



Briefing Notice

Future Fuels: Can Biofuels Make Gasoline Cleaner, Cheaper?

Friday, June 12, 2015

10:00 AM – 11:30 AM

334 Cannon House Office Building

Please RSVP to expedite check-in: www.eesi.org/061215biofuels#rsvp

Live webcast (connection permitting) will be streamed at: www.eesi.org/livecast

The **Environmental and Energy Study Institute** (EESI) and the **Governors' Biofuels Coalition** invite you to a briefing examining the current state and potential future of the transportation fuel supply. While combustion engines are more efficient and cleaner than ever, the transportation sector is still responsible for 27 percent of greenhouse gas (GHG) emissions as well as half of all toxic emissions in the United States. Researchers from Argonne National Laboratory (ANL), the National Renewable Energy Lab (NREL), and Oak Ridge National Lab (ORNL) are conducting coordinated studies to address the opportunities and challenges to deploying a high octane mid-level ethanol blend to the passenger vehicle fleet. They found such fuels, which blend between 25 to 40 percent ethanol and 60 to 75 percent conventional gasoline (instead of the current 10 to 90 percent ratio), could lead to greater fuel efficiencies and lower overall GHG emissions. Speakers for this forum are:

- **Rep. Tammy Duckworth (D-IL)**, invited
- **Brian West**, Deputy Director, Fuels, Engines, and Emissions Research Center, ORNL
- **Dr. Robert McCormick**, Principal Engineer, Fuels Performance Group, NREL
- **Caley Johnson**, Transportation Market Analyst, NREL
- **Dr. Michael Wang**, Senior Scientist, Energy Systems, ANL

The Energy Information Administration predicts the internal combustion engine will be the dominant engine for the next several decades, making both fuel and engine efficiency a critical piece in reducing the GHG intensity of the transportation sector. Research is finding that higher octane fuels can help enable the greater engine efficiencies necessary to lower GHG emissions and improve fuel economy.

Today, there are two primary sources of octane: gasoline aromatics, a petroleum refinery product, and ethanol. Ethanol is a renewable fuel sourced from corn as well as other agricultural feedstocks and organic wastes. In 2014, the United States produced 14.4 billion gallons of ethanol, making up approximately 10 percent of retail gasoline by volume. Research from the National Labs finds a mid-level ethanol blend not only increases the octane rating of fuel, it may also enable fuel efficiency improvement of 5 to 10 percent, lower the cost of gasoline, and reduce life-cycle GHG emissions.

While mid-level ethanol blends do require some changes to the current gasoline infrastructure, many find the challenges have been overstated. These fuels are immediately compatible with the 17 million flex-fuel vehicles on the road today, and many gas station tanks and infrastructure are already compatible with a mid-level ethanol blend. Going forward, high octane, mid-level ethanol blends will allow for even greater engine efficiencies and advanced engine designs.

Automakers are currently working to economically meet Corporate Average Fleet Emissions (CAFE) standards that save fuel and reduce emissions. Mid-level ethanol blends, by providing a better, higher octane fuel formulation for today's and tomorrow's gasoline vehicles, may help meet multiple policy objectives beyond 2025.

This event is free and open to the public.

For more information, contact Jessie Stolark at jstolark@eesi.org or (202) 662-1885

