



September 5, 2019

Chairman Mary Nichols
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Comments on Proposed Low Carbon Fuel Standard Credit Price Cap

Dear Chairman Nichols:

AdTra is pleased to submit comments on the California Air Resources Board's workshop on the Low Carbon Fuel Standard Credit Price Cap. AdTra appreciates the work that CARB is doing in this area to make the LCFS credit markets robust, low carbon fuels availability adequate and keep the market stable.

AdTra comments are based on several reasons. First, AdTra assesses that through 2030 and 2050, California's greenhouse gas emissions inventory is more likely than not to increase.[1] Second, our research also suggests that several California obligated sectors are likely to fall short of their ghg reduction targets as cap and trade ghg prices persist at levels some experts regard as insufficient to motivate desired reductions. Third, AdTra analysis suggests that the state's ghg emissions inventory is likely to increase by at least 218 million metric tons by 2050 and could potentially be twice that amount.[2] In particular, AdTra research finds that CO2 emissions from California wildfires attributable to grid electrical equipment when expressed in electricity pathways carbon intensity are likely to increase the state's ghg inventory at present electricity demand and desired levels of future electrification.[3]

Together, the reasons above suggest actions to obtain carbon reductions from California's largest and most difficult sector, transportation, need to be intensified. Under these conditions, AdTra finds that to motivate the most effective low carbon transportation technologies and fuels, ARB's currently proposed LCFS credit price cap needs to be increased.

ARB's current staff proposal to set the LCFS credit price cap at \$200/metric ton is intended to maintain a stable LCFS credit market. However, observed market conditions and data suggest the current staff proposal for the credit price cap at \$200/metric ton has several limitations:

1. The proposed credit price cap artificially constrains the market. Recent LCFS credit prices have approached \$196/metric ton, just below the \$200 cap.
2. Low carbon fuels and technologies supply constraints might persist through 2030 and beyond.
3. Competition for low carbon fuels in other markets may intensify and constrain supply. Demand for low carbon fuels in British Columbia, Oregon and Washington State is ramping up.
4. The proposed price cap is insufficient to motivate and attract requisite investments to sustain greater LCFS technology innovations.
5. Discounts that likely higher demand for LCFS fuels and technologies suggest a higher credit price cap is justified.

In response to the above unfolding market circumstances and conditions, AdTra proposes for ARB's consideration a LCFS credit price cap in the \$400 to \$500/metric ton range. This could be done in

steps, starting with the current LCFS update cycle, with \$275 to \$300/metric ton for example.

Alternatively, in consideration of ARB staff's clarifying questions and constructive feedback, ARB could implement what AdTra characterizes as a "**Dynamic Price Cap**". Under this approach, the Board would authorize the Executive Officer to increase, by \$50 to \$75, the LCFS credit price cap any 12-month period during which LCFS credit price is within 90 to 95 percent of the cap for two consecutive quarters. With the "Dynamic Price Cap", we recommend starting with \$275/metric ton because it allows room for price growth while at the same time addressing the limitations presented.

Should ARB consider the specific AdTra proposals infeasible, we strongly recommend the agency consider raising the credit price cap above the \$200/metric ton level consistent with the market conditions presented in this comment letter.

By incorporating in the LCFS regulations the proposals presented or a variant, ARB will provide positive market signals proactively, rather than reactively, that it is willing to act with foresight, in response to dynamic market conditions while at the same time achieving price stability objectives.

Raising the LCFS credit price cap above the current \$200/metric ton level will recognize limitations presented in this comment letter, motivate new lowest carbon fuels and technologies, attract new investments and strengthen LCFS fuels and technologies availability into the future.

The AdTra team is available to provide additional insights to ARB staff on our proposal. I can be reached by email at adtra.us@att.net.

Respectfully,

McKinley

McKinley Addy, P.E.

Vice President

CC:

Mr. James Duffy, Ph.D., California Air Resources Board

Mr. Tim Olson, California Energy Commission

Dr. Susan Fischer-Wilheim, California Energy Commission

Dr. Daniel M. Kammen, University of California, Berkeley

References:

1. AdTra July 23, 2019 comment letter to the California Air Resources Board on the July 8, 2019 Carbon Neutrality Workshop: "The Role of the Industrial Sector in Meeting California's Carbon Neutrality Goals"
2. Ibid
3. Ibid
4. "How might California wildfires affect the state's efforts to decarbonize its economy, combat climate change emissions, and fuel carbon intensities?", <https://www.linkedin.com/in/mckinley-addy-p-e-72677710/detail/recent-activity/posts/>