

Focus on Fuels

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December 2016

Volume 6, Issue 7



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The EPA announced the 2017 volume obligations for the renewable fuel program. The EPA's approach to the renewable fuel obligations has been a little like a blindfolded man walking toward the edge of a cliff. Each step brings you closer to the edge but the last step is a doozy. Is EPA's 2017 obligation a doozy? The short answer is, I don't know. There are quite a few degrees of freedom to meet the obligation, which makes it difficult to predict any given year.

2017 RFS RVO Over the Cliff?

by Tom Hogan

Most of what you will read is that the RVO has been set at 19.28 billion gallons of renewable fuel. In fact, the RVO is no longer in gallons but has been translated into a percentage of petroleum transportation fuel as shown in table 1 below. This calculation is based on the DOE's October short term energy outlook (STEO). The Final Rule setting the 2017 RVO included DOE's 2017 assumptions as shown below.

Gasoline demand 143.6 billion gallons (9,367,906 B/D)
Ethanol in gasoline 14.35 billion gallons (936,073 B/D, essentially E10)
Diesel Demand 53.15 billion gallons (3,467,058 B/D)
Biomass-Based Diesel 2.28 billion gallons (148,728 B/D, about B4.3)

It is interesting to note that the DOE's projection of renewable fuel in the transportation pool is about 1.5 billion gallons less than the RVO required by the RFS program.

TM&C Services in Fuel Regulations

TM&C provides a full range of services in its fuels regulatory practice. Some of these services are listed below.

- Preparing, reviewing and submitting fuels reports, including CDX submissions.
- Facility audits for compliance with fuels programs.
- Interaction with EPA to pose fuels-related questions.
- Industry specialist assistance for required gasoline attestations.
- Industry specialist assistance for in-line blending audits.
- Assistance in setting up

Category	2016	2017	17 minus 16	Percent Change
Cellulosic Biofuel	0.128	0.173	0.045	35
Biomass-based Diesel	1.59	1.67	0.08	5
Advanced Biofuel	2.01	2.38	0.37	18
Renewable Fuel	10.1	10.7	0.6	6

The 2017 RVO volume obligations in billion gallons are shown below.

a fuels compliance group/program.

- Personnel reviews of compliance-related groups.
- Compliance status reviews and recommendations.
- Negotiations/consultation during EPA enforcement actions.
- 3rd-Party Engineering reviews.
- Due diligence reviews of facilities and companies in RFS RINs Program.

Table 2			
Renewable Fuel Volume Obligation, billion gallons			
Category	2016	2017	17 minus 16
Cellulosic Biofuel	0.23	0.311	0.081
Biomass-based Diesel	1.9	2	0.1
Advanced Biofuel	3.61	4.28	0.67
Renewable Fuel	18.11	19.28	1.17

Will the 2017 obligation be met and if so how?

Crossing the E10 Blend Wall - No

2017 is not likely to be the year when the E10 blend wall is breached. The two ways to increase ethanol above the E10 blend wall are to either produce E15 or E85. Both options face the same hurdle; there is no significant demand.

Use Prior Year RIN Inventory - Yes

This is likely to be the fallback position for some if not many refiners. This option alone will soften the impact of an obligation set too high. However, the prior year RIN inventory that will be available is a mystery at this point. The 2015 obligation will not be met until December 1, 2016. As a result, the prior year RIN inventory for 2015 will probably not be known to the public until February or March of 2017. I expect that there will still be prior year inventory from 2015 carried into 2016, but it will probably be falling compared to recent years. The 2016 prior year RIN inventory will not be known until several months after the 2016 obligation is met in the first quarter of 2017. There is likely to be enough prior RIN inventory to allow 2017 compliance. It will soften the blow but RIN pricing will likely increase.

Additional Biomass-based Diesel - Yes

In the past few years the growth in biomass-based diesel has been used to meet the renewable fuel obligation due to the nesting. There is some room to absorb more biomass-based diesel into the system. However, the requirement to label diesel with more than 5% renewable fuel is likely to present a soft diesel "blend wall" since the DOE's 2017 projection indicated about 4.3% of the diesel pool will be renewable fuel. Renewable diesel, a drop in product with no quality restrictions, is likely to become more prevalent, first through imports and ultimately through the installation of equipment in refineries. Also, some have interpreted the labeling requirement to mean that labeling is required only when renewable diesel and biomass-based diesel both hit 5 vol%. This could extend the soft diesel blend wall to 10 vol% of renewable fuel before labeling becomes necessary. Additional biomass-based diesel/renewable diesel is likely to be part of the solution to meet the 2017 RVO.

Testing the Political Waters - Absolutely

The new administration will set its renewable fuel policy in 2017. Refiners will lobby hard to eliminate or significantly modify the RFS program. The renewable fuel industry will be just as active pushing to increase the RFS obligation. I do not pretend to know the outcome of these efforts. However, it will be interesting times in Washington DC for this program. One thing to remember is that the program is very difficult for the average person not

involved in either the oil or renewable fuel industries to understand all of the implications. That creates a political environment that makes it difficult to identify the constituency that is most impacted. In the prior administration, the politics were clear. "Green" energy was good no matter the cost. There is hope that the next administration will look at what is best for the country without preconceived notions.

The Parable of the Small Refiners Bias

Once upon a time, in a country not too far away, the political machinery faced an international crisis when a group of small oil producing countries chose to limit supply of crude oil to some of the international community. The immediate result was a huge spike in the price of crude oil and limited supply of gasoline as the public sought to protect itself from a gasoline shortage by filling up all of their gas tanks. Then as now, both the executive branch and the legislative branch of the government rushed to take credit for solving the problem without necessarily solving the problem. Price controls were instituted and this incursion into the free market set off a host of unintended consequences.

Domestic crude prices were fixed at current levels, which immediately reduced the exploration for and the production of new domestic sources. This created two tiers of crude oil, old oil and new oil. This didn't last long because the new oil price also skyrocketed and required price controls on the new oil and the creation of new, new oil. It also created special pricing for small "stripper" wells to keep them from shutting down.

The rules quickly impacted the refining side of the oil industry since refiners with access to cheaper old oil and the original new oil had an advantage over refiners dependent on foreign oil which was not price controlled. The legislative solution was the creation of a pseudo oil sharing system where refiners with higher percentage than the national average of lower priced oil would subsidize refiners with higher priced oil.

While all this chaos was roiling the domestic petroleum markets, the politicians faced another problem. Some existing small refiners were having trouble surviving even with the price controls. The wisdom of the congressional brain trust (which currently has less than 20% approval rate) focused on the problem and the small refiners bias was ground into the crude oil price sharing system. Briefly, refiners of a certain size received a bonus (or bias) designed to keep them from going out of business. Unfortunately, the bonus was set too high and a bunch of small refineries were built or reactivated and the number of refineries in the country ballooned to over 300.

The chaos continued as the administration feared the political fallout if prices were decontrolled and all of the special interests were subjected to a free market, which would inevitably lead to some reorganization and loss of jobs in a bloated oil industry. This continued until a newly elected populist president dismantled price controls in 1981 and required the industry to sort out the problems in a free market.

The state of the renewable fuel program has similarities with the oil price controls from the 1970s. It is a program started to give the impression that congress and the administration had "solved" a problem. The stated problem was security of our energy supply. The renewable fuel program has also resulted in unintended consequences. Merchant refiners are experiencing disproportionate costs due to their inability to blend ethanol into gasoline downstream. Congress is considering resolving this problem by moving the point of obligation downstream. Stay tuned, but if the

program is allowed to continue to increase the amount of renewable fuel usage, the current problems with the program will look minor in comparison.

Parables always have distinct lessons to be learned. This parable's lesson is, "***Never replace the free market with a political solution. Economics always rule. The political solution only delays the economic solution and is much more costly than the free market solution.***" In the simplest terms, with apologies to the Democratic party, "***It's economics, stupid!***"

Reconsider RFS Program

Just as the time came to reconsider continuing to control the prices of petroleum in the 1970s, it is time to reconsider the objectives of the renewable fuel program. It is time to re-evaluate a program designed to assure security of supply which was conceived before domestic crude oil production nearly doubled in the last few years. It is probably time to place the program back into the free market. Moving the obligation point from refiner to blender will create new categories of winners and losers and will create further distortions in the market. Although a solution for the merchant refiners, it does not address the basic problems of the program. Let's hope that the country is surprised by the recently elected populist administration which puts the interests of the country ahead of the interests of participants in a flawed program and returns transportation fuel into the free market.

2017's Outlook for the RFS Program

I do not believe the 2017 obligation will create an insolvable problem for the petroleum industry. I believe that the use of prior year RINs and increases in renewable diesel will allow the industry to meet the obligation. However, it does not look like it will be cheap. Also, as we walk toward the cliff, the options shrink and if the obligation is steadily increased, it will be very expensive for the country to continue.

Turner, Mason & Company can help guide you through this and other fuels regulatory programs. Contact us for the latest on where the programs are headed and how to comply.

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