



## Insight

# New Renewable Fuel Standards Remain Flawed

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## Summary

- The Environmental Protection Agency (EPA) has published its regulation for the volume of renewable fuels to be blended with gasoline next year at 19.92 billion gallons, slightly higher than the 19.88 that was expected.
- The annual obligation raises costs for gasoline consumers while delivering doubtful benefits to national security or the environment.
- As the required volumes drift further from the expectations Congress laid out in 2007, EPA will be required to review and potentially cut the blend requirements—a move that could offset some of the policy’s problems but would not be as beneficial as a full repeal.

## Introduction

Today, the Environmental Protection Agency (EPA) published its annual requirement governing the volume of renewable fuels to be blended into gasoline next year, known as the Renewable Fuel Standard (RFS). Little has changed: The published targets are close to the proposed volumes [from earlier this year](#), edged up slightly with a requirement for 19.92 billion gallons instead of the anticipated 19.88. Most of this renewable fuel will be from corn-based ethanol (15 billion gallons), while the remainder will be from other biofuel sources (inedible plant matter, biomass, etc.). As a matter of policy, though, the RFS continues to distort energy markets, increase fuel costs for Americans, and deliver no discernible benefit for the environment or energy security. The latest rules are a reminder that this misguided policy should be retired.

## What is the RFS?

The RFS mandates that renewable fuels, primarily ethanol, be blended with gasoline. It began as part of the Energy Policy Act of 2005, and was expanded in the Energy Independence and Security Act of 2007. The initial rationale was that requiring ethanol, a presently available and abundant combustible fuel, to be blended with gasoline would reduce oil imports from countries that could be funding terrorists. The RFS was then expanded to have an environmental focus, with an aim of reducing greenhouse gas emissions (GHG) from vehicles, since ethanol produced from plant matter should be carbon neutral. The RFS also included a weighty requirement for “advanced” biofuels (made from biomass, or the inedible parts of plants).

## The RFS's Policy Failures

Since its inception, the RFS has failed to achieve its policy objectives. Increased domestic oil production over the past several years has dwarfed any potential reduced importation on account of the RFS, as the United States produces more than half of the oil it consumes today. American Action Forum [research](#) earlier this year noted that the requirements of the RFS could supplant 652,000 barrels of oil per day, but domestic oil production has increased over recent years by more than 5 million barrels per day. Furthermore, because the RFS does not discriminate between replacing domestically produced oil and imported oil, and since more than half of oil consumed in the United States is produced domestically, the RFS is more likely to replace a domestic barrel of oil than a foreign one.

As an environmental policy, scholars have [questioned whether ethanol is at all cleaner](#) than petroleum fuels. Including the lifecycle emissions for producing ethanol (fertilizer, transportation, and energy inputs) shows it to be even worse than petroleum fuels. Last, the hoped-for boost in advanced renewable fuels production never materialized, and the RFS obligations are mostly satisfied via conventional ethanol from corn rather than the envisioned cleaner fuels of the future.

## Distorted Markets, Increased Costs

The RFS, like any mandate to purchase a product, increases costs for consumers. It artificially inflates demand for a product (in this case, ethanol), which increases the price it can command relative to what it would be absent an intervention. This price difference is passed on to consumers and benefits sellers who would otherwise have to cut prices or become more efficient.

The RFS's compliance mechanism, Renewable Identification Numbers (RINs), also increases costs for consumers. In theory, since RINs can be bought and sold in a market, allowing their price to fluctuate based on demand and encouraging producers to find an optimal production capacity. Yet RINs create an additional cost to consumers. The price of RINs typically fluctuates between 30 cents and a dollar per RIN (which is per gallon of renewable fuel). With 19.92 billion gallons of renewable fuels required in 2019's RFS, the cost of the RINs—which will be passed on to consumers—will be between \$6-20 billion.

Aside from the RINs, ethanol is also less energy dense, and thus reduces the fuel efficiency of vehicles. [Past AAF research](#) estimated this value to be \$4-16 billion annually, with a total value over ten years of \$76.7 billion. The costs from efficiency loss, plus the RINs, make it easy to expect that the RFS will cost Americans at least \$10 billion next year, or about \$36 per registered vehicle in the United States.

Aside from the direct costs, the current administration's choice to exempt certain refineries via "hardship waivers" has further distorted markets. By issuing waivers to smaller refineries (only small ones are eligible for a waiver), the administration is creating an economic preference for smaller refiners over large ones, rather than a preference for efficient or productive industry participants. Such an exemption applies the law unequally.

## The RFS Should be Repealed

The RFS raises the cost of energy, biases the American economy toward one kind of fuel, does not benefit America's energy security, and does not benefit the environment. Yet, repealing the policy has proven to be exceedingly difficult. Any state that produces corn is implicitly aided by the RFS, and since the United States produces about half of the world's corn, it is easy to find politicians that are willing to defend the RFS. Even President Trump has expressed full-throated support for the policy.

Half-measures to mitigate the harm caused by the RFS are unlikely to be of much help. Moves to allow exported ethanol to count towards the RFS would ease the costs of compliance, but would undermine the supposed policy intent of the RFS (to reduce oil imports). Replacing the RFS with alternative policies such as a High-Octane Fuel Standard would merely shift policy costs from one area of consumption (fuels) to another (vehicles).

The best hope for minimizing the costs associated with the RFS is via the "reset" provision laid out in the law. If the EPA's published requirements are more than 20 percent below the legislated targets two years in a row (as they have been), then EPA may begin setting targets that do not consider the statutory targets. Employing this provision could potentially lead to lower RFS obligations—but it is not a substitute for a full repeal.