RFS PATHWAYS II
AFPM/API MEETING WITH OMB 6/24/14

Key Recommendations (for further details see API/AFPM detailed comments):

EPA should <u>not</u> promulgate the following proposed rulemaking provisions:

- Permit non-cellulosic portions of specific feedstocks to qualify for cellulosic RINs;
- Biogas and fuels derived from landfill biogas to qualify for cellulosic RINs;
- Corn starch butanol to qualify for an advanced biofuel pathway;
- Change the requirements for importers and foreign renewable fuel producers;
- Butanol to get special treatment for volatility regulations;
- Change the current regulatory language in Section 80.1463 by creating another category of violation for RINs that are "available for use for compliance purposes."

We support some of the amendments included in the proposed rule, including:

- The deletion of decimal points in different regulatory provisions (e.g., definition of E10 vs. 10.0);
- Allowing product codes on product transfer documents in the E15 misfueling mitigation regulations;
- Reducing the minimum number of national diesel samples from 5,250 to1,800 as an alternative defense requirement for branded refiners.

For these reasons, we recommended in our July 15, 2013 written comments: *"EPA withdraws the proposed new RFS pathways and re-assess them consistent with the Energy Independence and Security Act of 2007 (EISA) statutory definitions using lifecycle analysis based on consistent sound science data, using a range of realistic scenarios and addressing uncertainty."*

Summary:

EPA's proposed rule *<u>RFS Pathways II and Technical Amendments to the RFS2 Standards</u>* (*Pathways II*) covers multiple topics related to individual parts of the RFS and other EPA fuel programs (78 Fed. Reg. 36042). However, the Pathways II rulemaking does little to address the fundamental problems with the RFS. Specifically, *Pathways II* does not address the infeasible requirements of the RFS that are dictated by the ethanol blendwall and does nothing to assist EPA in meeting the required statutory deadlines for annual rulemaking. These are the primary issues we see with the RFS. The issues raised in *Pathways II* provide further evidence that the RFS is an unworkable program and raise both legal and scientific concerns.

In this rulemaking, EPA proposed new RFS pathways. According to the Energy Information Administration, domestic supplies of cellulosic and advanced biofuels are limited, mainly due to technological challenges, and not insufficient pathways. As explained in our comments, EPA did not provide adequate scientific justification in support of this proposal. Additionally, lack of robust lifecycle analysis and method for verification of RIN validity in this rulemaking could

potentially result in invalid RINs in the market place. The scope of the EPA 2013 proposed rule "RFS Renewable Identification Number (RIN) Quality Assurance Program" (78 FR, 12158-12217) did not contemplate these new pathways, e.g., RIN verification for renewable electricity produced from landfill biogas and used in transportation by electric vehicles. Furthermore, *Pathways II* violates the statutory requirements of the Clean Air Act in certain areas.

Key Discussion Points:

<u>EPA Does not Have Authority to Change the Definition of Cellulosic in the RFS Provisions in the Clean Air Act</u>

EPA does not have the authority to revise EISA's definition of cellulosic biomass to include 100% of the fuel when only a portion was derived from cellulose, hemicellulose or lignin.

EPA proposed to allow 100% of the volume of renewable fuel produced from specific cellulosic feedstocks to generate D-3 (cellulosic biofuel) or D-7 (cellulosic diesel) RINs depending on the type of fuel. This assertion is (a) contrary to the statutory definition of Section 211(o)(1)(E) of the Clean Air Act (CAA) and (b) is unsupported by the scientific data.

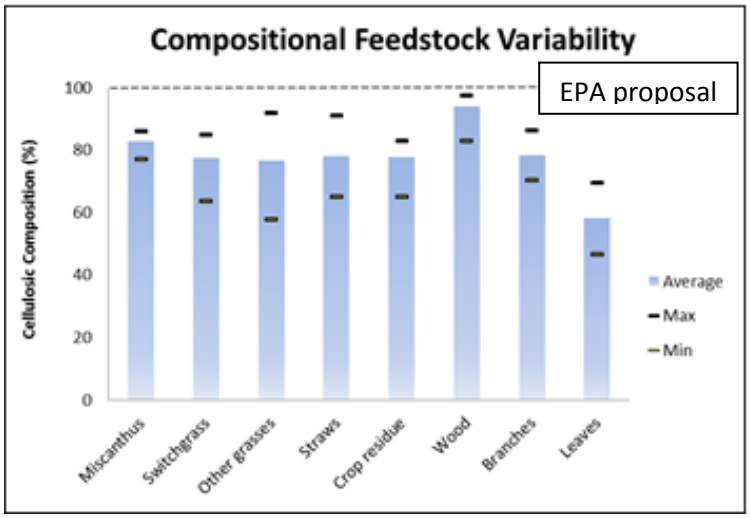
(a) The CAA defines cellulosic biofuel as "renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions." 42 U.S.C. § 7545(o)(1)(E). Congress' intent is unambiguous. EPA's proposal that a fuel should be counted as 100% cellulosic biofuel when "cellulosic material makes up a predominant percentage of the organic material from which the fuel is produced," id., contravenes the statutory definition, which specifies that cellulosic biofuel is a subset of fuels derived from "renewable biomass." Rather than interpreting ambiguous statutory language, EPA's proposed approach effectively redefines cellulosic biofuel to include the renewable biomass from which the cellulose, hemicellulose, or lignin was derived. EPA is not authorized to redefine a clear statutory term.

    EPA does not have the authority to deem a fuel cellulosic based on the intent of the fuel producer. EPA's proposal states that, "[i]n selecting a cellulosic process, whether based on biochemical or thermo-chemical design, the fuel producer is clearly demonstrating that its primary intent is to convert the cellulosic portions of the feedstock." 78 FR 36046.

(b) EPA's 100% rule would artificially inflate the reported amount of cellulosic biofuel produced. The "growth in cellulosic biofuel volumes" that EPA envisions will result from its 100% rule is nothing more than a concededly inaccurate inflation of actual cellulosic volumes.

    There is significant compositional variability of cellulosic–type material in renewable as documented in the public literature (see graph below and additional analysis and references in API/AFPM comments). Furthermore, reliable analytic tests with relatively low levels of uncertainty measurements do exist to quantify biomass composition. EPA should take into

account cellulosic content variability of different feedstocks; D-3 or D-7 RINs should be based only on the cellulose, lignocellulose or lignin material of renewable biomass.



In our July 2013 comments we suggested that "*EPA instead set a default cellulosic content equal to the minimum expected cellulosic content of each biomass feedstock; RIN generators must certify content above the default value. Give the RIN generators the opportunity to petition for a higher percentage. In addition, recognizing a de minimis level, if the cellulosic, hemicellulose, and lignin composition of a given feedstock on an unadjusted basis is 95% or higher, then 100% of the feedstock qualifies to generate D-3 or D-7 RINs.*"

Landfill Biogas Cannot Qualify as Cellulosic.

EISA states that biogas may be considered as an advanced biofuel if

- It achieves at least a 50% reduction in lifecycle GHG emissions,
- It is produced through the conversion of organic matter from renewable biomass (defined by EISA as "separated yard waste or food waste, including recycled cooking and trap grease"); and
- It is used to replace or reduce fossil fuels in gasoline, diesel, home heating oil or jet fuel.

Biogas cannot be broadly defined as renewable or cellulosic. Based on our analysis of EPA data, less than 30 percent of landfill material meets the definition of renewable biomass (see API/AFPM comments for more details).

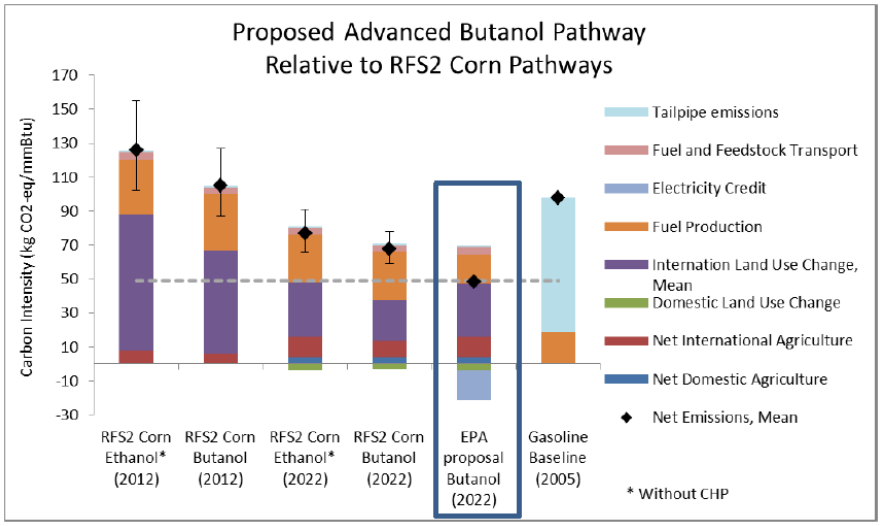
The Agency's lifecycle analysis was found to be flawed as EPA's calculation begins once the waste is in a landfill and ignores the waste generation step. If lifecycle calculations are done properly, there is no benefit to producing renewable electricity, renewable diesel or renewable naphtha from landfill gas and hence categorizing them as advanced/cellulosic renewable fuels.

Furthermore, the scheme proposed by EPA is particularly troubling, as it could potentially result in proliferation of invalid RINs. EPA's recently proposed rulemaking "RFS Renewable

Identification Number (RIN) Quality Assurance Program" (Federal Register, vol. 78, pages 12158-12217) does not address the issue of RIN validity for biogas and renewable electricity produced and used for transportation.

Butanol

(a) Pathway science concerns: Butanol does not achieve at least 50% reduction in lifecycle GHG emissions. EPA used a value for biobutanol's energy content that is a little high; using three published lower values, butanol does not meet the 50% reduction requirement for lifecycle GHG emissions. Furthermore, EPA's proposal includes a significant emissions credit from electricity that offsets all other emissions from fuel production to barely meet the 50% threshold (see chart below with new proposed pathway clearly highlighted). Ensuring that all fuel produced meets the GHG reduction at all times and generates valid RINs will be very sensitive to plant operations and production fuel and needs to be addressed. Other data on the graph were taken from EPA's 2010 RFS2 rulemaking docket, while the dashed line marked the 50% GHG reduction threshold.



(b) Legal concerns: EPA proposes to revise its interpretation of § 211(h) of the CAA with regard to fuel blends containing biobutanol. Specifically EPA proposes that biobutanol blended with E10 can qualify for the ethanol volatility waiver in § 211(h). Butanol does not qualify for the 1 psi RVP waiver for 9-10% ethanol blends in CAA section 211(h). EPA does not have the authority to interpret the CAA differently.

CAA Section 211(h)(1) provides in pertinent part that: "Not later than 6 months after November 15, 1990, the Administrator shall promulgate regulations making it unlawful for any person during the high ozone season (as defined by the Administrator) to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch (psi)."

Section 211(h)(4) then provides a waiver from that requirement:

For fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under paragraph (1); provided, however, that a distributor, blender, marketer, reseller, carrier, retailer, or wholesale purchaser-consumer shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated thereunder if it can demonstrate (by showing receipt of a certification or other evidence acceptable to the Administrator) that —

(A) the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection;

(B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section; and

(C) no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the ethanol portion of the blend.

Consistent with the language of section 211(h), EPA currently implements the waiver provision to "prohibit[] … commingling of E10 and gasoline blends other than E10" because those blends would still have a higher RVP (i.e., 10 psi where ethanol is added to a 9.0 psi gasoline) yet could not qualify for the waiver, as the concentration of ethanol in the blends would be less than 9% or greater than 10% ethanol. 78 Fed. Reg. at 36060.

EPA now proposes to revise its interpretation of what gasoline can qualify for the waiver by finding that as long as the gasoline-ethanol component of the fuel blend is E10-compliant, a fuel can be mixed with another fuel (i.e., biobutanol) and still be eligible for the section 211(h)(4) waiver. This is because EPA now suggests that the RVP standard set forth in section 211(h)(1) could apply not to "the commingled [E10 and biobutanol] mixture as whole" (the current interpretation), but rather "to the components of the commingled mixture." 78 Fed. Reg. at 36060. EPA suggests that "this approach would provide a limited modification to how the RVP standards would apply for only certain fuel mixtures — those where the overall or net volatility of the commingled mixture is no higher than the weighted average of the original blends themselves…." *Id.* at 36061.

The addition of biobutanol to E10 reduces the ethanol content. If a E10-biobutanol blend *does not* contain 10 percent denatured anhydrous ethanol, under the plain terms of the statute the blend cannot qualify for the section 211(h)(4) waiver, which is only available for "fuel blends containing gasoline and 10 percent denatured anhydrous ethanol."

Foreign Renewable Fuel Producers

EPA should not impose new obligations and requirements on renewable fuel importers and foreign renewable fuel producers. The current structure of the RFS places the compliance responsibility on the party who generates the RIN, who is typically a domestic party clearly subject to the full force of US laws and EPA regulations. New requirements, such as requiring a domestic renewable fuel importer to post a bond, are unnecessary and inconsistent with other fuels programs. Similarly, the requirement to segregate imported batches of renewable fuels may limit the supply of such fuels and will raise the overall cost of supplying renewable fuels to the market. Instead of adding new requirements for importers and foreign producers, EPA should preserve the existing compliance requirements and promptly promulgate the RIN Quality Assurance Program regulations. All parties, including foreign renewable fuel producers, can choose to participate in the QAP to verify proper RIN generation and to facilitate EPA's enforcement of the program.

Conclusion

The Agency should reanalyze the lifecycle basis of new pathways that adheres to the statutory definitions and uses sound science with realistic scenarios and an appropriate consideration of uncertainty.