

# MANAGING THE CONUNDRUM OF THE CELLULOSIC BIOFUEL RVO

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After a long period of limited production, cellulosic biofuels are finally starting to flow into the market. Renewable natural gas and cellulosic ethanol production facilities are operating and some are approaching commercial production volumes. These fuels generate D3 (cellulosic) RINs (Renewable Identification Numbers), which are used by obligated parties for managing their compliance under the Renewable Fuel Standard (RFS). The emergence of commercial cellulosic biofuel production is a signal of the success of the RFS.

However, the outlook for cellulosic biofuels investment is clouded by uncertainty about the low value of D3 RINs. Market trading of RINs is intended to ease compliance for obligated parties while also conveying a price signal to renewable fuel producers, thereby attracting new fuel to market. But with cellulosic production still far below hoped-for levels, D3 RINs should be – but are not – fetching significant premiums.

Further, as cellulosic biofuel investors look to the future, the procedure for setting the cellulosic Renewable Volume Obligation (RVO) depends on EPA making a quantitative call about an uncertain future. Everybody knows this is a difficult task; EPA could just as easily overshoot as undershoot. But there is an asymmetry in how this affects the value of cellulosic RINs. If EPA's production volume estimate is too high, it issues Cellulosic Waiver Credits (CWCs) to obligated parties, protecting them from unanticipated upward price shocks. If EPA's estimates are too low, D3 RIN premiums could crash due to oversupply. There is a 20% supply carry-over allowance, but that percentage could easily be surpassed. Unfortunately, this is a formula for harmful market uncertainty.

And if that is not enough, EPA must make Cellulosic Waiver Credits available to obligated parties as an alternative to buying real credits generated with real cellulosic biofuels. The waiver credits were intended to ensure liquidity in the market and to offer a functional price cap in the event of short supply. When EPA issues waiver credits to obligated parties when there is ample supply of D3 RINs available, it will find itself circumventing its own process for setting cellulosic RVOs, creating a surplus of cellulosic biofuel over the obligation. This will generate "stranded fuel" and exacerbate market uncertainty and the downward price pressure that can only stall investment.

A Solution:

Everyone should recognize that EPA is working hard to faithfully implement the RFS, and that their efforts have too often been confounded by outside political forces. At the same time, we believe that EPA can provide much greater certainty to both producers and obligated parties, as EISA requires – and substantially reduce the stakes and the controversy that surrounds its cellulosic biofuel volume projections. EPA could, for example, signal its intent to deal with any annual surplus (or shortfall) that may occur in the availability of cellulosic biofuel relative to any given year's RVO by:

- a) Including the surplus amount (or shortfall) in its estimates of the projected volume available during the subsequent calendar year;
- b) Adjusting the following year RVO by the amount of CWCs issued to reflect the additional fuel this would make available to the market; and

- c) Increasing or removing the 20% limit on the use of prior year RINs for meeting cellulosic biofuel renewable volume obligations.

In addition, EPA could develop mechanisms to ensure that CWCs are issued only when there is evidence of an absence of D3 RIN availability, preserving market liquidity but avoiding the creation of “stranded fuel.”

EPA is empowered to make these procedural changes; they offer a way to accelerate the development of cellulosic biofuels and meet the intent of EISA. Both producers and obligated parties would know that every gallon of cellulosic biofuel produced would be required for compliance and that any overestimates of production would be corrected. Market volatility would be limited to ordinary market forces, the price outlook for cellulosic D3 RINs would be stabilized, D3 RIN markets would have increased transparency and liquidity, and the prospects for further cellulosic biofuel investment would improve. No legislative change to EISA is required.

Without such a solution, we can anticipate a high level of uncertainty about whether demand will match supply and an appropriate value will be conveyed for producing D3 RINs. EPA may be tempted to delay addressing this issue, but failing to resolve the uncertainty inherent in the current RVO process will only prolong the current period of malaise in the D3 RIN market. Savvy investors and other market participants will remain largely on the sidelines until stable, durable, and transparent market conditions can be established by EPA.

**About the Author:**

Brian Foody is the CEO of Iogen Corporation. The first commercial-scale plant using Iogen’s cellulosic ethanol production technology finished construction on schedule in 4Q 2014 in Sao Paulo, Brazil. Production at that facility will begin with the spring harvest season, and increase to full capacity during 2015.