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## Running Drivers into the Blend Wall

Push to Ratchet up Renewable Fuel Standard Rewards  
Ethanol Lobby at Consumers' Expense

By Marlo Lewis, Jr.\*

A bipartisan group of 39 Senators is trying to make it more expensive to fill up your car—effectively making you pay more for everything you buy. Led by Sen. Chuck Grassley (R-Iowa) and Amy Klobuchar (D-Minn.), they wrote to Environmental Protection Agency (EPA) Administrator Gina McCarthy on June 24, urging her agency to get the Renewable Fuel Standard (RFS) “back on track”—code for compelling refiners to comply with the program’s increasingly unattainable statutory goals.<sup>1</sup> EPA is currently finalizing the 2017 RFS volume requirements for total renewable, cellulosic, and advanced biofuels, and the 2018 requirement for biomass-based diesel.

**RFS Basics.** The RFS requires specified volumes of biofuels to be sold in the nation’s motor fuel supply over a 17-year period. Created by the 2005 Energy Policy Act and then expanded by the 2007 Energy Independence and Security Act (EISA), the quota for total renewable fuels increase from 4 billion gallons in 2006 to 36 billion gallons in 2022.<sup>2</sup>

Within each year’s overall target, the RFS also establishes sub-quota for four separate categories of biofuel:

1. **Conventional:** chiefly ethanol derived from corn starch;
2. **Advanced:** biofuel with greenhouse gas emissions at least 50 percent lower than petroleum-based fuels;
3. **Cellulosic:** advanced biofuel made from switch grass, wood chips, and other fibrous plant materials), and
4. **Biomass-based diesel:** advanced biofuel made from animal fats and vegetable oils.

However, the RFS also authorizes the EPA to reduce the annual statutory targets if the agency’s administrator determines there is an “inadequate domestic supply.”<sup>3</sup> For example, the agency has drastically reduced the sub-targets for cellulosic biofuel ever since 2010, when cellulosic commercial production turned out to be virtually non-existent—contrary to the confident predictions of the program’s architects in the mid-2000s.<sup>4</sup>

Another key element of the RFS is a credit trading program. Each gallon of biofuel produced is assigned a unique 38-digit Renewable Identification Number (RIN). When a refiner sells a gallon of biofuel in the motor fuel market, it earns a RIN credit. A refiner that does not meet its annual obligation by actually blending and selling biofuel can comply by purchasing surplus RIN credits from another refiner that exceeded its obligation. A refiner

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can also bank surplus RIN credits to meet up to 20 percent of the following year's obligation.<sup>5</sup>

**Blend Wall Controversy.** In November 2013, the EPA for the first time proposed to reduce the total annual RFS mandate below the statutory target.<sup>6</sup> Moreover, the EPA for the first time decreased the target based on the “blend wall”—a set of market conditions limiting the quantity of ethanol that can actually be sold to about 10 percent of the nation's gasoline supply.<sup>7</sup> One important constraint is that the overall size of the gasoline market is now projected to be 19 billion gallons smaller in 2017, and 40 billion gallons smaller in 2022, than Congress anticipated when it enacted EISA in 2007.<sup>8</sup> Other barriers include the incompatibility of mid- and high-ethanol fuel blends with the vast majority of vehicles and fueling infrastructure, and the lack of consumer demand for such fuels.

The EPA's proposal outraged the biofuel lobby, and the agency dithered over the next two years. The final rule, adopted in November 2015, restored some of the cutbacks proposed in 2013, and required refiners' production levels to exceed the blend wall in 2016.<sup>9</sup> Yet, that was not enough to satisfy biofuel interests—or their Senate allies. Although the EPA's proposed 2017 blending target for so-called conventional biofuel is 300 million gallons higher than the 2016 target, biofuel lobbyists now complain that the 2017 target is 200 million gallons shy of the 15 billion gallon goal set forth in the statute.<sup>10</sup>

In a March 23 letter to McCarthy, Grassley and company claim the EPA may not take the blend wall into consideration when determining refiners' annual requirements, known as Renewable Volume Obligations (RVOs). Specifically, they contend that “lack of distribution infrastructure was explicitly rejected by Congress as a reason to grant a waiver [from statutory goals] in 2005.”<sup>11</sup>

The Senators do not provide a source for their statutory interpretation. Yet even if correct, their claim is irrelevant. The blend wall had no bearing on the RFS as created in 2005, because the original RFS annual blending targets maxed out at 7.5 billion gallons in 2012.<sup>12</sup> That is only about half the quantity of ethanol U.S. markets can absorb as E10—gasoline blended with 10 percent ethanol. Under the 2005 RFS, there was simply no prospect of biofuel production running up against the E10 blend wall.

**Biofuel Lobby's Flimflam Claims.** Biofuel lobbyists often claim refiners have “obligations” to finance the blender pumps and storage tanks that supposedly would enable them to meet the RFS program's statutory targets.<sup>13</sup> But where in the Energy Independence and Security Act is such an obligation discussed or mentioned?

Biofuel interests have never cited any such provision because it does not exist. Apparently, they want us to believe that if Congress willed the end, it must have willed the means. But the sausage-making of legislating is not an exercise in abstract logic. Laws embody tradeoffs and compromises and rarely give the affected interests everything they want.

In its deliberations on EISA, Congress considered several proposals directing the Secretary of Energy to require major oil companies to install E85-capable equipment at their affiliated

service stations.<sup>14</sup> None of those provisions made it into EISA as passed by Congress and signed by President George W. Bush.

More recently, ethanol lobbyists have argued that Congress intended for the EPA, by setting ambitious targets, to drive up RIN credit prices to the point where it costs refiners more to purchase RIN credits to meet their obligations than to build retail infrastructure.<sup>15</sup> Yet, the legislative and regulatory histories of the RFS program provide no support for that theory.<sup>16</sup>

A question ethanol lobbyists never address is this: If latent consumer demand for E15, E30, and E85 is as big as they say, why don't they put their money where their collective mouth is and invest in the retail infrastructure on which the success of these blends supposedly depends?

They claim Big Oil controls what service stations sell.<sup>17</sup> Nonsense. The oil majors own less than 1 percent of retail stations. All the rest, including the tens of thousands of affiliated stations that sell branded gasoline, are independently owned. Several statutes safeguard retailers their right to sell high ethanol blends if that is their wish and they can raise the capital to install the requisite infrastructure.<sup>18</sup>

Contrary to ethanol lobby propaganda, the blend wall is not a product of oil industry machination, but of economic and technical realities. Most vehicles on the road today, as well as all lawn mowers, motorcycles, boats, and other small engines, are not designed or warrantied to use blends higher than E10.<sup>19</sup> Only 8 percent of all cars on the road<sup>20</sup> and 2 percent of gas stations are capable of handling E85—motor fuel blended with 85 percent ethanol—and only 312 out of 150,000 offer E15.<sup>21</sup>

However, the most important reason for the dearth of flex-fuel vehicles and E85/E15-capable infrastructure is simply lack of consumer demand. And that lack of demand is largely due to the fact that ethanol makes fuel economy worse.

Ethanol contains about one-third less energy than an equal amount of gasoline.<sup>22</sup> The higher the blend, the worse mileage your car gets. Thus, as the blend increases, you must spend more, and fill up more often, to drive the same distance. For example, at current fuel prices, the typical owner of a flex-fuel vehicle would spend an extra \$200 to \$350 annually to use E85 instead of regular gasoline, according to the federal government's fuel economy reference website.<sup>23</sup>

Of course, the EPA could simply ignore market realities and set RVOs in line with the RFS statutory targets. However, the economic repercussions could be severe. If the political blowback is bad enough, the agency, Sens. Grassley and Klobuchar, and the ethanol lobby may find the tightening of the RFS ratchet to be a pyrrhic victory.

Under the RFS, refiners' obligations are calculated as a percentage of the total gasoline and diesel they sell in the U.S. domestic market. Refiners lose money when they buy and blend more ethanol than consumers want to buy. So if RFS targets exceed the blend wall, refiners at some point will endeavor to reduce the quantity of biofuel they must sell. There are two

options: They can decrease total motor fuel production or—more likely—increase the quantities of gasoline and diesel they export to foreign markets.

Either way, annual increases in RFS volumes beyond the blend wall could spur refiners to reduce the domestic supply of gasoline and diesel. That in turn would inflate motor fuel prices—in some scenarios dramatically—imposing substantial costs on consumers and throughout the economy.<sup>24</sup>

Congress should repeal the RFS so that consumer preference and competition, rather than central planning policies, determine which fuels succeed or fail in the U.S. marketplace. Failing that, Congress should sunset the RFS so it ends after 2022. In the meantime, the EPA should cap mandatory biofuel sales at the E10 blend wall, while allowing biofuel producers to sell as much additional renewable fuel as consumers actually want to buy.

## Notes

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<sup>1</sup> Sen. Chuck Grassley et al., Letter to the Honorable Gina McCarthy, June 24, 2016, <http://www.grassley.senate.gov/sites/default/files/constituents/6.24.16%20Grassley-Klobuchar%20EPA%20RFS%20letter.pdf>.

<sup>2</sup> U.S. Environmental Protection Agency (EPA), Program Overview for Renewable Fuel Standard Program, <https://www.epa.gov/renewable-fuel-standard-program/program-overview-renewable-fuel-standard-program>.

<sup>3</sup> 42 U.S.C. §7545(o)(7)

<sup>4</sup> Marlo Lewis, “Rep. Jeff Flake’s Commonsense Fix for Cellulosic Biofuel Folly,” GlobalWarming.Org, July 2, 2012,

<http://www.globalwarming.org/2012/07/02/rep-jeff-flakes-commonsense-fix-for-cellulosic-biofuel-folly/>. In January 2006, President George W. Bush predicted cellulosic ethanol would be “practical and competitive within six years. See “President Bush’s State of the Union Address,” The Washington Post, January 31, 2006, <http://www.washingtonpost.com/wp-dyn/content/article/2006/01/31/AR2006013101468.html>.

<sup>5</sup> Brent Yacobucci, Analysis of Renewable Identification Numbers (RINs) in the Renewable Fuel Standard (RFS). Congressional Research Service, July 22, 2013, <https://www.fas.org/sgp/crs/misc/R42824.pdf>

<sup>6</sup> EPA Proposes 2014 Renewable Fuel Standards, press release, November 15, 2013, <https://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/81c99e6d27c730c485257c24005eecb0!OpenDocument>. For a nuts-and-bolts explanation of the blend wall, see American Fuel & Petrochemical Manufacturers Association, Fact Sheet: Renewable Fuel Standard Blend Wall, <http://www.globalwarming.org/wp-content/uploads/2015/06/20150609-RFS-Blendwall.pdf>.

<sup>7</sup> American Fuel & Petrochemical Manufacturers Association, Fact Sheet: Renewable Fuel Standard Blend Wall, <http://www.globalwarming.org/wp-content/uploads/2015/06/20150609-RFS-Blendwall.pdf>.

<sup>8</sup> Tim Hogan, American Fuel & Petrochemical Manufacturers, Comment Letter on Renewable Fuel Standard Program: Standards for 2017 and Biomass-Diesel Volume for 2018; Proposed Rule, Docket ID No. EPA-HQ-OAR-2016-0004, pp. 1-2, July 11, 2016

<sup>9</sup> EPA, Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017, 80 FR 77458, December 14, 2015, <https://www.gpo.gov/fdsys/pkg/FR-2015-12-14/pdf/2015-30893.pdf>.

<sup>10</sup> EPA, Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018, 81 FR 34812, <https://www.gpo.gov/fdsys/pkg/FR-2016-05-31/pdf/2016-12369.pdf>.

<sup>11</sup> Sen. Chuck Grassley et al., Letter to the Honorable Gina McCarthy, March 23, 2016, <http://www.grassley.senate.gov/sites/default/files/news/upload/EPA%20McCarthy%20RFS%202017%20RVO%20March%2023%202016.pdf>

<sup>12</sup> Public Law 109-58—August 8, 2005, Sec. 1501(o)(2)(B)(i), <https://www.gpo.gov/fdsys/pkg/PLAW-109publ58/pdf/PLAW-109publ58.pdf>

<sup>13</sup> Fuels America, The EPA Faces a Crucial Choice, May 8, 2015, <http://www.fuelsamerica.org/blog/entry/the-epa-faces-a-crucial-choice>

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<sup>14</sup> Those bills included the Biofuels Security Act of 2007 (H.R. 559, S. 23), National Fuels Initiative Act of 2007 (S. 162), SAFE Energy Act of 2007 (S. 875), and Global Warming Reduction Act of 2006 (S. 4039).

<sup>15</sup> Testimony of Bob Dinneen, President and CEO, Renewable Fuels Association, House Energy and Commerce Committee Subcommittee on Energy and Power, June 22, 2016, <http://docs.house.gov/meetings/IF/IF03/20160622/105101/HHRG-114-IF03-Wstate-DinneenB-20160622.pdf>.

<sup>16</sup> Hogan, *Ibid.*, p. 4

<sup>17</sup> Renewable Fuels Association, *Protecting the Monopoly: How Big Oil Covertly Blocks the Sale of Renewable Fuels*, 2014, [http://ethanolrfa.3cdn.net/3888b61efa4f1e9fb3\\_t2m6btt6o.pdf](http://ethanolrfa.3cdn.net/3888b61efa4f1e9fb3_t2m6btt6o.pdf)

<sup>18</sup> Written Testimony of Chet Thompson, President, American Fuel & Petrochemical Manufacturers Association, before the House Energy and Commerce Subcommittee on Energy and Power, June 22, 2016, <http://docs.house.gov/meetings/IF/IF03/20160622/105101/HHRG-114-IF03-Wstate-ThompsonC-20160622.pdf>

<sup>19</sup> Statement by Bob Darbelnet, President and CEO of the American Automobile Association, AAA E15, November 15, 2013, <http://newsroom.aaa.com/tag/aaa-e15/>

<sup>20</sup> Statement of Howard Greunspecht, Deputy Administrator, Energy Information Administration, before the Committee on Energy and Commerce Subcommittee on Energy and Power, June 22, 2016, <http://docs.house.gov/meetings/IF/IF03/20160622/105101/HHRG-114-IF03-Wstate-GreunspechtH-20160622.pdf>.

<sup>21</sup> Written Testimony of Chet Thompson, *Ibid.*

<sup>22</sup> U.S. Department of Energy, Ethanol, <https://www.fueleconomy.gov/feg/ethanol.shtml>.

<sup>23</sup> To compare E85 and regular gasoline fuel economy, click on <http://www.fueleconomy.gov/>, then “Advanced Cars & Fuels,” then “Flex-fuel Vehicles,” and then “Find Flexible Fuel Vehicles.”

<sup>24</sup> Paul Berstein, Bob Baron, W. David Montgomery, Shirley Xiong, Mei Yuan, *Economic Impacts Resulting from Implementation of the RFS2 Program*, Prepared for: American Petroleum Institute, October 2012, [http://www.globalwarming.org/wp-content/uploads/2015/06/NERA\\_EconomicImpactsResultingfromRFS2Implementation.pdf](http://www.globalwarming.org/wp-content/uploads/2015/06/NERA_EconomicImpactsResultingfromRFS2Implementation.pdf).