U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE

June 20, 2016

TO: Members, Subcommittee on Energy and Power

FROM: Committee Majority Staff

RE: Hearing entitled "The Renewable Fuel Standard – Implementation Issues"

I. INTRODUCTION

On Wednesday, June 22, 2016, at 10:00 a.m. in 2123 Rayburn House Office Building, the Subcommittee on Energy and Power will hold a hearing entitled "The Renewable Fuel Standard – Implementation Issues."

II. WITNESSES

Panel 1

- **Janet McCabe**, Acting Assistant Administrator, U.S. Environmental Protection Agency; and
- **Howard Gruenspecht**, Deputy Administrator, U.S. Energy Information Administration.

Panel 2

- **Chet Thompson**, President, American Fuel and Petrochemical Manufacturers;
- **Bob Dinneen**, President and CEO, Renewable Fuels Association;
- **Todd Teske**, Chairman, President, and CEO, Briggs & Stratton Corporation;
- **Brooke Coleman**, Executive Director, Advanced Biofuels Business Council;
- **Collin O'Mara**, President and CEO, National Wildlife Federation;
- **Anne Steckel**, Vice President of Federal Affairs, National Biodiesel Board; and
- **Tim Columbus**, General Counsel, National Association of Convenience Stores and Society of Independent Gasoline Marketers Association of America.

III. BACKGROUND

The Renewable Fuel Standard (RFS) is a provision of the Clean Air Act that was added by the Energy Policy Act of 2005 and greatly expanded under the Energy Independence and

Security Act of 2007 (EISA). It sets targets and timetables for four categories of renewable fuels to be added into the nation's transportation fuel supply. The four categories are: total renewable fuel (corn-derived ethanol and advanced biofuel), advanced biofuel (cellulosic biofuel and biomass-based diesel), cellulosic biofuel, and biomass-based diesel. The statutory targets for the four categories total 22.25 billion gallons for 2016, rising to 36 billion gallons in 2022. The statute does not specify the annual targets after 2022, but gives EPA discretion to set them based on a list of criteria.[1]

The RFS is administered by the Environmental Protection Agency (EPA), with technical assistance from the Energy Information Administration (EIA) and U.S. Department of Agriculture (USDA). To implement the RFS, EPA promulgates the program rules and annual volume requirements, administers the compliance system, and enforces the requirements. The rules, which are adopted after notice and comment, specify the obligated parties, their compliance obligations, the types of fuel that qualify as renewable fuel, the registration system for renewable fuel producers, the credit-trading system that allows compliance flexibility, and other program elements.

EPA establishes the enforceable volumes (which are translated into percentages of the fuel supply) required to be used each year through an annual rulemaking process. These renewable volume obligations (RVOs) are applicable to obligated parties, mostly refiners and importers of transportation fuel. For renewable fuel, advanced biofuel, and cellulosic biofuel, the rule is to be finalized no later than November 30 for the following year. For biomass-based diesel, the rule is to be finalized fourteen months prior to the applicable year.

While EISA specifies annual volumetric targets for each of the four categories of renewable fuels, it also directs EPA to waive or adjust the statutory volumes under specified circumstances. Distinct waiver provisions apply to cellulosic biofuel, the only category for which no commercial quantities were being produced at the time EISA was enacted. Based on estimates provided by EIA, EPA is to determine the volume of cellulosic biofuel projected to be available in the following year.[2] If the projected volume for cellulosic biofuel is lower than the statutory volume, the EPA administrator must reduce the target to the projected volume.[3] Cellulosic biofuels are a subset of advanced biofuels, which are in turn a subset of total renewable fuels. When EPA reduces the applicable volume of cellulosic biofuels, EISA also authorizes, but does not require, EPA to lower the advanced and total renewable volumes by the same or a lesser amount.[4] This is commonly known as the cellulosic waiver authority.

In addition to the cellulosic waiver authority, EPA may waive the RFS in whole or in part if the Administrator determines that doing so is necessary to avoid severe economic or environmental harm or if there is an inadequate domestic supply of renewable fuels.[5] This is commonly known as the general waiver authority.

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[1] Clean Air Act section 211(o)(2)(B)(ii).
[2] Clean Air Act sections 211(o)(3)(A), and 211(o)(7)(D)(i).
[3] Clean Air Act section 211(o)(7)(D)(i).
[4] Id.
[5] Clean Air Act sections 211(o)(7)(A) (i) and (ii).

After failing to meet the deadlines for promulgating the 2014 and 2015 RVOs, EPA finalized a single rule covering the years 2014-2016 on December 14, 2015.[6] In this rule, the agency used both types of waiver authority. For 2016, the statutory target for cellulosic biofuel of 4.25 billion gallons was waived down to 206 million gallons, and the agency also reduced the advanced biofuel and total renewable targets by the same amount. Also, for the first time, EPA invoked the general waiver authority to further reduce the total renewable fuel target. It did so on the grounds that there was an inadequate domestic supply of renewable fuels. Although there is no physical shortage of ethanol, the agency argued that there are constraints on the amount of ethanol that can be used given limitations in the fueling infrastructure and current vehicle fleet in dealing with ethanol blends above 10 percent (E-10) – the so-called blendwall. EPA has approved of the use of E-15 in Model Year 2001 and newer vehicles (but not for older vehicles, motorcycles, boats, and lawn equipment), but few gas stations carry it and the agency projects little actual use. Similarly, there are approximately 16 million flex-fuel vehicles designed to run on blends up to E-85, but nearly all use conventional E-10. For these reasons, the agency reduced the RVO for 2016 to levels it believed were achievable, lowering the total renewable fuel target from 22.25 billion gallons to 18.11 billion gallons, and reducing the corn ethanol portion of that from 15 billion gallons to 14.5 billion gallons. EPA's novel interpretation of its general waiver authority is currently the subject of litigation, along with several other issues.

In the proposed RVO for 2017, EPA also uses its two types of waiver authority to reduce the required volumes of total renewable fuels below the statutory levels, from 24 billion gallons down to 18.8 billion gallons, with an estimated 14.8 billion gallons being corn ethanol.[7] However, these volumes are very likely to breach the E-10 blendwall, according to the agency.

The provisions for biomass-based biodiesel are subject to their own provisions. The applicable volumes set out in statute only extend through 2012, rather than for 2022 as for the other three categories. After 2012, EPA is required, based on a number of listed criteria, to set the volumes for 2013 and beyond, with a floor of at least one billion gallons.[8] EPA has set the targets at 1.9 billion gallons for 2016, 2.0 billion gallons for 2017, and has proposed 2.1 billion gallons for 2018.

Along with enhancing energy security and providing support for rural economies, the RFS was also intended to produce environmental benefits by replacing a portion of petroleum-derived fuels with cleaner renewable fuels. In particular, EISA required that the four categories of renewable fuels have lower greenhouse gas emissions than the gasoline or diesel fuel that it would supplant, as measured on a life-cycle basis.[9] However, the calculation of life-cycle costs is complex, and some researchers claim that renewable fuels may not be reducing greenhouse

[6] 80 Fed. Reg. 77,420 (December 14, 2015).
[7] 81 Fed. Reg. 34,778 (May 31, 2016).
[8] Clean Air Act sections 211(o)(2)(B)(ii) and (v).
[9] Clean Air Act, sections 211(o)(1)(B), (D),(E), 211(o)(A).

gases as much as required.[10] The EPA Inspector General is currently conducting an investigation into whether the agency is in compliance with these requirements.[11]

In addition, EISA requires that qualifying fuels be produced from "renewable biomass," which is defined to include only materials grown on lands already in agricultural use when the law was passed in 2007.[12] This provision is intended to prevent the RFS from resulting in the conversion of lands for cultivation. Although EPA asserts that this requirement is being met, some researchers have concluded that pristine grasslands in the Midwest and other non-qualifying lands are being converted into cropland to produce corn and other feedstocks to make renewable fuels.[13]

Proponents of the RFS say that record volumes of biofuels have been incorporated into the nation's fuel supply without causing any serious technological problems or price increases, that the program has strengthened energy security, created jobs and boosted the rural economy, and that it has provided environmental benefits. Critics say that the original energy security rationale for the RFS has been greatly undercut by the domestic oil production growth, that the development of cellulosic and other next generation biofuels has been very slow, that the nation's fuel supply will soon contain more than 10 percent ethanol and pose major problems for the fueling infrastructure and many vehicles and small engines that were not designed to handle it, and that the RFS has been a net environmental negative.

IV. ISSUES

The following issues may be examined at the hearing:

- Current status of and emerging issues with RFS implementation.
- Impact of the RFS on fuel producers, marketers, and end users.
- EPA's administration of the RFS.
- Environmental impacts of the RFS.
- Long term status of the RFS.
- Potential reforms to the RFS.

V. STAFF CONTACTS

[10] See National Research Council, Renewable Fuel Standard: Potential Economic and Environmental Effects of U.S. Biofuel Policy, 2011, pp. 181-251.
[11] U.S. Environmental Protection Agency, Office of Inspector General, Project Notification: Lifecycle Impacts of Renewable Fuel Standard, October 15, 2015.
[12] Clean Air Act section 211(o)(1)(I).
[13] Tyler Lark, et al., Cropland Expansion Outpaces Agricultural and Biofuel Policies In The United States, Environmental Research Letters, Volume 10, 2015, pp. 1-11.

If you have any questions regarding this hearing, please contact Ben Lieberman of the Committee staff at (202) 225-2927.