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October 6, 2017

Mr. Sam Wade
Branch Chief
Transportation Fuels Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: Comments on Proposed Changes to the Draft Low Carbon Fuel Standard (LCFS) Regulations

Dear Mr. Wade:

On behalf of Agility Fuel Solutions, we would like to comment on the proposed changes to the LCFS program and the September 22 rulemaking workshop. Agility is a California-based manufacturer of alternative fuel solutions for Class 4-8 vehicles and we have several concerns that such proposed changes, if adopted, will seriously undermine the core purpose of the LCFS program.

General Comments and Process

We believe ARB's new provisions in the draft LCFS regulatory amendment language will impede the growth of renewable natural gas (RNG) production and the natural gas vehicle (NGV) industry as a whole. The LCFS was built upon a concept of fuel neutrality, with the ultimate goal to reduce the carbon intensity of California's transportation fuels as a whole. Instead of promoting this neutrality principle, the draft amendments provide inequitable regulatory advantages to electric vehicle (EV) applications at the expense of other low carbon fuels. Such built-in inequalities undermine the integrity of the LCFS program and will jeopardize the future availability of low carbon fuel to California transportation markets.

As further described below, Agility is also troubled by the process by which ARB is modifying the LCFS program. Two weeks provided by ARB is insufficient for stakeholders to properly comment. There have been considerable changes made in the draft language that will require detailed review and the expedited process set by ARB does not allow this opportunity. In addition, ARB has not yet released its reliance materials, including the full version of the modified GREET 3.0. All stakeholders should be allotted an appropriate and sufficient amount of time to review *all* materials related to the current proposal.

EER Values and ARB's Reliance on Technical Data

Agility supports an accurate accounting of the relative efficiencies of all technologies in the LCFS program. As ARB already knows, the Energy Economy Ratio (EER) assigned to each technology has a significant impact on the credits generated within the program, as well as competition among the various technologies. Despite these known implications, ARB is proposing to only amend EER values assigned to EV applications, while maintaining the same EERs for other fuel applications.

Furthermore, ARB is proposing to eliminate the EER classification for EV buses and trucks and classify all heavy-duty EV types under a single EER. This means that the currently codified EER for EV trucks nearly doubles, when there has been no data to support this conclusion. Truck and transit duty cycles are very different, entailing different weights and driving patterns. They should not be grouped into one category.

We have significant concerns with the technical information relied upon by ARB, including the assumptions used by the Advanced Clean Trucks Group, overlooking the impacts of charging efficiency on EVs, and the Transpower study's use of two different engines for comparison, among others. These flawed assumptions paint a picture that does not reflect the true inefficiency of heavy-duty EVs being deployed today. Specifically, ARB is using impractical, overly optimistic assumptions with respect to the future deployment of heavy-duty EV fleets at low-speed duty cycles and ignoring the real-world driving cycles of EVs that are being demonstrated today.

By contrast, this approach of using best-case scenarios for EVs has not been followed consistently in calculating CIs or EERs for NGVs or other fuel-technology applications. In fact, the EER value for NGVs and the fossil CNG lookup value were determined using the most conservative assumptions and data available. This is simply not fair nor consistent with the LCFS program's key premise of fuel neutrality. Given that state-of-the-art new NGV technology appears to be providing a better EER than the value ARB is currently assigning it, we object to ARB's inconsistency.

Verification Proposal

Another competitive advantage afforded to battery EV applications is the lack of an annual carbon intensity (CI) verification requirement. Under the verification proposal, a fuel pathway holder must verify that its actual operating CI is equal to, or less than, the certified CI that is used to generate credits. EV applications are able to generate credits using the California grid mix lookup pathway. All other producers of biofuels must apply for their own specific fuel pathway and be subject to annual CI verification. Invalidation risk is a strong concern for low carbon producers and certified pathway holders. However, under the system that ARB has developed, EV credit generators are immune to this risk and can broadly take advantage of the generic grid lookup pathway.

The rationale that "all EVs use electricity" is not sufficient justification for this change. An EV can use grid power, all renewable power, or a mix of the two; there can be wide ranges in the overall carbon intensity. In reality, overnight charge of EVs would suggest little to no renewable power. As a result, verification of EV fuel use (power generation mix) is just as important for program accuracy as verification of gas type for a natural gas vehicle. There is simply no valid reason why verification requirements should differ for certain vehicle types, particularly when all fuel-technology pathways can range widely in the greenhouse gas reductions they provide.

Buffer Account Proposal

One of the most alarming proposal is the creation of a "buffer account" that allows ARB to keep LCFS credits even after a fuel producer has verified that the fuel has a low CI than the default pathway. We don't see a valid rationale for ARB to keep these credits and believe such proposal, if adopted, would violate the takings clause of the US Constitution. Moreover, this proposal would provide little incentive to fuel producers to further reduce CI since any additional value would be retained by ARB. Finally, this proposal, like others, is inconsistent in that it does not apply to EVs even though CI of electricity will vary significantly depending on the source of electricity.

Timeline

As noted above, Agility is very concerned about the lack of time ARB has given stakeholders to provide feedback with respect to both the draft amendments and the workshop held on September 22. Two weeks is simply insufficient for stakeholders to provide meaningful feedback on the full draft amendment proposal. There have been considerable changes made with respect to EER values and CIs that warrant a full and in-depth analysis and should not be rushed into a final rule. Furthermore, ARB has yet to release full versions of the GREET 3.0 model or any associated white papers detailing the new assumptions which makes today's comment deadline unreasonable. Without this information, stakeholders will not be able to sufficiently analyze changes made in the draft amendment. We suggest that ARB hold another workshop after stakeholders have had sufficient time to review all draft regulatory language as well as all information related to GREET 3.0. We also urge ARB staff to meet with our industry experts to review the proposed changes so that we can understand the staff's rationale for each proposal.

Maintaining the Key Premise of Fuel Neutrality

As noted above, the LCFS program has been built on the premise of fuel neutrality, to provide equal incentive for any low carbon fuel delivered into California without favoring any one particular fuel or providing competitive advantages. Unfortunately, the draft amendments appear to undermine fuel neutrality by creating several inherent competitive advantages for EV fuel pathways at the expense of other fuels, notably renewable natural gas. Such favoritism undermines competition, creates further uncertainty in biofuel investments and threatens the LCFS program's ability to deliver upon its goals. Changes in CI values and other key parameters that are this dramatic require industry understanding and acceptance. Further, this world-leading program demands consistent application across all fuel types. Maintaining the integrity of the LCFS program is critical. Agility encourages ARB to re-evaluate the draft amendments and consider our suggestions for maintaining a fuel neutral approach.

Conclusions

Agility continues to support the LCFS. Regrettably, however, we must express strong opposition with the direction and intentions of the program following this latest release of draft amendments. We cannot stress enough that the LCFS program must remain a fuel neutral program without creating competitive advantages among fuels. Significant progress has been made over the years in the LCFS program and we feel such progress is in jeopardy. The best path forward is for ARB staff to revise the draft amendments by removing all competitive advantages for EV fuel pathways that are unjustified by consistent application of sound technical information. This will ensure the integrity of the program is maintained and guarantees greater success of the program in the future.

Thank you for allowing us the opportunity to provide comments and share our concerns. If you have any questions, please feel free to contact us.

Sincerely,

Kathleen Ligocki
Chief Executive Officer

Seung W. Baik
Chief Legal Officer