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Renewable Fuels and MTBE: Side-by-Side Comparison of H.R. 6 and S. 2095

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Summary

This report compares the energy bill (H.R. 6) conference report provisions dealing with ethanol and with the gasoline additive methyl tertiary butyl ether (MTBE) to the House and Senate versions of the same legislation, as well as a substitute bill offered in the Senate (S. 2095). The House passed its version of H.R. 6 April 11, 2003; the Senate, July 31. The conference committee approved its version November 17; the House agreed to the conference report November 18. On February 12, 2004, S. 2095 was introduced in the Senate. Except for one provision, S. 2095 and the H.R. 6 conference report titles on renewable fuels and MTBE are identical.

All three versions of H.R. 6, as well as S. 2095, would repeal the existing Clean Air Act requirement that reformulated gasoline (RFG) contain at least 2% oxygen, a requirement that led refiners and importers to use MTBE, and to a lesser extent ethanol, in their RFG. In place of this requirement, all versions would provide a major new stimulus for the use of ethanol – a provision that the annual production of motor fuels contain at least 5 billion gallons of renewable fuel (more than double the current production of ethanol) in roughly 10 years. In addition, the bills contain similar provisions that: require that the reductions in emissions of toxic substances achieved by RFG be maintained; authorize grants to assist merchant MTBE production facilities in converting to the production of other fuel additives (although the conference report and S. 2095 provide nearly triple the amount provided by either the House or Senate versions of H.R. 6); authorize loan guarantees for the construction of facilities to produce ethanol from municipal solid waste; and allow ethanol credit trading among refiners and importers of fuels.

Major issues the bills handle differently include: whether to ban MTBE (the Senate bill would have done so within 4 years, with some exceptions, while the conference report and S. 2095 allow 11 years and give the President authority to determine that it should not be banned); whether to provide a “safe harbor” from product liability lawsuits for producers of ethanol and other renewable fuels (all versions of H.R. 6 do, S. 2095 does not); whether to grant MTBE producers -- in addition to ethanol producers -- a similar safe harbor from product liability lawsuits (the conference report does, the Senate version of H.R. 6 and S. 2095 do not); whether to require manufacturers of fuels and fuel additives to test their impacts on public health and the environment (the Senate bill did so, the conference report and S. 2095 do not); and whether to allow EPA to control or prohibit fuels and fuel additives in order to protect water quality (again present in the Senate bill, but not in the conference report or S. 2095).

This report will not be updated.

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Introduction

This report compares the provisions dealing with renewable fuel (e.g., ethanol) and with the gasoline additive methyl tertiary butyl ether (MTBE) in the House and Senate versions of comprehensive energy legislation (H.R. 6), the conference report reconciling the two, and a substitute bill offered in the Senate (S. 2095). The House version of H.R. 6 passed the House April 11, 2003. The Senate version passed the Senate July 31, 2003. The final draft of the conference report (H.Rept. 108-375) was approved by the conferees November 17;[2] the House approved the report November 18. S. 2095 was introduced February 12, 2004. Except for one provision, the renewable fuels and MTBE titles of S. 2095 and the H.R. 6 conference report are identical. This report does not address other provisions of the energy bill, including ethanol tax issues; for an overview of these provisions, see CRS Issue Brief IB10116, *Energy Policy: The Continuing Debate*.

Under the Clean Air Act Amendments of 1990, gasoline sold in numerous areas of the country with poor air quality must contain MTBE, ethanol, or other substances containing oxygen as a means of improving combustion and reducing emissions of ozone-forming compounds and carbon monoxide. The Act has two programs that require the use of oxygenates, but the more significant of the two is the reformulated gasoline (RFG) program, which took effect January 1, 1995. Under the reformulated gasoline program, areas with "severe" or "extreme" ozone pollution (90 counties with a combined population of 64.8 million) must use reformulated gasoline; areas with less severe ozone pollution may opt into the program as well, and many have. In all, portions of 17 states and the District of Columbia use reformulated gasoline; a little more than 30% of the gasoline sold in the United States is RFG.

In the mid-1990s, the addition of MTBE to RFG and its use in conventional gasoline became controversial. The additive has been implicated in numerous incidents of ground water contamination, and 17 states have taken steps to ban or regulate its use. The most significant of these bans (in California and New York) take effect at the end of 2003, leading many to suggest that Congress revisit the issue before then to modify the oxygenate requirement and set more uniform national

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[1] The bills address Clean Air Act, renewable fuel, and ground water cleanup issues. Of the three authors of this report, Jim McCarthy handles the Clean Air Act; Brent Yacobucci, renewable fuels; and Mary Tiemann, ground water and underground storage tank issues.

[2] The final version of the conference report was released November 18, 2003.

requirements regarding MTBE and its potential replacements (principally ethanol).

All three versions of H.R. 6, as well as S. 2095, would repeal the Clean Air Act requirement that reformulated gasoline contain at least 2% oxygen – the requirement that forces refiners and importers to use MTBE, ethanol, or other oxygenates in their RFG. In place of this requirement, all four versions would provide a major new stimulus to promote the use of ethanol – a provision that the annual production of gasoline contain at least 5 billion gallons of renewable fuel (more than double the current production of ethanol). The conference version and S. 2095, like the Senate bill, require this level in 2012.

The bills use the term "renewable fuel" rather than ethanol, so the 5 billion gallon requirement could be met by other fuels. In fact, all versions of the bill specifically include natural gas produced from landfills, sewage treatment plants, feedlots, and other decaying organic matter in the definition. The renewable fuel definition also clearly encompasses biodiesel, which can be made from soy beans or cooking oils. However, ethanol is the only renewable motor fuel currently being produced in significant quantities. In 2002, roughly 2.1 billion gallons of ethanol were blended with gasoline. Biodiesel, the next most significant renewable motor fuel, is consumed at a rate of about 50 million gallons annually, only 2 or 3% of the amount of ethanol consumed.[3]

Besides the oxygenate and renewable fuel provisions, the bills are similar in requiring that reductions in emissions of toxic substances achieved by RFG be maintained; they all authorize grants to assist merchant MTBE production facilities in converting to the production of other fuel additives (although the conference report and S. 2095 authorize $2 billion in such assistance, as compared to $750 million in both the House and Senate versions); and they each would allow ethanol credit trading among refiners and importers of fuels.

Major issues the bills handled differently included:

- whether to ban MTBE (the Senate version of H.R. 6 would have done so within 4 years, with some exceptions, while the House version would not have banned the substance; the conference report and S. 2095 allow 11 years and give the President authority to determine that it should not be banned);

- whether to provide a "safe harbor" from product liability lawsuits for producers of ethanol and other renewable fuels (all three versions of H.R. 6 do, but S. 2095 does not);

- whether to grant MTBE producers – in addition to ethanol producers – a safe harbor (the Senate bill and S. 2095 do not, but the House bill and the conference report do so);

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[3]For additional information on ethanol and biodiesel, see CRS Reports RL30758, *Alternative Transportation Fuels and Vehicles: Energy, Environment, and Development Issues*, and RL30369, *Fuel Ethanol: Background and Public Policy Issues*.

- whether to require manufacturers of fuels and fuel additives to test their impacts on public health and the environment (the Senate bill would have done so, the House bill, the conference report, and S. 2095 do not);

- whether to allow EPA to control or prohibit fuels and fuel additives in order to protect water quality (again present in the Senate bill, but not in the House bill, conference report, or S. 2095); and

- how much to authorize for MTBE cleanup (the conference report and S. 2095 authorize $1 billion for cleanup of fuels containing MTBE or other oxygenates and another $1 billion for releases from underground storage tanks generally – substantially more than either the House or Senate bill).

In addition, the conference report and S. 2095 include extensive amendments to the underground storage tank (UST) regulatory program and the leaking underground storage tank (LUST) program. The Senate bill contained some UST and LUST provisions, but the conference report and S. 2095 go substantially farther, essentially including the language of H.R. 3335, the *Underground Storage Tank Compliance Act of 2003*. It adds new tank inspection and operator training requirements; prohibits fuel delivery to ineligible tanks; expands UST requirements for federal facilities; and requires EPA, with Indian tribes, to develop and implement a strategy to address releases on Tribal lands. The bill authorizes states to use funds from the LUST Trust Fund to help owners or operators pay the costs of remediating tank leaks in cases of financial hardship It also authorizes EPA and states to use LUST funds to conduct inspections and enforce UST release prevention and detection requirements. It authorizes, for this purpose and for implementing delivery prohibition provisions, $50 million in LUST funds for each of FY2004-FY2008.

The remainder of this report compares in more detail the MTBE and renewable motor fuel provisions of the four versions of the bill. (For additional information on MTBE, see CRS Report 98-290, *MTBE in Gasoline: Clean Air and Drinking Water Issues*. For information on ethanol, see CRS Report RL30369, *Fuel Ethanol: Background and Public Policy Issues*.)

Table 1. Side-by-Side Comparison of House and Senate Energy Bills and the Conference Report on H.R. 6

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Renewable Content of Motor Vehicle Fuel	A new §211(o) is added to the Clean Air Act. Beginning in 2005, motor gasoline must contain a certain amount of renewable fuel. In 2005, 2.7 billion gallons of renewable fuel must be sold annually, increasing to 5.0 billion gallons in 2015. After 2015, the percentage of renewable fuel required in the motor fuel pool must be the same as the percentage required in 2015. This standard will largely be met by ethanol, but other renewable fuels, such as biodiesel, are eligible. Ethanol from cellulosic biomass (including from wood and agricultural residue, animal waste, and municipal solid waste) is granted extra credits toward fulfilling the program's requirements. Further, the bill would establish a credit trading program to provide flexibility to refiners and blenders. **[§ 17101]**	Similar to the House provision, except that the mandate would be 2.3 billion gallons in 2004, and would increase to 5.0 billion gallons in 2012. **[§ 820]**	Similar to the House and Senate versions, except that the mandate would be 3.1 billion gallons in 2005, increasing to 5.0 billion gallons in 2012. **[§1501]**

[a] S. 2095 and the H.R. 6 conference report are identical except that S. 2095 does not contain the "safe harbor" provision for renewable fuels or MTBE (§1502) in the H.R. 6 conference report. In S. 2095, this section was removed and all subsequent sections were renumbered accordingly. For example, §1508 in the H.R. 6 conference report is §1507 in S. 2095.

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Ban on Use of MTBE	No comparable provision.	Not later than 4 years after enactment, the use of MTBE in motor vehicle fuel is prohibited except in states that specifically authorize it. EPA may allow MTBE in motor vehicle fuel in quantities up to 0.5% in cases the Administrator determines to be appropriate. **[§833(c)]**	Similar to Senate provision, except that the ban would take effect December 31, 2014. **[§1504]** Allows the President to make a determination, not later than June 30, 2014, that the restrictions on the use of MTBE shall not take place. **[§1505(b)]** Separately, requires the National Academy of Sciences to conduct a review of MTBE's beneficial and detrimental effects on environmental quality or public health or welfare, including costs and benefits. The review shall be completed by May 31, 2014. **[§1505(a)]**
Protection of Water Quality	No comparable provision.	Amends §211(c)(1) of the Clean Air Act to allow EPA to control or prohibit fuels and fuel additives in order to protect water quality, in addition to current authority based on protection of air quality. **[§833(c)]**	No comparable provision.

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Safe Harbor	Provides a "safe harbor" for renewable fuels and fuels containing MTBE (i.e., such fuels cannot be deemed defective in design or manufacture by virtue of the fact that they contain renewables or MTBE). The effect of this provision would be to protect anyone in the product chain, from manufacturers down to retailers, from liability for cleanup of MTBE and renewable fuels or for personal injury or property damage based on the nature of the product (a legal approach that has been used in California to require refiners to shoulder liability for MTBE cleanup). With liability for manufacturing and design defects ruled out, plaintiffs would be forced to demonstrate negligence in the handling of such fuels, a more difficult legal standard to meet. Applies to claims filed after the date of enactment. **[§ 17102]**	Similar to the House bill provision, except that it applies only to renewable fuels, not MTBE or other ethers. **[§820(e)]**	Safe harbor covers renewable fuels, MTBE, and fuels containing them, as in the House bill. Effective as of September 5, 2003, rather than after the date of enactment. The effective date means that the safe harbor will protect oil and chemical industry defendants from defective product claims in lawsuits that were filed in New Hampshire and California after that date. **[§1502]** **S. 2095 does not contain this provision. Otherwise, Title XV in both the H.R. 6 conference report and S. 2095 are identical.**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
MTBE Transition Assistance	Amends §211(c) of the Clean Air Act to authorize $250 million in each of FY 2004-2006 for grants to assist merchant U.S. producers of MTBE in converting to the production of iso-octane and alkylates. Amounts to remain available until expended. The Secretary of Energy may make grants available for conversion to other fuel additives, unless EPA determines that such additives may reasonably be anticipated to endanger public health or the environment. **[§17103(c)]**	Similar provision, but authorizes $250 million for each of FY 2003-2005. **[§833(c)]**	Similar provision, but authorizes $250 million for each of FY 2005-2012. Adds renewable fuels to the products eligible for conversion assistance. **[§1503]** The conference report also authorizes $850 million total for FY2004 through FY2006 for conversion and construction of cellulosic ethanol plants. **[§1513]**
Oxygen Content	Amends §211(k) of the Clean Air Act to eliminate the requirement that reformulated gasoline contain at least 2% oxygen. Provision takes effect 270 days after enactment, except in California, where it takes effect immediately upon enactment. **[§17104(a)]**	Identical provision. **[§834(a)]**	Identical provision. **[1506(a)]**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Toxic Air Pollutants	Amends §211(k)(1) to require that each refinery or importer of gasoline maintain the average annual reductions in emissions of toxic air pollutants *achieved* by the reformulated gasoline it produced or distributed in 1999 and 2000. This provision is intended to prevent backsliding, since the reductions actually achieved in those years exceeded the regulatory requirements. Establishes a credit trading program for emissions of toxic air pollutants **[§17104(b)]**	Identical provisions, but the requirements provide an exception for California gasoline, which is subject to more stringent state requirements. **[§834(b)]**	Same as the House bill. **[§1506(b)]**
Mobile Source Air Toxics	Requires EPA to promulgate final regulations to control hazardous air pollutants from motor vehicles and their fuels by July 1, 2004. **[§17104(b)]**	Identical provision. **[§834(b)]**	Identical provision. **[§1506(b)]**
Blending of Compliant Reformulated Gasolines	No comparable provision.	No comparable provision.	Retailers may blend batches of gasoline with and without ethanol as long as both batches are compliant with the Clean Air Act. In a given year, retailers may only blend batches over two ten-day periods in the summer months. **[§1514]**
Consolidation of RFG Requirements	Eliminates the less stringent requirements for volatility applicable to reformulated gasoline sold in VOC Control Region 2 (northern states) by applying the more stringent standards of VOC Control Region 1(southern states). **[§17104(c)]**	Identical provision. **[§834(c)]**	Identical provision. **[§1506(c)]**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Public Health and Environ-mental Impacts of Fuels and Additives	No comparable provision.	Amends §211(b) of the Clean Air Act to require manufacturers of fuels and fuel additives to conduct tests of their health and environmental impacts (currently, these tests are at EPA's discretion and do not include environmental effects). Also requires EPA, within 2 years, to conduct a study of the health and environmental effects of MTBE substitutes, including ethanol-blended RFG. **[§ 835]**	No comparable provision.
Analyses of Fuel Changes	A new §211(p) is added to the Clean Air Act. Within four years of enactment, the Administrator of the Environmental Protection Agency (EPA) must publish a draft analysis of the effects of the fuels provisions in the Act on air pollutant emissions and air quality. Within five years of enactment, the Administrator is required to publish a final version of the analysis. **[§17105]**	Identical provision. **[§ 836]**	Identical provision. **[§1507]**
RFG Opt-In	No comparable provision.	Allows Governors of 12 Northeastern states to petition EPA to require RFG use in attainment areas in their states. The Administrator shall do so, unless he determines there is insufficient capacity to produce RFG, in which case the commencement date of the requirement shall be delayed. **[§ 837]**	No comparable provision.
Federal Enforcement	No comparable provision.	At the request of a state, allows federal enforcement of state controls on fuels and fuel additives. **[§ 838]**	No comparable provision.

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Renewable Fuels Surveys	Requires DOE to collect and publish monthly survey data on the production, blending, importing, demand, and price of renewable fuels, both on a national and regional basis. **[§17106]** Not later than 12/1/2006, and annually thereafter, requires the EPA Administrator to conduct a survey to determine the market shares of conventional gasoline and RFG containing ethanol and other renewable fuels in each conventional and RFG area in each state. **[§17101(c)]**	Similar provision. **[§813]** Similar provision beginning 12/1/2005. **[§820(d)]**	Identical to the House provision. **[§1508]** Similar provision. **[§1501(c)]**
Study of Harmonizing Fuel System Requirements	The EPA Administrator and the Secretary of Energy are required to conduct a study of all federal, state, and local motor fuels requirements. They are required to analyze the effects of various standards on consumer prices, fuel availability, domestic suppliers, air quality, and vehicle emissions. Further, they are required to study the feasibility of developing national or regional fuel standards. A report must be submitted to Congress by December 31, 2006. **[§17107]**	Similar to the House version, except that the report must be submitted by June 1, 2006. **[§ 839]**	Similar to the House version, except that the report must be submitted by December 31, 2007. **[§1510]**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Reducing the Proliferation of Boutique Fuels	A new provision is added to §211(c)(4) of the Clean Air Act. The EPA Administrator is directed to give preference to the approval of air quality State Implementation Plans that require the use of "Federal Clean Burning Gasoline"(defined as Reformulated Gasoline with a Reid Vapor Pressure of 6.8 psi) or "Low RVP" gasoline (with a Reid Vapor Pressure of 7.8 psi). **[§17107A]**	No comparable provision.	A new provision is added to §211(c)(4) of the Clean Air Act. The EPA Administrator shall not approve a control or prohibition respecting the use of a fuel or fuel additive unless he finds that it will not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas. Within 18 months of enactment, the Administrator shall submit a report to Congress on the effects of providing a preference for RFG or either of two low RVP gasolines. **[§1509]**
Ethanol from Solid Waste Loan Guarantees	The Secretary of Energy is required to establish a loan guarantee program for the construction of facilities to produce fuel ethanol and other commercial byproducts from municipal solid waste. The section authorizes such sums as may be necessary for the program. **[§17108]**	Similar provision. **[§820B]**	Similar provision. **[§1511]**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
MTBE and Other Oxygenated Fuel Cleanup	Authorizes to be appropriated to EPA from the Leaking Underground Storage Tank (LUST) Trust Fund $850 million for actions deemed necessary to protect human health, welfare, and the environment from underground storage tank (UST) releases of fuel containing fuel oxygenates. **[§ 17201]**	Amends Subtitle I of the Solid Waste Disposal Act (SWDA) to authorize EPA and states to use funds appropriated from the LUST Trust Fund to remediate releases of MTBE or other ether fuel additives that present a threat to human health, welfare, or the environment; authorizes the use of $200 million from the LUST Trust fund for this purpose; and specifies that releases need not be from USTs to be eligible for funding. **[§ 832]**	Authorizes $200 million for each of FY2004-FY2008 from the LUST Trust Fund for responding to LUST releases generally, and the same amount for responding to releases of fuels containing MTBE or other oxygenated fuel additives (e.g., ethanol) that present a threat to human health, welfare, or the environment. **[§1525 and §1531]**
Underground Storage Tank Compliance	No similar provisions.	Amends Subtitle I of the Solid Waste Disposal Act (SWDA) to allow EPA and states to use LUST funds to conduct inspections and enforce federal and state UST release prevention and detection requirements; authorizes for these purposes, $50 million for FY2003, and $30 million for each of FY2004-FY2008. Directs EPA to establish a resource center for research on bioremediation of MTBE in groundwater and for providing technical assistance to states; for these purposes, authorizes LUST Trust Fund appropriations of $500,000 for FY2003 and $300,000 for each of FY2004-FY2008. EPA may establish a research program for soil remediation of MTBE; for this purpose, authorizes Trust Fund appropriations of $100,000 for FY2003 and $50,000 for each of FY2004-FY2008. **[§ 832]**	Makes more extensive amendments to Subtitle I UST and LUST programs than does the Senate version. Adds new tank inspection and operator training requirements; prohibits fuel delivery to ineligible tanks; expands UST requirements for federal facilities; and requires EPA, with Indian tribes, to develop and implement a strategy to address releases on Tribal lands. Authorizes use of LUST funds to help owners pay for cleanup in cases of financial hardship. Funds may also be used to conduct inspections and enforce UST leak prevention and detection requirements; authorizes for these purposes and for implementing delivery prohibition provisions, $50 million in LUST funds for each of FY2004-FY2008. **[§1522-§1533]**

Provision	H.R. 6, as passed by House	H.R. 6, as passed by the Senate	H.R. 6 Conference Report / S. 2095[a]
Research and Development	No comparable provision.	No comparable provision.	Authorizes $4 million for the University of Mississippi and the University of Oklahoma for each of fiscal years 2004-2008 for a resource center to further develop bioconversion technology using low-cost biomass for the production of ethanol. **[§1512(b)]** Authorizes $25 million in each of FY 2004-2008 for research, development, and implementation of renewable fuel production technologies in RFG states with low rates of ethanol production. **[§1512(c)]**