

## **Briefing Notice**

## **Cellulosic Ethanol: A Technology Update**

Monday, October 6, 2014 3:00 PM - 4:30 PM

## 2226 Rayburn House Office Building

Please RSVP to expedite check-in: www.eesi.org/100614cellulosic#rsvp

The Environmental and Energy Study Institute (EESI) invites you to a briefing examining the technologies that are making commercial-scale cellulosic ethanol production a reality. Cellulosic ethanol is produced from agricultural residue — primarily, at this time, from corn stover (leaves, stalks and husks), which is removed in a sustainable manner after the harvest. Cellulosic ethanol is commercially produced at one U.S. facility, with two more coming on-line later this year. Combined, these three facilities are expected to produce a total of approximately 80 million gallons of renewable fuel per year. Contrary to popular belief, cellulosic fuels are not 'phantom fuels' but commercially viable ethanol fuels, which have been scaled up in a relatively short time period. Speakers for this forum are:

- Rob Walther, Director of Federal Affairs, POET, LLC
- Christopher Standlee, Executive Vice President, Global Affairs, Abengoa Bioenergy
- Nancy Clark, External Relations Manager, Industrial Biosciences, DuPont
- Amy Davis, Government Relations Manager, Novozymes North America Inc.

Currently, the U.S. transportation fuel supply contains approximately 10 percent ethanol, a renewable fuel produced primarily from cornstarch and intended to increase octane levels, lower GHG emissions and reduce dependence on petroleum. Producing ethanol from cellulosic, non-edible plant matter is more challenging, but is now making quick progress, thanks to advances in enzymes and catalyst technologies. Corn stover is now being used to produce cellulosic ethanol at commercial levels, and other feedstocks, such as perennial grasses, cover crops, and organic wastes, are being turned into ethanol in demonstration volumes. The potential is huge: according to the Department of Energy's 2011 'Billion Ton Update', there are currently 244 million dry tons of sustainably recoverable agricultural wastes that are suitable for producing cellulosic ethanol in the United States, and that number could reach as high as 910 million dry tons per year by 2030.

In the Renewable Fuel Standard (RFS), Congress mandated that renewable fuels be blended into the transportation fuel supply. Under the RFS, cellulosic-based fuels are expected to eventually provide 16 billion gallons of renewable fuel per year. The RFS also mandates that cellulosic biofuels must attain 60 percent greenhouse gas (GHG) reductions relative to gasoline. Research suggests that current improvements in technology may achieve GHG reductions upwards of 95 percent. If the production levels laid out by the RFS are met, all renewable fuels combined could meet up to one-third of the country's fuel needs.

The U.S. cellulosic fuel industry is already a significant local economic driver in rural areas, and has attracted substantial federal, local, and international investments. Currently, cellulosic ethanol and other advanced renewable fuels production in the United States supports 4,500 direct full-time jobs, and is poised to grow significantly. For comparison, the more mature corn ethanol industry supports approximately 86.500 direct jobs. Advanced cellulosic fuels and refining technologies are expected to move ethanol production beyond the 'corn belt', fulfilling the RFS's promise of regionally appropriate feedstocks for renewable fuels.

## This event is free and open to the public.

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

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