AFFORDABLE FUEL WASHINGTON

Low Carbon Fuel Standard (LCFS): Insignificant Air Quality Impacts

A Low Carbon Fuel Standard Would Not Have Significant Air Quality Impacts

Most pollutants known for their impact on air quality are regulated by the US EPA under the Federal Clean Air Act (through National Ambient Air Quality Standards) and include Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_X), Ozone (O_3), Particulate Matter ($PM_{2.5}$, PM_{10}) and Sulfur Dioxide (SO_2). A Low Carbon Fuel Standard is not an air quality program and any potential impacts on air quality are minimal and incidental. Claims that an LCFS would have meaningful health impacts by improving air quality are not supported by available data.

Air quality improvements attributed to the California LCFS are insignificant

- The California Air Resources Board (CARB) estimates that the California LCFS decreases annual transportation sector NO_X emissions by only 0.4% and annual $PM_{2.5}$ emissions by only 1%.[1]

Misleading health impact claims of emissions reductions from California's LCFS are exaggerated and unsupported

Proponents who tout purported health benefits of the LCFS frequently cite a 2014 report by the Environmental Defense Fund, California American Lung Association and Tetra Tech that projected that by 2025, California's LCFS and cap-and-trade program would save lives and billions of dollars in pollution-related health costs[2]. Applying this report to claim health benefits of LCFS is misleading:

- The report combines projected potential health benefits – not actual results – for LCFS and cap-and-trade programs in California. According to a report by the California Legislative Analyst's Office (LAO) on California's climate policies,[3] "cap-and-trade covers a much broader scope of emissions sources, including electricity, natural gas heating for homes and commercial buildings and industrial manufacturing facilities" – therefore it is likely that most of the projected pollution-related health claims would be attributed to the cap-and-trade program – not the LCFS.
- The report claims were based on forecast projections – not actual data that is currently available. Based on the negligible NO_X and $PM_{2.5}$ reductions estimated by the CARB referenced above, the projected benefits in the 2014 report were significantly overstated and have not occurred.

1 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. And Trinity Consultants, "Overview of California and Oregon Low Carbon Fuel Programs: Air Quality and GHG Emissions Impacts," Prepared for Western States Petroleum Association, October 8, 2019.

2 "Driving California Forward, Public Health and Societal Economic Benefits of California's AB 32 Transportation Fuel Policies, Environmental Defense Fund/ American Lung Association in California/Tetra Tech, 2014.

3 California Legislative Analyst's Office, "Assessing California's Climate Policies – Transportation," December 2018.

Assertions that the LCFS would have meaningful impacts on air quality in the state or region are simply false.

Potential air quality impacts from the proposed Puget Sound region LCFS are negligible, if any.

- A study conducted for the Puget Sound Clean Air Agency (PSCAA) modeled only one pollutant ($PM_{2.5}$) to determine air quality impacts of the proposed regional LCFS[4]. ($PM_{2.5}$ – or fine particulate matter – is known to have harmful health impacts.)
- The PSCAA study projected that – **without the LCFS** – $PM_{2.5}$ reductions in the region will decline by about 68% by 2030 due to existing federal vehicle regulations as new lower emitting vehicles replace higher emitting older vehicles.[5] Failure to discuss this finding obscures the fact that any additional changes in $PM_{2.5}$ emissions attributable to an LCFS would be negligible.
- In fact, any additional $PM_{2.5}$ reductions that might occur attributable to the proposed LCFS were determined to be "small in comparison".[6] In fact, the study found the proposed LCFS would reduce $PM_{2.5}$ emissions by only 2% by 2030 over baseline.
- The study also did not consider "life cycle" emission sources such as those from new biofuel production facilities or from the life cycle carbon footprint of alternative fuels or vehicles because they were considered "too speculative" to be estimated reliably.[7] Therefore, the study over stated even the minimal $PM_{2.5}$ projected reductions that might occur.
- The study failed to quantify the potential LCFS effects on other pollutants that impact air quality – particularly NO_X. According to research conducted by the California Air Resources Board, biodiesel fuels tend to emit more NO_X than conventional diesel fuels under certain blending levels and engine types.[8]

4 ICF, "Puget Sound Regional Transportation Fuels Analysis," Submitted to Puget Sound Clean Air Agency, September 2019
5 Ibid, Page 73
6 Ibid, Page 74
7 Ibid, Page 69
8 California Air Resources Board, "Draft Supplemental Disclosure Discussion of Oxides of Nitrogen Potentially Caused by the Low Carbon Fuel Standard Regulation," March 6, 2018. And Trinity Consultants, "Review of Air Quality and Greenhouse Gas Emission Impacts of the Proposed Clean Fuel Standard for the Puget Sound Region," Prepared for Western States Petroleum Association, December 2, 2019.