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California Air Resources Board
1001 I Street
Sacramento, CA 95814

June 28, 2016

RE: Clean Energy Comments to Proposed LCFS Amendments-June 2016 Workshop

Dear ARB Staff,

Clean Energy appreciates the opportunity to submit comments on the proposed LCFS amendments and verification program presented at the recent June 2016 workshop. Clean Energy has been a long-time advocate and participant in the LCFS program and we look forward to continuing our collaboration with the Air Resources Board to support the advancement of the LCFS.

Section 95491 (a)(3)(C)(1)-CNG Reporting Units

"For CNG and L-CNG, the amount of fuel dispensed at fast fill stations must be reported in GGE* and the amount of fuel dispensed at time (slow) fill stations must be reported in Therms as shown on utility bills"

Clean Energy supports the ARB's decision to change the reporting units from standard cubic feet (SCF) in order to minimize conversion errors. However, instead of separating out reporting units for time fill and fast fill stations the ARB should promote consistency and institute one standard reporting unit for all CNG reporting. Clean Energy recommends that the CNG reporting unit be changed from SCF to MMBtu or Therms at the higher heating value as recorded on the utility bill. The utility bill is the most accurate and auditable measure of volume consumed at a CNG station regardless of fueling type.

The natural gas industry as a whole follows an energy content methodology for measuring volumes of natural gas. Natural gas injected into the national pipeline system is measured and recorded in MMBtu based on specific heat content and gas composition of the injected product. Utility systems measure and record downstream consumption at meters in therms based on a regional average of heat content and gas composition of the natural gas consumed. This industry standard practice of using an energy content approach to volume measurement creates consistency across upstream and downstream operation which enables simple and accurate volume reconciliation. Reporting volumes recorded at the dispenser in GGEs will unnecessarily complicate the reporting and verification process for a CNG station. CNG dispensers do not measure heat content and gas composition which as stated is necessary to accurately reconcile with official pipeline and utility statements. Furthermore, the utility bill is a third party auditable document through which a verifier or auditor could easily corroborate volumes consumed. Since the utility bill would have to be used to corroborate dispenser volumes anyway, we recommend that ARB use the volume recorded on the corresponding utility bill as the official consumption volume for all CNG stations regardless of fueling type.

ARB has expressed concern with using utility bills for all CNG reporting because the GREET 2.0 model does not account for leakage during compression which creates ambiguity in determining whether any of the volume recorded at the utility meter was vented or lost downstream during compression. In short, it is extremely difficult if not impossible to quantify loss during the compression and dispensing processes. Clean Energy operates and maintains all of its CNG stations to promptly identify and mitigate leaks. Stations are regularly monitored and inspected by our maintenance personnel to ensure optimal performance. Clean Energy station operators and technicians are properly trained to monitor, detect, and repair issues that can lead to potential leaks. In addition, even if there is a delta between dispenser data and the utility meter, it would be difficult if not impossible to determine whether the delta is due to differences in heat and gas composition assumptions or leakage. As a result, we believe the utility meter is the appropriate point of measurement for CNG fuel volumes as it is the most consistently accurate point of measurement.

It is also important to consider that registered biomethane production facilities deliver fuel across a portfolio of CNG stations including both time fill and fast fill stations. As stated above, biomethane is injected and recorded on pipeline statements in MMBtu, not GGEs. Biomethane volume from a specific production facility is not tracked individually to a specific CNG station, especially when multiple biomethane production facilities are delivering fuel to the same portfolio of CNG stations. If CNG is to be reported in therms and GGEs, the regulated party for biomethane and the verifier (and ultimately the ARB) would have to convert biomethane volumes from MMBtu to both therms and GGEs (in separate transactions) depending the percentage of volume dispensed through time fill and fast fill stations. This carries a high probability of conversion error which the ARB is looking to minimize and is unnecessarily complex. It is important for the ARB to maintain a single reporting unit for CNG that will not create reporting discrepancies between upstream biomethane production and downstream dispensing of CNG. The clear choice is to use MMBtu or therms as recorded on the utility bill or pipeline report.

Proposed Verification Language

The requirement for quarterly verification reporting will have a negative impact on a regulated party's ability to monetize LCFS credits. As proposed, quarterly verification deadlines fall two calendar quarters following the month of flow. This is problematic since credits will not be released by ARB until a positive verification statement is rendered and accepted. Although it is understood that verification services can begin well ahead of the proposed deadlines, it is clear that credits will no longer become available after the submission and acceptance of a quarterly LCFS report. Depending on the amount of time needed to complete a quarterly verification report, credits could potentially be locked and unavailable until two full quarters following the flow of fuel. Such a delay in monetization will disrupt the necessary stream of cash flow for renewable fuel producers with strict working capital requirements to maintain operations. The

successful operation of a renewable fuel producer relies heavily on their ability to generate consistent cash flow to fund their capital intensive facilities. Consequently, not only will the proposed LCFS verification program levy an additional cost of compliance to a renewable fuel producer, but it will also disrupt the steady stream of cash flow necessary to keep operations afloat.

The first year of required verification in 2018 is going to be the most problematic. The first quarterly verification reports are going to require extra time and effort by both the regulated party and their respective verifier to ensure completeness and accuracy with regard to the new verification program. As a result, under the proposed Regulation, a majority of Q1 2018 credits would not be available for sale until Q4 2018 after the verification deadline (Q1 deadline: 9/30/2018). By the time that all credits are monetized, it is likely that renewable fuel producers will not receive their portion of credit revenue until late Q4 2018. This means that a renewable fuel producer will only generate cash flow for one quarter of operations for the whole year. Restricting cash flow in this manner will jeopardize future operations and subject the renewable fuel producer to possible default. The goal of the LCFS program is to incentivize the increased use of renewable fuel in California, but the verification proposal as written unintentionally counteracts this core mission.

The LCFS verification program should mirror the established Quality Assurance Program (QAP) program operated by the EPA under the Renewable Fuel Standard (RFS). Instead of requiring quarterly and annual verification reports the LCFS verification program should be maintained on an ongoing basis. Under such a protocol, each regulated party and facility will be required to undergo a baseline facility and transaction audit pursuant to the requirements outlined by the ARB in addition to the verification plan developed by the independent verifier. Upon successful completion of the baseline audit, which includes a verification of CI and FTM demonstration, a regulated party will receive an “LCFS Verified” designation. From here the regulated party will be required to submit monthly and quarterly documents to the verifier including but not limited to: feedstock logs, production data, pipeline reports, allocation reports, product transfer documents, LCFS quarterly reports, credit sales contracts, utility consumption reports, bills of lading, etc. This is consistent with the requirements for the EPA QAP. Timely and accurate submission of this data will maintain an entity’s “LCFS Verified” status without disrupting the established operation of the LCFS credit market. Annual site visits can be conducted but it is unnecessary and overly burdensome to require annual CI verifications. CI verifications should be required every three years consistent with the EPA’s requirement for an updated professional engineering report for the RFS. Three years of data will yield sufficient support for a facility CI under “normal operating conditions.”

The LCFS verification program is necessary but ARB should endeavor to minimize the level of duplicative work with the EPA’s QAP program. Creating an ongoing verification program with monthly, quarterly, and annual deliverables will mimic the EPA’s QAP program and allow regulated parties, most of who are already enrolled in a QAP program, the ability to seamlessly

add the LCFS verification into their compliance responsibilities. Most importantly, an ongoing protocol will prevent any disruption in the normal operation of the LCFS program. Credits will be generated in the same timeframe and renewable fuel producers will not experience any disruption in cash flow.

Please feel free to reach out to us if you have any questions.

Sincerely,

Todd Campbell

Vice President, Public Policy and Regulatory Affairs
Clean Energy Fuels Corporation