



October 5, 2011

To: Michelle Buffington

Cc: Mr. Bob Fletcher

Mr. Richard Corey

Mr. Mike Waugh

Ms. Carolyn Lozo

From: Max Baumhefner and Simon Mui

Re: Comments on the September 14, 2011 Low Carbon Fuel Standard Workshop

The Natural Resources Defense Council (“NRDC”) is pleased to provide comments to the California Air Resources Board (“CARB”) on the Low Carbon Fuel Standard (“LCFS”) workshop of September 14, 2011. We thank CARB staff for their tremendous efforts over the past year to ensure the LCFS is implemented in an effective manner.

I. SUMMARY

NRDC agrees with CARB staff that value from the sale of electricity LCFS credits should be returned to those who are ultimately responsible for the creation of that value — electric vehicle customers. Returning value to these customers furthers the LCFS goal of increasing the use of lower-carbon fuels. NRDC supports the current draft regulations and recognizes the intent of the proposed language to accomplish this goal. NRDC also supports the staff goal of ensuring that LCFS credit value is used to create additional value above and beyond what is available today. CARB’s proposed regulations favoring rates which are appropriate for electric vehicles and active utility education and outreach are consistent with the policies articulated in both the “Phase One” and “Phase Two” decisions in the California Public Utilities Commission’s electric vehicle rule-making. However, as explained below, the current requirements alone will not ensure that credit value is returned to customers in such a way that provides an additional incentive for the use of electricity as a transportation fuel. Accordingly, NRDC suggests an additional requirement which will ensure that this goal is met, by requiring utilities to return credit value to electric vehicle customers.

Utilities participate in the LCFS on a voluntary basis so it is reasonable to impose preconditions on the receipt of credits. Electricity providers are not compelled to play, but if they chose to do so, CARB sets the rules of the game. This authority is clearly established by Section 95480.5 of the draft regulations. Utilities have stated in written comments the intention to return credit value to electric vehicle customers. NRDC fully supports these statements. However, utilities are subject to the directives of utility regulators and cannot guarantee that this will actually occur. Only CARB can ensure that credit value is returned to customers in all instances in all utility service territories throughout California. If NRDC’s proposed additional requirement is not adopted, credit value could easily be used to fund invisible and inconsequential rate reductions for all utility customers, undermining the LCFS goal of providing additional incentives for the use of lower-carbon transportation fuels.



II. NRDC SUPPORTS THE REQUIREMENT THAT UTILITIES OFFER APPROPRIATE RATE OPTIONS, BUT NOTES THAT THIS REQUIREMENT ALONE DOES NOT FULFILL THE STAFF GOAL OF RETURNING CREDIT VALUE TO ELECTRIC VEHICLE CUSTOMERS

A. NRDC supports the requirement that utilities offer their customers rates which are appropriate for electric vehicles, but requests that CARB refine this requirement to include all appropriate rate options and resolve confusion surrounding the word “discount”

The draft regulations would require utilities to provide customers with “EV time-of-use pricing as a rate option that includes a discount for off-peak charging.” NRDC supports the staff goal of requiring utilities to provide rates that are designed with electric vehicles in mind. This is consistent with the rate design principles articulated by the California Public Utilities Commission (“CPUC”). However, this requirement should not be restricted to those utility rates with the “electric vehicle” or “EV” moniker, but should include all rates that will minimize the costs and maximize the benefits of electric vehicle charging. Such rates will not be limited to separately metered EV rates, and will include “whole-home” EV rates as well. Whole-home EV time-of-use rates are likely to be functionally equivalent to general time-of-use rates, which could also provide the appropriate price signals.

The draft regulations should also be revised to reflect the fact that “time-of-use” rates are only one type of time-variant rate which could be used in the EV context. “Time-of-use” is a term of art referring to rates that have pre-determined prices for various periods of the day (e.g. “on-peak,” “partial-peak,” “off-peak,” “super-off-peak”). Other forms of rate design, including dynamic pricing or hourly pricing, could prove more efficient in the EV context.

As noted in our comments of August 5th, confusion about the word “discount” should also be resolved. “Discount” could mean either a decrease relative to on-peak periods reflecting the lower cost of electricity during off-peak periods, or imply some type of subsidy relative to non-EV rates. The CPUC has provided no signal that EV rates will be subsidized. EV rates will likely reflect the same cost-of-service rate design principles that apply to other end-uses. Accordingly, off-peak prices under such rates will not return LCFS credit value to those charging electric vehicles, but will simply reflect the cost of electricity. CARB could potentially impose a requirement that a discount be funded with LCFS credits, but NRDC does not recommend that CARB do so. As explained in Section IV, NRDC recommends that CARB simply require that credit value be returned to customers and leave it to utilities and utility regulators to determine exactly best how to meet this directive.

In order to resolve confusion surrounding the word “discount,” minimize metering costs, and not preclude the most efficient rate designs, the draft regulation rate requirement should be revised as follows:

~~Provide EV time of use pricing as a rate option that includes a discount for off peak charging~~



Provide customers with rate options that encourage charging behavior that minimizes economic, social, and environmental costs and maximizes economic, social, and environmental benefits

B. NRDC notes that the five largest utilities in California already have time-of-use electric vehicle rates and that an additional requirement is necessary to ensure credit value be returned to electric vehicle customers

CARB's proposed requirement for electric vehicle rate options is consistent with the practices of California's utilities and the directives of both the CPUC the municipal utilities governing boards. The Sacramento Municipal Utility District, Los Angeles Water and Power, Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric already offer customers time-of-use electric vehicle rates. As explained above, utilities do not offer such rates to subsidize the cost of electric vehicle charging, but because these rates best convey the cost of serving the electric vehicle load. Crafting rates that send appropriate price signals is a core part of the utility business, and a core function of utility regulators. NRDC agrees with CARB staff that LCFS credit value should be used to spur actions that would not otherwise occur. Specifically, LCFS credit value should be used to provide an additional incentive for customers to make the decision to drive on electricity. In Section IV, NRDC suggests an additional requirement meant to ensure this goal is met.

III. NRDC SUPPORTS THE EDUCATION AND OUTREACH REQUIREMENT, BUT NOTES THAT THIS REQUIREMENT ALONE DOES NOT FULFILL THE STAFF GOAL OF RETURNING CREDIT VALUE TO ELECTRIC VEHICLE CUSTOMERS

A. NRDC supports the staff goal of ensuring that utilities across the state engage in education and outreach efforts, and notes that utilities are already conducting activities that would likely fulfill the proposed requirement

NRDC supports the inclusion of requirement that utilities conduct education and outreach. In NRDC's public comments in the CPUC's electric vehicle rule-making, we repeatedly underscored the importance of utility education and outreach.¹ Such efforts are supported by CPUC Decision 11-07-029, which includes the following finding of fact: "Utilities have a role in education and outreach consistent with their primary responsibilities and the State's environmental goals."² The same decision orders the investor owned utilities to comply with the following principles in conducting such education and outreach:

- a. *Each utility has an obligation to use funds to provide its customers with information regarding the choices available for metering arrangements, rates, demand response programs, charging equipment, installation, safety, reliability, and off-peak charging.*

¹ See "Comments of the Natural Resources Defense Council on Proposed Decision on Phase Two Issues," R. 09-08-009, April 5, 2011.

² California Public Utilities Commission, D. 11-07-029, p. 78, July 25, 2011.



b. Each utility has an obligation to use funds for targeted PEV education and outreach to educate customers about the environmental and societal benefits of PEVs consistent with the state's policy goals related to the reduction of greenhouse gas emissions set forth in AB 32.³

NRDC supports the intent of the draft regulations to ensure that such efforts occur throughout California. This is consistent with CPUC policy and appropriate for a statewide program such as the LCFS.

The draft regulations suggest “public meetings, EV dealership flyers, utility bill inserts, radio and/or television advertisements, and webpage content” as examples of the type of activity that would presumably fulfill the proposed education and outreach requirement. NRDC notes that the five largest utilities in California (public and investor-owned) are already engaged in almost all of these activities and are funding these efforts with existing budgets. In other words, the five largest utilities in California, that collectively serve the vast majority of the state, would already be in compliance with this proposed requirement.

B. The education and outreach requirement will not alone meet the staff goal of returning credit value to electric vehicle customers

Because all five of the largest utilities in California are already engaged in efforts which would fulfill the proposed requirement, using LCFS money for this purpose would not accomplish the staff goal of using LCFS credits to provide additional value to electric vehicle customers. Again, NRDC supports the inclusion of an education and outreach requirement that will ensure some level of uniformity of effort throughout the state, but LCFS credit value should not be used to fund programs that are already included in utility budgets or are already underway. Because utilities are already conducting activities that would presumably fulfill this requirement, this requirement alone will not produce an additional incentive for the use of electricity as a transportation fuel. The use of LCFS money to fund existing education and outreach efforts will only reduce the amount of money that could be used to improve the economics of electric vehicles. In the following section, NRDC suggests an additional requirement that will ensure that credit value is used to provide an additional incentive for the use of electricity as a transportation fuel.

IV. AN ADDITIONAL REQUIREMENT SHOULD BE IMPOSED TO ENSURE THAT CREDIT VALUE IS RETURNED TO ELECTRIC VEHICLE CUSTOMERS TO PROVIDE AN ADDITIONAL INCENTIVE FOR THE USE OF ELECTRICITY AS TRANSPORTATION FUEL

A. To further the goals of the LCFS, credit value should be returned to customers charging electric vehicles

NRDC supports the key staff goal of returning credit value to those charging electric vehicles. Without them, no credits would be generated. Returning credit value to those customers not only reflects this fact, but creates additional incentives for Californians to use electricity as a transportation fuel. Again, NRDC supports the intent of the draft regulations to ensure that value is

³ *Id.* at 85-86.



returned to customers. However, as explained above, these requirements alone will not fulfill the goals of retuning credit value to electric vehicle customers and increasing the use of lower-carbon fuels. An additional requirement should be included which more squarely addresses these goals. The draft regulation should be revised to require that utilities:

Return credit value to customers charging plug-in electric vehicles to provide an additional incentive for Californians to switch from conventional gasoline and diesel to lower carbon intensity electricity

Such a requirement returns credit value to those, without whom, no credits would exist and furthers the goal of increasing the use of alternative fuels. It should be noted that, given the CPUC's determination that third-party charging service companies will largely be utility customers, they too would benefit from a requirement that utilities return credit value to those customers charging electric vehicles. The above-suggested language is worded to ensure that all customers, including third-party charging service providers, would receive the value derived from the sale of LCFS credits allocated to utilities.

B. Utilities state in written comments of August 5th the intention to return credit value to electric vehicle customers

NRDC's proposed requirement is consistent with these statements, which we include here:

1. Sacramento Municipal Utility District:

"In order to receive credit for electricity supplied as a transportation fuel, the Electrical Distribution Utility must establish a return of LCFS credit value to end users..." p. 6

"SMUD strongly encourages the ARB to simplify the LCFS regulated party for electricity fuel in a manner that most ensures that the value of LCFS credits are returned to the end users – vehicle owners – in order to grow the electric transportation marketplace." p. 9-10

2. Southern California Edison:

"SCE concurs with the principle of providing value back to the customer because customers have and will continue to make investments in the PEV market." p. 5

3. California Municipal Utilities Association:

"Any LCFS credits received (by utilities) will be used on behalf of their customers to support the State's goals for transitioning to increased electrification in the transportation sector." p. 1

4. Southern California Public Power Authority:

"Utilities Will Return Value to Customers" p. 3

C. CARB is the only entity that can guarantee that credit value will be returned to electric vehicle customers in all instances

NRDC does not doubt the intentions of utilities, as demonstrated in the written comments quoted above, to return credit value to customers. However, because utilities must follow regulatory



directives, they cannot guarantee that LCFS credit value will be returned to customers. While the local governing boards or the CPUC may decide to return credit value to electric vehicle customers, only CARB can guarantee that credit value will be used to further the goals of the LCFS in all instances.

D. If CARB does not require that credit value allocated to utilities be returned to electric vehicle customers, it could be used to fund invisible and inconsequential rate reductions for all utility customers

There is intense pressure, throughout California, to mitigate upward pressure on utility rates that has nothing to do with electric vehicles. If no restrictions are placed upon its use, LCFS credit value derived from electric vehicles will likely be used to mitigate this upward pressure on general utility rates. Doing so would result in rate reductions that will be invisible to individual customers and would undermine the purpose of the LCFS, as it would provide no additional incentive for drivers to switch to lower carbon fuels.

E. Utilities and utility regulators should determine how exactly to return credit value to electric vehicle customers

Were CARB to adopt NRDC's suggested requirement that credit value be returned to electric vehicle customers, utilities and utility regulators would retain the authority to determine exactly how that should best be accomplished. Within these forums, creative uses, such as the rebate program described in SMUD's comments of August 5th will emerge and can be tailored to utility service territories.

F. CARB has the authority to require that credit value be returned to electric vehicle customers

Section 95480.5 of the draft regulations makes it clear that regulated parties and parties selling LCFS credits are subject to CARB's jurisdiction. Electricity providers choose to become regulated parties. Pre-conditions on the receipt of credits by entities under no obligation to participate do not infringe upon the authority of utility regulators, including the CPUC and local governing boards. As the agency charged with implementing the LCFS, CARB has exclusive authority to set the rules of the game. Electricity providers are not compelled to play, and will do so out of a desire to secure credit value. CARB is well within its own authority in requiring that value be returned to electric vehicle customers, who are ultimately responsible for the creation of electricity credits. NRDC supports the inclusion of Section 95480.5 as it makes this explicit.

V. NRDC SUPPORTS REVISIONS MADE TO THE DRAFT REGULATIONS WHICH WILL MAXIMIZE THE NUMBER OF CREDITS GENERATED

A. NRDC supports the latest revisions which make it clear all levels of charging can generate credits

NRDC supports the revisions which do not limit LCFS credit generation to "Level II" charging. As noted in our comments of August 5th, expanding the regulation to include all levels of charging bolsters the staff goal of maximizing the number of credits generated in the electricity sector and



removes a potentially perverse incentive to charge at higher power levels that could impose greater costs on the distribution system.

VI. CONCLUSION

NRDC reiterates its support for the proposed regulatory changes and for CARB's willingness to examine these issues in detail. Our complete set of recommended changes appears in the attached appendix.

Sincerely,

Max Baumhefner
Sustainable Energy Fellow

Simon Mui
Scientist, Clean Vehicles and Fuels



VII. APPENDIX – COMPLETE SUGGESTED CHANGES:

Section 95484(a)(6):

(A) For transportation fuel supplied through electric vehicle (EV) charging equipment in a single or multi-family home, the Electrical Distribution Utility (an Investor Owned Utility (IOU) as defined in Public Utilities Code sections 216 and 218, or a local publicly owned electric utility (POU) as defined in Public Utilities Code section 224.3, which provide electricity to a retail end user in California) is eligible to opt-in as the regulated party in their defined utility territory. To receive credit for electricity supplied as a transportation fuel, the Electrical Distribution Utility must do all of the following:

1. Return credit value to customers charging plug-in electric vehicles to provide an additional incentive for Californians to switch from conventional gasoline and diesel to lower carbon intensity electricity

~~1. Provide EV time-of-use pricing as a rate option that includes a discount for off-peak charging, and~~

2. Provide customers with rate options that encourage charging behavior that minimizes economic, social, and environmental costs and maximizes economic, social, and environmental benefits

~~3.~~ Actively educate the public on the benefits of EV transportation (including environmental benefits and costs of EV charging as compared to gasoline) through outreach efforts that may include, but are not limited to, the following:

- a. public meetings
- b. EV dealership flyers
- c. utility customer bill inserts
- d. radio and/or television advertisements
- e. webpage content

34. Include in annual reporting a summary of efforts to meet requirements ~~1 and 2-3~~, as well as an accounting of the number of EVs known to be operating in the service territory.