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November 5, 2020

Rajinder Sahota
Division Chief, Industrial Strategies Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Ms. Sahota:

Re: LCFS Public Workshop to Discuss Potential Regulation Revisions

To: Air Resources Board:

Shell Energy North America (US), L.P. ("Shell Energy") provides its comments on selected issues raised during the Air Resources Board's ("ARB") Low Carbon Fuel Standard ("LCFS") Public Workshop to Discuss Potential Regulation Revisions (hereafter, "workshop") that was held on October 14 and 15, 2020. Shell Energy appreciates the opportunity to address these issues at a critical time in the evolution of the rules for the LCFS program. Shell Energy's comments are as follows:

1. Governor's Executive Order N-79-20

On September 23, 2020, Governor Newsom issued Executive Order N-79-20, which includes the following directive: "The State Air Resources Board, in consultation with other State agencies, shall develop and propose strategies to continue the State's current efforts to reduce the carbon intensity of fuels beyond 2030 with consideration of the full life cycle of carbon." The Governor's Executive Order makes it clear that the LCFS program will extend beyond 2030.

The Executive Order builds on the State's goal to achieve carbon neutrality by no later than 2045. At the workshop, Staff noted that the ARB's next Scoping Plan will address how the LCFS should align with Executive Order and carbon intensity ("CI") targets to adhere to the State's 2045 carbon neutrality commitment.

Participants at the workshop suggested two alternative rulemaking approaches to updating the LCFS program. Under one proposed approach, there would be two rulemaking processes: the first to address proposed technical changes to the current LCFS regulations, to take effect January 2022; and the second, in a 3-year rulemaking, the ARB would develop more substantial regulatory changes that would take effect in January 2025. Included in these changes would be establishment of post-2030 CI benchmarks and other features to successfully implement the objectives set forth in the Governor's Executive Order and the direction from the 2022 Scoping Plan.

An alternative to accomplish all this would be a single consolidated rulemaking, to be effective in January 2024, which was proposed by a stakeholder at the workshop. While such an approach would allow the establishment of post-2030 targets a year earlier, it would lead to a very aggressive rulemaking timeline following completion of the Scoping Plan at the end of 2022.

Based on the difficulty of pursuing so many issues in a single rulemaking, Shell Energy believes that Staff's plan to provide two rulemaking processes (one effective in January 2022, and the other effective in January 2025) is prudent.

2. Updates to Tier 1 Simplified CI Calculators

At the workshop, Staff indicated that it is considering minor refinements to all Tier 1 simplified CI calculators. Staff noted that Tier 1 calculator updates are intended to improve calculator interface and further streamline inputs, where possible; address stakeholder concerns and suggestions; add flexibility to allow for more Tier 1 pathways; and add intermediate facilities and joint applicant facility information.

Among other refinements, Staff proposes to add a Tier 1 simplified CI calculator for hydrogen pathways. Shell Energy supports this refinement. As noted by Staff, it is important to improve calculator interface and further streamline inputs, where possible, as well as address stakeholder concerns and suggestions. Stakeholders should be able to review and provide feedback on a Tier 1 simplified CI calculator before it is adopted.

3. Credit True-up for Temporary Pathway CIs

At the workshop, Staff explained that under current practice, in the absence of necessary operational data to evaluate a CI, the regulation allows use of a temporary CI for reporting fuel transactions and credit generation upon request. Staff noted that these approved temporary CIs are conservative values and tend to be higher than actual CIs of the fuels produced. Under

current regulations, there is no "true-up" of credits that were generated using temporary CIs, after a certified CI is available.

Staff proposes to allow Tier 1 and 2 pathway holders to request a true-up of credits using certified CIs for fuel transactions that were reported using temporary fuel pathway CIs. Staff's proposal, if adopted, would allow reporting entities to true-up credits based on actual operational CIs after certification of Tier 1 or Tier 2 pathways. Shell Energy supports this proposal.

At this time, there can be a substantial lag between the establishment of a temporary CI and certification of Tier 1 or Tier 2 pathways. Unless a true-up is provided for in the regulations, a portion of the value of the credits generated is lost for this interim period. Staff's proposal will enable reporting entities to capture the full value of the CIs for all fuel transactions from the outset of credit generation.

4. Third-Party Verification of Electricity Transactions

At the workshop, Staff explained that electricity transactions submitted in Quarterly Fuel Transaction Reports are not currently subject to third-party verification but are subject to Staff audits. Staff indicated that it is considering proposing third-party verification requirements for electricity transactions: specifically, requiring third-party verification of Quarterly Fuel Transaction Reports for electricity transactions.

Shell Energy supports this Staff proposal. The third-party verification process will impose additional annual costs on credit generators, but it will provide added confidence to purchasers of these credits. On balance, this is a reasonable proposal.

5. Hydrogen Refueling Infrastructure ("HRI")

During the workshop, Staff explained that the Hydrogen Station Capacity Evaluator ("HySCaPE") is a tool developed by the National Renewable Energy Laboratory ("NREL") that is incorporated in the LCFS to determine the dispensing capacity of a hydrogen refueling station under the HRI provision for infrastructure crediting. Staff indicated that it is considering specifying a number of "inputs" to the HySCapE model in the regulation. These inputs may include, but are not limited to, the following:

- Time between fills
- Dispenser flow rate
- Chevron profile

- Vehicle storage volume
- Hourly Distribution

Shell Energy supports Staff's consideration of specifying additional inputs to the HySCapE model in the regulation for determining HRI dispensing capacity. Shell Energy further recommends consideration of additional inputs for developing the next version of the HySCapE model. Opportunities in an updated model may include improving accuracy and accommodating a wider range of station designs, including consideration of: (a) fueling at 350 bar or 500 bar pressure; (b) liquid stations that do not maintain constant head pressure; and (c) gaseous stations that do maintain constant inlet pressure.

Staff also proposes to address HRI application requirements, including consideration of providing more specificity with regard to "up-time" reporting, including an explicit definition of "station availability." Shell Energy supports this further examination of the HRI application requirements, and in particular, providing an explicit definition of "station availability."

6. Miscellaneous Changes to HRI and Fast Charging Infrastructure ("FCI")

Staff noted that the current regulation requires calculating and posting potential HRI and FCI credits to enforce the limit, on HRI and FCI credits, of 2.5% of the total deficits. Staff indicated that it is considering clarifying the current regulation to provide that the "latest available" deficit data, instead of prior quarter data, shall be used to calculate potential credits. Staff notes that this change would be to account for the delay in quarterly data publication.

Shell Energy does not object to Staff's proposed change. However, the ARB must define what is meant by "latest available" deficit data. The adopted definition must be applied on a consistent basis to enable regulated entities to rely on and apply a methodology that does not change from one reporting period to another.

7. Other Issues

Shell Energy is encouraged by Staff's recognition of the importance of Carbon Capture and Sequestration ("CCS"), as reflected in the Staff presentation. Shell Energy encourages steps to be taken to make California's regulatory framework more workable for CCS. The ARB should urgently explore mechanisms to create value for CCS projects both within the LCFS program and through other important programs such as cap-and-trade.

Shell Energy appreciates the opportunity to submit these comments. Please contact the undersigned if you have questions about these matters.

Respectfully submitted,

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Shell Energy North America (US), L.P.

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