



Lessons from the Failed Renewable Fuel Standard

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Eakinomics: Lessons from the Failed Renewable Fuel Standard

In 2005 energy independence was very much on the mind of Congress, so it included in the Energy Policy Act (EPA) the Renewable Fuel Standard (RFS), which was expanded in 2007. The RFS mandated that refiners blend biofuels (e.g., corn-based ethanol) into gasoline, thereby putatively reducing the United States' reliance on imported oil. As a market-based mechanism for enforcing the RFS mandate, RINs (Renewable Identification Numbers) were created. Refiners had a mandate to blend biofuels, but they were required to have a RIN for every gallon they blended. RINs are created along with biofuels. If the level of biofuels is too low to meet the RFS mandate, refiners will bid up the price of RINs. Presumably, this would stimulate more biofuel production, create more RINs, and make it cheaper and easier to hit the RFS targets. If there is a surplus of biofuels, one would expect that biofuel producers would throw in the RIN for free as they try to sell their stockpile of biofuels.

It was a good theory. Fast forward to 2018 and today President Trump is hosting a [summit](#) to settle an intra-party skirmish between Senators Charles Grassley and Ted Cruz. What happened? The 2007 Energy Independence and Security Act set targets for biofuel blending which cannot be easily met. The legislation set the 2018 target at 26 billion gallons of biofuel. In contrast, last year the Environmental Protection Agency released a 2018 target of only 19.29 billion gallons. The problem is that the expected “moonshot” technological advances in cellulosic and other advanced biofuels simply did not occur. Even with the reduced mandate, RIN prices are elevated and refiners are demanding changes, while ethanol producers are happy with the status quo.

2018 Targets (billion gallons)	EISA 2007	EPA 2017
Cellulosic	7	0.288
Biomass diesel	*	2.1
Advanced biofuel	11	4.29
Conventional biofuel	15	15
Total (Conventional + Advanced)	26	19.29

* indicates a 1 billion gallon minimum target, with EPA authorized to raise the target as needed.

The most likely outcome will be some attempt to massage the existing system, like capping RIN prices and increased transparency for investment activity related to RINs. But the fundamental problem is the RFS itself and its mandate for the mix of fuels. It should simply be repealed.

What lessons emerge from the RFS episode? First, the whole idea of energy independence makes no sense. Even if not a single barrel of oil is imported, domestically produced oil is still traded and priced in a global market. The goal of zero physical imports does not insulate the economy in any way. Second, markets are a

good way to enhance innovation — the EIA expects the United States to be a net energy exporter by 2022, a tribute to innovation in horizontal drilling and hydraulic fracturing — while mandates are not; the sad state of cellulosic ethanol is a tribute to that truth. Third, beware unintended consequences. The think tank Resources for the Future estimates that the combined impact on food prices from the U.S. RFS and the Europeans Union's close cousin raises global food prices [by 17 percent](#) relative to a 2007 base year.

The RFS is a failed policy and requires legislative repeal. The longer that is delayed, the worse the economic impact will be.