

November 5, 2020

California Air Resources Board  
1001 I St  
Sacramento, CA 95812

**RE: Comments in Response to Low Carbon Fuel Standard Public Workshop to Discuss Potential Regulation Revisions (October 2020)**

Beyond Energy thanks the staff of the California Air Resources Board (CARB) for the opportunity to comment in response to information presented at the Low Carbon Fuel Standard (LCFS) Public Workshop to Discuss Potential Regulation Revisions, which took place on October 14-15, 2020. By way of background, Beyond Energy is one of the premier service providers to fleets that operate material handling equipment using eligible low carbon fuels, with a focus on electric forklifts. Previously, Beyond Energy worked closely with CARB staff in the development of the methodology that is used to estimate electricity consumption by forklifts, as outlined in the Draft LCFS Regulatory Guidance 17-02 (found [here](#)). This guidance was developed in part because Beyond Energy was able to demonstrate that very few, if any, warehousing or other facilities that use electric forklifts track or meter electricity consumption separately from other electrical loads in a building's broader energy consumption. CARB's flexibility in this regard has helped hundreds of electric forklift fleet operators participate in the LCFS program.

CARB Staff communicated during the workshop that they are "considering proposing to require metered data for all electric forklift fueling" (see Slide 27). *Beyond Energy supports this change requiring metered data for electric forklift fueling, however, there are several considerations that Beyond Energy recommends CARB account for as they move forward with this potential change.*

First and foremost, Beyond Energy notes that requiring metering of all electric forklift fueling will likely decrease participation in the LCFS program by electric forklift fleet operators, particularly amongst forklift users that are sensitive to operational disruptions, smaller fleets, and fleets that have a mix of electric and propane lifts. To the extent feasible, Beyond Energy recommends that any revised reporting requirement for electric forklift fueling be developed in a way that will minimize the decrease in participation by fleets in the LCFS program.

Beyond Energy has identified the following *key considerations* for CARB staff to incorporate as they consider revisions to the requirements for reporting electric forklift fueling:

- *Implementation timeline.* Beyond Energy recommends that if a change is made requiring metered data for all electric forklift fueling, then fleets (and/or their designated fuel reporting entity) should be given adequate time to implement an acceptable metering solution. Consider, for instance, that low carbon fuels subject to verification in the LCFS program were afforded a

two-year runway to prepare for annual verification requirements. Beyond Energy highlights the following: i) there is virtually no separate metering done for electric forklift fueling done today, ii) there are thousands of facilities operating electric forklifts, and iii) there are tens of thousands of electric forklifts and other pieces of equipment in operation at these facilities. Beyond Energy recommends a minimum three-year timeframe to implement the proposed change to reporting for electric forklift fueling.

- *Developing a metering plan.* There is a wide range of operational considerations at facilities that use electric forklifts. Each facility (and where appropriate, in partnership with its designated fuel reporting entity) should be allowed to develop a metering plan. In some cases, Beyond Energy anticipates that it will be viable to report accurate electric forklift fueling information without metering every piece of equipment, particularly in facilities that have large fleets with similar equipment operating similar shifts and performing similar tasks. In other words, it is conceivable that a metering plan could include metering a subset of equipment that enables accurate reporting for all the equipment at that facility. Regardless, Beyond Energy emphasizes that facilities that use electric forklifts are very different, and that a change in the reporting requirement will be best introduced by giving each facility (or its designated fuel reporting entity) some leeway with respect to a metering plan.
- *Flexibility regarding the technological solution to requiring metering for electric forklift fueling.* There are generally three pieces of equipment that should be considered for reporting electric forklift fueling: i) the electric forklift, ii) the battery in the forklift, and iii) an industrial battery charger. In some cases, the battery and charger are built-in to the forklift (e.g., with electric walkie pallet jacks), and there is no industrial battery charger. Regardless, there are generally three pieces of equipment that *could* be tracked and enable reporting of metered electric forklift fueling. Different facilities, however, will be better served by tracking different pieces of equipment. As such, it will be important that forklift fleets and their designated reporting entities are afforded flexibility as they develop a solution to satisfy changes to electric forklift fueling requirements. This will enable fleets and designated fuel reporting entities to identify the most cost-effective and least disruptive solution for their facility or facilities.
- *Opportunity for exemptions.* Given the range of operations at facilities that use electric forklifts, and the significant changes that will likely be required as part of a shift towards metered electric forklift fueling, it will be important to determine opportunities for exemptions or deferrals for facilities that meet certain criteria. These criteria may include, but are not limited to the size of the facility, the equipment in operation, the accessibility to the facility, the impact on operations that might occur as a result of the changes contemplated, etc..
- *Distinguishing between electric forklift fueling by model year of forklifts.* As currently written, the LCFS regulation requires fleets or their designated reporting entity to distinguish between i) forklifts that are model year 2011 or later and ii) forklifts that are model year 2010 or earlier. It will become increasingly impractical to distinguish between forklifts by model year as the reporting requirements move towards metered electric forklift fueling. CARB will need to consider this as part of its potential revisions to the LCFS regulation.

Thank you again to CARB staff for the workshop and related presentation materials, and for the opportunity to provide feedback on the potential regulation revisions. Beyond Energy looks forward to working with CARB and other stakeholders to ensure the continued success of the LCFS program.

Sincerely,



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