

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

Most pollutants known for their impact on air quality (commonly referred to as “criteria pollutants”) are regulated by the U.S. EPA under the Clean Air Act (CAA) through National Ambient Air Quality Standards (NAAQS) and include Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO_x), Ozone (O₃), Particulate Matter (PM_{2.5}, PM₁₀) and Sulfur Dioxide (SO₂). A Low Carbon Fuel Standard (LCFS) is not an air quality program and any potential improvement on air quality for criteria pollutants would be minimal and incidental. Claims that an LCFS would have meaningful health benefits by improving air quality are not supported by available data.

Air quality improvements attributed to the California LCFS are insignificant. Some local areas could have negative impacts.

- The California Air Resources Board (CARB) estimates that the California LCFS decreases annual transportation sector NO_x emissions by less than 1% and PM_{2.5} emissions by less than 2%.¹
- According to CARB, “long-term local air quality impacts associated with the Proposed [LCFS] Amendments could be **potentially significant and unavoidable**” from new fuel production facilities and transportation routes, which would require mitigation measures.²

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

According to CARB, “Because the LCFS does not specify the blend levels of alternative fuels used at different locations within the State and does not specify how or where the changing supplies of transportation fuels will be produced, the projections of the spatial distribution of emissions reductions and associated health impacts from the proposed [LCFS] amendments are highly uncertain.”³

Proponents who tout purported health impacts 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.⁴ 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,⁵ “cap-and-trade covers a much broader scope of emissions sources, including electricity,

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, Page 70

2 Ibid, Page 86. While CARB anticipates net statewide emissions reductions, it reported potential local emissions increases “in an abundance of caution and for purposes of complete public disclosure”

3 Ibid, Page 84

4 “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

5 California Legislative Analyst’s Office, “Assessing California’s Climate Policies – Transportation,” December 2018

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.

- Based on the negligible NO_x and PM_{2.5} reductions estimated by CARB referenced above, the projected benefits in the 2014 report appear overstated and have not occurred.

Air quality benefits from the proposed Washington LCFS would be negligible if any. Assertions that the LCFS would have a meaningful positive impact on air quality are simply false.

- A study conducted for the Puget Sound Clean Air Agency (PSCAA) on a proposed regional LCFS modeled only one pollutant (PM_{2.5}) to determine air quality impacts.⁶ (PM_{2.5} – or fine particulate matter – is known for causing 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.⁷ 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.”⁸ 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.⁹ Therefore, the study over stated even the minimal PM_{2.5} projected reductions that might occur.
- The study failed to quantify the LCFS impacts on other criteria pollutants – 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.¹⁰
- A 2014 study conducted for the Washington Office of Financial Management projected a statewide reduction of only about 1% of both PM_{2.5} and NO_x even under the most aggressive LCFS scenario, which did not account for impacts from new fuel production facilities or transportation to fuel terminals.¹¹

6 ICF, “Puget Sound Regional Transportation Fuels Analysis,” Submitted to Puget Sound Clean Air Agency, September 2019

7 Ibid, Page 73

8 Ibid, Page 74

9 Ibid, Page 69

10 California Air Resources Board, “Draft Supplemental Disclosure Discussion of Oxides of Nitrogen Potentially Caused by the Low Carbon Fuel Standard Regulation,” March 6, 2018

11 Life Cycle Associates LLC, “A Clean Fuel Standard in Washington State, Revised Analysis with Updated Assumptions, December 12, 2014