



Renewable Fuel Standard: Taxpayer Perspective

Autumn Hanna

Taxpayers for Common Sense

History of Federal Biofuel Supports

1970s

Origins of ethanol tax credit began in 1978 with first federal subsidies for ethanol, a \$0.40/gallon excise tax credit created due to oil embargoes at the time and calls for better energy security. EPA allowed E10, a 10 percent ethanol blend with gasoline, in 1978.



1980s

Ethanol tax credit increased to \$0.50/gallon in 1983 & peaked at \$0.60/gallon in 1984, in addition to an ethanol import tariff being added.



1990s

In 1990, budget reconciliation reduced ethanol tax credit to \$0.54/gallon. Ethanol production ranged from 500 million gallons to 1 billion gallons in the US.

Creation of the RFS

- RFS was enacted in 2005 energy bill & expanded in 2007 energy bill
- Federal mandate requires transportation fuel suppliers blend a certain level of ethanol, biodiesel, and other biofuels in the fuel that they sell each year
- Regulated using a tradable credit system, where obligated parties (fuel refiners and importers) meet the mandate by either selling the required biofuels volumes or purchasing excess credits from other parties

RFS Qualifying Fuels

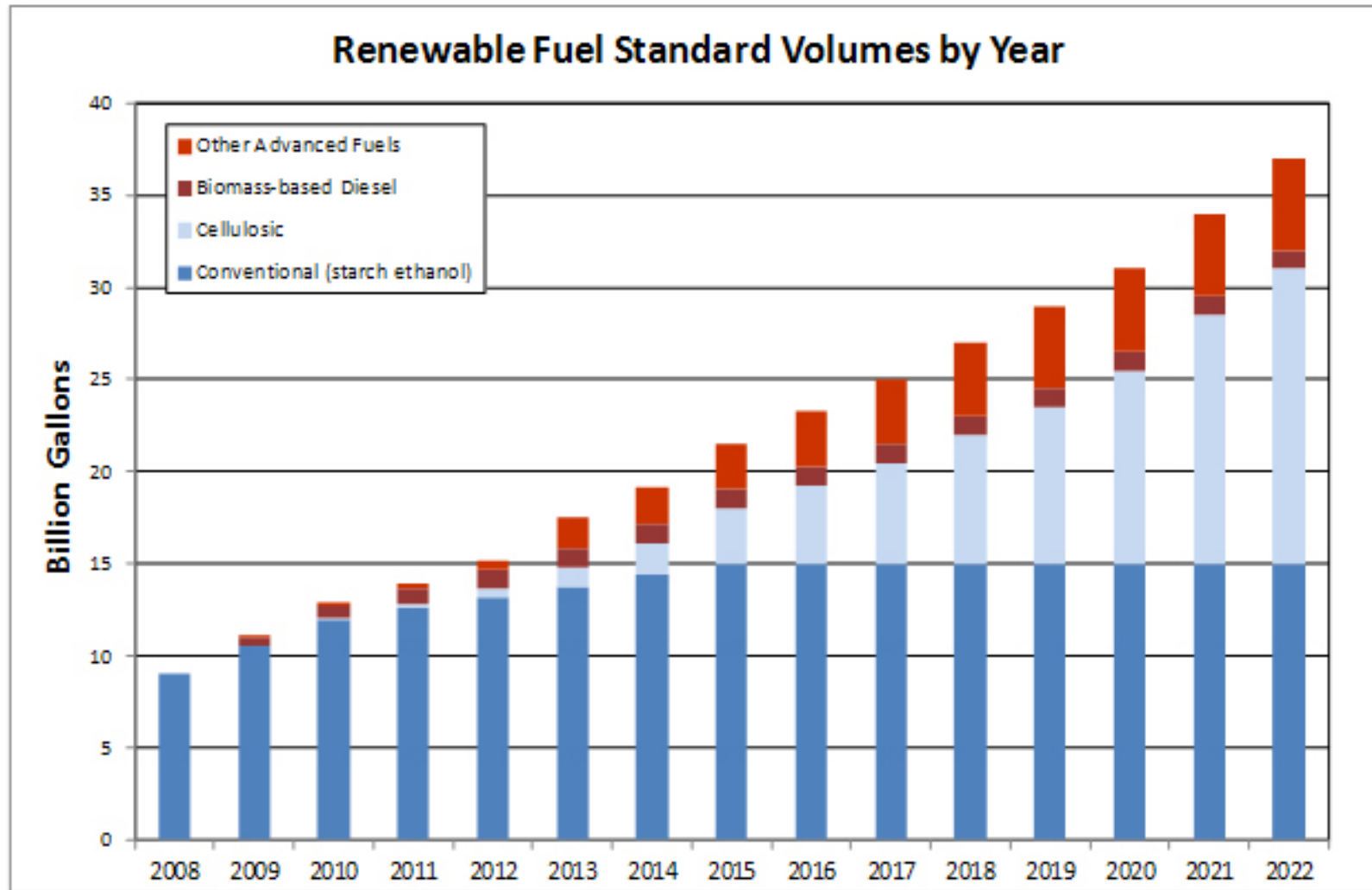
Cellulosic Biofuel: Produced from cellulose, hemicellulose, or lignin and must meet a 60% lifecycle GHG reduction.

Biomass-Based Diesel: Produced from qualifying renewable biomass and must meet a 50% lifecycle GHG reduction. Primarily filled with soy biodiesel.

Advanced Biofuel: produced from qualifying renewable biomass (except corn starch) and must meet a 50% lifecycle GHG reduction. Primarily filled with biodiesel.

Conventional Biofuel: Primarily refers to cornstarch ethanol. Supposed to meet a 20% lifecycle GHG reduction but has not met in practice.

Statutory Biofuels Volumes Required by RFS

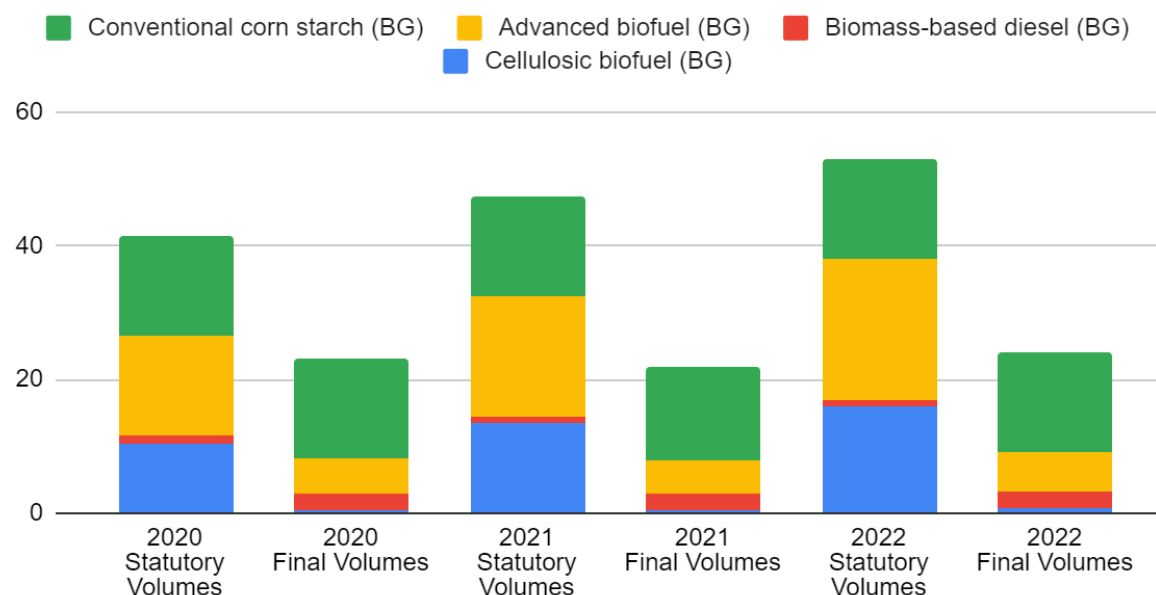


Source: <https://www.afdc.energy.gov/laws/RFS.html>

RFS Fails to Achieve Goals

- Corn ethanol often meets its RFS mandate (15 billion gallons/yr)
- But cellulosic and advanced biofuels fall drastically short of Congressional targets
- Mandate will unlikely meet goals of lower GHG emissions & energy security

RFS Congressional Mandates vs. Actual Volumes (billions of gallons)



Note: Congress mandated at least 1 BG of biomass-based diesel consumption annually through 2022. Figure 2 includes this minimum 1 BG figure for RFS Congressional mandates each year.

Volumetric Ethanol Excise Tax Credit (VEETC)

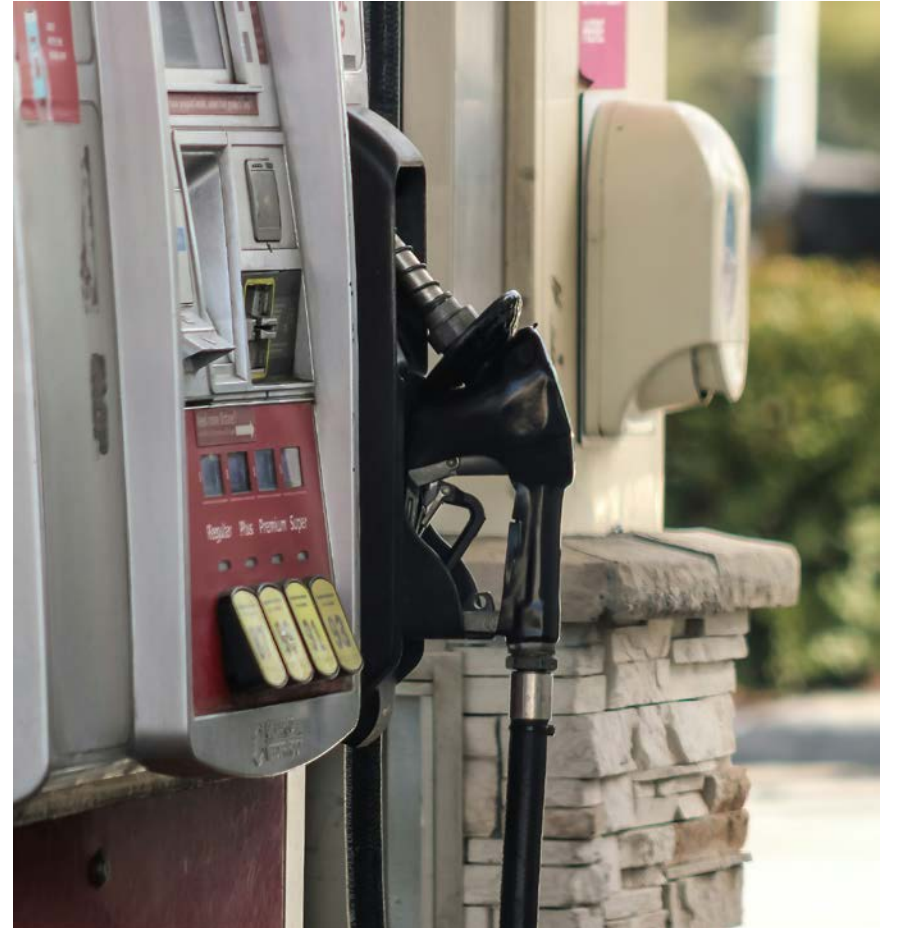
- In 2004, Congress enacted the **Volumetric Ethanol Excise Tax Credit (VEETC)** at \$0.51/gallon, which replaced the previous gasoline excise tax exemption and tax credit
- By 2011, VEETC cost taxpayers \$6 billion annually
- Senate voted to eliminate VEETC in June 2011 and VEETC expired at end of 2011



Corn field by Sheila Korth-Focken

Biodiesel Tax Credit (40A) & Clean Fuel Production Credit (45Z)

- In 2004 Congress established the **biodiesel tax credit (40A)** at \$1/gallon, originally set to expire in 2007 but extended until end of 2024
- 40A replaced by **clean fuel production credit (45Z)**, created in the IRA to subsidize transportation fuel with low or no GHG emissions from 2025 to 2027
- 45Z is a sliding scale tax credit with a maximum value of \$1/gallon for nonaviation fuel and \$1.75/gallon for aviation fuel



A gas pump next to a brick wall by Dawn McDonald via Unsplash

Current Tax Credits and the RFS Today

- FY2025 reconciliation would kill many IRA energy credits but extend the 45Z clean-fuel credit through the end of 2031
 - Both House & Senate drop the ILUC screen, letting corn ethanol and biodiesel tap 45Z and driving up costs
 - Expansion and extension of 45Z would cost an estimated **\$57B from FY2025-34**.
 - 45Z is on track to be 1.5x more expensive than VEETC & previous biodiesel tax credits combined
- EPA proposed 2026-27 RFS volumes earlier this month
 - Would continue to distort market and pass on high costs to consumers by mandating ~22 billion gallons per year
 - Record levels of biodiesel and renewable diesel volume requirements (67% increase from 2025 to 2026)