AFFORDABLE FUEL WASHINGTON

Low Carbon Fuel Standard: Negligible and Uncertain GHG Emissions Reductions

The primary purported goal of a Low Carbon Fuel Standard (LCFS) is to reduce greenhouse gas (GHG) emissions, which include: Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O) and Fluorinated Gases. Proponents commonly overstate the potential GHG emissions reductions that could result from an LCFS. In fact, the LCFS is a costly and ineffective approach to reducing greenhouse gas emissions compared to alternative carbon reduction policies.[1]

Actual GHG emissions reductions attributable to LCFS are not quantifiable and subject to substantial uncertainty

According to an analysis of California's LCFS prepared by the state's nonpartisan Legislative Analyst's Office:[2]

- "...estimates [of GHG reductions] are subject to substantial uncertainty because there are a wide variety of factors that make it difficult to estimate the magnitude of GHG reductions attributable to the LCFS. For example, it is unclear how biofuels would have otherwise changed under the federal Renewable Fuel Standard (RFS) and how the two programs interact."[2]
- While LCFS may contribute minor reductions in GHG emissions, "the magnitude of effect is unclear."[2]

Estimated GHG emissions reductions from California's and Oregon's LCFS are minimal

- Estimated annual GHG reductions in California from the LCFS have averaged less than 1% of total state emissions [3,4] and are projected to average 2.4% per year through 2030.[5]

1 California Legislative Analyst's Office, "Assessing California's Climate Policies – Transportation," December 2018 (Page 31) (Estimates LCFS costs are more than ten times higher than the state's cap-and-trade program.)
2 Ibid (Page 33)
3 Ibid (In 2016, estimated GHG emissions reductions in CA attributable to LCFS were 2.4 MMT which was 0.56% of the state's total GHG emissions.)
4 California Legislative Analyst's Office, "Assessing California's Climate Policies – Transportation," March 4, 2020
5 California Air Resources Board, "Final Environmental Analysis, Prepared for the Proposed Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulation," September 17, 2018 (Page 105)

- According to the California Air Resources Board (CARB), “It is important to note that because the LCFS calculates emission reductions on a full lifecycle basis, the GHG emission reductions occur both in California and out-of-state.”[5] As a result, emissions reductions attributed to the LCFS in California are even less than estimated, and purported emissions reductions that may occur elsewhere are uncertain and impossible to quantify.

- Thus far, estimated annual GHG reductions in Oregon from the LCFS[6] have been less than 1%, after accounting for interactions with the federal Renewable Fuel Standard and existing electric vehicle incentives.[7]

Potential impacts on GHG emissions from a Washington LCFS would be insignificant

- A study for the Puget Sound Clean Air Agency (PSCAA) on the proposed regional LCFS[8] did not model impacts on GHG emissions at all – even though its main goal is to reduce them.

- A 2014 study conducted for the Washington Office of Financial Management[9] estimated a statewide LCFS would reduce GHG emissions by just 1.3% annually under the most aggressive scenario.

- A 2020 policy brief by Governor Inslee estimates that a statewide LCFS would reduce GHG emissions by a total of 2.7% by 2030.[10]

5 California Air Resources Board, “Final Environmental Analysis, Prepared for the Proposed Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulation,” September 17, 2018 (Page 105)
6 Oregon Department of Environmental Quality, 2019 Annual Cost of the Clean Fuels Program (estimated 2019 GHG emissions reduction of 1.27MT, equivalent to 1.9% of the state’s total GHG emissions (~65MT for 2017))
7 Trinity Consultants, “Overview of California and Oregon Low Carbon Fuel Programs: Air Quality and GHG Emissions Impacts,” prepared for WSPA, October 8, 2019. Only a fraction (22%) of the emissions reductions claimed by OR DEQ should be attributed to LCFS based on a review of 2018 emissions. Ethanol and biodiesel are already mandated and there is little evidence the LCFS is increasing electricity and natural gas use in vehicles
8 ICF, “Puget Sound Regional Transportation Fuels Analysis,” Submitted to Puget Sound Clean Air Agency, September 2019
9 Life Cycle Associates LLC, “A Clean Fuel Standard in Washington State,” December 2014 (estimated cumulative GHG reductions between 11.4 to 12.5MT over a ten-year period from various scenarios studied)
10 Washington Governor Jay Inslee, Policy Brief, “Governor Inslee’s Climate Commitment,” December 2020