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Selected Environmental Issues Related to the Omnibus Energy Bill (H.R. 6), 109th Congress

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Summary

In response to high energy prices, increasing energy imports, and concerns over environmental quality, the 109th Congress is currently considering omnibus energy legislation. The debate over a national energy policy has been ongoing since the 107th Congress. Both the 107th and 108th Congresses were unable to complete action on an omnibus energy bill.

In the 109th Congress, the House version of an omnibus energy bill (H.R. 6) was introduced April 18, 2005. As of this writing, a comprehensive energy bill has not been introduced in the Senate. H.R. 6 contains various provisions involving environmental protection and regulation. This report briefly reviews the following environmental provisions: limits on the use of MTBE; a renewable fuel mandate for gasoline; stricter regulation of underground storage tanks; Clean Water Act and Safe Drinking Water Act exemptions for oil and gas exploration and production (related to stormwater runoff and hydraulic fracturing); incentives and R&D funding for alternative fuels and vehicles; hydroelectric relicensing; ozone compliance deadlines; and streamlining of environmental regulations. In addition, two issues of continuing interest that were addressed by failed committee amendments were a renewable portfolio standard and more stringent fuel economy standards.

This report will be updated as events warrant.

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Introduction

In response to high energy prices, increasing energy imports, international instability, and environmental concerns, there has been ongoing congressional interest in developing comprehensive energy legislation. Energy bills were debated in the 107th and 108th Congresses, but final agreement was not reached in either Congress. The debate over omnibus energy legislation has continued in the 109th Congress.

H.R. 6 (Barton) was introduced April 18, 2005, after various House committees marked up discussion drafts of the bill. Among the bill's provisions are the following environmental provisions: limits on the use of MTBE; a renewable fuel mandate for gasoline; stricter regulation of underground storage tanks; Clean Water Act and Safe Drinking Water Act exemptions for oil and gas exploration and production (related to stormwater runoff and hydraulic fracturing); incentives and R&D funding for alternative fuels and vehicles; hydroelectric relicensing; ozone compliance deadlines; and streamlining of environmental regulations.

A short discussion of each of the above provisions is included in this report. In addition, some key environmental issues not addressed by H.R. 6 are also discussed.

MTBE and Ethanol: Fuels

Title XV of H.R. 6 contains several provisions addressing the gasoline additive methyl tertiary butyl ether (MTBE). Some of the provisions in this title are among the most controversial elements in the bill (notably the "safe harbor" for producers of MTBE and renewable fuels from product liability lawsuits that have been used to force petroleum and chemical companies to pay for cleanup of public water supplies contaminated by releases of fuels containing MTBE).[1]

Under the Clean Air Act Amendments of 1990, reformulated gasoline (RFG) sold in many areas of the country with poor air quality must contain an oxygenate (MTBE, ethanol, or other substances containing oxygen) to improve combustion and reduce emissions of ozone-forming compounds and carbon monoxide. A little more than 30% of the gasoline sold in the United States is RFG, and a majority of RFG has

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[1] For further discussion, see CRS Report RS21676, *The Safe Harbor Provision for Methyl Tertiary Butyl Ether (MTBE)*, by Aaron Flynn.

contained MTBE. MTBE has been implicated in numerous incidents of groundwater contamination, however, and 19 states have taken steps to ban or regulate its use. The most significant of these bans (in California, New York, and Connecticut) took effect at the end of 2003.[2]

H.R. 6 would ban the use of MTBE as a fuel additive, except in states that specifically authorize its use, after December 31, 2014, unless the President determines not to ban it. The Clean Air Act requirement to use MTBE or other oxygenates in RFG would be repealed 270 days after enactment. In place of this requirement, the bill would provide a major new stimulus to the use of ethanol: Under a renewable fuels standard (RFS), motor vehicle fuels would be required to contain at least 5 billion gallons of ethanol or other renewable fuel annually (about a 50% increase from 2004 levels) by 2012. To prevent backsliding on air quality, the bill would require that reductions in emissions of toxic substances achieved by RFG be maintained; and it authorizes $2 billion in grants to assist merchant MTBE production facilities in converting to the production of other fuel additives. The bill also would authorize funds for cleanup of MTBE at leaking underground storage tank sites (discussed immediately below). [This section prepared by James McCarthy, Specialist in Environmental Policy.]

MTBE and Leaking Underground Storage Tanks

As part of the legislative effort to address drinking water contamination by MTBE, Title XV, Subtitle B, would amend the Solid Waste Disposal Act (SWDA) to add new leak prevention provisions to the underground storage tank (UST) regulatory program, and to broaden the allowable uses of the Leaking Underground Storage Tank (LUST) Trust Fund. The provisions would, among other things, add new UST inspection and operator training requirements; prohibit fuel delivery to ineligible tanks; and require tank installers to be certified or licensed. The bill would allow the Environmental Protection Agency (EPA) and states to use LUST funds to conduct inspections and enforce UST release prevention and detection requirements. It also requires that, when determining the portion of cleanup costs to recover from a tank owner or operator, EPA or a state must consider the owner or operator's ability to pay for cleanup and still maintain basic business operations.

Section 1531 would authorize annual appropriations from the LUST Trust Fund for FY2005 through FY2009 of $200 million for cleaning up leaks from petroleum tanks generally; and another $200 million just for responding to tank leaks containing MTBE or other oxygenated fuel additives (e.g., ethanol). (Note that the MTBE cleanup money is for the LUST program, and this money can only be used to clean up contaminated drinking water if the contamination can be tied to a federally regulated underground storage tank. Also, because no federal standard has been established for MTBE in drinking water, some states do not require testing for MTBE

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[2] For more details, see CRS Report RL32787, *MTBE in Gasoline: Clean Air and Drinking Water Issues*, by James E. McCarthy and Mary Tiemann, and CRS Report RL32865, *Renewable Fuels and MTBE: A Comparison of Selected Legislative Initiatives*, by Brent D. Yacobucci, Mary Tiemann, James E. McCarthy, and Aaron M. Flynn.

at LUST sites, and fewer than half the states are taking steps to ensure that MTBE and other oxygenates are not migrating beyond the standard monitoring boundaries for LUST cleanup.)[3] Section 1531 also would authorize $155 million for EPA and states to carry out and enforce the UST regulatory program and LUST cleanup program. [This section prepared by Mary Tiemann, Specialist in Environmental Policy.][4]

Oil and Gas Exploration: Clean Water

Section 328 of H.R. 6 would give a permanent exemption from Clean Water Act (CWA) stormwater runoff rules for the construction of exploration and production facilities by oil and gas companies and the roads that service those sites. Currently under the CWA, the operation of facilities involved in oil and gas exploration, production, processing, transmission, or treatment generally is exempt from stormwater runoff regulations, but the construction of these facilities is not. The amendment would modify the act to specifically include construction activities in the types of oil and gas facilities that are covered by the law's statutory exemption from stormwater rules.

The issue arises from stormwater permitting rules for small construction sites and municipal separate storm sewer systems that were issued by EPA in 1999 and became effective March 10, 2003. Those rules, known as Phase II of the CWA stormwater program, require most small construction sites disturbing one to five acres and municipal separate storm sewer systems serving populations of up to 100,000 people to have a CWA discharge permit. The permits require pollution-prevention plans describing practices for curbing sediment and other pollutants from being washed by stormwater runoff into local water bodies. Phase I of the stormwater program required construction sites larger than five acres (including oil and gas facilities) and larger municipal separate storm sewer systems to obtain discharge permits beginning in 1991.

As the March 2003 compliance deadline approached, EPA authorized a two-year extension of the Phase II rules for small oil and gas construction sites to allow the agency to assess the economic impact of the rule on that industry. In March 2005, EPA extended the exemption until June 2006 and said it will propose a specific rule for small oil and gas construction sites by September 11, 2005. EPA had initially assumed that most oil and gas facilities would be smaller than one acre in size and thus excluded from the Phase II rules, but recent Department of Energy data indicate that several thousand new sites per year would be of sizes subject to the rule.[5]

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[3] New England Interstate Water Pollution Control Commission, *Survey of State Experiences with MTBE and Other Oxygenate Contamination at LUST Sites*, August 2003, Executive Summary, pp. 1-2.

[4] For more information on the LUST program, see CRS Report RS21201, *Leaking Underground Storage Tanks: Program Status and Issues*, by Mary Tiemann.

[5] Memorandum from Advanced Resources International, Inc., to U.S. Department of Energy/Office of Fossil Energy, *Estimated Economic Impacts of Proposed Storm Water* (continued...)

The provision in H.R. 6 is identical to one in H.R. 6 in the 108th Congress, making EPA's delay permanent and making it applicable to construction activities at all oil and gas development and production sites, regardless of size, including those covered by Phase I rules. Industry has argued that the stormwater rule creates costly permitting requirements, even though the short construction period for drilling sites carries little potential for stormwater runoff pollution. Supporters say the amendment is intended to clarify existing CWA language. Opponents argue that the provision does not belong in the energy legislation, and that there is no evidence that construction at oil and gas sites causes less pollution than other construction activities. [This section prepared by Claudia Copeland, Specialist in Resources and Environmental Policy.]

Hydraulic Fracturing: Drinking Water Regulation

Section 327 would amend the Safe Drinking Water Act (SDWA), Section 1421(d), to specify that the definition of "underground injection" excludes the injection of fluids or propping agents used in hydraulic fracturing operations for oil and gas production. This language would prevent EPA from regulating the underground injection of fluids for hydraulic fracturing purposes, thus removing EPA's authority to do so under SDWA; it also would effectively overturn two court rulings.

Hydraulic fracturing involves the high-pressure injection of fluids into coal beds to enhance the recovery of oil and natural gas from underground formations. Water-based fluids are mainly used as fracturing fluids, but diesel oil, methanol, and other fluids are also used, and EPA has determined that the use of diesel fuel as a fracturing fluid introduces benzene and other toxic substances directly into underground sources of drinking water. Also, because the process fractures rock, it can create new pathways for gas to enter drinking water aquifers. As the number of coalbed methane (CBM) wells and the use of hydraulic fracturing have increased rapidly in recent years, so has concern over the potential impact on water resources, particularly in the water-scarce West, and very few studies have been done to evaluate these impacts.

The SDWA requires controls on the underground injection of fluids to protect underground sources of drinking water. EPA had not considered hydraulic fracturing to fall within the regulatory definition of underground injection. Then, in 1997, the Court of Appeals for the 11th Circuit ruled that the hydraulic fracturing of coalbeds for methane production constitutes underground injection and must be regulated. (This decision applied only to Alabama (LEAF v. EPA, 118 F. 3d 1467).)

In response to the court decision and citizen complaints about water contamination attributed to hydraulic fracturing, EPA began to study the impacts of hydraulic fracturing practices used in CBM production on drinking water sources, and to determine whether further regulation was needed. In 2004, EPA issued a report that concluded that the injection of hydraulic fracturing fluids into CBM wells

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[5] (...continued)
Discharge Requirements on the Oil and Natural Gas Industry, December 7, 2004.

poses little or no threat to underground sources of drinking water and requires no further study, although EPA noted that very little research has been done on the environmental impacts of injecting fracturing fluids.[6] The report has been criticized by some, and the EPA Inspector General has been asked to review a whistle-blower's assertions that EPA's findings are scientifically unfounded.[7]

In 2002, EPA's National Drinking Water Advisory Council recommended that EPA work to eliminate the use of diesel fuel and related additives in fracturing fluids. In 2003, EPA entered into an agreement with three companies that provide 95% of hydraulic fracturing services (BJ Services, Halliburton Energy Services, and Schlumberger Technology Corporation).[8] Under this voluntary agreement, the firms agree to remove diesel fuel from CBM fluids injected directly into drinking water sources, provided that cost-effective alternatives are available. The Advisory Council also recommended that EPA defend its authority to implement the UIC program in a manner that protects groundwater resources from contamination. However, oil and gas industry representatives argue that regulation is unneeded and would slow natural gas development. [This section prepared by Mary Tiemann, Specialist in Environmental Policy.][9]

Alternative Fuels and Vehicles: R&D and Incentives

H.R. 6 contains provisions on hydrogen and fuel cell research and development, as one strategy to promote expansion of alternative fuels and advanced technology vehicles and reduce dependence on foreign oil. Title VIII would authorize $4 billion for hydrogen fuel and fuel cell R&D over the course of FY2006-FY2010. Since FY2003, funding for hydrogen and fuel cell R&D through the Department of Energy has been steadily increasing, as part of the FreedomCAR and Hydrogen Fuel initiatives. For FY2004 through FY2008, the Bush Administration is seeking a total of $1.8 billion for the initiatives. Therefore, this $4 billion authorization would represent a significant increase. In addition, Section 930 would authorize $1.4 billion over five years for research on vehicle energy efficiency, including hydrogen infrastructure.

Section 1316 would establish a tax credit for the purchase of certain advanced lean-burn engine vehicles. Depending on the fuel economy and projected fuel savings, the purchaser of a lean-burn vehicle could qualify for a tax credit of up to

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[6] Environmental Protection Agency, Office of Water, *Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, Washington, D.C., June 2004.

[7] Letter to Senators Wayne Allard and Ben Nighthorse Campbell and Representative Diana DeGette from Weston Wilson, October 8, 2004.

[8] Memorandum of Agreement Between the United States Environmental Protection Agency and BJ Services Company, Halliburton Energy Services, Inc., and Schlumberger Technology Corporation, December 12, 2003.

[9] For more information, see CRS Report RL32262, *Selected Legal and Policy Issues Related to Coalbed Methane Development.*

$3,500. The credit would expire after 2007. [This section prepared by Brent Yacobucci, Specialist in Energy Policy.][10]

Hydroelectric Power: Relicensing

H.R. 6 (Subtitle C, Part 1), as introduced in the 109th Congress, gives applicants for hydroelectric licenses increased flexibility in complying with conditions imposed by federal agencies. Currently, the Federal Power Act gives certain federal agencies (conditioning agencies) the authority to attach conditions to Federal Energy Regulatory Commission (FERC) licenses. For example, federal agencies may require applicants to build passageways through which fish can travel around the dam, schedule periodic water releases for recreation, release minimum flows of water for fish migration, control water release rates to reduce erosion, or limit reservoir fluctuations to protect the reservoir's shoreline habitat. Once an agency issues such conditions, FERC must include them in its license. While these conditions often generate environmental or recreational benefits, they may also require construction expenditures and may increase generation costs by reducing operational flexibility.

The provision in H.R. 6 would allow license applicants to propose alternative license conditions, and would require federal agencies to consider these alternatives. It would also require an agency to accept an applicant's proposed alternative if it found that the alternative (1) provides for the adequate protection and utilization of the federal reservation, or is no less protective of the fish resource than the fishway initially prescribed, and (2) costs less to implement, and/or will improve operation of the project for electricity production. H.R. 6 also requires agencies that are issuing conditions to provide FERC with a written statement demonstrating that the relevant Secretary gave "equal consideration" to the effects of the conditions on factors such as energy supply, flood control, navigation, water supply, and air quality. This equal consideration clause may be a topic of debate during consideration of H.R. 6. Opponents of the provision are concerned that it would hamper agencies' ability to protect the resources under their jurisdiction; proponents argue that conditioning agencies, like FERC, should be required to balance competing water uses. [This section prepared by Kyna Powers, Analyst in Energy and Environmental Policy.]

Air Quality: Ozone Nonattainment Area Deadlines

Section 1443 of H.R. 6 would extend deadlines for areas that have not attained the ozone air quality standard if upwind areas "significantly contribute" to their nonattainment.

Deadlines for nonattainment areas were established by the 1990 Clean Air Act Amendments. Under this statute, ozone nonattainment areas were classified in one of five categories: marginal, moderate, serious, severe, or extreme. Areas with higher

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[10] For more information, see CRS Issue Brief IB10128, *Alternative Fuels and Advanced Technology Vehicles: Issues in Congress.*

concentrations of the pollutant were given more time to reach attainment. In return for the additional time, they were required to implement more stringent controls on emissions. Failure to reach attainment by the specified deadline was to result in reclassification of an area to the next highest category and the imposition of more stringent controls.

For a variety of reasons, EPA has often not reclassified areas when they failed to reach attainment by the statutory deadlines. As of April 2005, the agency's website listed 18 marginal areas, 6 moderate areas, and 9 serious areas; most of the 33 should have been categorized as severe under the statutory requirements. In several cases, the agency granted additional time to reach attainment on the grounds that a significant cause of the area's continued nonattainment was pollution generated outside the area and transported into it by prevailing winds. EPA has been sued over its failure to bump up five of these areas; the agency lost the first three cases decided (Washington, D.C.; St. Louis; and Beaumont-Port Arthur, Texas).[11]

Section 1443 would roll back reclassifications that have occurred within 18 months of the date of enactment, and would extend attainment deadlines in areas affected by upwind pollution to the date on which the last reductions in pollution necessary for attainment in the downwind area are required to be achieved in the upwind area. The specific date is open for interpretation. Under EPA's overturned policy, areas were given extensions no longer than the attainment or compliance deadline in the upwind area (generally 2004, 2005, or 2007). The language of Section 1443 appears to give EPA flexibility to extend the deadlines beyond those dates, however; it also would apply to the agency's new eight-hour ozone standard implemented last year, making many additional areas eligible for extensions. [This section prepared by James McCarthy, Specialist in Environmental Policy.][12]

Oil Exploration in the Arctic National Wildlife Refuge (ANWR)

One major element of the energy debate in the 109th Congress is whether to approve energy development in the Arctic National Wildlife Refuge (ANWR) in northeastern Alaska, and if so, under what conditions, or whether to continue to prohibit development to protect the area's biological, subsistence, and recreational resources. Current law forbids energy leasing in the Refuge. As introduced, H.R. 6 would open ANWR (including Native lands) to energy leasing, specify environmental lease stipulations, modify existing law to allocate 50% of revenues to the federal government (rather than 10%, as specified in the Alaska Statehood Act), limit judicial review and requirements under the National Environmental Policy Act,

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[11] The three cases were Sierra Club v. EPA, 311 F.3d 853, 55 ERC 1385 (7th Cir. 2002); Sierra Club v. EPA, 314 F.3d 735, 55 ERC 1577 (5th Cir. 2002); and Sierra Club v. EPA, 294 F.3d 155, 54 ERC 1641 (D.C. Cir. 2002).

[12] For more information, see CRS Report RS21611, *Ozone and Particulate Air Quality: Should Deadlines for Attainment Be Extended?*

and limit certain features of federal leasing development to no more than 2,000 acres. [This section prepared by M. Lynne Corn, Specialist in Natural Resources.][13]

Streamlining Environmental Requirements

Included in H.R. 6 are a variety of provisions intended to expedite or streamline the process of complying with certain environmental requirements. Generally, those provisions are intended to streamline the process of obtaining necessary federal authorizations (e.g., permits, special use authorizations, or approvals) or of complying with the National Environmental Policy Act of 1969 (NEPA, P.L. 91-190). NEPA requires all federal agencies to consider the environmental impacts of their proposed actions. To ensure that environmental impacts are considered before final decisions are made, NEPA requires federal agencies to provide a detailed statement of environmental impacts (referred to as an environmental impact statement (EIS)) for every proposed federal action significantly affecting the quality of the environment.

Methods of expediting NEPA compliance include designating a specific agency (e.g., the Department of Energy or the Federal Energy Regulatory Commission) as the "lead agency" to coordinate applicable federal authorizations; specifying project alternatives required to be considered for a given class of projects; and authorizing the lead agency to establish a consolidated or coordinated environmental review process.

H.R. 6 includes streamlining provisions for the following types of projects:

- The construction, expansion, or operation of liquefaction or gasification natural gas terminals (Title III Oil and Gas — Commerce, Subtitle B — Production Incentives § 320);
- Refinery expansion projects in designated "Refinery Revitalization Zones" (Title III Oil and Gas — Commerce, Subtitle D — Refining Revitalization §§ 374-378);
- Siting interstate electric transmission facilities (Title XII — Electricity, Subtitle B — Transmission Infrastructure Modernization § 1221);
- "Renewable energy projects," meaning those projects using an energy source other than nuclear power, coal, oil, or natural gas, including the use of wind, solar, geothermal, biomass, or tidal forces to generate energy (Title XVII — Renewable Energy § 1702);
- Land leasing on the Arctic Coastal Plain (Title XXII — Arctic Coastal Plain Domestic Energy § 2203);

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[13] For more information, see CRS Issue Brief IB10136, *Arctic National Wildlife Refuge (ANWR): Controversies for the 109th Congress*; CRS Report RL31278, *Arctic National Wildlife Refuge: Background and Issues*; and CRS Report RL31115, *Legal Issues Related to Proposed Drilling for Oil and Gas in the Arctic National Wildlife Refuge (ANWR)*.

- Onshore oil and gas leasing and permitting on federal land (Title XX — Oil and Gas — Resources, Subtitle B — Access to Federal Land §§ 2021-2028);
- The designation of energy facility rights-of-way and corridors on federal lands (Title XX — Oil and Gas — Resources, Subtitle B — Access to Federal Land §§ 2030-2031); and
- Designated actions by the Department of the Interior to manage public lands (if conducted for the purpose of exploration or development of a domestic federal energy source) (Title XXVI — Additional Provisions § 2601).

[This section prepared by Linda Luther, Analyst in Environmental Policy.]

Other Issues Not Included in the Legislation

Renewable Portfolio Standard. For retail electricity suppliers, a renewable portfolio standard (RPS) sets a minimum requirement (often a percentage) for electricity production from renewable energy resources or for the purchase of tradable credits that represent an equivalent amount of production. In the April 12 markup by the House Committee on Energy and Commerce, an amendment to add an RPS (1% in 2008, increasing by 1% annually through 2027) was rejected. Proponents noted a growing number of states with an RPS and noted that EIA reports show an RPS could reduce electricity bills. Opponents raised concerns about the exclusion of existing hydropower facilities and resource limits for the southeastern United States. [This section prepared by Fred Sissine, Specialist in Energy Policy.][14]

Modified Corporate Average Fuel Economy Standards. There has been continuing interest in modifying the existing corporate average fuel economy (CAFE) standards, either to tighten the standards for passenger cars and light trucks, or to modify the existing system to address some its perceived shortcomings. In the House Committee on Energy and Commerce markup, an amendment was offered to require the Department of Transportation to increase CAFE standards in order to save 10% of fuel consumption by 2014. The amendment was rejected.

While not modifying the existing CAFE structure, Subtitle E of Title VII does address the implementation of the current fuel economy standards, including authorizing funds for rulemaking, and extending CAFE incentives for the production of alternative fuel vehicles. [This section prepared by Brent Yacobucci, Specialist in Energy Policy.][15]

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[14] For more information, see CRS Issue Brief IB10041, *Renewable Energy: Tax Credit, Budget, and Electricity Production Issues.*

[15] For more information, see CRS Issue Brief IB90122, *Automobile and Light Truck Fuel Economy: The CAFE Standards.*