

EPA'S PROPOSED 2014-2016 RENEWABLE FUEL STANDARD WOULD CONTINUE TO INCREASE U.S. GREENHOUSE GAS EMISSIONS

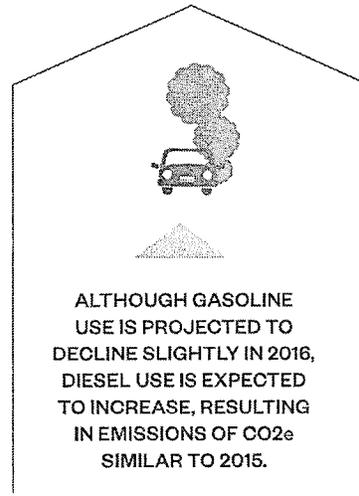
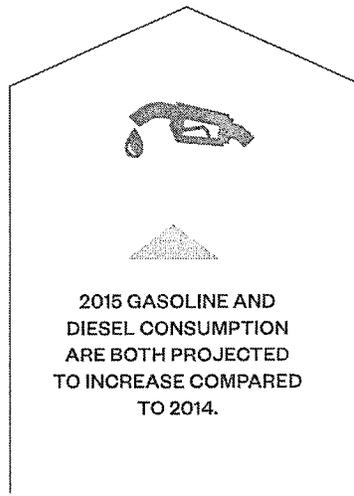
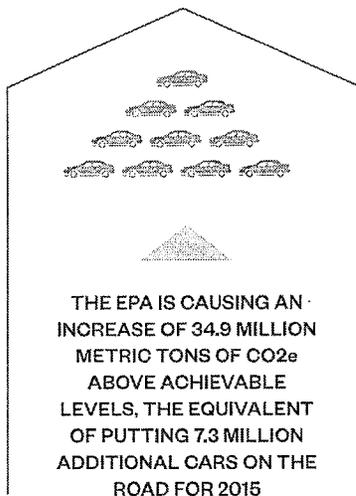
The RFS is the only congressionally authorized program for reducing greenhouse gas emissions from the transportation sector. EPA recognizes the global importance of "limiting GHGs from major emitting sectors, such as electricity production and transportation."¹ Yet EPA's failure to establish RFS volumes for 2014 resulted in a measurable increase in greenhouse gas emissions. Further, if the volumes EPA proposes for 2015 and 2016 are finalized, the United States will continue to increase greenhouse gas emissions from the transportation sector and to forego attainable reductions.

The RFS was designed to reduce U.S. greenhouse gas emissions by displacing fossil fuels with less carbon intensive biofuels. In its proposal, EPA acknowledges that Congress's intent in establishing the RFS "was not simply to increase production of renewable fuel, but rather to provide that certain volumes of renewable fuel be used by the ultimate consumer as a replacement for the use of fossil based transportation fuel. The very definition of

'renewable fuel' requires that the fuel be 'used to replace or reduce the quantity of fossil fuel present in a transportation fuel.'"² And again, "The purpose of the RFS program is to ensure that renewable fuels are increasingly used to replace or reduce the use of fossil-fuel based transportation fuel."³ EPA's failure to set RFS volumes that guarantee an increasing displacement of fossil fuels over time subverts the intent of Congress and the design of the program.

The greenhouse gas intensity of petroleum fuels, measured in carbon dioxide equivalents (CO₂e), has grown worse since 2007.⁴ At the same time, the greenhouse gas intensity of biofuels has improved, as production has become more efficient.⁵ EPA's proposal for 2014, 2015 and 2016 cuts short the emission reduction potential of the RFS program by limiting market space for renewable fuels and guaranteeing more market space for petroleum fuels.

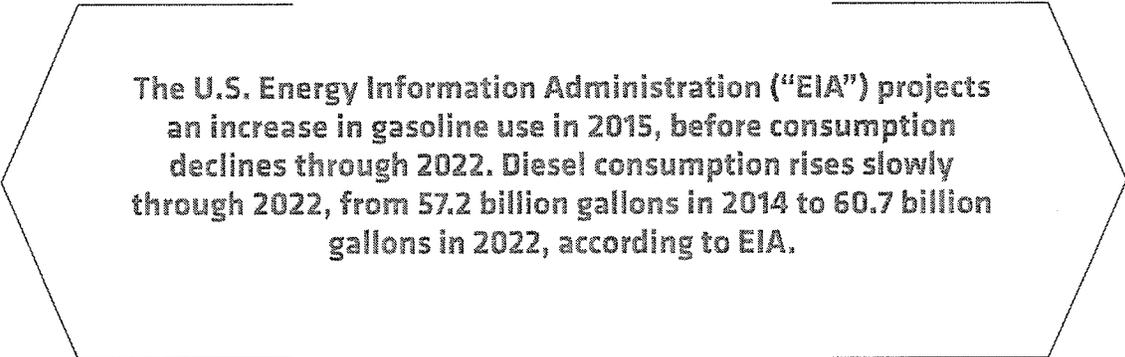
The use of more petroleum in 2014 compared to 2013 automatically increased



greenhouse gas emissions from the U.S. transportation sector year to year.⁶ As EPA concedes, EPA's delay in issuing a rule essentially resulted in a market that operated as if the RFS statute did not exist,⁷ and caused an estimated year over year increase of 60.5 million metric tons of CO₂e. If EPA had maintained the RFS at the statutory volumes, even waiving the cellulosic RVO to projected levels, the United States could have limited this significant increase in emissions. EPA's failure to establish 2014 RVOs at achievable

to 100 million gallons, as EPA proposes – the agency is causing an increase of 34.9 million metric tons of CO₂e above achievable levels, the equivalent of putting 7.3 million additional cars on the road for 2015.

Although gasoline use is projected to decline slightly in 2016, diesel use is expected to increase, resulting in emissions of CO₂e similar to 2015. EPA's failure to keep the RFS volumes on course, however, will result in an increase of 56.2 million tons of CO₂e compared to achievable levels un-



The U.S. Energy Information Administration (“EIA”) projects an increase in gasoline use in 2015, before consumption declines through 2022. Diesel consumption rises slowly through 2022, from 57.2 billion gallons in 2014 to 60.7 billion gallons in 2022, according to EIA.

statutory volumes resulted in an increase of 17.4 million metric tons of CO₂e, which is the equivalent of putting an additional 3.6 million cars on the road during the year, as shown in Figure below.

For 2015, gasoline and diesel consumption are both projected to increase compared to 2014, again automatically increasing greenhouse gas emissions. EPA's proposed volumes for 2015 would result in an automatic increase of 19.6 million tons of CO₂e for the year compared with the achieved levels in 2014. By failing to maintain the statutory volumes for 2015 – even assuming the waiver of cellulosic volumes

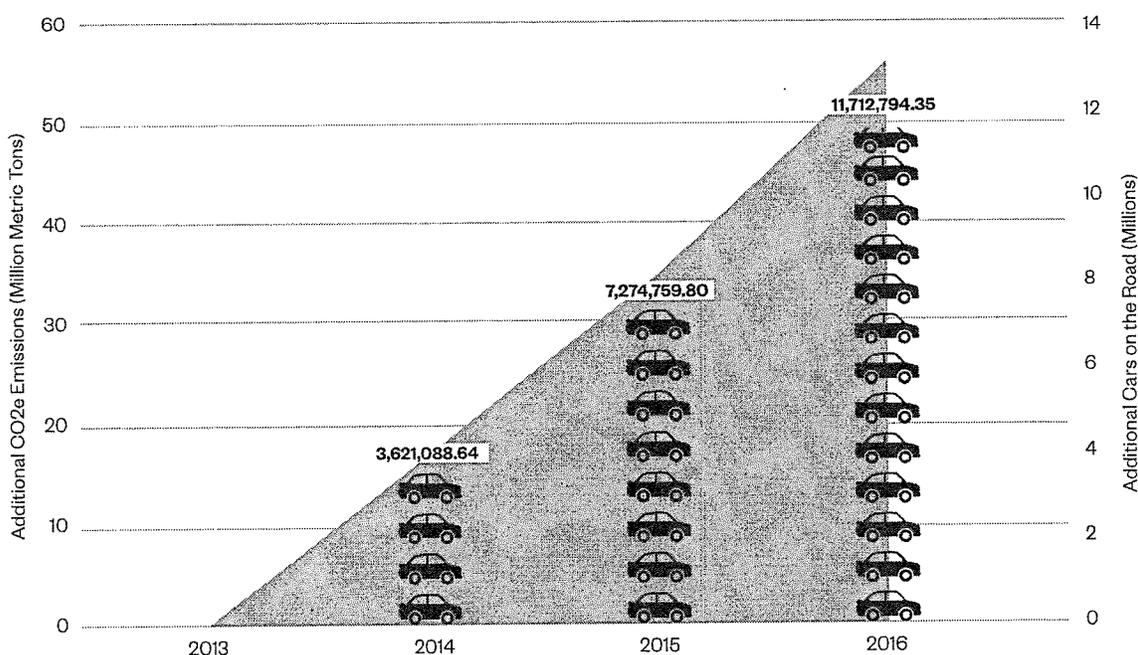
under the statute. This is equivalent to putting an additional 11.7 million cars on the road in 2016, compared to 2015.

The emissions compound over time. The U.S. Energy Information Administration (“EIA”) projects an increase in gasoline use in 2015, before consumption declines through 2022. Diesel consumption rises slowly through 2022, from 57.2 billion gallons in 2014 to 60.7 billion gallons in 2022, according to EIA. If EPA finalizes the 2014, 2015 and 2016 RVOs at the proposed volumes, undercutting investment in cellulosic and advanced biofuel and potentially triggering a rewrite of statu-

tory volumes for 2017 and afterward, the increases in diesel consumption will likely result in increased petroleum (above 2013 volumes) use through 2020. As a result, GHG emissions would spike in 2015 and 2016, likely returning to levels below 2013 only after 2020. By failing to maintain the statutory levels of renewable fuel use, EPA is unjustifiably forgoing an opportu-

nity to further the statutory goals by ensuring that U.S. emissions from the transportation sector rapidly decline through 2022. EPA should set RVOs to include all renewable fuels that can be produced up to the statutory volumes, in order to secure the maximum benefit in greenhouse gas emission reductions.

FIGURE:
ADDITIONAL CO₂e EMISSIONS AND EQUIVALENT CARS ON THE ROAD UNDER EPA PROPOSAL 2014-2016



NOTES

- 1 EPA, Office of Atmospheric Programs, Climate Change in the United States: Benefits of Global Action, EPA 430-R-15-001, available at <http://www2.epa.gov/sites/production/files/2015-06/documents/cirareport.pdf>.
- 2 *Proposed Rule* 33113.
- 3 *Id.* at 33121.
- 4 Wang, M., J. Han, J. Dunn, H. Cai, and A. Elgowainy, 2012, "Well-to-Wheels Energy Use and Greenhouse Gas Emissions of Ethanol from Corn, Sugarcane and Cellulosic Biomass for US

- 5 Use," Environmental Research Letter, 7 (2012) 045905 (13pp).
- 5 Energy Information Administration (EIA), Corn ethanol yields continue to improve, *Today in Energy* (May 13, 2015), available at <http://www.eia.gov/todayinenergy/detail.cfm?id=21212>.
- 6 See Erickson, B., Carr, M., Winters, P. "Estimating Greenhouse Gas Emissions from Proposed Changes to the Renewable Fuel Standard through 2022." *Ind. Biotech.* J., April 2014, 10(2) (doi:10.1089/ind.2014.1508). Estimates contained in these

comments use Energy Information Administration May 2015 Short Term Energy Outlook data to update the previously published modeling. See also Biotechnology Industry Organization, Estimated GHG Increase from Obama Administration Inaction on the 2014 RFS (Sep. 23, 2014), available at <https://www.bio.org/advocacy/letters/estimated-ghg-increase-obama-administration-inaction-2014-rfs>.

7 See *Proposed Rule* 33131.