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California Air Resources Board
1001 I St.
Sacramento, CA 95814

RE: 3Degrees Comments in Response to February 2023 Public Workshop on Potential Regulation Amendment Concepts for the LCFS Program

Dear Air Resources Board Staff,

Thank you for the opportunity to provide comments in response to the February 2023 Low Carbon Fuel Standard (LCFS) public workshop on potential regulation amendment concepts. 3Degrees Group Inc. ("3Degrees") is a global climate and clean energy solutions provider and is a strong supporter of the LCFS program. We participate in the program as a designated reporting entity on behalf of a variety of opt-in parties with light-duty electric vehicle (EV) chargers, electric forklifts, hydrogen forklifts, and heavy-duty EV fleets. We are also an active fuel pathway developer.

Below we have responded to a subset of the topics introduced at the February 23, 2023 workshop, organized by slide number:

Slides 15 and 52: Step-Change and Auto-Adjusting CI Stringency

As noted in our December 2022 comments, 3Degrees supports ARB's proposal to increase the CI reduction target to 35% by 2035 and 90% by 2045. We believe that this level of stringency is most in line with the objectives of the recently adopted 2022 Scoping Plan. As the most mature program in the West, maximizing the CI reduction goal as much as is feasible will ensure that California remains a leader in the clean fuel policy space. We also support Staff's proposal on slide 52 for a short-term CI stringency adjustment ("step-change"), ideally that will take effect at the earliest opportunity alongside the release of the updated regulation in 2024.

On the topic of automatic adjustments for CI stringency (slide 15), 3Degrees is currently working with a group of stakeholders organized through Low Carbon Fuels Coalition (LCFC) to assist with a study by ICF that is aimed at providing CARB with comprehensive design options. We expect to be able to recommend an implementable plan during the formal rulemaking process.

Slide 32: Avoided Methane Crediting

As noted in 3Degrees' December 2022 comments, we do not recommend changes be made to the avoided methane credit opportunity in this near-term rulemaking. We recognize Staff's motivation to align with the SB 1383 methane capture requirement. However, we are concerned that phasing out the credit for avoided methane emissions would most likely result in the industry reverting to venting the methane unless and until a formal requirement is in place to capture methane, or another regulatory mechanism is in place to incentivize methane capture. California has made progress but is still not fully on track for 2025 methane emission reduction goals under SB 1383. Removing the avoided methane opportunity prematurely risks undermining the policy goal outlined on slide 21: "Need more methane reduction projects in California this decade, and current incentive environment has thus far successfully supported rapid build-out of projects in California and outside of California."

We recommend that any changes to crediting for avoided methane be based on capturing methane at dairy becoming a market norm and no longer meeting 'additionality' criteria. This could be due to sufficient alternative incentives existing, methane recovery becoming mandatory in more jurisdictions, or other factors that change the operational norms at dairy farms.

Slides 33: Book-and-Claim Deliverability Requirements

We recommend that ARB not move forward with making changes to the geographic eligibility for book-and-claim at this time. As noted in our December 2022 comments, the natural gas distribution system is fundamentally different from the power system and does not align with the boundaries of the Western Electricity Coordination Council (WECC). From a credible claims perspective, national sourcing continues to be a logical geographic boundary. Once RNG enters a pipeline, it may essentially be delivered anywhere across the continent.

If the intent of the revision is to incentivize other states to introduce LCFS policies and create regional markets for RNG, ARB should significantly delay the geographic eligibility revision. While many state legislatures are pursuing LCFS programs, it will take several years for these to be in effect. Even legislation that passes in 2023 will likely take until at least 2025 before a program is active.

If ARB seeks to move forward with biomethane geographic eligibility or deliverability requirements, we recommend implementing the proposal on a 9-year timeline, in line with the recommendations of the American Biogas Council (ABC).

Slide 60: Forklift EER Reduction and Credit-Generator Change

We continue to recommend that ARB establish a standardized framework for assessing if, when, and how any technology should be phased out of the LCFS program before considering removing any individual technology from opt-in eligibility. We have concerns with CARB's proposal to adjust EERs for a subset of forklifts so as to decrease credit generation opportunities for forklifts that are regulated under the Zero Emission (ZE) Forklift Regulation. This proposal goes against the technology-neutral spirit of the LCFS program. EER is defined in the regulation as "the dimensionless value that represents the efficiency of a fuel as used in a powertrain as compared to a reference fuel used in the same powertrain" and is not the appropriate place to bring in specific policy goals or outcomes.

As noted in previous comments, ARB should establish clear criteria for what warrants a specific technology or fuel being phased out of the program. There are policies similar to the ZE Forklift Regulation that are aimed at decarbonizing other vehicle types and fuels in California that generate credits under the LCFS, including the Advanced Clean Car Regulation, Advanced Clean Truck Regulation, and Advanced Clean Fleet Regulation. It is critical to understand if ARB's policy for electric forklifts could be applied towards these other vehicle types.

Further, it is unclear whether an EER adjustment is only a mechanism for electricity-based crediting, as such a change has not been suggested for renewable diesel which is currently 40% of the diesel pool in California. ARB should clarify if it intends to apply a similar restructuring of credits from renewable diesel if renewable diesel grows to represent 50% or more of the diesel pool in California. Any proposal to phase out specific fuels or technologies should be applied equally to all fuels in the program, not just to electric vehicles.

We also request that ARB establish clear rules on "how" technologies will be phased out. The LCFS should provide an off-ramp or other provision geared at a smooth and predictable transition out of the program. These provisions ensure market certainty for ZEV manufacturers and market participants.

ARB will also need to assess any broader impacts to the program if specific credit-generating technologies or fuels are phased out of the program but the deficit-generating fuels that these technologies replace continue to be regulated in the program.

Slides 72-73: Third-party Verification

Staff's proposal to add third-party verification requirements, including site visits, for most electricity- and hydrogen- based crediting, excluding non-metered residential EV charging, is likely to make the cost of participation in the LCFS unaffordable for many.

If ARB moves forward with these additional requirements, we urge ARB to consider expanding the 6,000 credit/deficit threshold for verification so that the cost of verification is fairly offset by credit revenues.

We also request clarification on whether the threshold is applied at the designator level or the designated reporting entity (DRE) level when a DRE is working on behalf of multiple designators. We also recommend that a representative sampling of sites and of FSEs per site is acceptable, rather than a requirement for third-party verification of each FSE in each year.

Additional Comments

3Degrees is supportive of infrastructure crediting for medium- and heavy-duty ZEV refueling infrastructure (slide 29) and the concept of a Tier 1 calculator for dairy biogas-to-electricity (slide 64).

3Degrees appreciates this opportunity to provide feedback and we look forward to continuing to work with ARB on the success of the LCFS program. Please reach out with any questions or for further discussion.

Sincerely,

/s/ Maya Kelty

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