

## THE RENEWABLE FUEL STANDARD Where Do We Go from Here?

It's likely that some agricultural interests, and specifically ethanol producers, are going to either oppose or at least raise serious questions about the nomination of Attorney General Scott Pruitt for Administrator of EPA. Such opposition rests on the likelihood that the AG is probably not fully supportive of the Renewable Fuel Standard (RFS). Keep in mind that it remains difficult to find anyone outside the corn lobby who supports the program. However, given EPA's extensive and costly portfolio of regulatory programs faced by the farm community, it might be wise for the agricultural community to take a somewhat broader view on his nomination. True, EPA may be inclined to modify its implementation of the RFS under AG Pruitt, we just don't know yet, but it may also be willing to undertake major regulatory reforms on environmental regulations throughout the agricultural sector.

What we do know is that mandating ethanol volumes above 10% of the gasoline pool yields high costs and little additional ethanol use. The reason for this is that once you approach a blend of 10% ethanol into gasoline, customers remain highly resistant to purchasing fuels with additional volumes. A combination of rising costs and technical constraints take place.

We also encourage our readers to review the work of Professors Harry de Gorter and Dušan Drabik. Their research clarifies the relationship between the blend wall, RIN prices and ethanol prices. Professor de Gorter's and Drabik's research shows that high RIN prices flow from the requirement to meet the mandated volumes by over-blending of biodiesel and expanding sales of E85. What happens is that so-called "obligated parties," those companies designated by EPA to fulfill the mandate requirements of the RFS, recover their costs through higher gasoline prices. Compared to a cost structure at blend levels below 10% (the blend wall), the costs of overcoming the blend wall mean everybody is worse-off with ever increasing mandated volumes of ethanol.

What is interesting about de Gorter's and Drabik's findings is that RIN prices impose a significant economic impact to society that is often overlooked. They point out that the high RIN prices were low until the blend wall became an issue in early 2013. It is not just transportation



fuel prices that rise; value-added agricultural and food industries (feedstock producers, grocers, restaurants, etc.) pass on higher prices to their customers due to higher grain/oilseed prices. EPA's most recent decision (November 23, 2016) to set the blend volume at 15 billion gallons, a level above 10% of the gasoline pool, points to even higher costs.

EPRINC has undertaken research and analysis on ethanol's role in the transportation fuels sector since 2006 and a link to our most recent analysis is below as well as a related paper on gasoline blending. We have no desire to expand our work on this topic. The results

are in; the mandate to increase the volume of ethanol into the gasoline pool has now become costly and ineffective. None of this is to suggest that removal of the mandate would end substantial use of ethanol in the US production of transportation fuels. Our own research demonstrates that refiners would blend ethanol into the gasoline pool somewhere above 8% and below 10% without any requirements from EPA across a broad range of price outcomes and consumer preferences. In addition, the ethanol industry is no longer an infant industry; exports are now at 800 million gallons per year and expected to grow to 2 billion gallons per year by 2020.

For those without the time to wade through the extensive research on this topic, two observations are worth noting. Gasoline exports are not part of the RFS mandate, but routinely sell for 10-12 cents a gallon below domestic prices. Jet fuel also is not part of the (biodiesel) mandate and routinely sells at 12-14 cents below diesel fuel. Diesel fuel and jet fuel are similar products but with different regulatory requirements. For those doing the math this comes to over \$20 billion per year in

higher costs to gasoline and diesel consumers. As the new Administration takes a close look at the RFS, some attention should be given to reforming the program to reduce costs to consumers or at least put the funds into more productive uses.

Perhaps these funds should instead be dedicated to improving our transportation infrastructure? Twenty billion dollars is a lot of money.



### Additional Readings

Professors de Gorter's and Drabik's assessment on RIN values and their consequences to economic efficiency and costs to consumers can be found here:

*Harry de Gorter (Cornell) and Dušan Drabik (Wageningen University De Leeuwenborch, Netherlands), **The Distinct Economic Effects of the Ethanol Blend Wall, RIN Prices and Ethanol Price Premium due to the RFS.** Dyson School of Applied Economics and Management Cornell University, Ithaca, New York <https://pdfs.semanticscholar.org/c340/ca72d9462c54dfd615c4af854cd1e6664dc4.pdf>*

### EPRINC Publications on Transportation Fuels (2015 and 2016)

EPRINC's Updated Primer on Gasoline Blending  
<http://eprinc.org/2015/06/eprincs-updated-primer-on-gasoline-blending/>

The Biofuel Mandate: Technical Constraints and Cost Risks  
<https://www.dropbox.com/s/j9lw1i7urw2fwc6/Biofuel%20Mandate%20Nov%202015.pdf?dl=0>

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## **ABOUT EPRINC**

The Energy Policy Research Foundation, Inc. (EPRINC), was incorporated in 1944 as a not-for-profit organization that studies energy economics with special emphasis on the production, distribution, and processing of oil and gas resources. It is known internationally for providing objective analysis of energy issues.

The Foundation researches and publishes reports on all aspects of the petroleum industry which are made available free of charge to all interested organizations and individuals. It also provides analysis for quotation and background information to the media.

Furthermore, it has been called on to testify before Congress on many occasions, and it briefs government officials and legislators, and provides written background materials on request. Additionally, EPRINC has been a source of expertise for numerous GAO energy-related studies and has provided its expertise to virtually every National Petroleum Council study of petroleum issues.

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