

## Legal Updates 2/08/2010

### **EPA's Final Renewable Fuel Standard Rule: Winners And Losers**

On February 3, 2009, President Obama announced a broad package of renewable energy initiatives, including the much anticipated EPA Final Renewable Fuel Standard (known as the "RFS2" rule) implementing the 2007 Energy Independence and Security Act (EISA) mandate for blending increasingly greater volumes of renewable fuels into gasoline used to fuel motor vehicles. For background on this rule as proposed in May 2009, see McGuireWoods' [5/27/09 legal alert](#).

While the overall volume of renewable fuels required to be blended into gasoline increases dramatically over time under EISA, the share of the "mandate pie" available to any particular type of renewable fuel depends on whether it is classified as "Advanced" or "Non-Advanced" based on its greenhouse gas (GHG) footprint as established by EPA in this rulemaking.

Non-Advanced Renewable fuels, which qualify as only 20% better than gasoline based on EPA's calculated GHG footprint (primarily corn ethanol), make up 11 billion gallons of the total renewable fuel blend mandate in 2010. These fuels gain share through 2016 up to 15 billion gallons and are capped through 2022 at 15 billion gallons. Over time, biodiesel, sugarcane ethanol, and cellulosic ethanol fuels, which have been categorized as Advanced, will benefit from an increasing percentage of the blend mandate, while corn ethanol volumes covered under the blend mandate will remain constant and could actually diminish if production of the Advanced Fuel volumes outstrips expectations.

Not surprisingly, EPA's determination of the GHG footprint attributable to each fuel type is a highstakes matter for renewable fuel producers, but it is also of significant interest to investors and other industrial sectors that are either tied to or impacted by renewable fuels development, e.g., forestry and livestock producers.

#### **Corn Ethanol**

For "new" facilities, EPA has calculated that new "high efficiency" corn ethanol plants will just barely meet the 20% threshold required to qualify as a Renewable Fuel. From the industry's perspective, this is an improvement from the 16% EPA assigned to corn ethanol in the Proposed Rule. But it comes at a price. The Final Rule finds that dry mill corn ethanol plants can meet the 20% GHG emission reduction threshold only if they use natural gas or biomass as the process energy and also employ technologies from a smorgasbord of listed "modeled advanced technologies," including corn oil fractionation,

corn oil extraction, membrane separation, raw starch hydrolysis, or combined heat and power. If only one of these technologies is chosen, a corn ethanol plant must sell at least 35% wet distiller grains with solubles (DGS), a high protein animal feed byproduct of the corn ethanol process. If none of these technologies is used, the volume of wet DGS marketed must be at least 50%. As proposed in May, production from “existing” facilities remains “grandfathered” as Non-Advanced Renewable Fuel without meeting these requirements. However, expanded production at existing facilities would be treated as “new.”

While the Final Rule keeps corn ethanol in the mix in the near years, EPA’s assignment of only a 21% better than gasoline tag to corn ethanol, even with the use of its “modeled advanced technologies,” will prevent corn ethanol from being considered an Advanced Renewable Fuel. This means that the overall volume of corn ethanol that will qualify for the blend mandate in the future can grow by no more than approximately 4 billion gallons and will be capped.

Corn ethanol producers expressed concern throughout this rulemaking that their industry has been unfairly penalized based on poorly defined and modeled “international land use change” (ILUC) GHG assumptions. They also argue that EPA’s consideration of “international” impacts is not expressly authorized under EISA. While EPA did reduce the ILUC component of the corn ethanol GHG footprint in the Final Rule, based primarily on more up-to-date yield data, ILUC still comprises almost half of the emissions attributed to corn ethanol, and takes corn ethanol from being 52% better than gasoline (and qualifying as an Advanced Renewable Fuel) to just 21% better.

### **Biodiesel and Renewable Diesel**

EPA’s Final Rule gives a big boost to soy biodiesel and an array of renewable diesel resources. Based on EPA’s calculation of a GHG footprint 50% better than gasoline, biodiesel and renewable diesel will qualify as “Advanced Renewable Fuels,” a category that grows from 950 million gallons of the blend mandate in 2010 to 21 billion gallons in 2022. EPA includes in this category “renewable biodiesel” produced from a variety of sources, including algal oils and food processing grease and oils.

### **Biomass-based Diesel**

Biomass-based diesel is assigned a 50% better than gasoline GHG footprint. The volume of biomass-based diesel to be blended under EISA grows from 650 million gallons in 2010 to 1 billion gallons by 2012. Volumes after 2012 will be determined in a separate rulemaking by EPA, but are required by statute to be no less than 1 billion gallons.

EPA has narrowly defined “biomass-based diesel” to include specified categories of biomass and only those portions that are considered “biogenic.” For example, in the Final Rule, EPA expands the definition of “tree residue” to include residues from processing planted trees at lumber and paper mills, but is limiting it to the biogenically derived portion of the residues that can be traced back to feedstocks meeting the definition of

renewable biomass (i.e., planted trees and tree residue from actively managed tree plantations on non-federal land cleared at any time prior to December 19, 2007).

The Final Rule maintains the requirement for verification of the source of the biomass feedstock, but provides some new alternatives for verification.

### **Sugarcane Ethanol**

Ironically, Brazilian sugarcane ethanol producers may be the biggest winners under this EPA rule – a rule implementing a statute designed to encourage the production of domestic fuel alternatives to imported petroleum. By EPA calculations, sugarcane ethanol, which is almost entirely produced outside the United States at this time, has a lifecycle GHG footprint that is 50% better than gasoline, qualifying it for Advanced Renewable Fuel status and an increasing share of the EISA blend mandate. The Brazilian Sugarcane Industry Association lobbied hard for this decision and its efforts have paid off. This finding is anticipated to spur the development of new sugar cane acreage in the southern United States. Under EPA's calculations, sugarcane ethanol results in far less "international land use change" than corn ethanol – EPA assigns an ILUC impact of only 4 g/MJ to sugarcane ethanol, while corn ethanol is assigned 30 g/MJ. This is despite the fact that sugarcane acreage in Brazil is forecast to grow by over 50% in the near term.

### **Cellulosic Ethanol and Cellulosic Diesel**

But the "gold star" for GHG footprint goes to cellulosic ethanol and cellulosic diesel. EPA calculates that these fuels will reduce GHG emissions by over 60% compared to gasoline. EISA establishes an increasing share of the blend mandate to fuels in this category in an effort to promote the development of commercially available cellulosic alternatives to traditional ethanol. The most promising cellulosic feedstocks are considered to be switchgrass and corn stover. The development of the cellulosic renewable fuels industry has been slower than expected. While pilot plants show promising results, significant cost barriers to commercialization remain and current capacity has been unable to meet this sector's current and growing share of the renewable fuels blend "mandate pie." Cellulosic industry representatives are hoping that the Final Rule will send a message to the marketplace and spur investment.

### **Is the EPA Rule the Final Word?**

Members of Congress representing Midwest corn growing states were unhappy with EPA's Proposed RFS2 Rule and are likely to be similarly unhappy with this Final Rule. In response to the Proposed Rule, Congressman Collin Peterson of Minnesota pushed an amendment to the Waxman-Markey ACES Bill through the House of Representatives last spring that would preclude including "international land use change" in this rule prior to further study by the National Academy of Sciences. EPA's Final Rule does essentially the opposite: it includes the ILUC component, but hints at a possible change based on future NAS study.

Will this satisfy the corn ethanol industry and Congressman Peterson? Last week Peterson introduced another bill to strip EPA of authority to "carry out any activities relating to the inclusion of international land use change in the implementation of the renewable fuel program." He told reporters: "To think that we can credibly measure the impact of international indirect land use is completely unrealistic, and I will continue to push for legislation that prevents unreliable methods and unfair standards from burdening the biofuels industry."

A copy of EPA's Final rule and technical support documents can be accessed at EPA's Renewable Fuel Standard Program webpage at [McGuireWoods.com](http://McGuireWoods.com).

Attorneys in McGuireWoods' Climate Change Team regularly represent clients in the renewable fuels, energy and manufacturing sectors. For further information on EPA's Renewable Fuel Standard Rule, please contact the authors.

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For more information, please contact members of the McGuireWoods Capital Markets industry group at [McGuireWoods.com](http://McGuireWoods.com).

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