding ethanol to gasoline, but it could also be achieved by adding a substance called methyl tertiary butyl ether (MTBE), which had been produced in small quantities for many years as an octane enhancer. Because MTBE was cheaper than ethanol and was easier to mix and transport than ethanol, many refiners began using it to meet the new standards.

However, as its use spread, it became apparent that MTBE tended to escape easily from pipes and storage tanks, and contaminate water supplies, imparting a taste and odor that was unpalatable even in small quantities. This development led to moves to restrict and prohibit the use of MTBE. It also led a number of communities to sue refiners for the cost of decontaminating their water supply. At the same time, evidence began to accumulate that oxygenating gasoline was not necessary to achieve the air quality benefits of reformulated gasoline.

The omnibus energy bills in the 108th Congress addressed this changing situation by repealing the oxygenation requirement in the Clean Air Act, but adding a new mandate that gasoline have an increasing amount of renewable fuel, presumably ethanol. Consumption of ethanol in gasoline in 2002 was 2.1 billion gallons. Under the Renewable Fuel Standard, the amount required to be consumed would be 3.1 billion gallons in 2005 and 5.0 billion gallons by 2012. This would still be a small proportion of the total amount of gasoline consumed, which was close to 150 billion gallons in 2004, but was expected to stimulate the ethanol industry and the agricultural sector that supplies it. It was opposed by oil industry interests, who complained of the mandated increase in consumption of ethanol, which receives a substantial tax credit. Some suggested that it would raise prices locally, despite the subsidy.

The most controversial measure in the bills was a so-called “safe harbor” provision from product liability lawsuits for producers of MTBE and renewable fuels. It was a major factor in the failure of comprehensive energy legislation in the Senate in the 108th Congress.

In the 109th Congress, H.R. 6, as reported by the House Committee on Energy and Commerce on April 13, 2005, retained the safe harbor provision; an amendment to remove it was defeated in committee. When the bill reached the House floor, Representative Capps brought up an amendment to strike the safe harbor language. After extended debate specifically on the MTBE provision, the Capps amendment was narrowly defeated by a vote of 213-219. The Senate version of H.R. 6 did not contain the safe-harbor provision, and an attempt by Representative Barton, chairman of the conference committee, to craft a compromise was unsuccessful. The safe harbor provision was dropped, both the repeal of the oxygenation requirement and the renewable fuel mandate were retained.

ANWR. Oil and gas exploration and development of part of the Arctic National Wildlife Refuge have been controversial for many years. This was part of the early proposals for legislation that eventually became the Energy Policy Act of 1992, but was dropped in the face of strong opposition in both houses. Support for action grew gradually through the decade, along with technological developments that advocates claimed would reduce the environmental impact of development, and the House included a development measure in its version of an omnibus energy bill in August 2001. A similar measure was part of the House-passed legislation in the 108th Congress. Opposition in the Senate kept the measure from the floor, however, and it was dropped in conference.

In the 109th Congress, Senate supporters of ANWR development moved the issue to the budget process, where it can be approved by a simple majority vote. On March 9, 2005, the Senate Budget Committee issued a FY2006 budget resolution that assumes \$2.5 billion of revenue over five years from leases in ANWR. On March 16 the Senate rejected an amendment by Senator Cantwell to strike the ANWR provisions, by a vote of 49-51. The next day the Senate passed the budget resolution (S.Con.Res. 18). Supporters of the measure expect to include it in the budget reconciliation bill, to be taken up by the Congress after the August recess.

CAFE. Fuel economy standards also have a long history of controversy, going back to their establishment in the 1970s. Proposals to mandate new standards were also considered, but dropped, early in the development of the 1992 Energy Policy Act. In the mid-1990s the National Highway Traffic Safety Administration (NHTSA) was considering a rulemaking that would result in increased standards for light duty trucks (including sport utility vehicles), but for several years the Congress included in its annual appropriation for NHTSA a measure prohibiting NHTSA from analyzing or undertaking such a ruling. That prohibition was dropped in the FY2004 NHTSA appropriations, and a final rule issued by NHTSA in April 2003 requires a boost in light truck fuel economy to 22.2 miles per gallon by Model Year 2007.

Omnibus energy legislation proposed before NHTSA acted would have mandated specific increases in light truck fuel economy, but in the 109th Congress H.R. 6 merely amends slightly the criteria NHTSA must follow in its rulemaking and authorizes appropriations of \$2 million annually through FY2008 for that purpose. During floor debate

on H.R. 6, an amendment to increase fuel economy standards to 33 miles per gallon over 10 years was defeated by a vote of 177-254.

A more general amendment to the House bill, requiring the Administration to take “voluntary, regulatory, and other actions” to reduce oil demand in the United States by 1 million barrels per day from projected levels by 2013 was defeated 166-262. The measure was included in the bill reported out by the Senate Energy Committee, but was dropped in conference.

The NOPEC bill. Frustration with high gasoline prices was reflected in adoption, as an amendment to H.R. 6, of Senator DeWine’s No Oil Producing or Exporting Cartel (NOPEC) Act of 2005, S. 555. The bill would declare limiting production or setting prices of oil by a foreign state as illegal in U.S. courts, deny sovereign immunity to such states, and authorize the Attorney General and the Federal Trade Commission to bring action against them. The amendment was adopted by voice vote June 21. The measure was dropped in conference.

Other Oil and Gasoline Measures. Other provisions in H.R. 6 related to petroleum would authorize:

- The federal government to continue to receive physical quantities of oil and gas as royalty-in-kind payments instead of cash payments for royalties on leased federal property.
- Royalties for certain types of leases in the Gulf of Mexico, and others such as marginal wells to be lowered or terminated.
- Regulatory requirements to be eased for some oil and gas activities such as hydraulic fracturing and construction of exploration and production facilities.
- The system of leasing and permitting access to federal lands for oil and gas development to be amended.
- The amendment of statutes concerning alternative-fueled vehicles.
- Steps to discourage the proliferation of state “boutique fuels” requirements. Additionally, a study of “harmonization” of current fuel controls would be mandated.

A new provision in H.R. 6 gives the Federal Energy Regulatory Commission (FERC) authority over siting and licensing of facilities to import and process liquefied natural gas (LNG). The statutory language would largely confirm FERC’s assumption of a lead role in siting LNG facilities, which has been challenged in court by several states. The measure remained in the final bill.

LEGISLATION

109th Congress

S.Con.Res. 18. An original concurrent resolution setting forth the congressional budget for the U.S. government for FY2006 and including the appropriate budgetary levels for FY2005 and FY2007 through FY2010. Contains instructions to the Committee on Energy and Natural Resources that assume revenues from the sale of ANWR leases. Passed Senate March 17, 2005.

H.R. 6 (Barton)

Energy Policy Act of 2005. Introduced April 18, 2005. Passed by the House April 21, 2005 (249-183). Passed the Senate June 28. Reported out of conference July 26 and passed by both Houses July 28 and July 29. Signed by the President August 8.

S. 10 (Domenici)

The Energy Policy Act of 2005. Introduced June 9, 2005. Approved by the Committee on Energy and Natural Resources May 26 (21-1). Adopted as an amendment in the nature of a substitute to H.R. 6, June 16.

S. 555 (DeWine)

The No Oil Producing and Exporting Cartel (NOPEC) Act of 2005. Introduced March 8, 2005. Adopted by voice vote as an amendment to H.R. 6 in the Senate, June 21. Not included in the final version of H.R. 6.

FOR ADDITIONAL READING

CRS Issue Briefs

CRS Issue Brief IB10143. *Energy Policy: Comprehensive Energy Legislation (H.R. 6) in the 109th Congress*, by Robert L. Bamberger and Carl Behrens.

CRS Issue Brief IB10054. *Energy Tax Policy*, by Salvatore Lazzari.

CRS Issue Brief IB87050. *Strategic Petroleum Reserve*, by Robert Bamberger.

CRS Issue Brief IB10136. *Arctic National Wildlife Refuge (ANWR): Controversies for the 109th Congress*, by M. Lynne Corn, Bernard A. Gelb, and Pamela Baldwin.

CRS Reports

CRS Report RL32248. *Petroleum Refining: Economic Performance and Challenges for the Future*, by Robert L. Pirog.

CRS Report RL31361. *“Boutique Fuels” and Reformulated Gasoline: Harmonization of Fuel Standards*, by Brent D. Yacobucci.

CRS Report RL32583. *Gasoline Supply: The Role of Imports*, by Lawrence Kumins.

CRS Report RL32865. *Renewable Fuels and MTBE: A Comparison of Selected Provisions in H.R. 6*, by Brent D. Yacobucci, Mary E. Tiemann, James E. McCarthy and Aaron M. Flynn.

CRS Report RL32575. *Liquefied Natural Gas (LNG): Jurisdiction Conflicts in Siting Approval*, by Aaron M. Flynn.