

Ethanol: America's 21st Century Transportation Fuel



Expanding the Market and Delivering the Future

Governors' Ethanol Coalition

Kansas City, Kansas
October 2006



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The Impact of Expansion

- The Coalition recognizes the need for continued production efficiency improvements that expand and build on the growing success of corn ethanol – utilizing new feedstocks:
 - corn kernel fiber, stover, and cobs
 - wheat straw, agricultural residues
 - switchgrass and other native dedicated energy crops
- Supply and demand measures are needed to significantly expand production and use of ethanol – including dramatically increased resources for research, demonstration and development and incentives
- Governors' Ethanol Coalition April 2005 recommendations laid the groundwork for change



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Key Provisions Resulting from the Governors' Recommendations:

- Section 1501– Renewable Fuels Standard
 - Requires 4 billion gallons of ethanol use a year in 2006 increasing to at least 7.5 billion gallons in 2012
 - Provides cellulosic ethanol to count as 2.5 gallons until 2013
 - Directs EPA to establish a “new” RFS each year after 2012
 - Requires at least 250 million gallons of cellulosic ethanol beginning in 2013
- Section 932: Bioenergy Program
 - Enhances existing DOE research and development program and emphasizes cellulosic biofuels including demonstration of integrated biorefinery
 - Encourages variety of co-products and demonstration applications (e.g., feedstock collection and treatment)



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Key Provisions Resulting from the Governors' Recommendations:

- Section 941: Amendments to the *Biomass research and development Act*
 - Enhances existing USDA research, demonstration and development program conducted with DOE
 - Indicates research and development solicitation technical areas (e.g., advanced feedstock production and harvesting) and includes guidance on distribution of projects funded
 - Increases authorization from \$54M to \$200M a year, (appropriation in FY'05 was \$14M, FY'06 \$12M, FY'07 House Mark \$14M)
- Section 942: Production Incentives for Cellulosic Biofuels
 - Authorizes production incentive for first billion gallons by 2015
 - Directs DOE to use a reverse auction approach for provision of the incentives and provides authorization of \$250 million total for 10 years
 - First auction, if funded, one year after production of 1 million gallons or 2008



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Renewable Fuels Standard

- EPA implementation is underway

President's FY'07 Budget Request:

- DOE Biomass Program \$150 million (House Mark \$149.7 million; Senate Mark \$213 million)
- USDA Biomass Program \$12 million (House Mark \$14 million)
- *Cellulosic Production Incentive not addressed*

Near-Term Challenges:

- Building support to obtain *appropriations* for priority programs authorized by the *Energy Policy Act of 2005*
- Reducing the proportion of "earmarks" to aid in effective management of federal programs
- Improving coordination of state, federal, local and industry activities to leverage resources and expedite delivery of biofuels



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Governors' Ethanol Coalition Recent Implementation Actions:

- Encourage President to dramatically expand ethanol funding and visibility
- House Dear Colleague letter – 51 signers
- Reduce proportion of "earmarked" biofuels funding
- House Mark \$149.7 million
- Inclusion of pilot scale demonstrations
- Senate Dear Colleague letter – 24 signers
- Senate Mark \$213 million

ROLL CALL
Increase in Ethanol Production Is a Must

Governors' Ethanol Coalition

United States Senate
June 13, 2006

Increase in Ethanol Production Is a Must
By Former Sen. Bob Dole and Tom Daschle

Earlier this spring Secretary of State Condoleezza Rice testified, "I can tell you that nothing has really taken me aback more as secretary of State than the way that the politics of energy is warping diplomacy around the world." With gas at \$3 per gallon, the American people understand what she means.

For the past several decades, the American economy and way of life has relied on a ready and cheap supply of oil, with little competition from other large countries. Today, the tremendous growth of India and China, which we expect and hope will continue, has ignited a global energy crisis. It is our duty to innovate and deliver more domestic energy to the United States and the world. That means creating new energy sources and investing in research and development to bring them to market. That means creating a market for ethanol. That means creating a market for ethanol. That means creating a market for ethanol.

Former Sen. Bob Dole



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Coalition Actions in Support of Implementation:

- Develop outreach and advocacy strategy in coordination with Senators Daschle and Dole for the Coalition and others
- Support Coalition members' advocacy efforts with policy and appropriations information
- Coordinate with partners in Washington, DC as they conduct advocacy and develop policy (e.g., appropriations, biofuels trust fund)
- Provide educational materials to demonstrate the value of ethanol and need for research, demonstration and development efforts (e.g., respond to federal requests for state information, provide presentations)
- Conduct research for the Coalition as it implements provisions and considers new positions
- Engage Governors' Renewable Fuels Security Roundtable members to build support and provide policy review



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Governors' Ethanol Coalition 2006 Priorities

- Ensure adequate federal funding for DOE's Biomass Program, USDA's Biomass Program, and Cellulosic Production Incentive
Biofuel Trust Fund: Interest is growing in a Coalition proposed trust fund to provide significant and consistent funding for biofuel research, demonstration and development activities
- Explore opportunities associated with future increases in the Renewable Fuel Standard and/or greater market demand
Expansion Study: Coalition – ethanol expansion study to inform policy decisions. Study will address resource, economic and logistics barriers to significant expansion of ethanol production
- Urge automakers to produce more flex-fuel capable vehicles
- Urge expansion of E85 infrastructure



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Biofuels Policy Options

Select Pending Federal Legislation

- Biofuels Security Act of 2006 (S. 2817, Harkin)
Would expand RFS to 10 billion gallons by 2010; 30 billion gallons by 2020; 60 billion gallons by 2030; require large oil company installation of E85 pumps over a 10-year period; require most vehicles sold in the U.S. to be flex-fuel capable over a 10-year period.
- American Fuels Act of 2006 (S. 2446, Obama)
Would improve and monetize the trading credit for cellulosic ethanol established by the Energy Policy Act of 2005; create an alternative diesel standard; provide 35 cents a gallon tax credit for E85; and provide \$100 tax credit for every E85 capable FFV produced.



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Biofuels Policy Options (continued)

Select Pending Federal Legislation

- Transforming Energy Now Act of 2006 (S. 2680, Coleman)
Would increase the tax credit for alternative fuel vehicle refueling property from 30 to 50 percent; use CAFE penalties to build alternative fueling infrastructure; provide low interest loan and grant program for retail delivery of E85 fuel.
- Strategic Energy Fund Act of 2006 (S. 2993, Clinton)
Would establish a fund for energy tax incentives and other measures including funds for cellulosic ethanol and biodiesel production.
- H.R. 4573 (Amends the Clean Air Act)
Would increase the renewable fuel content of gasoline to 25 billion gallons by 2025, requires federal agencies to use ethanol and biodiesel.



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Emerging Biofuels Policy Options

1. Explore means for agriculture and ethanol to benefit from environmental challenges (e.g., emissions reduction, carbon sequestration).
Could farmers/producers capture and monetize carbon reduction benefits from trading mechanisms – creating a revenue stream?
2. Explore flexible approaches to vehicle efficiency that include flex-fuel hybrids and plug-in flex-fuel hybrids.
Could reform of CAFE create opportunities for flex-fuel, plug-in hybrids and other flex-fuel vehicles?
3. Improve alignment and leverage of state research, demonstration and development resources (technical and financial) with regional and federal goals.
Should federal programs be designed to gain some level of joint state-federal planning in order to leverage state and private resources – delivering research, demonstration and development results earlier than otherwise possible?



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Emerging Biofuels Policy Options (*continued*)

4. Explore expansion of RFS with linkage to incentives for greater energy efficiency and renewable energy utilization, as well as moving up the requirement for cellulosic production to 2010.
Could emphasis on production efficiency and reduced fossil fuel inputs further reduce costs and increase competitiveness (hedge oil price drops)?
5. Explore international policy and technical exchange to expand biofuels more rapidly globally – creating national security and environmental benefits.
Should USDA/DOE support an ongoing international peer-exchange effort and conference to ensure decision makers glean the knowledge of their peers?
6. Explore linkage between expansion of the RFS with FFV hybrids and plug-in FFV hybrids and other vehicle efficiency measures.
Could such links dramatically leverage foreign oil displacement without significant near-term impacts on consumers and industry?



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Emerging National Policy Issues (*continued*)

7. Explore modest “floor” prices for crude oil (e.g., \$35 a barrel) to give investors in ethanol and other biofuel production confidence in the market.
Could modest protection from extreme crude oil price downturns draw in private investment for advanced biofuels – emphasizing market choice and private sector technology investment?
8. Explore creation of a Biofuels Trust Fund to support research, demonstration and development efforts
Could pending oil royalty “holiday” payments be an off budget source for consistent funding of ethanol and biofuel research, demonstration and development efforts – freeing appropriated funds for other non-biofuel energy purposes?
9. Explore linkage between Department of Defense biofuels research, demonstration and development and other federal and state research and development efforts.
Could improved coordination across federal agencies leverage existing research, demonstration and development resources more effectively, and could the military offer a significant market pull for biofuels infrastructure?



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Examples of State Actions in Support of Ethanol:

- New York - Governor Pataki calls for a \$20 million program to develop cellulosic capability, and \$5 million to expand E85 and B20 fueling stations
- Minnesota - Governor Pawlenty pushed for a doubling of MN ethanol mandate to 20 percent by 2013
- New Mexico - Governor Richardson issued executive order requiring state agencies to obtain 15 percent of their fuel from renewable sources by 2010
- Florida - Governor Bush signs Senate Bill 888 creating a renewable energy grant program and providing investments in ethanol, biodiesel, and other clean fuels.
- California - Establishes an \$11 million - expanded to approximately \$20 million - alternative fuel research and development program
- Wisconsin – Governor proposes \$80 package of ethanol and biofuels loans, support, and incentives



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Next Steps:

Governors' Renewable Fuels Security Roundtable:

- Meeting in Washington, DC November 13, 2006, to discuss policy options and aid in the formation of the Coalition's policy agenda for 2007
- Governors' recommendations submitted to the new Congress and President in late December 2006

Prepare Coalition Funding Recommendations for FY'08:

- Recommend funding levels for DOE's Biomass and Science programs at levels proposed by the Coalition FY'07 and/or Congressionally authorized amounts
- Recommend increased and expanded support for infrastructure funding
- Transmit FY'08 Funding Recommendations to President in late October 2006



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Summary:

- Expanding ethanol production and use significantly beyond the current RFS requires a diversification of feedstocks and a consistent national commitment
- Implementing key research, demonstration and commercialization actions to deliver the promise of ethanol to all regions of the nation requires substantially greater funding – *not delivering on research, development and commercialization means risking our future*
- Ensuring dramatic expansion of E85 infrastructure requires funding and policy incentives
- Encouraging production of flex-fuel and higher efficiency vehicles requires policy incentives and public and private leadership



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