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Upcoming Changes to the Renewable Fuel Standard and Potential Impacts

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...experience runs deep

The EPA must balance stakeholder demands with RFS goals



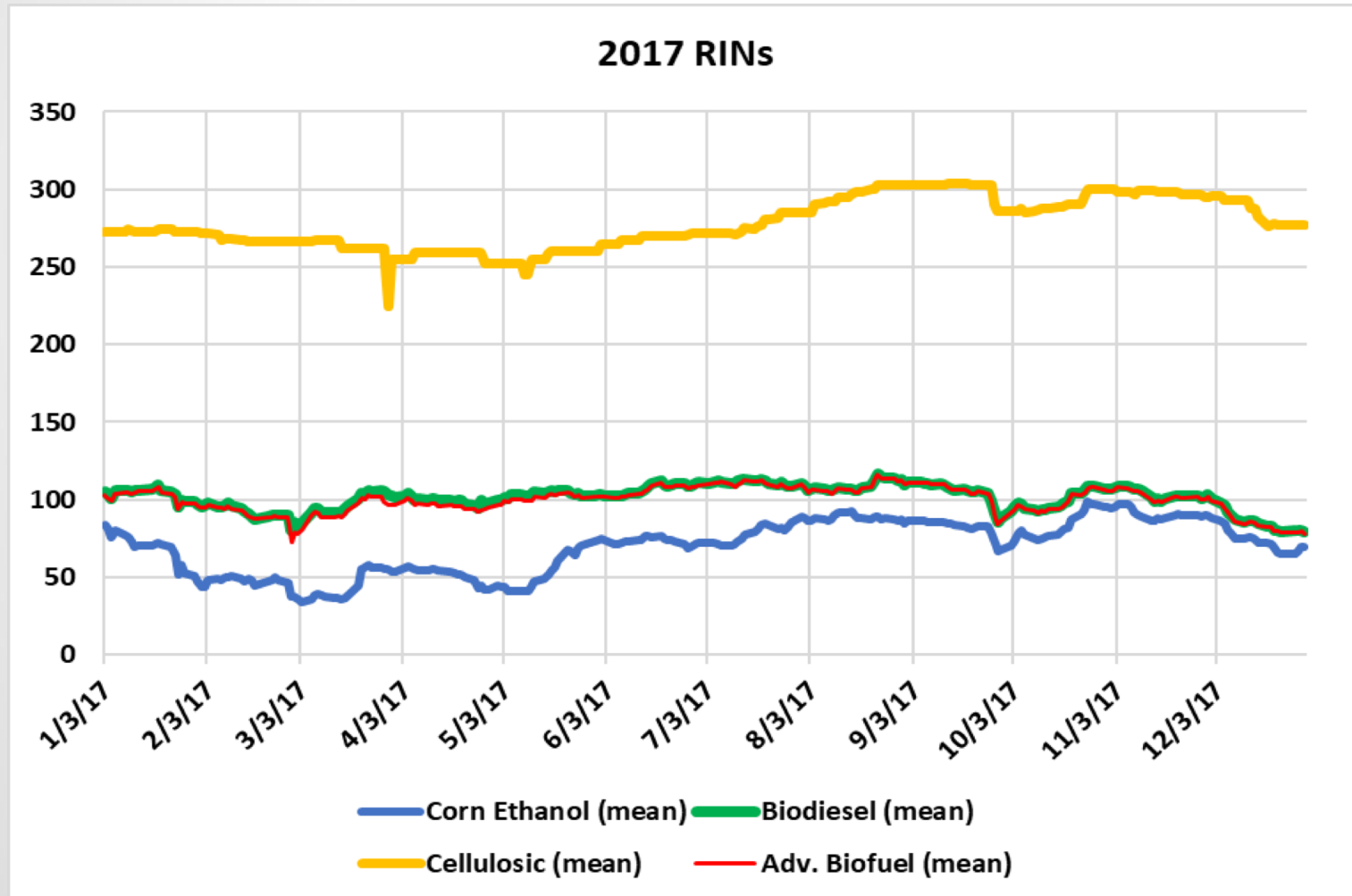
The current state of affairs

The RFS is struggling to meet the benefits promised when it was enacted

1. Increased usage of cellulosic fuels (**hardly**)
2. Increase usage of ethanol in fuels (**not recently**)
3. Increased use of advanced biofuels (**only biomass-based diesel**)

At current RIN values, the 2018 RFS RINs will cost about \$23 billion. Current levels of E10 and BBD can be achieved for far less cost.

2017 RFS RINs Prices



2018 changed only slightly from 2017

2018 RFS Volumetric Targets

	BILLION GALLONS PER YEAR			
RFS STANDARDS	2015	2016	2017	2018
CELLULOSIC	0.123	0.23	0.311	0.288
BBD	1.73	1.90	2.00	2.10
ADVANCED	2.88	3.61	4.28	4.29
RENEWABLE	16.93	18.11	19.28	19.29
NOMINAL ETHANOL	14.05	14.50	15.00	15.00

BBD increases by 0.1 bgy

Cellulosic requirements drop by 0.023 bgy.

Ethanol remains capped at 15 bgy.

Future RFS Changes

1. The Standard is still a politically “hot” topic, so anything is possible.
2. Cellulosic will see small production increases, mainly due to new biogas and cellulosic diesel.
3. Biomass-based diesel has unused domestic and import capacity. Incremental feedstock is soy oil, but small annual increases in BBD targets are feasible.
4. Advanced and renewable requirements are likely to change very little.

The RFS has a number of areas of concern

1. Ethanol
2. Biomass-based diesel
3. RINs as a currency
4. RIN bank

RFS Concern #1 - Ethanol

1. The E10 blendwall is still an obstacle, even though it's being bypassed slightly.
2. Ethanol is the source for the largest RIN cost component of the RFS.
3. E0 sales far exceed E15 and E85 sales.

RFS Concern #2 – Biomass-based Diesel

1. Three of the four RFS mandate categories are being met incrementally by D4 (BBD) RINs.
2. BBD needs either a large D4 RIN value or a large subsidy, or both, to be competitive.
3. The on again/off again \$1 Blender's Tax Credit does little to encourage long-range BBD planning.

RFS Concern #3 - RINs

RINs are used as currency

1. The RFS is essentially a tax on obligated parties.
2. RINs are the currency that is used to pay the RFS tax.
3. The RIN currency has very few of the controls or checks and balances of a typical currency.

RFS Concern # 4 – RIN Bank

RIN Banking Concerns

1. In 2017 RIN generation fell while the annual obligation increased. Shortfall was mostly in D6 and D4 RINs.
2. RIN bank is near 10% of 2018 obligation.
3. EPA needs to manage the RIN banks by RIN obligation type, not by total RINs.

There are ways to improve some of these issues

1. Ethanol
2. Biomass-based diesel

Potential Improvements for Ethanol

Improvements

1. Adopt the D8 RIN approach for E15 and E85, or
2. MANDATE 10% (or 9.7%) ethanol in gasoline and eliminate the generation of D6 RINs for this level of ethanol.

Benefits

1. New D6 RIN costs would be practically zero.
2. Reduces RFS costs by 60% and reduces RFS complexity.

Potential Improvements for BBD

1. Eliminate nesting and have a single BBD mandate.
2. Either end the \$1 Blender's Tax Credit or lock it in for multiple years.

The potential impact of these improvements

Adoption of these two proposals would have the following effects:

1. Maintains current biofuels consumption levels.
2. Provides the same or increased biofuel usage by eliminating RFS complexity and providing longer term stability.
3. Reduces much of the onerous burden on RFS obligated parties.
4. Reduces 60% of the current volume of RINs that need to be verified, tracked, and accounted for.



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Questions?

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