CalETC
California Electric Transportation Coalition

April 23, 2018

Honorable Chairman Mary D. Nichols and Honorable Board Members California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Re: Item 18-3-3, SUPPORT Proposed Amendments to the Low Carbon Fuel Standard Regulation and to the Regulation on Commercialization of Alternative Diesel Fuels

Dear Chair Nichols and Honorable Board Members:

CalETC appreciates this opportunity to SUPPORT the Low Carbon Fuel Standard regulation and provide feedback for CARB Board member consideration. This letter largely supports the proposed draft regulation order and provides some suggested modifications for consideration. We also appreciate the tremendous effort and accessibility of CARB staff during the extensive public process leading up to this hearing.

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 mission is to support and advocate 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. 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 LCFS, a program that has been successful in reducing the carbon intensity of California's transportation fuel. Given the near-total dependence on oil in the transportation fuels sector, the LCFS is essential to both diversify the transportation fuels sector and reduce emissions from carbon-based fuel.

CalETC also supports the current program design with utilities generating "base" LCFS credits for residential charging and returning the value of those credits to electric vehicle drivers. CalETC and the utilities are committed to working with stakeholders and regulators to improve utility investment of LCFS credit value, so that this investment effectively accelerates the market for electric vehicles and supports the Administration and Legislature in meeting the state's transportation electrification goals. The utilities are uniquely positioned to work with the state to invest the LCFS credit value as they are either local public entities (publicly-owned utilities), or they are economically regulated (investor-owned utilities).

For a summary of our comments, please see the Executive Summary, immediately below. Thank you again for the opportunity to provide CalETC's feedback on this important program.

Executive Summary of CalETC's Comments

CalETC largely supports the proposed amendments to the LCFS (also referred to as draft regulation order). This letter includes some clarification and/or edits to staff's proposed amendments as well as substantive comments on 15-day change amendments to the LCFS proposed by other entities that are not currently included in the CARB staff proposed amendments.

1. CalETC supports the allocation of base residential charging LCFS credits to electric distribution utilities (EDUs), and the requirements upon EDUs to return the LCFS credit value back to electric vehicle drivers.
2. CalETC opposes 15-day change proposals by other, non-CARB, entities allocating base residential charging LCFS credits to automakers. Per #1 above, we support the residential credits being allocated to utilities. CalETC supports a CARB-led process working with utilities, auto makers and other stakeholders to expeditiously design LCFS-funded utility programs that best accelerate the electric vehicle market.
3. CalETC supports the draft regulation order's proposal for electric forklifts.
4. CalETC supports the draft regulation order's proposal for updated values to carbon intensity for statewide average grid electricity, and changes to the energy economy ratio (EER) which will provide justifiably larger LCFS credits to most types of electric transportation:
    a. CalETC supports keeping the light-duty EV EER at 3.4 and increasing the heavy duty EV and electric bus EER to 5.0;
    b. CalETC supports the new lower carbon intensity for grid electricity with annual updates.
5. CalETC supports the draft regulation order's proposal for grid-electricity LCFS to be exempted from the third-party verification provisions for quarterly fuel transaction reports and similar charging station registration requirements.
6. CalETC supports the draft regulation order's proposal to increase the stringency of the LCFS in the next decade, with a ramp that goes from a 7.5% carbon-intensity reduction for gasoline and diesel in 2020 to a 20% reduction in 2030 with biennial reviews.
7. CalETC supports the draft regulation order's proposal for several types of electric transportation to be able earn credits (other mobile freight electric equipment, electric truck refrigeration units and electric motorcycles), and requests a new process for quickly allowing new categories of electric non-road equipment and marine vessels to generate credits.
8. CalETC supports, in concept, the draft regulation order's proposal for EDUs and other load serving entities (e.g. community choice aggregators) to generate incremental credits from charging that is linked to green tariff electricity but believes the current proposal is unworkable for EDUs and needs amending.

9. Due to concerns about potential fraud and poor customer experience, CalETC opposes the draft regulation order's proposal to allow "anyone" to generate LCFS credits for non-residential charging.
10. CalETC supports the draft regulation order's proposal to enable trading exchanges to participate in the LCFS market to facilitate investment in new types of credit-generating projects and seeks improvement to the language on "may not borrow or use credit from anticipated future carbon intensity reductions" to more clearly enable future selling of credits.
11. CalETC does not support the CARB staff amendment to the regulation requiring every residence with a metered charger to be registered as "fuel supply equipment."
12. CalETC supports, in concept, the draft regulation order's proposal for incremental time-of-use (TOU) credits for electricity based on periods of curtailment of renewable power, but suggests this provision be reviewed as data is collected to best ensure accurate carbon intensity valuation.
13. CalETC supports the draft regulation order's proposal for low-CI incremental credits for electricity (both residential and non-residential charging), but suggests a more inclusive definition of renewable and a streamlined process for existing green tariff programs.
14. Although not currently in the regulation, CalETC is supportive of a 15-day change allowing "capacity" credits for publicly-accessible hydrogen and DC fast chargers to help make fuel cell and battery electric vehicles more accessible to all Californians.
15. CalETC supports the draft regulation order's proposal for EDUs to be "opt-in fuel reporting entities" rather than "regulated entities" as they are in the current LCFS.
16. CalETC recommends the draft regulation order's proposal to require reporting of LCFS credit transfers in 5 days be clarified as 5 business days.
17. CalETC supports the draft regulation order's proposal to reform the LCFS Data Management systems, and supports the draft regulation order proposal to reform Tier 2 pathways and look-up table pathways.
18. CalETC supports the draft regulation order's proposal to establish buffer accounts to mitigate the risk of credit invalidation and require business partner reconciliation to limit the scope of verification.
19. CalETC recommends the draft regulation order be amended to remove burdensome requirements for meter calibration, particularly for residential utility customers and meters for financial transactions.
20. CalETC supports the draft regulation order's proposal to allow military bases to earn LCFS credits including electricity LCFS credits.

CalETC Comments on March 2018 LCFS Draft Regulation Order

CalETC appreciates this opportunity to comment on the proposed LCFS amendments. Our comments focus on the electricity-related provisions.

1. *CalETC supports the allocation of base residential charging LCFS credits to electric distribution utilities (EDUs), and the requirements upon EDUS to return the LCFS credit value back to electric vehicle drivers*.

   CalETC supports the current program design with utilities generating "base" LCFS credits for residential charging and returning the value of those credits to electric vehicle drivers. CalETC and the utilities are committed to working with stakeholders and regulators to improve utility investment of LCFS credit value, so that this investment effectively accelerates the market for electric vehicles and supports the Administration and Legislature in meeting the state's transportation electrification goals. The utilities are uniquely positioned to work with the state to invest the LCFS credit value as they are either local public entities (publicly-owned utilities), or they are economically regulated (investor-owned utilities).

2. *CalETC opposes 15-day change proposals by other, non-CARB, entities allocating base residential charging LCFS credits to automakers. Per #1 above, we support the residential credits being allocated to utilities. CalETC supports a CARB-led process working with utilities, auto makers and other stakeholders to expeditiously design LCFS-funded utility programs that best accelerate the electric vehicle market*.

   While CalETC is open to changes in how the utilities' LCFS credit proceeds from residential charging are distributed, this topic is very complex and deserves a thoughtful stakeholder process. It would not be appropriate for this substantial modification to the LCFS regulation to be made as a 15-day change. CalETC recommends that CARB staff, utilities, auto makers and other stakeholders work together to expeditiously determine the best utilization of the utilities' LCFS credit value. Point-of-sale rebates, as suggested by some auto makers, are an appealing option and could be funded with the utilities' LCFS credit value. It is also important for the utility programs to benefit communities most impacted by pollution and poverty, help ensure adequate fueling infrastructure is available to all, and reduce electricity fuel prices.

   CalETC has already begun discussions with auto makers, CARB and other stakeholders to explore options to improve utility investment of LCFS credit value. These discussions have not yet resulted in consensus on how best to invest the LCFS credit revenue but with CARB's participation, CalETC believes we can move expeditiously to improve the utility programs.

3. *CalETC supports the draft regulation order's proposal for electric forklifts*.

   The draft regulation order proposes several changes to the current LCFS for electric forklifts, including allowing forklift fleet owners to contractually designate the credit generating responsibilities to third parties. These credits would be subtracted from the estimated

credits that CARB staff provides to EDUs. The draft regulation order also improves the formula for forklift LCFS credit generation.[1]

4. *CalETC supports the draft regulation order's proposal for updated values to carbon intensity for statewide average grid electricity, and changes to the energy economy ratio (EER) which will provide justifiably larger LCFS credits to most types of electric transportation*
    a. *CalETC supports keeping the light-duty EV EER at 3.4 and increasing the heavy duty EV and electric bus EER to 5.0*
    b. *CalETC supports the new lower carbon intensity for grid electricity with annual updates*.

The draft regulation order proposes to update the California statewide average carbon intensity for grid electricity[2] to reflect the annual changes in California's electricity mix driven by the Renewable Portfolio Standard and other factors. The draft regulation order proposes to update the statewide average CI for grid electricity based on "CA-GREET 3.0 Look-up Table Pathways Technical Support Documentation" which references the California Energy Commission's (CEC's) analysis. In addition, the CA-GREET3.0 model inputs and data sources used to calculate the CI updates will be posted for 45 days for public comment prior to certification.

The draft regulation order proposes 93.42 g/MJ for grid electricity in California in the look-up table in Table 7-1, which better reflects the CI of California's grid-electricity mix compared to the current LCFS value of 105.16 g/MJ. Because of the impact of EERs, the effective g/MJ for grid electricity is 72 percent less than gasoline's carbon intensity and 81 percent less than diesel's.[3] Because the CI of California's electricity is expected to continue to significantly change due to the state's policies, we concur with CARB that annual updates to the CI for grid electricity are appropriate. CalETC also agrees that CEC reports are more recent and appropriate to use, as compared to the than using e-Grid data which is used in the current LCFS for the statewide-average grid-electricity carbon intensity.

The draft regulation order proposes to change the EER for electric buses and electric medium-duty and heavy-duty vehicles to 5.0 and provides justification in Appendix H.[4] CalETC also believes the staff report has appropriately and conservatively justified the proposed changes to EERs. CalETC also believes it is important to keep the EERs as simple[5] as possible to make it feasible for fleets that charge many different sizes of EVs.

[1] See page 77 in the draft regulation order or § 95486.1 a) 4) which would allow hydrogen and electric forklifts introduced after 2010 to earn LCFS credits similar to new fixed guideway systems that were introduced after 2010.
[2] See page 138 in the draft regulation order and specifically ELCG in table 7-1.
[3] The effective carbon intensity in the LCFS using grid average electricity in 2019 is 27.5 g/MJ for a light-duty EV and is 18.6 g/MJ for an electric bus, electric medium-duty or heavy duty vehicle based on the new EERs and the new carbon intensity for electricity, gasoline and diesel in the draft regulation order's Table 7- 1.
[4] Appendix H of the formal regulatory documents available on the CARB website.
[5] Having one EER for light duty and another for medium and heavy duty EVs should be workable.

5. *CalETC supports the draft regulation order's proposal for grid-electricity LCFS to be exempted from the third-party verification provisions for quarterly fuel transaction reports and similar charging station registration requirements*.

   For most fuels, but not grid-electricity[6], the draft regulation order proposes to supplement the work of CARB staff with a verification system that would require regulated entities reporting to CARB under the LCFS to retain the services of independent, accredited, third-party verifiers. LCFS verifiers would perform GHG accounting checks in a role similar to the independent, objective evaluations of organizations' financial reports by financial auditors. CalETC supports the addition of third-party verifiers in LCFS. CalETC agrees with the draft regulation order that LCFS credits generated by EDUs for grid-average electricity should not be subject to third-party verifiers for either the pathway or the fuel supply equipment or fuel transaction data (e.g., monitoring plans, data checks, sampling plans). Utilities are heavily regulated and the reporting requirements for utilities are more onerous than for other fuels, e.g., other fuels are not required to demonstrate that proceeds are returned to drivers. Additionally, the utility calculations for LCFS credits are largely a result of data points originating from CARB, unlike other credit generators.

6. *CalETC supports the draft regulation order's proposal to increase the stringency of the LCFS in the next decade, with a ramp that goes from a 7.5% carbon-intensity reduction for gasoline and diesel in 2020 to a 20% reduction in 2030 with biennial reviews*.

   The draft regulation order proposes to increase the LCFS overall requirement from a 7.5 percent carbon-intensity reduction requirement in 2020 to a 20 percent carbon-intensity reduction requirement in 2030. CalETC supports this proposal. Our recommendation is supported by modeling conducted by ICF International in a 2017 report called "Post-2020 Carbon Constraints: Modeling LCFS and Cap-and-Trade."[7] Other modeling by independent experts shows that proposal in the draft regulation order is possible.[8] In addition, CalETC agrees with staff's goal to keep credit prices in a reasonable range as stable prices make a huge difference in EDU programs funded by LCFS credit proceeds.[9]

   Because the LCFS may result in additional unanticipated innovation in the transportation fuel and vehicle technology sectors, CalETC recommends the regular review process include an assessment regarding the 2030 reduction requirement. If this reduction requirement is deemed too low or too high, staff would recommend appropriate amendments for the CARB Board consideration, with direction to adjust the requirement in support of a robust requirement that best supports the state's climate change goals.

---

[6] Electricity is not listed as subject to third-party verification for quarterly fuel transaction reports in Section 95500 c) 1) but electricity look-up table pathway applications and Tier 2 pathway applications would be subject to third-party verifiers.

[7] Available at: http://www.caletc.com/wp-content/uploads/2016/08/Final-Report-Cap-and-Trade-LCFS.pdf

[8] Available at: https://nextgenamerica.org/wp-content/uploads/2018/03/Cerulogy_Californias-clean-fuel-future_March2018-1.pdf

[9] See CARB staff's Initial Statement of Reasons for this rulemaking pages EX-9 to EX-10.

7. *CalETC supports the draft regulation order's proposal for several types of electric transportation to be able earn credits (other mobile freight electric equipment, electric truck refrigeration units and electric motorcycles), and requests a new process for quickly allowing new categories of electric non-road equipment and marine vessels to generate credits*.

   The current regulation order appropriately seeks to address a fairness issue. In the current LCFS, electricity is not eligible to earn credits for many types of vehicles and non-road transportation equipment when other low-carbon fuels are eligible to generate credits for these technologies. The draft regulation order would allow electric motorcycles, electric transport refrigeration units and other electric mobile freight equipment to earn LCFS credits. CalETC supports these changes and believes LCFS credits should be generated for any technology that replaces gasoline or diesel with electricity.

   CalETC recommends that the 15-day change period include amendments to the LCFS establishing EERs for additional electric non-road equipment and marine vessels, thereby allowing these vehicles to earn the accurate LCFS credit value. In addition, for categories of equipment where EERs are less certain, CalETC requests the 15-day comment period establish conservative, default or temporary EERs for non-road equipment and marine vessel applications. These modifications would place transportation electrification technologies on a fair playing field with other clean fuel transportation technologies.

   CalETC recommends a process be established for "EER pathway applications" similar to a Tier 1 pathway, or process similar to Table 7-2 where the numbers are updated by CARB staff on a frequent basis and subject to public comment. This would allow CARB staff to be able to continually use the best data from national labs, universities, research institutes and the private sector to create EERs for the wide variety of electric equipment used for transportation in diverse sectors such as agriculture, mining, airports, factories, education, marine and port terminals.

8. *CalETC supports, in concept, the draft regulation order's proposal for EDUs and other load serving entities (e.g. community choice aggregators) to generate incremental credits from charging that is linked to green tariff electricity but believes the current proposal is unworkable for EDUs and needs to be amended.*

   The draft regulation order proposes providing three options to recognize a reduced carbon intensity for renewable power supplied to electric vehicle charging stations that exceeds the carbon intensity from grid electricity.[10] CalETC supports two of these options (on-site generation and indirect accounting), and believes the third option, linking to green tariff electricity for charging, if amended, could be workable. Green tariff electricity is available

[10] The draft regulation order proposes allowing renewable electricity to be eligible for an improved carbon intensity score if it either green tariff electricity, on-site generation or indirect accounting through defined use of valid renewable energy certificates (RECs).

from most investor-owned utilities and many publicly-owned utilities and community choice aggregators and it results in zero-carbon intensity (0 g/MJ). In addition, green tariff electricity would capture renewable electricity for EVs (Low-CI electricity pathway) that would not otherwise be claimed by automakers and charging station network providers who also could be generating Low CI incremental LCFS credits in residences. For example, well over 50 percent of the home charging market uses either level one charging stations or non-networked level two charging stations who are not on separately-metered EV rates.[11] These are the perfect candidates to sign up for green tariff electricity and earn the proposed incremental LCFS credits.

Linking customers who own or lease EVs with green tariffs should be a relatively simple process for estimated residential charging, as compared to the other types of renewable electricity pathways in the draft regulation order, which require extensive verification and applications for special Low-CI pathways. For example, a customer who buys an EV could at time of purchase apply to the EDU with proof of registration, sign up for a green tariff without a separate meter for EVs, and not have to reapply to the EDU for three years.

The draft regulation order does not provide a simple solution for green tariff electricity at residences or at non-residences. Instead, the draft regulation order has a complex system for separately metered electricity. For estimated residential electricity linked to green tariffs, the draft regulation order does not provide much guidance, but appears to set up complicated system that is likely not worth the effort to EV drivers or utilities.[12]

CalETC recommends that in the 15-day change period, staff develop a separate set of simple, workable rules for green tariff electricity – especially for estimated residential charging. Further, CalETC recommends different rules for green tariff electricity that is metered and estimated. Since green tariff electricity is already regulated by the CPUC and Governing Boards of municipal utilities, a very simple process for look-up table applications, validation or auditing should be established compared to other types of low-CI electricity in the draft regulation order. In addition, for estimated residential charging with green tariff electricity the reporting rules should be made clearer and simpler (e.g., no registration of the type and serial number of home charging stations, no GPS co-ordinates, no need for site-specific CI information, and no need for annual EV registration). CalETC looks forward to working on these details with staff in the 15-day change period to develop a system that encourages EDUs to prevent green tariff electricity credits for EV charging at home from going unclaimed in the LCFS.

[11] These residential customers are typically on either traditional utility rates or whole house Time-of-Use rates that are designed for EVs. The large California utilities are transitioning to default Time-of-Use rates for residential customers over the next few years.

[12] For example the benefit of an EV charging at home is about one metric ton per year for the incremental low-CI credit at 0 g/MJ or one LCFS credit per year, which may not be worth the hassle of an application especially if it must be done annually.

9. *Due to concerns about potential fraud and poor customer experience, CalETC opposes the draft regulation order's proposal to allow "anyone" to generate LCFS credits for non-residential charging*.

   The draft regulation order proposes that any entity with metering capability be enabled to generate LCFS credits for electricity used in non-residential transportation electrification applications (specifically public-access charging and private-access charging such as fleet or workplace). In other words, there is no hierarchy of who gets the credits, as there is with other parts of the draft regulation order and for all other fuels.

   CalETC supports the concept of allowing credit aggregators and others who market the LCFS to get the credits, but opposes the proposed regulation order unless amended with the following recommendations:

   a. The electric vehicle supply equipment (EVSE) owner (charging station owner) should be the first-in-line credit generator. The charging station owner is a broad term that could be the tenant at the commercial property, the owner of the commercial property or the third-party owner operator of the charging station network. The EVSE owners (which in some cases is the EDU) make the investment in charging equipment. CalETC believes the best incentive for investment in infrastructure is to designate the EVSE owners to be the first fuel reporting entity, as described in the section for gaseous fuels,[13] or contractually allow another party to serve as the first fuel reporting entity. Similarly, this process is done for electric forklift fleets, the fleet operator[14] can contractually allow another party to take on the credit generating responsibilities.
   b. Requirements should be made the same for EDUs and other EVSE owners including using the value associated with the LCFS credits to support more transportation electrification.
   c. If the EVSE owner is not the credit generator, and that responsibility has been assigned to another party, then additional requirements should be placed on that third-party credit generator that include the following:
      i. Be subject to the same requirements as EDUs and other EVSE owners
      ii. Obtain a written letter or contract, to allow the third party to generate the LCFS credits that includes a clear, high level explanation of the LCFS program, its value to the EVSE owner and why CARB has created the LCFS regulation.

   This is especially important given that EDUs have begun programs to use the LCFS residential credit value to support transportation electrification. Some public utilities have already begun generating non-residential credits and investing LCFS credit value to support transportation

[13] See draft regulation order at page 41. "Subsections (1)(A) through (1)(E) above notwithstanding, an entity may elect not to be the first fuel reporting entity for a given gaseous fuel, provided another entity has contractually agreed to be the first fuel reporting entity for the fuel on its behalf. In such cases, the two entities must agree by written contract that ……. "

[14] See draft regulation order at page 42. "Subsection (A) above notwithstanding, the electric forklift fleet operator may elect not to be the credit generator and instead designate another entity to be the credit generator, if the two entities agree by written contract that…."

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

CalETC is concerned that allowing "anyone" to get the non-residential LCFS credits for EV charging will lead to a poor consumer experience (e.g. fleets, workplaces and retail) and potentially fraud concerns, not unlike what happened in the federal Renewable Fuels Standard. CalETC believes that it also is unnecessary. While it is true that in the past some parties were not generating these credits, this was primarily due to the few number of EVs and LCFS credit prices that were five or six times lower than today's prices. CalETC believes that by making the charging station owner (EVSE owner) the first-in-line to generate these non-residential LCFS credits third parties will still be motivated to approach the EVSE owner for a contract because of today's LCFS credit prices and increasing interest in EV adoption.

10. *CalETC supports the draft regulation order's proposal to enable trading exchanges to participate in the LCFS market to facilitate investment in new types of credit-generating projects and seeks improvement to the language on "may not borrow or use credit from anticipated future carbon intensity reductions" to more clearly enable future selling of credits.*

    The draft regulation order makes several changes to enable trading exchanges to participate in the LCFS market to facilitate investment in new credit-generating projects and alternative fuels production. This would allow new products from credit exchanges. However, the language in the current LCFS and left unchanged in draft regulation order is confusing: *"Regulated entities may not borrow or use credit from anticipated future carbon intensity reductions."* This language appears to be meant to apply to those who have deficits, but, unfortunately, the definition in the draft regulation order of "regulated entity" means that it also applies to EDUs and other opt-in fuel reporting entities. CalETC requests that this provision in the regulation be moved to an appropriate section for those who must remove credit deficits. For credit generators, CalETC requests that the regulation be clear that credit generators affirmatively may sell future anticipated credits and deficit generators may buy the different types of future credits.

11. *CalETC does not support the CARB staff amendment to the regulation requiring every residence with a metered charger to be registered as "fuel supply equipment".*

    CalETC believes the current system in LCFS for metered residential grid-electricity credits is appropriate and preferred, including the auditing provisions, and does not support staff's amendment to the system. The draft regulation order requires an unworkable system for the EV driver, as each house, apartment or condominium would need to be registered as "fuel

supply equipment" (with charging station type and serial number) and provide proof that they have an EV annually. This makes LCFS an annual chore for EV drivers and for EDUs when there is desire by most to have utilities shift their programs to up-front rebates as close as possible to the point-of-sale. While EDUs do not have large numbers of EV drivers with metered electricity, these LCFS credits should not go unclaimed due to a new onerous system for EV drivers.

CalETC believes the draft regulation order on this topic creates a disincentive where fewer EDUs and fewer EV drivers will want to report this data because of the negative customer experience and onerous reporting. CalETC requests that staff be directed in the 15-day change process to return to the current, simple LCFS system for metered electricity credits by EDUs for residential charging (grid-electricity).

If CARB is seeking better data, CalETC suggests the following options: (1) use the auditing provisions in the current LCFS to provide data requests to the EDUs, (2) provide a simple template for EDUs to report on-line that does not request customer specific data or otherwise violate privacy laws, or (3) use other sources of data available to CARB today.[15] CalETC has long advocated for CARB to use the best available data sources in order to estimate the residential credits provided to EDUs by CARB.

12. *CalETC supports, in concept, the draft regulation order's proposal for incremental time-of-use (TOU) credits for electricity based on periods of curtailment of renewable power, but suggests this provision be reviewed as data is collected to best ensure accurate carbon intensity valuation.*

    The draft regulation proposes an option to recognize and reward the GHG benefits of shifting EV charging to times when intermittent renewable electricity might otherwise be curtailed.[16] These LCFS credits would be for incremental reductions above and beyond the 72 to 81 percent reductions associated with grid-electricity, and could be combined with low-CI electricity incremental LCFS credits. CalETC supports this option; it will aid in the integration of renewable energy onto the grid and in management of EV load. However, we recommend that CARB staff, during the quarterly process to update Table 7-2 consider additional data sources and ensure these curtailment credits are supporting utilization of renewable resources in transportation electrification.

    CalETC requests a 15-day change to include a review of the incremental TOU credits including examining additional data sources, TOU schemes (e.g., ISO curtailment periods or CPUC's TOU periods), adoption of TOU incremental credits, and customer acceptance. The 15-day change would also include continuing regular reviews during implementation as more data is

[15] CARB already has extensive data on kWh by make and model of EV which was cited in the ZEV mid-term review, or could use data on vehicle mileage and USEPA car label data on electric miles and electricity use per mile to calculate.

[16] 95488.5(f) Time-of-Use Lookup Table Pathways

generated. These reviews will improve both the accuracy and simplicity of curtailment credits. In general, while supportive, CalETC is concerned about the complexity of this new provision in the draft regulation order.

13. *CalETC supports the draft regulation order's proposal for low-CI incremental credits for electricity (both residential and non-residential charging), but suggests a more inclusive definition of renewable and a streamlined process for existing green tariff programs.*

    The draft regulation order proposes the addition of a new electricity pathway, "ELCR," that is based on 100 percent wind and solar electricity as well as other pathways that are either in-between ELCR and grid-electricity or cleaner than ELCR (e.g., electricity from biogas). Other fuels in LCFS have had very low carbon pathways for several years,[17] so it is appropriate for electricity to similarly have these additional pathways.

    In addition to our requested amendments above (see comment #8, green tariff electricity), CalETC also suggests that the ELCR – 100 percent wind and solar – pathway be made more inclusive in order to accommodate other renewable, zero-carbon electricity. Specifically, we recommend that additional electricity resources be eligible, consistent with how CARB determines the CI of the state average electricity, so that the section would read:

    "(A) Electricity (100 percent solar~~, or~~ wind, geothermal, biomass, hydroelectricity, or other zero-GHG-emissions resources, or any combination thereof)
    (F) Hydrogen (gaseous) from electrolysis using electricity generated from 100 percent solar~~,~~ ~~or~~ wind~~,~~, geothermal, biomass, hydroelectric or other zero-GHG-emission resources, or any combination thereof) ~~generated electricity.~~"

    Many EDU's green tariff programs contain additional renewable resources, beyond wind and solar, sources that provide equivalently low-carbon electricity. Enabling additional green tariff programs to participate would reflect the full portfolio of renewable resources in California and participation in this optional pathway.

    CalETC also suggests reviewing the data and bringing any improved methodologies to the Board should the data suggest improvements are possible.

14. *Although not currently in the regulation, CalETC is supportive of a 15-day change allowing "capacity" credits for publicly-accessible hydrogen and DC fast chargers to help make fuel cell and battery electric vehicles more accessible to all Californians.*

    CalETC supports capacity credits, provided there is a sunset for this program element and the fuel distributed at eligible stations is subtracted from the capacity credit value to prevent double counting. Both publicly-accessible DC fast charging and hydrogen fueling are not

[17] Indirect (book-and-claim) accounting that links to renewables is allowed today in LCFS for biomethane, and directed connected accounting for renewables is allowed today for oil refineries, so it is appropriate to allow these methods for electricity. Also biofuels have many possible pathways so it is appropriate for electricity to similarly have multiple pathways.

profitable investments at this early phase of the market. Both make zero-emission vehicles more accessible to California residents who do not have access to home charging or a nearby hydrogen station. Increasing the number of DC fast chargers and H2 stations will help accelerate the market for both fuel cell and battery-electric technologies. A limited-time opportunity for these stations to generate LCFS capacity credits could help spur investment and ensure the stations are fully utilized in the future. CalETC supports a 15-day change to include capacity credits for hydrogen stations and DC fast chargers and will work with staff on the specifics of the regulatory modifications.

15. *CalETC supports the draft regulation order's proposal for EDUs to be "opt-in fuel reporting entities" rather than "regulated entities" as they are in the current LCFS.*

    CalETC appreciates the more accurate characterization of opt-in entities in the draft regulation and the clearer rules for opting in or opting out. This change will encourage more parties to become voluntary LCFS credit generators and make the program more effective.

16. *CalETC recommends the draft regulation order's proposal to require reporting of LCFS credit transfers in 5 days be clarified as 5 business days.*

    CalETC respectfully requests better clarity so the "five days" to report LCFS credit transfers in the draft regulation order is not interpreted to mean five calendar days, but rather five business days. Five business days is a significant improvement compared to the current LCFS, and will allow CARB staff to do faster posting of credit transfer data. CalETC does not believe five calendar days is feasible due to holidays, illnesses, emergencies and other unforeseen events.

17. *CalETC supports the draft regulation order's proposal to reform the LCFS Data Management systems, and supports the draft regulation order proposal to reform Tier 2 pathways and look-up table pathways.*

18. *CalETC supports the draft regulation order's proposal to establish buffer accounts to mitigate the risk of credit invalidation and require business partner reconciliation to limit the scope of verification*.

19. *CalETC recommends the draft regulation order be amended to remove burdensome requirements for meter calibration, particularly for residential utility customers and meters for financial transactions.*

    CalETC requests the Board direct staff to amend the metering provisions for residential electricity meters in the proposed regulation. Section 95483.2(b)(8) in the draft regulation order proposes that "…for natural gas, electricity, propane, and hydrogen must register all fueling supply equipment in the LRT-CBTS using the FSE registration template available on the LRT-CBTS home page" and meet meter calibration requirements. Since residential electricity meters meet the financial meter standards in the referenced Mandatory Reporting Regulation

(MRR section 95103(k)(7) - Measurement Accuracy Requirements), and since EDUs have a minimal number of residential customers with separate meters to measure the electricity used to charge EVs, we believe that the level of detail requested is unduly burdensome,[18] particularly since a minimal population of customers impacted will result in any measurable change to reported electricity of base LCFS credits issued to utilities. CalETC does not believe it is appropriate to do calibration for meter accuracy for CARB and for the California regulators who regulate electricity meters.[19] CalETC recommends the draft regulation order be amended to remove burdensome requirements for meter calibration.

20. *CalETC supports the draft regulation order's proposal to allow military bases to earn LCFS credits, including electricity LCFS credits.*

    CalETC agrees with the draft regulation order allowing military bases to generate LCFS credits for vehicles and non-road equipment if they choose to do so. Military bases are either the charging station owner or user and are important early adopters of EVs.

Thank you for your consideration.

Regards,

Eileen Wenger Tutt, Executive Director
California Electric Transportation Coalition

[18] For example to gain access to the residence for testing of the meter, or having to test for CARB purposes when the meter is already regulated by other California agencies.
[19] CPUC, Governing Boards of publicly-owned utilities and the Division of Measurement Standards in the California Department of Food and Agriculture.