While there are a number of obstacles impeding further growth in alternative energy, few are as critical as the joint EPA/NHTSA proposed rules establishing light-duty vehicle GHG and fuel economy standards. The proposed rule eliminates a statutory incentive designed to increase alternative fuel usage, reduce dependence on foreign oil, and strengthen U.S. energy security. This contradiction affects a wide range of alternatives, including biofuels and natural gas, and puts the rule in direct conflict with national priorities such as the Renewable Fuel Standard (RFS) and the Energy Independence and Security Act (EISA). If left uncorrected, the proposed rule will threaten already struggling rural economies, depress overall land prices, and harm public health and the environment.

In 2007, Congress passed the Energy Independence and Security Act (EISA), a bipartisan statute aimed at "reduc[ing] the dependence of the United States on energy imported from volatile regions of the world that are politically unstable," with the understanding that "increased energy production from domestic renewable resources would attract substantial new investments in energy infrastructure, create economic growth, develop new jobs for the citizens of the United States, and increase the income for farm, ranch, and forestry jobs in the rural regions of the United States." The EISA provides for strict fleetwide average fuel economy standards for passenger cars. However, since alternative fuel vehicles (AFVs) actually improve energy security and help reduce oil dependence, the fuel economy of AFVs is calculated using a "multiplier." The mechanism works by dividing the miles per gallon (equivalent of gasoline) of the alternative fuel by 0.15, so that a car getting 15 miles per gallon on alternative fuel goes into the car company's fleetwide average as a 100-mpg vehicle.

This "0.15 multiplier" provides a powerful incentive for automobile manufacturers to experiment with and produce AFVs, at least as a portion of their overall fleet. As manufacturers invest research and development capital into producing such vehicles, alternative fuel technology improves, prices come down, and gas stations have an incentive to provide alternative fuels. In short, the incentive provides a catalyst intended to help solve the "chicken and egg" problem of getting cars, fuel providers, and consumers to collectively begin to make the crucial jump to cleaner, domestically produced alternatives to foreign oil.

The renewable fuel standard (RFS) represents this same policy goal, but the RFS cannot work alone. Indeed, it was never intended to: the same EISA statute sets forth both the RFS and fuel economy standards. The RFS aims to increase the availability of alternative vehicle fuels. Yet consumers cannot purchase alternative fuels if reasonably-priced AFVs are not offered in the marketplace. EPA's Regulatory Impact Analysis of the RFS2 concluded that the program, if successful, would increase farm income by 36% and reduce national expenditures on foreign oil by $41.5 billion. It would also provide health benefits estimated as high as $2.2 billion. Yet all of these benefits are put in jeopardy by the current rule.
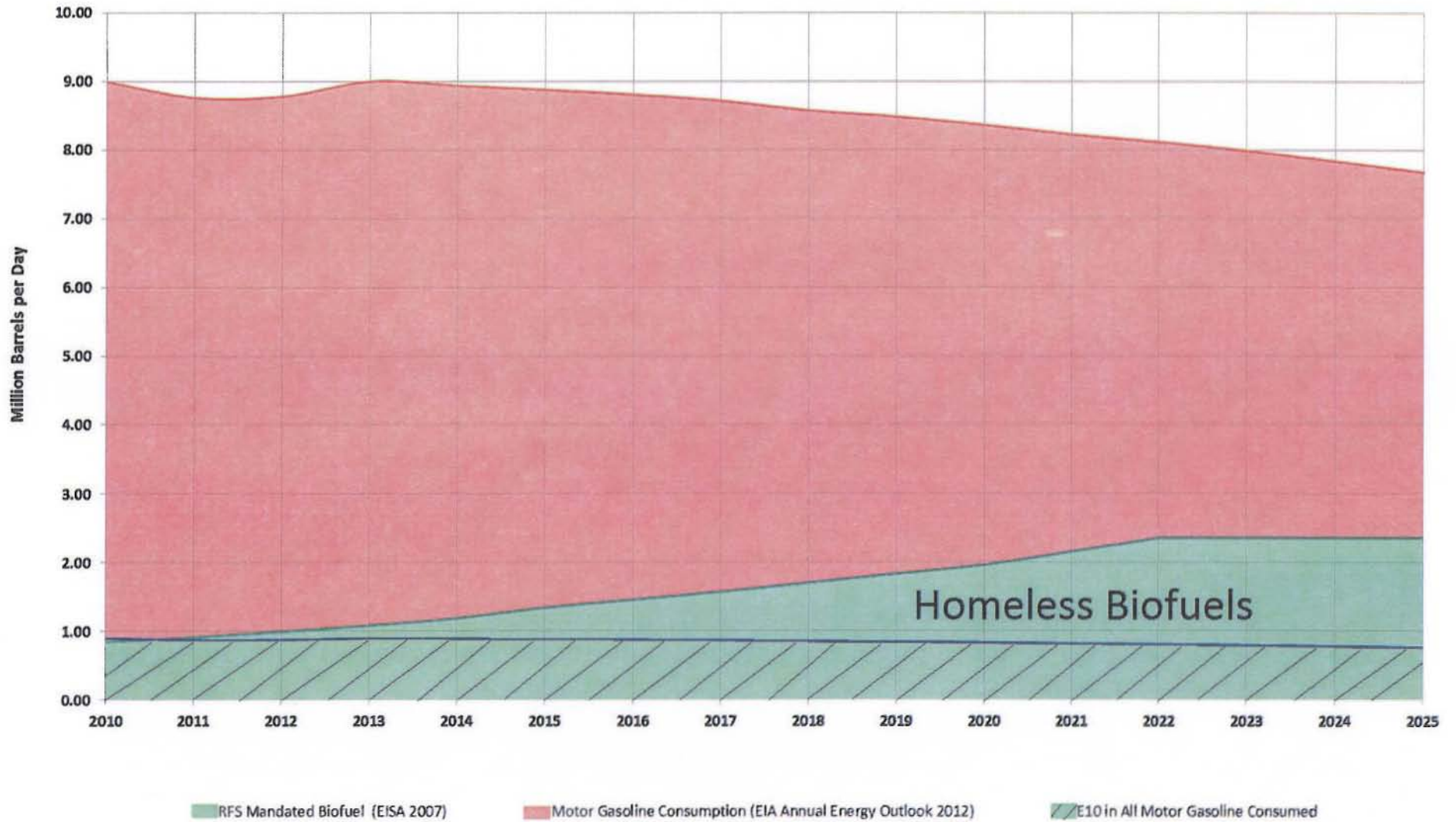
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Incentives must be provided to auto manufacturers—the decisionmakers who control new engine technology—if the nation is to move in the direction of clean alternatives to oil. In direct contradiction to national priorities expressed in the RFS and EISA, the proposed EPA/NHTSA rule actually disincentivizes the production of AFVs, threatening energy independence, rural economies, environmental health, and national security. Not only will the rule affect farmers, it will also have cascading negative economic effects throughout the entire U.S. economy. Compared to a world with continued AFV provisions, the new rule will effectively choke off future growth in biofuel production, causing significant declines in crop prices and land values.

The crux of the problem is that the proposed rule prescribes fundamentally incompatible CO_2 and fuel economy regimes. Carbon dioxide emissions and fuel economy are direct corollaries—the difference is entirely semantic. For every gallon of gasoline combusted in an engine, a fixed amount of CO_2 is emitted. As a result, the only way to reduce vehicle CO_2 emissions is to get more miles out of each gallon of gasoline. The proposed rule therefore prescribes the same standard in two ways: a CO_2 emissions limit (expressed in grams/mile) and a fuel economy minimum (expressed in miles/gallon). Yet while the 0.15 multiplier mandated by EISA is included in the fuel economy calculation, it is omitted from the directly related CO_2 calculation.

This omission entirely eliminates any benefit associated with the multiplier for alternative fuels, and as such, the proposed rule benefits and entrenches petroleum. The loss of this credit ensures that vehicle manufacturers have no real world incentive to manufacture AFVs. Seeing the prospective loss of their major new market and the potential for very poor investment recovery, biofuel producers, in turn, will simply not make the investments required to produce biofuels at scale and commercialize next-generation technologies that the President and Congress have identified as national priorities.

In order to remedy this contradiction, the final rule should include a 0.15 multiplier for GHG calculations from AFVs that functions in parallel to the 0.15 divisor for mpg calculations, in order to preserve the incentive mandated under EISA. The inclusion of this multiplier in CO_2 standards would harmonize the regulation with existing law, and it would also align with EPA's mandate to reduce emissions of GHG and other pollutants. It would promote investment into alternative engines and fuels that reduce CO_2 on a life- cycle basis, while at the same time reducing a variety of other dangerous criteria pollutants such as air toxics and PM, both separately regulated under the CAA and recognized in EPA's Social Cost of Carbon calculation.

Comparison of Fuel Use Under
New CAFE/GHG Standards and the RFS

Million Barrels per Day

Homeless Biofuels

RFS Mandated Biofuel (EISA 2007)   Motor Gasoline Consumption (EIA Annual Energy Outlook 2012)   E10 in All Motor Gasoline Consumed

25x'25 Alliance Data from EIA Annual Energy Outlook 2012, June Release