December 19, 2008

Via e-mail: czhangti@arb.ca.gov

Christina Zhang-Tillman
California Air Resources Board,
1001 "I" Street
Sacramento, CA 95812

Re: Comments on the Draft Low Carbon Fuel Standard Regulation.

Dear Ms. Tillman,

Clean Energy would like to thank you for the opportunity to comment on the revised Draft Low Carbon Fuel Standard (LCFS) proposed by the California Air Resources Board (ARB) this December. Clean Energy reaffirms its support for ARB's greenhouse gas goals under AB 32 and plans to be a strong participant and supporter of California's growing LCF industry. We would like to again compliment ARB staff on its proposed Draft LCFS and continue to believe that, overall, it provides a good framework for how California might achieve ARB's ten percent carbon intensity reduction goal by 2020. Clean Energy, however, does have several concerns and recommendations that we would like ARB staff to consider.

95420. Definitions

(a)(3) Biomethane

Clean Energy views "renewable natural gas" or biomethane derived from biogenic sources such as landfills, dairy waste and wastewater treatment as a potentially significant source of "very low carbon fuel" that supports the long-term goals of the LCFS. Biomethane resources from California landfills, waste water treatment plants, and dairies are currently estimated at 125 BCF per year. This quantity represents approximately 900 million gallons of diesel fuel. That said, the proposed definition under the Draft LCFS states that biomethane is "derived from biomass as defined by the California Energy Commission (CEC). Unfortunately, this definition is contradictory to the "biomass" page of the CEC's Renewables link (http://www.energy.ca.gov/biomass/biomass.html) which excludes landfill waste but includes municipal waste among the possible components of biomass. Taken together,

these CEC citations raise more questions than they answer. We urge ARB to clarify its definition of "biomethane" and modify such a definition to include biomethane derived from landfills, sanitation plants and dairy farms.

Clean Energy recommendation: Revise the definition of biomethane to include landfill, sanitation plant, and dairy farm-generated biomethane.

95421. Applicability of the Standard

(a) Applicability

Clean Energy urges ARB staff to allow for a reporting requirement exemption of alternative fuels to gasoline or diesel that are compliant with the 2020 LCFS standard unless a regulated party desires to generate LCFS credits.

Clean Energy recommendation: Exempt alternative fuels that are compliant with the 2020 LCFS standard unless a regulated party chooses to exercise its LCFS credits.

(b)(1) Exemption for Low Volume Alternative Fuels

The ARB's "Supporting Documentation for the Draft Regulation of the California Low Carbon Fuel Standard"[1] exempts a number of fuels from the LCFS but fails to include "natural gas" and "biomethane" in the list of alternative fuels to which the exemption could apply. Like electricity and propane, natural gas generically is a mature energy source, but there are specific forms and applications of natural gas, such as biomethane and fueling via home refueling appliances (HRAs), that meet the criteria laid out in the Supporting Documentation.

On its face, HRAs are a small volume source of natural gas as a transportation fuel, and we cannot understand why ARB would want to place the regulatory burden of monitoring and reporting on every owner of an HRA. Clean Energy believes HRAs should be categorically exempt from the LCFS unless an owner voluntarily elect otherwise. If ARB retains this provision and requires owners of HRA's to become a regulated party, ARB create an unintended deterrent for consumers to adopt another low carbon fuel which is directly counter to the goals of the LCFS.

Finally, Clean Energy would appreciate an explanation of the 3.6 million gge threshold for the LCFS exemption. Even on a producer-specific basis, we believe the threshold is too low and will exclude biomethane production facilities that, while very promising, are still in their infancy. We also urge the ARB to consider biomethane volumes separately from a regulated party's sale of CNG and LNG, so that research and technology advancement for biomethane is not impeded.

Clean Energy recommendations:

(1) Exempt alternative fuels to gasoline and diesel from LCFS if they are 2020 compliant.
(2) Categorically exempt home refueling appliances from the LCFS.
(3) Explain why the exemption threshold was set at 3.6 million gge and increase the threshold to accommodate biomethane facilities.

(4) Apply the exemption threshold to individual low volume fuel providers, not to all statewide sales of the fuel.
(5) Determine the exemption threshold for biomethane separately from other LNG and CNG sales by a regulated party.

95422. Standards

(a) Standard applied to gasoline and diesel

Clean Energy strongly supports applying the LCFS to both diesel and gasoline and urges the ARB to reject calls to limit the standard only to gasoline. There is simply no way the state will meet its LCFS goal of 10 percent reduction in carbon intensity of transportation fuels by 2020 without including diesel. Fortunately, CNG, domestic LNG and biomethane are clear examples of abundant North American fuels that already meet and exceed the 2020 low carbon standard. Further, all three fuels are widely applicable in commercial vehicle applications, from light-, medium- and heavy-duty vehicles. Further, the availability of fuels like CNG, LNG and biomethane could be significantly enhanced, further assuring ARB's LCFS goals can be met, if the compliance path was linear and not back-ended as ARB currently proposes. Clean Energy believes a back-loaded compliance path for the LCFS is a mistake and sets up the LCFS Industry for failure.

(b) and (c) Standards for gasoline, diesel and their substitute fuels

Clean Energy is very concerned that the compliance standards between 2010 and 2020 will undermine the very goal of the LCFS, which is to encourage the greater adoption of fuels that can meet the low carbon standard. We understand the need for some "ramp-up" time, but the proposed compliance curve is so heavily back-loaded that it will significantly diminish the value of credits generated by providers of fuel that meet the standard. As proposed, the first four years of the LCFS will achieve only 0.8 percent reduction in carbon intensity of the state's transportation fuels (or 8 percent of the overall reduction), leaving 92 percent of the overall reductions to be achieved by 2020.

This negative impact will be all the greater because these compliant low carbon alternative fuels are all produced in relatively low volumes for the transportation market compared to gasoline and diesel, which enjoy a 96 percent market dominance. To establish a competitive foothold in the market, these fuels need the price signals that will be sent by including their full credit value. If their supply exceeds the demand by fuel refiners for credits because of extremely lax compliance standards in the early years, their credit value will be diminished. Instead of incubating low carbon alternative fuels, the proposed compliance schedule could choke off their development and force them out of the market by the time the compliance schedule finally gets around to requiring meaningful carbon intensity reductions. (Essentially, their compliance curb unrealistically expects us to ramp up our production, distribution and customer base over night. This compliance curve sets us all up for failure!!!).

Our concern in this regard is heightened by the argument by some stakeholders to have ARB essentially divide the 10-year compliance schedule into two 5-year phases. Their proposal appears to suggest that the second phase would be conditioned on the ARB

making certain findings after the first five years. Taken together, we are very concerned that some parties are setting the table to justify their failure to meet the 2020 standard and to eliminate the 2020 requirements, particularly for the diesel pathway.

Clean Energy recommendations:

(1) Replace the back-loaded compliance schedule with a "straight-line" or "linear" compliance path between 2010 and 2020.

(2) Reject stakeholder requests for a review period that will essentially serve as lobbying-opportunity to weaken the rule's intent and goals – a move that will weaken .

95424: Compliance

(a)(5) Regulated party: natural gas

Clean Energy appreciates ARB's efforts to simplify the definition of "regulated party" for natural gas transportation fuel. The October Draft LCFS defined "regulated party" for natural gas as "the person or entity that provides CNG, LNG or biomethane for transportation use or is otherwise legally responsible for its quality." Clean Energy was concerned that this definition was too simple and did not capture the actual entity that delivers CNG or LNG to the retail transportation fuel market for transportation (e.g., is the regulated party the natural gas utility, the transportation fuel provider or the fueling station operator?).

The December LCFS Draft now defines the regulated party for natural gas as "the person that holds title to the fuel immediately prior to delivery of the fuel to the facility at which the fuel is dispensed to motor vehicles." While this definition could work for LNG with minor modifications, it does not work for CNG. Further, at the December 2 workshop, ARB legal staff stated that he read the language to mean that the regulated party would be the natural gas utility. Clean Energy is opposed to this definition as the natural gas utilities do not provide natural gas as a transportation fuel to the marketplace.

Clean Energy has several concerns with the proposed definition and recommends an alternative approach. Our concerns include:

- **Natural gas utilities often will have incomplete information on how much fuel is used and how it is used because they do not sell natural gas in most cases as a transportation fuel.** Not only are natural gas utilities in a poor position to report to ARB on how much fuel is dispensed into specific types of vehicles for stations they largely do not own and operate, natural gas utilities and – in most cases - do not sell natural gas in a form that can be used by natural gas vehicles. Natural gas must either be compressed or liquefied before it can be used as a transportation fuel. Such a function is usually performed by natural gas transportation fuel providers like Clean Energy, Trillium, ALT, and Prometheus. Clean Energy not only contends that a natural gas utility would be unable to record the volume and specific use of natural gas transportation fuel (outside of the finite stations that they actually operate – stations that they are technically required to sell per order of the Public Utilities Commission), but utilities would be generating compliance credits for businesses that they largely do not operate or

have any control over. Clean Energy therefore views any definition that would generate credits for the natural gas utilities – entities that are not in the transportation fueling business – as wrong and another barrier to growth for the natural gas vehicle industry. Such a barrier would be counter to the intent and goals of the LCFS as natural gas-based fuels are very low carbon fuels: CNG, domestic LNG, and biomethane.

- **Distinction should be made between CNG and LNG:** The supporting documentation for the LCFS regulation recognizes the different potential life cycle paths for CNG and LNG. [1] Whereas the production and distribution path for CNG is relatively simple – extraction of the gas from a production well or a biogenic source, treatment for quality upgrades, and pipeline transmission to a point of compression and dispensing at a fueling facility – the supporting documentation cites seven possible production and transportation routes for LNG. On the other hand, LNG, as a fuel can be used in many applications that are not necessarily related to transportation fuel use. In other words, even if an entity produces LNG, its use will not be determined necessarily by the LNG producer, but the buyer of the LNG and LNG is trucked, not piped. Therefore, the owner of the LNG when it is delivered to a transportation fueling facility should be the regulated party under the LCFS. Of course, ARB could make the entity that owns the LNG fueling facility as the regulated entity under the LCFS and Clean Energy would recommend against this option as well. A significant number of LNG fueling stations are owned and operated by customers that accept LNG shipments from companies like Clean Energy, ALT and Prometheus. If ARB made fueling station owners the regulated party, such a designation may serve as another barrier to future LNG fueling stations or existing fleets that currently operate on LNG as they stations cannot determine the carbon content of the LNG fuel shipped to their facility. Again, the regulated party for LNG fuel should be the entity that holds title to the fuel when it is being transferred to the station.

- **Biomethane producers must have the opportunity to retain credits generated by their fuel:** As a very low carbon fuel, biomethane can generate significant LCFS credits that will be needed to support this valued renewable fuel industry as it supports the long-term goals of ARB's LCFS standard. Therefore, the growth of the biomethane industry is critical and must be encouraged at every point possible. In order for biomethane producers to enjoy these strong economic benefits (as they rightfully should), they must have the ability to designate their biomethane product through the value chain and exploit the full credit value of this very low carbon fuel. Conversely, a fuel dispensing facility cannot claim or calculate biomethane benefits as the control of the fuel is with the biomethane producer via contractual agreements. We therefore urge ARB to designate biomethane producers, much like hydrogen, as the are rightful regulated party, unless the producer and fuel dispenser agree to transfer responsibility to the fuel dispenser via contract.

[1] ARB, "Supporting Documentation," p.25.

Clean Energy recommendations: Clean Energy strongly encourages ARB staff to redefine the language for CNG, LNG and biomethane as follows:

(5) Natural Gas, including CNG, LNG and biomethane.

(A) For CNG, the regulated party is the person who holds title to the fuel when it is dispensed to motor vehicles.

(B) For LNG, the regulated party is the person who holds title to the fuel when it is transferred to the fueling facility at which the fuel is dispensed to motor vehicles.

(C) For biomethane, the regulated party is the biomethane producer unless the producer and owner of the fuel dispensing facility have a written agreement to transfer the responsibility of the regulated party to the owner of the fuel dispensing facility.

(c)(3)(B) Quarterly reporting requirements: natural gas

Clean Energy continues to be very concerned about the cost and burden of requiring all private access and public access fueling facilities to report amounts of fuel dispensed on a quarterly basis by use of separate meters at each fuel dispenser. The cost of metering at each fuel dispenser, especially for the limited differences in carbon intensity between gasoline and diesel when displaced at the current relatively low volumes, is overly burdensome and will directly undermine the LCFS's goal to encourage the greater adoption of low carbon fuels.

Clean Energy does acknowledge and appreciate the proposed change that will allow a regulated party to report the amount of fuel dispensed by another method, provided the ARB determines it is "equivalent to or better than" metering at each fuel dispenser. At a minimum, we seek clarification by the ARB as to what alternative methods would meet this standard. We cannot afford to find, after the regulation is in place, that no economically viable alternative is acceptable to the ARB.

We also understand the ARB's desire to accurately determine how much CNG or LNG is being used for transportation purposes and whether it is displacing gasoline or diesel. But we know that LNG only displaces diesel and that CNG from home fueling appliances only displaces gasoline. And there are a number of fueling settings where the displaced fuel is apparent without metering at each dispenser: municipal bus fleets, for example, are fueled exclusively with CNG; many private truck fleets are fueled exclusively with LNG. Those facilities and their fuel suppliers all keep records of the amount of fuel dispensed at that facility, and those records will show the same amount of fuel dispensed in the aggregate as will the sum of all the fuel dispensed at each dispenser at the facility. Indeed, all public and private fueling facilities have accurate records of the amount of CNG and LNG dispensed.

Clean Energy recommendations:

(1) Delete the requirement for metering at each fuel dispenser at a fueling facility and replace it with a requirement that each fueling facility report the amount of diesel or gasoline displaced by CNG or LNG during the reporting period.

(2) Treat LNG dispensed at a fueling facility as a fuel that displaces diesel.

(3) Treat CNG dispensed at a fueling facility as a fuel that displaces gasoline or diesel consistent with a ratio established by the ARB based on current CNG usage records.

Clean Energy would like to work with the ARB to develop an accurate ratio that reflects the usage of CNG in vehicles that otherwise would use gasoline or diesel.

(d)(2) Evidence of Physical Pathway

The ARB is still in the midst of conducting a number of pathway analyses for natural gas. At the December 2 workshop, for example, it announced it will soon publish five more LNG pathways. In addition, Clean Energy has previously submitted comments to the ARB challenging its identification of several pathways and their inclusion in scenarios for natural gas as a transportation fuel. For these reasons, Clean Energy believes it is premature to establish regulatory requirements that will apply to each discrete natural gas pathway, especially when there is considerable uncertainty about the differences in values among pathways.

Clean Energy recommendation: Revise ARB Draft Pathway Document for natural gas pathways to reflect realistic scenarios for the short- and mid-term and then identify the most realistic paths for inclusion.

Ban on post-transfer modifications to natural gas by a non-regulated party

Clean Energy applauds ARB's decision to eliminate the post-transfer prohibition on the blending of natural gas with ultra low carbon fuels such as hydrogen and biomethane ((a)(3)(G) in October draft) from the December draft.

95425. LCFS Credits and Deficits

(c)(1)(A) 20 percent credit rollover cap

Clean Energy is willing to support the newly added language that caps the use of prior year LCFS credits if ARB can demonstrate to us how this will benefit the Low Carbon Fuel Industry. Under this proposal, any party that is obligated to comply with the LCFS standard must use credits generated in the current year to meet at least 80 percent of its obligation under the standard. No more than 20 percent of an annual obligation would be able to be met using prior year credits. Clearly, Clean Energy clearly supports ARB's goals to achieve a 10 percent carbon reduction across the board for all fuels used in the State of California. That said, we are cautious of this proposal as we do not want our credits diminished in value as we may depend upon them to advance our fuel penetration.

Clean Energy recommendations:

(1) ARB should demonstrate how this proposed cap will benefit the Low Carbon Fuel Industry before it adopts this measure.
(2) In the event that any caps are retained on prior year credits, clarify that those prior year credits can be sold outside the LCFS market and into the broader cap and trade system proposed under "AB 32 Scoping Plan" as originally intended.

(c)(3) LCFS credit exports; import of other credits into LCFS

Clean Energy supports the ARB's position not to allow compliance credits to be purchased by regulated parties outside of the LCFS market. As a subset of the AB 32 market, it is appropriate that excess LCFS credits, including prior year credits, can be exported for compliance with other greenhouse gas emission reduction programs. Conversely, the use of credits generated outside the LCFS program to meet LCFS obligations would be very disruptive to the Low Carbon Fuel Industry and would distort the fair value market price of credits.

Clean Energy recommendation: Allow excess LFCS credits generated by regulated parties to be sold into the "cap and trade" programs identified under ARB's AB 32 Scoping Plan.

Clean Energy would like to thank the staff at ARB for their careful consideration of our comments and we look forward to working with you in the near future. Happy holidays!

Sincerely,

Todd R. Campbell
Director of Public Policy