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VIA ELECTRONIC FILING

August 27, 2024

Matthew Botill
California Air Resources Board
1001 I Street
Sacramento, California 95814

RE: BTR's Comments on Low Carbon Fuel Standard 15-Day Amendments

Dear Mr. Botill,

Bridge to Renewables, Inc. ("BTR") is pleased to provide the following comments on potential changes to California's Low Carbon Fuel Standard ("LCFS") program. We appreciate the opportunity to engage with California Air Resources Board ("CARB") staff during this process.

Under CARB's leadership, California's LCFS program has been an important driver of the State's greenhouse gas emissions ("GHG") emissions reductions. It has not only provided a model for similar programs in other states, but also proved just how successful such programs can be.

BTR strongly supports many of the changes made in CARB's "Proposed Low Carbon Fuel Standard Amendments" released August 12th, 2024.

The changes to the program's carbon intensity ("CI") targets, specifically the CI "Step-Down" of 9% in 2025, will set the program's ambitions more in line with its performance and advance the goal of balancing the market. More can still be done to achieve CARB's objectives, but we applaud staff for responding to market indicators and working to align the amendments with the most ambitious, achievable CI targets.

Additionally, changes to CARB's treatment of base credit generation for residential charging of light-duty electric vehicles ("LD EVs") are extremely encouraging and well-designed. Accelerating LD EV adoption is crucial for the state to achieve its GHG emissions reduction goals. Recognizing LD EV adoption may be slowing, CARB has now proposed to give its Executive Officer discretion to better leverage the LCFS to support LD EV sales by providing a portion of base credits for residential EV charging to LD EV automakers ("OEMs").

This creative approach demonstrates CARB's determination to ensure the LCFS generally is as effective as it can be in advancing all of California's climate objectives. Like the Auto Acceleration Mechanism, it also enables faster adjustments to the LCFS as the market evolves.

We are thankful for the dedication of CARB staff throughout this process and, with the changes described in the following comments, we urge CARB to finalize these amendments at the scheduled hearing in November.

I. Carbon Intensity Targets

We commend CARB for proposing to implement a 9% CI target Step-Down in 2025. We believe this change is a significant improvement over prior proposals and will help achieve CARB's sated objective of "balancing the market in the near-term".

However, we do not believe the CI targets as proposed, even with the 9% CI target Step-Down, are sufficient to drive a price response like what CARB has forecasted in Attachment C. In the 2016-2021 market cycle credit prices did not begin increasing significantly until the credit bank began declining towards the equivalent of between 2 and 3 quarters of deficits (the "Bank/Deficit Ratio"). While the 9% Step-Down in 2025 will put the market into deficit, BTR's internal modeling and consulting firm ICF's publicly available modeling indicate that the current proposal will not bring the Bank/Deficit Ratio down to this level.

The market's reaction to CARB's recent proposal is indicative: prices increased only modestly from approximately $48 per credit on the day of the proposal to approximately $54 per credit two weeks later. This reaction is incompatible with CARB's expectations of prices returning to more than $130 per credit in 2025.

As such, if CARB's objective is to support greater investment in and deployment of low carbon fuels, electric vehicles, and electric vehicle infrastructure by increasing credit prices as forecasted in Attachment C, CARB should make several final adjustments to CI targets before finalizing the amendments.

Recommendations:

- Adjust the magnitude of the Step-Down from the proposed 9% to 10.5% below the current 2025 target.
- Allow 2025 market performance to trigger the Auto Acceleration Mechanism, impacting 2027 CI targets.

II. Residential LD EV Charging Credits

BTR is extremely encouraged by CARB's novel and well-designed proposal to change its treatment of base credit generation for residential EV charging under the LCFS. CARB has recognized that EV OEMs are essential partners in advancing LD EV adoption. OEMs enjoy comparatively strong relationships with consumers and act as primary distributors of information regarding the consumer and environmental benefits of LD EVs. OEMs also guide consumer preferences by providing compelling LD EV products.

Simply put, EV OEMs know best how to get more LD EVs on the road, and CARB's proposal to award a portion of base credits generated for residential EV charging to EV OEMs will make the LCFS even more effective.

CARB is also right to provide the Executive Officer with discretion to determine what portion of base credits to award to OEMs based on CARB's assessment of market conditions. This creative approach once again demonstrates CARB's leadership in ensuring that the programs it manages are highly effective. This proposal will allow CARB to adjust its strategy as necessary and, like the Auto Acceleration Mechanism, will ensure that the LCFS is helping achieve the State's goals.

Given this, we are highly supportive of CARB's proposal and suggest only several final adjustments and clarifications to credit generation – both base and incremental – for residential EV charging.

First, CARB's proposal suggests that EV OEMs, unlike EDUs, may be required to register directly with CARB, rather than through a designated credit generator, to qualify to generate base credits for residential EV charging. BTR has acted as the designated credit generator for many EV OEMs since 2019. We have registered hundreds of thousands of vehicles with CARB and have consistently worked collaboratively with CARB staff to identify ways to ensure accuracy in reporting and to provide CARB with helpful information regarding EV charging.

While manageable, creating new LRT accounts, de-registering and re-registering vehicles, and reporting through a new process will introduce unnecessary administrative burden for CARB and jeopardizes the successful launch of a new program. In fact, many EV OEMs may be unable to generate incremental credits for residential EV charging for two quarters to work through this process.

We do not understand what advantage this new process would provide nor why EV OEMs and EDUs would be treated differently.

Additionally, while we support CARB's proposal to provide discretion to the Executive Officer to determine what portion of base credits to award to OEMs, base credit awards should be as stable and consistent as possible. OEMs make business plans years in advance, and many programs and initiatives continue for years after launch. Planning and executing LD EV programs using expected base credit proceeds will be made extremely difficult if EV OEMs could receive 45% of base credits for residential EV charging one year but 0% the next year.

BTR believes this could be addressed by establishing a minimum base credit award to EV OEMs and by CARB making efforts to keep any changes to the award to EV OEMs as gradual as possible. CARB should also provide EV OEMs with as much advance notice regarding base credit awards as possible.

EV OEMs should also be eligible to generate incremental credits for non-metered residential EV charging. To award base credits to EV OEMs, CARB has proposed assigning a non-metered quantity of residential EV charging to each EV OEM. This process introduces the ability for CARB to allow EV OEMs to generate incremental credits for non-metered residential EV charging when metered data from the EVs is not available. This would result in better use of the non-metered residential EV charging pathway generally.

CARB should ensure EV OEMs are still incentivized to provide metered data for residential EV charging whenever possible and can accomplish this by making the adjustments recommended below.

Finally, and consistent with the changes described above, EV OEMs or their designees should be established as the first priority credit generator for all incremental credits for residential EV charging. EV OEMs have been the primary credit generators for incremental credits for residential EV charging. This adjustment would recognize that reality and reduce the unnecessary complexity of the registration process.

Recommendations:

- Allow EV OEMs to select a designee to act as the credit generator for base credits, just as EDU's are allowed to select a designee as described at 95483(c)1(A): "[t]he EDU or its designee is the credit generator for base credits for the portion of residential EV charging assigned to that EDU by the Executive Officer."
- Establish a minimum base credit award for EV OEMs.
- Provide a guidance document after finalizing the amendments to clarify a process for determining and announcing the portion of base credits to be awarded to EV OEMs and ensure that the process provides for consistency and only gradual changes year-over-year.
- Allow EV OEMs to generate incremental credits for non-metered residential EV charging by changing 95483(c)(1)(E)(3) to "For non-metered residential EV charging, the EV OEM is eligible to generate incremental credits for supplying low-CI electricity, so long as that EV OEM also provides metered residential EV charging data to generate incremental credits whenever it is possible to do so."
- Clarify that EV OEMs or their designees are the first priority incremental credit generator for metered residential EV charging by changing 95483(c)(1)(E)(2) to "Multiple claims for incremental credits for metered residential EV charging associated with a single FSE ID will be resolved pursuant to the following order of preference: a. The EV OEM of the EV associated with the FSE ID or its designee has first priority to generate credits. b. The Load Serving Entity (LSE) supplying electricity to the EV associated with the FSE ID has second priority; and, c. Any other entity has third priority."

III. Third-Party Verification Requirements

CARB has proposed to introduce third-party verification requirements for additional electricity credit pathways. As currently proposed, electricity credit generators would require third-party verification of credits generated for non-residential EV charging and metered residential EV charging despite the significant concerns with the feasibility of verification.

We urge CARB to either eliminate such verification requirements or clarify its proposal to ensure that the requirements are appropriate for these credit generators and account for real-world implementation concerns.

Third-party verification of non-residential charging by desktop review should suffice; existing regulations govern EV charger accuracy, and it is unrealistic that third-party verifies would conduct tens of thousands of site visits to test each EV charger (BTR notes there are more than 53,000 EV chargers registered in the program).

If site visitation remains a priority for CARB, we recommend establishing a sampling approach and/or authorizing third-party verifiers to exercise discretion in determining when a site visit is warranted.

Metered residential charging should be entirely exempt from site visit requirements. Site visits to hundreds of thousands of residential locations would be highly impractical, raise privacy concerns, and introduce significant unnecessary costs for little-to-no value. Just as it should for non-residential charging, third-party verification of metered residential charging by desktop review should suffice. Third-party verifiers can test data provided by the credit generator for a sample of FSEs to ensure the time and date of the charging reported aligns with the reporting quarter and that the geofencing methodology was applied appropriately.

Recommendations

- CARB should clarify that third-party verification for both non-residential and metered residential EV charging does *not* require any site visits and that a desktop review of sample data will suffice.

IV. Adjustments to the Requirements for Low-CI Electricity

The supply of RECs eligible for demonstrating low-carbon intensity (low-CI) electricity generation for incremental book-and-claim crediting under the LCFS program is limited relative to other state clean fuel standard programs in the WECC due to CARB's deliverability restrictions on low-CI electricity. This supply limitation jeopardizes the economic viability of incremental credit generation for EV charging generally.

Recommendations:

- Amend the deliverability requirement such that low-CI electricity from generating units registered in WREGIS and located in *any* state in the WECC may be used for

incremental crediting, even if such low-CI electricity is not scheduled into a California balancing authority.

V. Other Programmatic Changes

Geofencing Radius for Residential EV Charging

CARB should consider reducing the current "conservative" Geofencing Radius (GFR) of 220 meters to a smaller and more precise GFR, as described in LCFS Guidance 19-03, Appendix A "Rationale for Minimum and Maximum Geofencing Radius." The GFR is used to "disaggregate the quantity of electricity used for residential and non-residential EV charging" and should be as precise as possible.

We are concerned that, as non-residential charging stations proliferate, an increasing amount of residential EV charging will be erroneously categorized as non-residential and therefore ineligible to generate credits. This will be particularly acute in densely populated urban areas of a mixed-use commercial/residential nature.

We believe that geolocation data (latitude, longitude) provided by non-residential reporting entities, as well as the precision of on-vehicle telematic systems, supports a higher precision GFR. We note that the Washington State Department of Ecology uses a "conservative estimate of 110 meters or less for the maximum GFR to geofence a residential charging location."[1]

Lookup Table Fuel Pathways for Small Biogas-Derived Electricity Generators

CARB should endeavor to ensure that small biogas-derived electricity generators are able to participate in and benefit from the LCFS program. Current Tier 2 pathway development and verification requirements are prohibitive for small generators, especially given CCARB review and approval can take as long as two years. Additionally, in some cases, the cost of verification is greater than the value of all credits generated by these generators in a year.

This dynamic poses a challenge in that only larger producers – larger farms – can take on this burden and participate in the LCFS, and even those producers are deterred by the approval process.

CARB has now reviewed and approved a significant number of Tier 2 pathways for biogas-derived electricity generators. CARB could draw on this experience to introduce a negative-CI Lookup Table pathway for the smallest biogas-derived electricity generators (generators below a certain size threshold) to use on a permanent basis. CCARB could also introduce a temporary pathway for all other biogas-derived electricity generators to use while seeking approval from CARB for a Tier 2 pathway.

[1] https://apps.ecology.wa.gov/publications/SummaryPages/2314029.html

Introducing such pathways would better enable all farms, and specifically smaller farms, to participate in the LCFS, thereby encouraging them to reduce methane emissions and supply low-CI electricity to the transportation sector, consistent with CARB's goals for EV adoption.

Recommendations:

- Reduce the GFR described in LCFS Guidance 19-03 to 110 meters.
- Create a negative-CI Lookup Table pathway for biogas-derived electricity generators below a certain size threshold.
- Create a temporary pathway for biogas-derived electricity generators of any size to use while seeking approval for a Tier 2 pathway.

VI. Conclusion

We encourage CARB to continue to pursue aggressive policies that support California's climate goals. As the transportation sector is the largest sector contributing to GHG emissions, reducing those emissions is critical to achieving carbon neutrality. The LCFS has been extremely successful because of CARB's leadership in setting creative and effective policy. Finalizing the proposed amendments and the changes described in these comments will ensure that success continues.

We thank you again for the opportunity to engage with CARB staff through this process. If we can provide additional information or further support your efforts, please contact the BTR team.

Sincerely,

John (Jack) Barrow
Chief Executive Officer
Bridge to Renewables