
THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Public Interest Comment¹ on
The Environmental Protection Agency's Proposed Rule:
2014 Standards for the Renewable Fuel Standard Program

Docket ID No. EPA-HQ-OAR-2013-0479

RIN: 2060-AR76

January 28, 2014

Sofie E. Miller, Policy Analyst²

The George Washington University Regulatory Studies Center

The George Washington University Regulatory Studies Center strives to improve regulatory policy through research, education, and outreach. As part of its mission, the Center conducts careful and independent analyses to assess rulemaking proposals from the perspective of the public interest. This comment on the Environmental Protection Agency's proposed rule setting the 2014 renewable fuels standards does not represent the views of any particular affected party or special interest, but is designed to evaluate the effect of EPA's proposal on overall consumer welfare.

Introduction

As a part of its Renewable Fuel Standard (RFS) program, the Environmental Protection Agency is proposing biofuel blending targets for 2014 (and, in some cases, for 2015 as well). According

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² Sofie E. Miller is a Policy Analyst at the George Washington University Regulatory Studies Center, 805 21st St. NW, Suite 609, Washington, DC. Sofie can be reached at sofiemiller@gwu.edu or (202) 994-2974.

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to EPA’s proposed rule, *2014 Standards for the Renewable Fuel Standard Program*, the RFS program was created “to promote substantial, sustained growth in biofuel production and consumption” resulting in “reductions in greenhouse gas emissions, enhanced energy security, economic development, and technological innovation.”

Despite these goals, EPA’s proposed rule would—for the first time—reduce overall biofuel blending targets from 16.55 billion gallons in 2013 to 15.21 billion gallons in 2014. As EPA states in its rule summary, “These adjustments are intended to put the program on a manageable trajectory while supporting growth in renewable fuels over time.”

Statutory Authority

Under the Clean Air Act (CAA), as amended by the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007, EPA sets the annual volume of biofuel required to meet the Agency’s renewable fuel standard. Section 211(o)(2)(B) of the CAA specifies annual biofuel targets for EPA’s RFS; the volume requirements for 2014 are outlined in the table below.

	Statutory applicable volume requirements	Current volume requirements	Proposed volume requirements
Cellulosic biofuel	1.75 billion gallons	6 million gallons	17 million gallons
Biomass-based diesel	≥1.0 billion gallons	1.28 billion gallons	1.28 billion gallons
Advanced biofuel	3.75 billion gallons	2.75 billion gallons	2.20 billion gallons
Renewable fuel	18.15 billion gallons	16.55 billion gallons	15.21 billion gallons

Note: Cellulosic biofuel and biomass-based biodiesel are nested within the “advanced biofuel” category, which is itself nested within the “renewable fuel” category.

As can be seen in the above table, EPA’s proposed rule decreases the overall volume requirements for renewable fuels from 16.55 billion gallons in 2013 to 15.21 billion gallons in 2014. However, for cellulosic biofuel and biomass-based diesel (biodiesel), which are nested within the “renewable fuel” category, EPA’s rule either increases volume requirements or leaves volume requirements well above statutory levels.

For all but one fuel type, EPA proposes to set the volume requirement below the statutory level. Although mandated cellulosic biofuel production is proposed to increase by 183%, the 17 million gallons proposed for 2014 are still 158 million gallons below the levels set in the CAA. The proposed targets for advanced biofuel (a category which includes both cellulosic biofuel and

biodiesel) are 1.55 billion gallons short of the statutory volume levels, and the proposed standards for renewable fuels are 2.94 billion gallons shy of the volume levels specified in the CAA.

However, EPA does have some discretion to set applicable volume requirements below those specified in the statute, in certain conditions. As EPA explains in its proposal:

There are two different authorities in the statute that permit EPA to reduce volumes of advanced biofuel and total renewable fuel below the volumes specified in the statute. When we lower the applicable volume of cellulosic biofuel below the volume specified in CAA 211(o)(2)(B)(i)(III), we also have the authority to reduce the applicable volumes of advanced biofuel and total renewable fuel by the same or a lesser amount. We can also reduce the applicable volumes of advanced biofuel or total renewable fuel under the general waiver authority provided at CAA 211(o)(7)(A) under certain conditions. Today's proposal uses a combination of these two authorities to reduce volumes of both advanced biofuel and total renewable fuel to address two important realities:

- Limitations in the volume of ethanol that can be consumed in gasoline given practical constraints on the supply of higher ethanol blends to the vehicles that can use them and other limits on ethanol blend levels in gasoline—a set of factors commonly referred to as the ethanol “blendwall”
- Limitations in the ability of the industry to produce sufficient volumes of qualifying renewable fuel.³

Although EPA’s proposal reduces the applicable volume of advanced biofuel, it does not reduce the applicable volume of biodiesel, which is nested within the advanced biofuel category. Due to statutory restrictions, it would be possible to reduce the biodiesel volume requirements using the general waiver authority outlined in CAA 211(o)(7)(A). According to the statute, such waivers can be procured by the EPA Administrator, either:

- (i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or
- (ii) based on a determination by the Administrator, after public notice and opportunity for comment, that there is an inadequate domestic supply.

³ 78 FR 71735

As will be examined in the next section, EPA’s own analysis indicated that its biodiesel standard would harm the environment and cause significant economic harm to U.S. consumers. Therefore, EPA should consider reducing its biodiesel standards to at most the statutory level of 1 billion gallons. Any additional reductions beyond this point would further benefit American consumers and the environment.

Biodiesel Standards for 2014 - 2015

In its 2012 rulemaking, *Regulation of Fuels and Fuel Additives: 2013 Biomass-Based Diesel Renewable Fuel Volume*, EPA increased required biodiesel production levels from 1 billion to 1.28 billion gallons. This level is held constant for 2014 and 2015 in EPA’s proposed rule. The resulting levels of biodiesel production exceed the statutory requirements by 28 million gallons. As can be seen in EPA’s Table IV.B.3-1 below, from EPA’s 2012 rule, EPA estimated that a biodiesel standard of 1.28 billion gallons would incur between \$263 million and \$425 million in net costs while harming air and water quality.

TABLE IV.B.3-1—ESTIMATES OF COMBINED COSTS AND BENEFITS OF THE 1.28 BILLION GALLON BIODIESEL MANDATE IN 2013
[In 2010 dollars]

AEO 2012 early release (million)	STEO March 2012 (million)
-\$425 to -\$391	-\$297 to -\$263

Further, according to EPA’s analysis of its 2012 biodiesel rule, the standards caused environmental damage while also causing the prices of fuel and consumer goods to increase. Given that the costs of the biodiesel standard far outweigh the benefits, EPA’s proposed 2014 RFS is the perfect opportunity for EPA to revisit its harmful biodiesel standard.

Environmental Impacts

Instead of claiming environmental improvements as the primary benefit of the biodiesel standard, EPA relied on increases in energy security, valued at \$41.2 million. In fact, the Agency explicitly did not quantify the reduction in greenhouse gas reductions that this rule was intended to effect: “While we are not quantifying the GHG emissions impact of this [rule], qualitatively we believe that it will provide a reduction in GHGs.”⁴ Instead, EPA’s analysis of its 2012 rule explicitly showed that mandating 1.28 billion gallons of biodiesel production would harm the environment.

⁴ 77 FR 59469. *Regulation of Fuels and Fuel Additives: 2013 Biomass-Based Diesel Renewable Fuel Volume*.

In its analysis, EPA estimated that its rule would cause up to \$52 million in environmental disbenefits from reduced air quality, and would have modest but “directionally negative” effects on water quality, water use, wetlands, ecosystems, and wildlife habitats. A closer look at the emission impacts of EPA’s proposed rule raises even more questions: as a result of this rule, EPA expects ambient air increases in particulate matter (PM_{2.5} and PM₁₀), nitrous oxide (NO_x), and sulfur dioxide (SO₂), all of which are regulated by the Clean Air Act’s National Ambient Air Quality Standards (NAAQS) as criteria pollutants.

TABLE VI.B.2.b-2—TOTAL AMBIENT PM _{2.5} -RELATED MONETIZED HEALTH IMPACTS (MILLIONS 2010\$) ^a		TABLE VI.B.2.b-3—PER GALLON AMBIENT PM _{2.5} -RELATED MONETIZED HEALTH IMPACTS (2010\$ PER GALLON) ^a	
	2013 Monetized impacts (7% discount rate-3% discount rate)		2013 Monetized impacts (7% discount rate-3% discount rate)
Using Dollar-per-ton Derived from American Cancer Society Analysis (Pope et al., 2002)		Using Dollar-per-ton Derived from American Cancer Society Analysis (Pope et al., 2002)	
Downstream	\$14 to \$16.	Downstream	\$0.05 to \$0.06.
Upstream	-\$34 to -\$37.	Upstream	-\$0.12 to -\$0.13.
Net Impacts	-\$19 to -\$21.	Net Impacts	-\$0.07 to -\$0.08.
Using Dollar-per-ton Derived from Six Cities Analysis (Laden et al., 2006)		Using Dollar-per-ton Derived from Six Cities Analysis (Laden et al., 2006)	
Downstream	\$35 to \$39.	Downstream	\$0.12 to \$0.14.
Upstream	-\$82 to -\$91.	Upstream	-\$0.29 to -\$0.33.
Net Impacts	-\$47 to -\$52.	Net Impacts	-\$0.17 to -\$0.19.
^a Note: Negative values indicate disbenefits associated with decrements in ambient air quality.		^a Note: Negative values indicate disbenefits associated with decrements in ambient air quality.	

As stated in the Regulatory Impact Assessment for the biodiesel rule, “In addition to the GHG impacts laid out in Chapter 2, we project that the increased use of renewable fuels required by RFS2 will affect emissions of “criteria” pollutants (those pollutants for which a National Ambient Air Quality Standard has been established), criteria pollutant precursors, and air toxics.” As shown in EPA’s table VI.B.2.b-3, the PM disbenefits alone resulting from this rule amount to between 7 and 19 cents *per gallon*, or \$53 million dollars.⁵

It is particularly surprising to see EPA mandating a technology that increases PM emissions because, in the context of the NAAQS, the Agency takes the position that cost is no object when the goal is to *reduce* PM emissions. In fact, EPA recently increased the stringency of fine particulate PM_{2.5} regulation, reducing allowable emissions by 20 percent.

⁵ The EPA analysis and Regulatory Impact Assessment cited in this section refer to the analysis and RIA for EPA’s September, 2012 rule establishing the 1.28 billion gallon biodiesel standard: 77 FR 59457, *Regulation of Fuels and Fuel Additives: 2013 Biomass-Based Diesel Renewable Fuel Volume*.

Regulatory Capture

Enforcement of the biodiesel standard increased the production of soybean oil, from which most commercial biodiesel is produced. EPA expected the increased production of biodiesel to increase the price of soybean oil by 3 cents per pound, or \$66 per metric ton. Considering that the U.S. produced over 18 million metric tons of soybean oil in 2011, the price tag for mandating increased biodiesel production becomes astronomical, adding up to \$1.2 billion in additional revenues for soybean oil producers.

In fact, the EPA estimated that this standard would require the production of 600 million gallons of soybean-based biodiesel and 4,530 million pounds of soybean oil, almost double the 2,550 pounds of soybean oil produced for biofuels in 2011. EPA expected its biodiesel standard to increase the price of soybeans by 18 cents per bushel, yielding soybean farmers more than \$560 million in additional revenues last year based on 2013 bushel production figures.

In addition, EPA's modeling showed that both U.S. and world commodity prices would increase more than they otherwise would as a result of the biodiesel mandate. Fuel prices were expected to increase by between \$253 million and \$381 million last year alone, or between \$0.90 and \$1.36 per additional gallon of biodiesel required by the standard. As soybean oil is redirected to biodiesel production, U.S. soybean exports are expected to decrease by 135 million bushels over the next decade. At the same time, the U.S. will increase net imports of ethanol by 248%.

In effect, EPA's biodiesel standard serves as a massive transfer payment from domestic consumers to soybean farmers. While the biodiesel standard increases prices for American consumers and dirties air and wetlands, it is highly profitable for the domestic soybean industry.

Conclusion

EPA's biodiesel rule doesn't live up to the spirit of the agency's enabling statutes, nor does it live up to the letter of Executive Order 12866, retained by President Obama, which states:

The American people deserve a regulatory system that works for them, not against them: a regulatory system that *protects and improves their health, safety, environment, and well-being and improves the performance of the economy* without imposing unacceptable or unreasonable costs on society. [Emphasis added]

EPA's biodiesel standard falls short of this requirement in two very important ways. First, mandating biodiesel production does not improve public health or the environment – in fact by EPA's own estimate the standard caused (and will continue to cause) environmental harm from

increases in criteria pollutants. Second, the rule does not improve the performance of the economy, and essentially acts as a transfer payment from the general public to soybean farmers.

EPA should take advantage of the opportunity presented by this rulemaking to reduce mandatory biodiesel production to 1 billion gallons or less.