CalETC
California Electric Transportation Coalition

Sent via email October 26, 2017

Re: Low Carbon Fuel Standard: Electricity as a Transportation Fuel

Dear Mr. Wade:

CalETC supports and advocates for the transition to a zero-emission transportation future as a means to spur economic growth, fuel diversity and energy independence, ensure clean air, and combat climate change. CalETC is a non-profit association committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles of all weight classes, transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

CalETC supports the Low Carbon Fuel Standard (LCFS), a program that has been successful thus far in reducing the carbon intensity of California's transportation fuel pool. Given the near-total dependence on petroleum in the transportation fuels sector, the LCFS is essential to California's efforts to both diversify the transportation fuels sector and reduce emissions from carbon-based fuel.

We appreciate this opportunity to provide feedback to CARB staff on proposed modifications to some of the electricity-related provisions of the LCFS.

1. Non-residential LCFS Credit Generators.
   Staff is proposing that any entity with metering capability could generate LCFS credits for electricity used in non-residential transportation electrification applications (specifically public-access charging, private-access charging such as fleet or workplace).

   CalETC supports this concept in general with the following modifications and recognitions:
   a. The site host should be the first-in-line credit generator. The site host, often with financial assistance from its EDU, is making the investment in charging equipment. CalETC believes the best incentive for site hosts to invest in infrastructure is to designate the site host as the first-in-line to generate the LCFS credits, with full authority to assign LCFS credit generation to another party.
   b. Investment in transportation electrification. CalETC believes LCFS credit generators should be subject to the same requirements, and all value received from the credits should be used to support transportation electrification. In the case of the site host, it is clear they are investing in transportation electrification.
      EDUs have all begun programs to use the LCFS residential credit value to support transportation electrification. Some publicly-owned electric utilities have already begun generating non-residential credits and started investing the credit value in the

non-residential charging market (e.g., fleets, workplaces and multi-family installations). The investor-owned utilities have begun implementing their residential LCFS programs, which can be scaled to support non-residential transportation electrification. The CPUC has approved investor-owned utility programs for light duty EVs to include non-residential charging and is poised to approve SB 350 utility programs that will result in IOUs investing significantly more in non-residential charging. If other entities generate LCFS credits from non-residential applications, CalETC believes it is imperative that the value be used to support transportation electrification.

2. New electricity pathway, "ELCR100."
ELCR100 would be a Lookup Table pathway representing electricity produced completely using wind- or solar-generation resources. As proposed in the Preliminary Draft, applicants who produce electricity from other renewable sources (such as biomass generation), that is not adequately represented by the previously discussed pathways, would still need to apply for a Tier 2 fuel pathway.

   CalETC supports the addition of an ELCR100 pathway. This new pathway is consistent with the treatment of other LCFS fuel pathways and recognizes the carbon reduction value of 100 percent solar- and wind-generated electricity. We suggest keeping this approach as simple as possible; green-tariff programs at electric utilities are well established and are already verified. The ELCR100 pathway supports utilities' and California's goals to reduce emissions from the electricity sector through the use of renewable resources for electricity generation. Other possible options for ELCR100 should also be explored with the assurance that such pathways are additional to the RPS requirements and the current baseline, not overly complicated and verifiable with relative ease.

3. Three options to recognize a reduced carbon intensity for renewable power supplied to electric vehicle charging stations.
CARB staff proposes allowing renewable electricity to be eligible for an improved carbon intensity score if it:
   a. is obtained through a program with eligibility requirements that match or are more stringent than the Green Tariff Shared Renewables Program under California Public Utilities Code Section 2833(1)(ii), or
   b. is obtained through a program with eligibility requirements that match or are more stringent than those adopted by the California Energy Commission pursuant to implementation of Public Utilities Code Section 399.30(c)(4), or
   c. meets all of the following criteria:
      i. the electricity is generated on land owned or leased by the charging station operator and located within the same EDU territory as the charging station;
      ii. the electricity produced by the renewable generation system is delivered to the electric vehicle charging station expressly for supplying the station's power demand, and meets the renewable eligibility requirements in the California Energy Commission (CEC) Renewables Portfolio Standard Eligibility Guidebook (RPS Guidebook);

iii. and does not produce RECs that are sold, transferred or otherwise monetized under any program except RFS2.

CalETC supports these options. We also support CARB consideration of innovative additional credit generation options that encourage increased zero-emission electricity for use in transportation electrification applications. Per above, CalETC agrees that the underlying renewable generation in these programs must be additional to the RPS requirements, not overly complicated, and verifiable with relative ease.

4. Additional LCFS credit generation for smart charging and electricity generation lower than the state average electricity CI but above the CI for ELCR100 ("incremental CI"). This concept has been proposed to support the emission and grid benefits of vehicle-grid integration.

   CalETC believes the vehicle-grid integration market is too immature to support verifiable and defensible implementation of an incremental CI for electricity generation. EDUs, regulators and stakeholders have been working towards mechanisms, standards, regulations and or programs that would support vehicle-grid integration and grid safety, reliability, efficiency and affordability. That process has been complex, and there is still no broad consensus on how best to support vehicle-grid integration and what mechanisms would be most effective, measurable and attributable. All agree that time-of-use charging rates would be beneficial, even so EDUs and their regulators are in the development phase of time-of-use rate setting that would benefit transportation electrification, all rate payers and the grid.

5. Utility-specific carbon intensity factors.
   Per comment 8, below, CalETC supports updating the default state average CI for electricity annually (shown in the look-up table).

   CalETC supports utility-specific carbon intensity factors provided they are also in the look-up table and updated annually. GHG emission data is readily available and already provided by utilities (EDUs) to their regulators. Such data is provided in a more-timely manner than other sources of aggregated statewide data. As the State moves towards better recognizing the emission benefits of cleaner electricity as a transportation fuel, it may be more appropriate to recognize those benefits at the local utility level.

6. EER for e-trucks and buses of 5.0.
   CalETC supports this proposed EER and believes the simplicity of this approach will greatly help fleets, especially those who have a range of different types and sizes of medium- and heavy-duty vehicles in their fleet.

7. LCFS credits for additional technologies/applications where electricity replaces gasoline, diesel or other fossil fuel.
   CalETC supports LCFS credits for any technology that replaces gasoline or diesel with electricity. LCFS credits should be granted for these technologies to strengthen the LCFS program while supporting innovative emerging and existing uses of electricity in the transportation sector.

CalETC suggests the following implementation concepts:

- CARB staff would be able to develop and apply EERs for electric vehicle applications that are not in the LCFS regulation on an as-needed basis, similar to EERs for other fuels. In addition, staff should be allowed to publish these EERs using advisories, rather than waiting for amending the regulation. Examples where new EERs are needed include port equipment, ferries, tugboats, dredges, agricultural equipment, mining equipment, personnel and burden carriers, turf trucks, carts, neighborhood EVs, scooters, and motorcycles. CalETC supports LCFS credits for these technologies because they replace transportation technology/applications powered by fossil fuels.
- CalETC supports a requirement for metering these applications, with the exception of neighborhood EVs, scooters and motorcycles which have few annual kWh. For these low-kWh usage applications, CalETC supports estimation methodologies created by CARB staff to determine kWh usage and LCFS credit value.

8. Update ELC002 1 based on new information to reflect the annual changes in California's electric mix driven by the Renewable Portfolio Standard and other factors.
   CalETC supports annually updating the default average CA electricity carbon intensity. CalETC also supports utility-specific CI per comment 5 above and will provide data to CARB staff.

9. Increased carbon intensity reduction requirement.
   CalETC supports increasing the carbon intensity reduction requirement beyond 2020. CalETC would like CARB staff to reconsider whether a 3-year delay in implementing a more stringent CI reduction standard, between 2020-2022, is appropriate.

Regards,

Eileen Wenger Tutt
Executive Director