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Comments on the Proposed
Renewable Fuel Standard Program: Standards for
2014, 2015, and 2016 and Biomass-Based Diesel
Volume for 2017

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I. EPA’s approach to setting its 2014 cellulosic biofuel RVO based on actual volume made available to the market is reasonable

We support EPA’s proposal for a 33 mgpy cellulosic biofuel renewable volume obligations (RVO) in 2014, a number that reflects the actual number of gallons available in 2014.

II. When EPA sets its 2015 and 2016 cellulosic biofuel RVOs in November 2015, it should base these RVOs on the most recent available data.

EPA has requested comment on the methodology used to project cellulosic volumes in 2015, as well as the general methodology used to project future cellulosic biofuel production. EPA has presented the following chart projecting the amount of cellulosic biofuel that will be available in 2015.

TABLE IV.D-5—PROJECTED AVAILABLE CELLULOSIC BIOFUEL IN 2015

	Million gallons
Cellulosic Biofuel Production (Jan. 2015–March 2015)	20
Projected Cellulosic Biofuel Production (April 2015–December 2015).....	86
Projected Available Volume of Cellulosic Biofuel in 2015.....	106

When the final rule is issued November 30, 2015, EPA will have data on actual cellulosic biofuel production through at least October 2015. We believe EPA should use this data to inform its final projection of volume available in 2015. To do otherwise would expressly fail the test of taking neutral aim at what will actually happen.¹

We believe that EPA’s general methodology for estimating cellulosic biofuel production can be applied (using the most recent available data) for estimating production during both the periods Nov’15 to Dec’15 and Jan’16 to Dec’16 as part of establishing the projected volume available during calendar years 2015 and 2016 respectively.

As we will outline below, we believe EPA must apply additional considerations in setting cellulosic biofuel RVOs in order to ensure that, over time, its projection of available volume averages out to “what actually happens”, rather than exhibits a bias to underestimate such volumes.

¹ American Petroleum Institute v. Environmental Protection Agency, United States Court of Appeals for the District of Columbia Circuit, January 25, 2013.

III. EPA must incorporate additional elements into its proposed general methodology for setting cellulosic biofuel RVOs if it is to meet its statutory obligation to set these RVOs based upon neutral projections of volume available.

A. EPA must base its cellulosic biofuel RVO on neutral projections of volume available

The statutory language governing EPA's establishment of applicable volumes is significantly and uniquely modified by § 211 (o)(7)(D), which requires that "for any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B)", EPA, under its cellulosic biofuel waiver authority, shall "reduce the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year".

This Subparagraph was the focus of the U.S. Court of Appeals decision underlying much of EPA's approach in the current notice of proposed rulemaking (NPRM). The Court found that, as regards this section of law, "the most natural reading of the provision is to call for a projection that aims at accuracy"² and that "a methodology that *plans* for the expected value of upside errors (the summation of each upside deviation weighted by its likelihood) to exceed the expected value of downside errors" is an unreasonable exercise in agency discretion. The decision expressly directed EPA to use a methodology for establishing its cellulosic biofuel projection that takes a neutral aim at accuracy.

The projection referred to by the Court is EPA's statutory requirement to identify the "projected volume available during that calendar year" in establishing the applicable volume for cellulosic biofuel.³ The statute does not say EPA should project the "volume produced during that calendar year" to establish the applicable volume. In fact, nothing in the statute, the Court's decision, nor EPA's own precedents for determining volumes indicates that "volume available during that calendar year" is identical to "volume produced during that calendar year". Yet, this appears, as we will discuss in Section III.(B) below, to be how EPA proposes to interpret its responsibility under law.

The clear problem with this approach is that if, in any given year, "volume available" is greater than "volume produced", EPA's methodology will violate the Court's direction to aim at accuracy. While predicting the total volume available over the course of a calendar year may be challenging, it would seem that the easiest part of that projection should be to determine the volume that will *actually* be available at the start of that calendar year. EPA's proposed methodology appears to assume that this value will be zero in all cases.

The Court in no way constrained EPA from exercising its expertise in this process, which should include its unique insights regarding the use of RINs produced in a year contrasted with RINs used for

² API v. EPA, 2013, p. 11.

³ USC 42 § 7545 (hereafter cited as CAA§ 211) (o)(7)(D)(i).

compliance in that same year. Rather, the Court expressly reinforced that EPA should use its reasoned discretion in setting the standard.⁴ To systematically exclude an existing component of available volume in establishing the applicable volume for a given year would deviate from a “neutral aim at accuracy” and would be an “unreasonable exercise of agency discretion”, just as the agency’s prior overstatement of available volumes was.

B. EPA’s “general methodology” for setting cellulosic biofuel RVOs appears to use production volume projections as the sole means by which it hopes to meet its statutory obligation to project volume available

The NPRM has an extensive section describing “the available supply of cellulosic biofuel RINs in 2014, the volume (EPA) projects will be produced or imported in 2015 and 2016, and some of the uncertainties associated with those volumes”. For 2016, EPA concludes its analysis by saying “the final step in projecting the potentially available volume of cellulosic biofuel in 2016 is to combine the volumes of cellulosic biofuel projected to be produced”. In essence, at least for 2016, the only components EPA plans to include in its determination of projected volume available are projected volumes of production.

In the NPRM, EPA requests comment on the general methodology used to project future cellulosic biofuel production. There is no request for comment on the general methodology EPA plans to use to project volume available. Without additional information, we assume, perhaps incorrectly, that the “general methodology” EPA plans to use for setting cellulosic biofuel RVOs will be consistent with its approach to 2016 and will use production volume projections as the sole means by which it hopes to meet its statutory obligation to project volume available.

C. In our view, EPA has consistently and correctly recognized that carryover RINs are an appropriate component of volume available

Under its cellulosic volume waiver authority specified in CAA Sec 211(0)(2), EPA has an obligation to set “the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year.”⁵ Hence EPA must project the expected level of each component of volume available.

Cellulosic biofuel production is obviously one component, but it is not the only source of available volume. EPA has consistently taken the position that carryover RINs⁶ are a component of available volume. For example, in 2010 EPA noted that “it is ultimately the availability of qualifying renewable fuel, as determined in part by the number of RINs in the marketplace...” or in 2012, EPA noted “These 2009 and 2010 RFS1 RINs will be available and can be used towards volume requirements of obligated parties”. In addition, the D.C. Circuit indicated it was appropriate for EPA to consider the availability of

⁴ API v. EPA, pp. 8-9.

⁵ CAA §. 211(o)(7)(D)(i).

⁶ RINs representing volume generated but not used for compliance in the prior calendar year.

carryover RINs when determining whether supply was adequate for the purposes of the general waiver authority⁷

In the current NPRM, EPA continued to reiterate its approach that carryover RINs represent a component of available volume. “We believe that the availability of this full volume of carryover RINs will be important for both obligated parties and the RFS program itself in addressing significant future uncertainties”.⁸

We support this approach and believe EPA must apply it consistently, including when exercising its cellulosic biofuel waiver authority and determining “projected volume available”. Under the RFS, RINs are the means by which renewable fuel volume is measured, by which it is tracked and by which it is assessed for compliance with renewable volume obligations.

Renewable volume obligations are satisfied with RINs. As a result, the “volume available” to satisfy a given renewable volume obligation could hardly be anything other than the actual volume of applicable RINs that are available to satisfy that obligation. Expected production in the calendar year is an alternative but fundamentally inadequate measure for determining applicable volume. It understates volume available in a given calendar year because it does not take into account cellulosic biofuel volume that is generated but not used in the prior year. This fuel would naturally (and unambiguously) be “volume available” for use in the given calendar year.

D. The question of whether EPA will count surplus D3/D7 RINs generated in 2016 as available for use in 2017 is highly germane to EPA’s rulemaking on the 2016 RVO.

We note there has been no prior year carryover D3/D7 RIN⁹ volume available in either 2014 or 2015. With respect to volumes available in 2016, there will not be complete information about the final level of carryover D3/D7 RINs from 2015 until the end of the first quarter in 2016. This will be well after the required November 30, 2015 date on which EPA must finalize the 2016 RVOs. As a result, we presume that EPA has implicitly assumed its 2015 cellulosic biofuel production estimate will be accurate¹⁰ and that there will be no carryover D3/D7 RINs available in 2016.

⁷ 2012 RFS2 Impact Analysis, 75 Fed. Reg. at 14,698; *see also id.* at 14,676 (“These 2009 and 2010 RFS1 RINs will be available and can be used towards the volume requirements of obligated parties for 2010. These RFS1 RINs combined with the RFS2 RINs that will be generated by renewable fuel producers are expected to provide an adequate supply of RINs to ensure compliance for all of the renewable volume mandates.”).

⁸ Environmental Protection Agency 40 CFR Part 80 [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] Pre-publication version II.E; p.65.

⁹ Because the market effects described in this comment apply equally to all cellulosic biofuel supplies, throughout this paper we use the term “D3/D7 RIN” will be used hereafter to refer to cellulosic biofuel RINs, including D3 and D7 RINs.

¹⁰ Since the 2015 cellulosic biofuel production estimate will be finalized in November 2015, we believe that it is entirely reasonable to assume that this estimate will indeed be accurate.

By the time EPA must finalize its 2017 RVOs¹¹, however, it will know the final level of 2015 carryover D3/D7 RINs that were available in 2016 and have a good comparison of what actual 2016 production was relative to its own projections. This will give the agency a good ability to project the number of carryover D3/D7 RINs that will be available in 2017. If EPA's 2016 volume projections are "neutral", with an equal probability of being high or low, then it automatically follows that there is a 50% chance that surplus 2016 D3/D7 RINs will be generated and a potentially significant number of carryover D3/D7 RINs to be available in 2017.

As explained in more detail in Sec IV.D below, we believe that throughout 2016 it will be critical for both obligated parties and renewable fuel producers, to understand whether EPA intends to count surplus RINs generated in 2016 as being available for use in 2017 when they make cellulosic biofuel related pricing and investment decisions. As a result, in its final rulemaking in November 30, 2015, EPA should determine and report how it intends to treat carryover D3/D7 RINs should they be generated in 2016.

E. If EPA's methodology for projecting volume available does not include a projection of carryover D3/D7 RINs it will be biased low and will fail to meet the "neutrality" test

When determining the cellulosic biofuel RVO level, EPA's methodology for projecting volume available must be consistent with its obligation to take neutral aim at accuracy¹². More precisely, the methodology should aim for the summation of upside errors in estimating volume available over time to be equal to the summation of downside errors over time. If this expectation were not to be the case, then the methodology would be biased in one direction or the other. In this respect, if EPA does not take prior year volume carryovers and the mechanics of cellulosic waiver credit (CWC) issuances into account in determining its projected volumes available, it will be biased towards underestimating the volume available.

For example, Table III.E-1 below illustrates a three year sequence where EPA makes an upside error in its production estimate of 20 mgpy in the first year, a downside error of 20 mgpy in the second year and is precisely accurate in the third year. In the first year, obligated parties will meet a portion of their RVOs with CWC issuances. Year 2's surplus volume of 20 mgpy will be available for use in the third year. In the third year, we posit a perfectly accurate projection of cellulosic biofuel production. The net result of all this is that, because of the CWC issuances, the sum of the actual annual volumes available over the three years is 20 mgpy higher than projected production values.

If EPA were to use its neutral annual estimates of production volume (120 mgpy, 180 mgpy and 200 mgpy in years one through three respectively) as a proxy for volume available, it would underestimate the sum of annual volumes made available by 20 mgpy. On the other hand, if EPA were to use its neutral annual estimates of production volume plus an estimate of carryover volume (which should be reasonably predictable by Nov 30 of the prior year), then it would arrive at a neutral estimate of

¹¹ November 30, 2016.

¹² API v. EPA, 2013.

available volume. In this instance, unless carryover volumes are taken into account, the methodology for projecting available volumes (the quantity EPA is required to estimate) will be systematically biased low.

Table III.E-1

Illustration that Carryover Volumes Must be Accounted for in Estimating Available Volumes

Year	Estimate Prod'n	Actual Prod'n	Carry-over	Volume Available	CWCs issued
1	120	100		100	20
2	180	200	0	200	0
3	200	200	20	220	0
Sum	500	500	20	520	20

This example illustrates the general point that if EPA makes a neutral projection of production volume, where it expects the projection to be high 50% of the time and low 50% of the time, the sum of annual projected production volumes will be lower than the expected sum of actual annual volumes available.

As a second example, Table III.E-2 below illustrates a three year sequence where EPA makes perfect predictions of production volumes, uses the information it has as at November 30 to project carryover volumes, but does not include and/or fails to correctly predict the level of CWC issuances when it makes its projection of volume available. Additionally, in Year 1, obligated parties purchase 20 mgpy of CWCs. As a result, the sum of actual volumes available in the next year is 20 mgpy higher than what EPA might have projected, even if it made a November 30 estimate of volume available for carryovers. In this instance, unless EPA takes into account the level of CWC issuances in excess of what is needed to clear the market, the methodology for projecting available volumes (the quantity EPA is required to project) will be systematically biased low.

Table III.E-2

Illustration that Surplus CWC Issuances Must be Accounted for in Estimating Available Volumes

Year	Estimate Prod'n	Actual Prod'n	Estimated Carryover	Actual Carryover	Volume Available	CWCs issued
1	120	120	0		120	20
2	180	180	0	20	200	0
3	200	200	20	20	220	0
Sum	500	500	20	40	540	20

As a practical matter, we recognize that information about the level of CWC issuances does not become available until after EPA is obligated to issue its RVOs. We also recognize that EPA has limited current information upon which to base an estimate of excess CWC issuances. Nonetheless, EPA will obtain new information annually about the degree to which obligated parties prefer to acquire CWCs rather than

available D3/D7 RINs. This information should be incorporated into EPA's future estimates of projected volume available in order for those estimates to meet the Court's neutrality test¹³.

F. EPA has a statutory obligation to include a projection of carryover D3/D7 RINs in its general methodology for determining projected volume available.

As described in the sections above:

- EPA is required to set new cellulosic biofuel volume obligations in a given year at a level equal to the projected volume available;
- EPA is also required to make projections of volume available using a neutral methodology that aims to match projected volume available to what the actual volume available will be;
- The actual volume available must include the volume available from prior year production, as represented by the volume of carryover D3/D7 RINs;
- EPA's methodology for projecting volume available will not be neutral unless it includes a projection of carryover D3/D7 RINs.

It therefore follows that EPA has a statutory obligation to include a projection of carryover D3/D7 RINs in its general methodology for determining projected volume available.

G. The reasoning EPA used to exclude carryover D6 RINs from its proposed 2015 / 2016 renewable fuel RVOs supports the inclusion of carryover D3/D7 RINs in projections of volume available.

EPA has also recently indicated that it believes the current level of carryover D6 RINs is "important for both obligated parties and the RFS program itself in addressing significant future uncertainties and challenges".¹⁴ This position is entirely consistent with the view that carryover RINs are a component of available volume. When setting the overall renewable fuel volume obligation, EPA has a statutory obligation to ensure there is not an "inadequate domestic supply".¹⁵ In essence, EPA has argued that one component of ensuring an *adequate* domestic supply is ensuring an adequate inventory of carryover D6 RINs. These RINs provide, in EPA's words, "critical compliance flexibility, market liquidity and program buffer functions" because they contribute to volume available.

EPA's reasons for maintaining an inventory of carryover D6 RINs in the market include:

- providing critical compliance flexibility, market liquidity and program buffer;
- helping address future challenges, especially since compliance is expected to become significantly more difficult over time;
- providing a buffer to avoid highly undesirable mid-year waivers in the event of unforeseen supply disruptions;

¹³ Drawing on *API v. EPA*, 2013, a neutral methodology should aim for the summation of upside errors in estimating volume available over time to be equal to the summation of downside errors over time.

¹⁴ [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] II.E p.65

¹⁵ CAA §. 211(o)(7)(A)(ii).

- avoiding the creation of a situation that would discourage obligated parties from acquiring carryover RINs; and
- avoiding a situation where there is an irreversible draw down in carryover RINs because the increasingly difficult RFS targets make it impossible for obligated parties to build up surplus RINs for carryover *i.e.* use as available volume in the subsequent year.

Fundamentally these reasons are aimed at two objectives:

- Ensuring that RIN markets operate in a stable, liquid manner where, for example, an unexpected change in the level of available RINs, perhaps caused by an unforeseen supply shortage, will not have disruptive consequences for the program and its participants;
- Reinforcing the overall goals of the program, for example by ensuring that obligated parties have a positive incentive to acquire RINs, perhaps even to a level over and above their applicable volume obligation. Such behavior will help to grow the renewable fuels market, exactly as intended by EISA.

In the cellulosic biofuel market, unlike the general renewable biofuel market, these objectives are best served by ensuring that carryover D3/D7 RINs are included in the calculation of available volume. This is because the special features of the cellulosic waiver process (CWCs and the requirement for a neutral methodology) create an entirely different market dynamic than exists in the overall renewable fuel pool.

CWCs act as a relief valve on shortfalls or other disruptions in cellulosic biofuel supply. As a result, carryover D3/D7 RINs do not play a necessary or even relevant role in ensuring compliance flexibility, market liquidity or providing a program buffer. The statute has already built in a mechanism for this.

The real danger to a stable and liquid market operates on the other side of the ledger. As Harvard economist James H. Stock¹⁶ explains, if obligated parties believe there is a risk that there will be a surplus of D3/D7 RINs in a given year, these RINs will be unattractive assets. This risk is reinforced and increased if the neutral methodology EPA uses to determine volume obligations looks only at production volume in a calendar year and not the total volume available, as represented by the actual number of RINs available for compliance purposes.

Such an approach would also create a significant and sustained risk of surplus available RIN volumes in the next year and thereby depress RIN prices anytime that surplus is anticipated by the market. In Stock's words, "The resulting swings in the D3 RIN price would create uncertainty and impede investment and planning for all market participants".¹⁷ Hence, we believe EPA would be acting counter to its own objective of creating stable RIN markets that foster future investment if it fails to count carryover D3 RINs in available volume.

¹⁶ Administering the Cellulosic Requirements under the Renewable Fuel Standards with Increasing and Uncertain Supply, May 7, 2015, James H. Stock, http://scholar.harvard.edu/files/stock/files/administering_the_cellulosic.pdf.

¹⁷ *Ibid.*

H. EPA should also relax its 20% limit on the use of D3/D7 carryover RINs in order to ensure that obligated parties are expressly allowed to use all available volume

Given the high degree of uncertainty in actual production and, therefore, the accuracy of EPA's projections of available volume, it is entirely plausible that the number of carryover RINs available in a given year may exceed 20% of the total volume available in that year. If this were to be the case, and EPA set the applicable volume to be equal to the available volume as required by statute, then obligated parties would, in aggregate, be unable to comply unless they were permitted to have carryover RINs make up more than 20% of their cellulosic biofuel RVOs.

Presently, EPA rules place a 20% limit on the use of carryover RINs. The basis for this dates back to EPA's rulemaking under RFS1 and relates to EPA's efforts to balance the interests of, on the one hand, renewable fuel makers in ensuring that obligated parties have an incentive to use, rather than stockpile, RINs and, on the other hand, of obligated parties in ensuring that they will have appropriate compliance flexibility. The 20% limit was developed to address issues in the overall renewable fuel pool and did not give any consideration to the special features of cellulosic biofuel RVOs.

For cellulosic biofuels, unlike for other biofuels, obligated parties are protected from the risk of undersupply through the availability of CWCs. Cellulosic biofuel producers are protected from the risk of oversupply by the statutory requirement for the applicable volume to be set at the "projected available volume". In this market environment, rollover limits on cellulosic biofuels are not "ensuring an annual demand for renewable fuels as envisioned by EISA".¹⁸ In fact the limits would contribute to additional market uncertainty and would also risk presenting obligated parties with circumstances where they would be unable to meet their RVOs using available volume.

We therefore believe that the present 20% limit on the use of carryover RINs to meet cellulosic biofuel volume is both unnecessary and untenable. Nonetheless, we recognize that the rollover rules, as presently drafted, do serve the statutory function of limiting the credit life to the subsequent year. As EPA noted in the March 2010 RFS2 Final Rule¹⁹, "the rollover cap is the means through which we are implementing the limited credit lifetime provisions in section 211(o) of the CAA, and therefore cannot simply be eliminated".

We recommend that EPA, in its final rulemaking for the 2016 RVO, amend the limit on the fraction of prior year cellulosic biofuel RINs that can be used to meet a given year's RVO. This fraction is currently set in §80.1427(a)(5) as the number "0.20". We would propose that this number be replaced by a factor "K", which should be the greater of:

- i. 0.20; or

¹⁸ Per EPA's justification for such limits under Federal Register /Vol. 75, No. 58 / Friday, March 26, 2010 /Rules and Regulations p. 14735).

¹⁹ Federal Register / Vol. 75, No. 58 / Friday, March 26, 2010 / p. 14738.

ii. $2.0 * PCV_i / PVA_i$

Where PCV_i is EPA's final projection of the volume available during year i from carryover RINs generated in year $i-1$; and PVA_i is EPA's final projection of the total volume available during year i

We propose using the multiple of 2.0 in (ii) in order to give obligated parties reasonable compliance flexibility. If some obligated parties decide to meet their volume obligations entirely with current year RINs, then other obligated parties will be forced to use a fraction of carryover RINs greater than PCV_i / PVA_i to meet their RVO.

A change such as this is necessary to ensure that both obligated parties and renewable fuel producers have appropriate certainty during 2016:

- that rules will not need to be amended in order for obligated parties to meet their 2017 volume obligations, even if there is large surplus production in 2016;
- that any surplus production in 2016 will be volume available in 2017; and
- whether and how many 2016 D3/D7 RINs obligated parties should consider acquiring in order to meet potential volume obligations during 2017.

IV. Incorporating a projection of carryover RINs into the general methodology for setting cellulosic biofuel RVOs, as we argue is legally required, will also support EPA's statutory obligation to promote increased use of cellulosic biofuels and provide appropriate certainty to obligated parties and producers of renewable fuels.

A. EPA is charged with implementing the RFS to create incentives to increase renewable fuel supplies, overcome the limitations of the market and provide appropriate certainty to obligated parties and producers of renewable fuels

In the § 211(o)(7)(D)(iii) instruction to EPA regarding liquidity, transparency and certainty we see that Congress has an appreciation for the importance of creating market conditions that enable renewable fuel producers to overcome the limitations of the market. While technology limitations are part of the challenge for delivering cellulosic biofuel, this Subparagraph deals expressly with market conditions and how EPA should consider its role in establishing the rules for market operation. EPA is clearly directed to strive for "appropriate certainty" for renewable fuel producers in implementing the waiver provision.

The most significant market limitation for production of cellulosic biofuel continues to be establishing clear visibility on potential growth in long-term demand. While EPA is attempting to address that barrier with this proposal, it has done so in a manner that introduces a new element of uncertainty. Namely: how often, and to what extent, will EPA's applicable volume, actual production, and the use of CWCs combine in a manner that leaves available volumes of cellulosic biofuel produced, but unnecessary for compliance?

The Court of Appeals decision states plainly that “In establishing the RFS program, Congress made commercial production of cellulosic biofuel... central to the program’s objective of reducing greenhouse gas emission”.²⁰

EPA expands on this theme in the preamble of the NPRM, explaining that Congress “...intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market”, and “...particularly renewable fuels with the lowest lifecycle GHG emissions”.²¹ EPA confidently asserts that “The standards we are proposing are forward leaning and reflect those incentives”.²²

At the same time, EPA discusses at length the challenges of accurately predicting cellulosic biofuel production. Perhaps anticipating this uncertainty, Congress included several special features in the law relating exclusively to cellulosic biofuel volume obligations:

- EISA created a relief valve in case cellulosic production falls short of applicable volumes. Specifically, EPA must issue CWCs, which, when combined with a D5 (advanced) biofuel RIN, serve as synthetic D3 RINs for the purpose of complying with the RFS. The price of CWCs is set by a formula in the statute. In addition to providing a relief valve in case of production shortfalls, the CWC provides a cap on the D3/D7 versus D5 RIN price spread because EPA can issue CWCs if the spread exceeds the CWC price.²³
- Under a 2013 court ruling, EPA is required to use its cellulosic waiver authority to set the annual volume obligations using a neutral methodology that is aimed at providing a prediction of what will actually happen. More precisely, the decision called for a methodology where the expected value of upside errors should match the expected value of downside errors.²⁴

We discuss below how EPA’s proposal falls short in regards to its own – and the Court’s – stated interpretation of the central purpose of the RFS program and how incorporating a projection of carryover RINs into the general methodology for setting cellulosic biofuel RVOs, as we argue is legally required, will also support EPA’s statutory obligation to promote increased use of cellulosic biofuels and provide appropriate certainty to both regulated entities and producers of renewable fuels.

B. EPA’s NPRM focuses a great deal of attention on its statutory obligation to ensure the growth of biomass based diesel production. EPA should give similar attention to its obligation to ensure the growth of cellulosic biofuel production

The challenge of ensuring growth in cellulosic biofuel is given only superficial attention in the NPRM despite its significantly unique treatment under law and its market challenges that are unlike those

²⁰ API v. EPA, 2013, p. 3.

²¹ [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] I. pp. 6-7.

²² Ibid.

²³ CAA § 211(o)(7)(D)(ii).

²⁴ API v. EPA, 2013.

facing other biofuels. The NPRM contains a significant discussion of “Ensuring Growth in Biomass-Based Diesel and other Advanced Biofuel” carefully explaining its intent to “increase volumes”²⁵ of BBD. The NPRM contains no parallel discussion focused on overcoming the challenges cellulosic biofuel producers face.

EPA appears to assume as fact a “financial incentive provided by cellulosic biofuel RINs”²⁶ without evidence of any consideration given to the ways its proposal creates uncertainty around demand for D3/D7 RINs. Uncertainty about whether any premium exists for cellulosic biofuel would eliminate EPA’s assumed “incentive” to produce it. The NPRM lacks evidence that EPA carefully weighed its obligation to “provide appropriate certainty” for renewable fuel producers and “to limit any potential misuse of cellulosic biofuel credits”.²⁷

There is no question that EPA understands Congress “intended the RFS program to create incentives to increase renewable fuel supplies and overcome limitations in the market”.²⁸ Equally clear is that EPA aims to “put renewable fuel production and use on a path of steady, ambitious growth.”²⁹ “...particularly renewable fuels with the lowest lifecycle GHG emissions, in the transportation fuel supply.”³⁰

Less clear is why EPA offers no information about its consideration related to cellulosic biofuel growth analogous to the steps it proposes “in order to help provide stability to the BBD industry”³¹ and to “allow these BBD production facilities to operate with greater certainty.”³²

To the extent that EPA considered the possibility that cellulosic biofuel production above its 2016 estimated levels will erode D3/D7 RIN value – and thus, the incentive to produce cellulosic biofuel – the NPRM reveals nothing about EPA’s views. Nor is it clear that EPA has given thought to ways in which CWC use could result in a similar negative effect on D3/D7 RIN value. Since the D3/D7 price spread versus D5 RINs is the primary incentive for cellulosic biofuel production, EPA’s silence regarding how best to maintain that spread suggests that it may not have fully met the obligations created by CAA § 211(o)(7)(D)(iii).

²⁵ [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] III.D.3 p. 77.

²⁶ [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] IV.B.1 p.84.

²⁷ CAA §211(o)(7)(D)(iii).

²⁸ [EPA-HQ-OAR-2015-0111; FRL-9927-28-OAR] I. p.6.

²⁹ Ibid, p.7.

³⁰ Ibid.

³¹ Ibid, III.D.3, pp. 76-77.

³² Ibid.

C. Difficulties surrounding prediction of cellulosic biofuel production capacity, combined with special features of the law relating to cellulosic volume obligations, create significant uncertainty in D3/D7 RIN markets and impede investment and planning for all market participants

As EPA has observed, there is a great deal of uncertainty surrounding future cellulosic biofuel production capacity. For example:

- the high and low end of the range of EPA’s 2016 production estimates differ by a factor of more than 2.0;
- good or bad performance by one single company, DuPont, could swing total cellulosic biofuel production by 18% of EPA’s projected 2016 production.

In a recent paper³³, James Stock of the Department of Economics of Harvard University has observed:

“In practice, producing an accurate estimate of cellulosic production is particularly difficult, as the uncertainty surrounding 2015 production indicates. Although “neutral methodology” is not a precisely-defined statistical concept, it is plausible that such a methodology would be too high half of the time and too low half of the time. This feature induces considerable uncertainty in the value of D3 RINs and thus exposes both producers and obligated parties to RIN price risk: if the estimate is too high (so the market is short D3 RINs), EPA can issue CWCs at the statutory waiver price and D3 RINs will trade at the D5 price plus the CWC price, whereas if the estimate is too low, D3 RINs will have been produced in excess driving their price to the D5 floor, and potentially depressing the D5 price as well if the marginal advanced RIN is a cellulosic RIN. The resulting swings in the D3 RIN price would create uncertainty and impede investment and planning for all market participants.

“In a well-functioning D3 RIN market, the D3-D5 spread would be determined by the marginal cost of production of the marginal cellulosic RIN producer, subject to the relief offered by the availability of CWCs. Thus producers would benefit from the monetary value of the D3 RIN as they expand cellulosic capacity, but obligated parties would be protected from producers with very high marginal costs, or from gouging or market manipulation, by the availability of CWCs.”

EPA is clearly attempting to comply with the Court’s direction by using a “neutral methodology” in establishing applicable volumes. However, given the uncertainty regarding actual production and the possibility that cellulosic waiver credits (CWCs) may be used even when D3/D7 RINs are available in the market, EPA has proposed a system that is biased toward ensuring a surplus of D3/D7 RIN supply rather than a neutral balance between RIN availability and applicable volumes.

As Table IV-1 illustrates, the EPA neutral methodology for establishing applicable volumes, combined with the use of CWCs, ensures that regulated entities are able to comply with the law even when

³³ Stock, 2015, Administering the Cellulosic Requirements.

supplies fail to meet EPA’s estimates. Conversely, when supply of RINs exceeds EPA’s estimate, or anytime CWC’s are used for compliance in lieu of available RINs, the market result is that some quantity of D3/D7 RINs will not be needed for compliance purposes. When EPA shifts all of the market risk onto a single class of market actors – renewable fuel producers – its approach can hardly be thought of as “neutral”.

Table IV-1
AS IMPLEMENTED, THE RFS DOES NOT PROVIDE THE CERTAINTY REQUIRED BY CAA § 211(o)(7)(D)(iii)

CWC USAGE	CELLULOSIC BIOFUEL PRODUCTION				APPROPRIATE CERTAINTY FOR	
	EPA ESTIMATE	ACTUAL CELLULOSIC	CWCs USED FOR COMPLIANCE	SURPLUS AVAILABLE RINS	REGULATED ENTITY ³⁴	RENEWABLE FUEL PRODUCER ³⁵
EPA Anticipated (Low) CWC Usage Scenario	100	80	20	0	Yes	Yes
	100	100	0	0	Yes	Yes
	100	130	0	+ 30	Yes	No ³⁶
High (Excess) CWC Usage Scenario	100	80	40	+ 20	Yes	No ³⁷
	100	100	20	+ 20	Yes	No ³⁸
	100	130	10	+ 40	Yes	No ³⁹

D. EPA will materially stabilize D3/D7 RIN markets, reduce uncertainty and promote investment in cellulosic biofuels by informing markets that it will count all available D3/D7 RINs in its projection of volume available under CAA §211(o)(7)(D)(i)

EPA has indicated that there is substantial uncertainty in its projections of future cellulosic biofuel production volumes. This implies that there is a substantial likelihood that, in some years, surplus volumes (potentially well in excess of EPA’s current 20% rollover limit) will be produced and be available

³⁴ Definition: Supply of D3/D7 RINs and CWCs combined will enable compliance at reasonably predictable costs.

³⁵ Definition: Once produced, D3/D7 RINs will be needed for compliance by a regulated entity.

³⁶ The quantity of D3/D7 RINs produced that will not be needed for compliance by any regulated entity equals the number of RINs produced in excess of the EPA estimate.

³⁷ The quantity of D3/D7 RINs produced that will not be needed for compliance by any regulated entity equals the number of CWCs used beyond what is needed to address the shortfall.

³⁸ Ibid.

³⁹ The quantity of D3/D7 RINs produced that will not be needed for compliance by any regulated entity equals the number of CWCs used beyond what is needed to address the shortfall.

for use in the subsequent year. As Stock has pointed out⁴⁰, this creates the potential for substantial swings in the level of D3/D7 RIN prices as market participants try to guess whether there will be an over or under supply of cellulosic biofuel. These “expected” year on year price swings would create uncertainty and impede investment and planning for all market participants.

This market outcome is contrary to the fundamental objective of the RFS to increase the use of renewable fuels and to EPA’s specific statutory obligation “to provide appropriate certainty for regulated entities and renewable fuel producers”. We believe, therefore, that if it is at all possible under the law, EPA should implement regulations to address the D3/D7 RIN market uncertainty discussed in Section IV.(C) and the resulting impediment to cellulosic biofuel investment that this uncertainty creates.

The problems of market uncertainty and instability would be particularly exacerbated if the methodology for determining applicable volume is based solely on projected production volume. In such circumstances, if it appeared that production volumes might exceed EPA’s “neutral” projection, current D3/D7 RIN prices would be depressed and there would be an anticipated overhang of available volume clouding the picture for future years, just as Stock describes.

On the other hand, if EPA implements a methodology that will count all available D3/D7 RINs in its projection of volume available under CAA Sec 211(o)(7)(D)(i), it will materially stabilize D3/D7 RIN markets, reduce uncertainty and promote investment in cellulosic biofuel. This is because, if it appeared that production volumes would exceed EPA’s “neutral” projection of volume available in a given year, that year’s D3/D7 RIN prices would be stabilized by the knowledge that any surplus volume in the given year would be available to contribute to EPA’s projection of available volume in the next year.

In essence, cellulosic biofuel producers would know that they would have a market for surplus production and would not have an interest in deferring or limiting current year production. Similarly, obligated parties would have an interest in acquiring current year D3/D7 RINs, despite an impending surplus, because they would know that current year surpluses would contribute to available volume in the next year. Furthermore, there would be no anticipated overhang of available volume clouding the picture for future years because all parties would know that EPA’s methodology would be truly neutral, recognizing all “actual volume available” as contributing to its “projection of volume available”.

This market stabilizing, investment enhancing feature further strengthens the case for EPA to count all available D3/D7 RINs in its projection of volume available for the purposes of determining cellulosic biofuel RVOs.

⁴⁰ Ibid.

E. EPA’s final rule for 2016 RVOs should address how EPA intends to deal with carryover D3/D7 RINs generated in 2016 in order to “provide appropriate certainty for regulated entities and renewable fuel producers” during calendar 2016

EPA has an obligation to implement regulations governing its implementation of the cellulosic waiver process that will “provide appropriate certainty for regulated entities and renewable fuel producers”. As Section IV.(D) above explains, the question of whether EPA will implement rules that count all available D3/D7 RINs as part of its projection of volume available under CAA §211(o)(7)(D)(i) will have a material impact on D3/D7 RIN markets as well as on the investment decisions of cellulosic biofuel producers and obligated parties.

Furthermore, the material impact of EPA’s decision about its methodology for determining available volume will be felt in 2016 and will apply to 2016 D3/D7 RINs. This is because EPA’s decision on methodology will play a major role in determining the risk profile of acquiring and holding D3/D7 RINs in both 2016 and future years.

We believe market participants cannot reasonably expect EPA to provide absolute certainty about how the market will develop. However, they certainly should be able to expect that EPA will inform them about the rules it will apply to the use of 2016 D3/D7 RINs that will be generated under the November 30, 2015 final rule on 2016 RVOs. In particular, EPA should certainly be able to inform market participants whether it intends to include surplus production, as represented by the amount of available carryover D3/D7 RINs, in its future projections of volume available and, where appropriate, soften the limit on the use of carryover D3/D7 RINs. This choice will have a substantial impact on market volatility and certainly falls within the scope of EPA’s statutory obligation to “provide appropriate certainty for regulated entities and renewable fuel producers”.

As a result, in its final rulemaking in November 30, 2015, EPA should determine and report how it intends to treat carryover D3/D7 RINs generated in 2016.