PINESPIRE™

March 15, 2023

California Air Resources Board
Low Carbon Fuel Standard Program
Docket: lcfs-wkshp-feb23-ws

Re: Comments on Updates to the LCFS Program proposed in the February 2023 Workshop

PineSpire appreciates the opportunity to provide feedback on proposed updates to the LCFS Program as discussed in CARB's workshop on February 22, 2023.

Strengthen CI Targets and Implement Acceleration Mechanisms

First and foremost, PineSpire appreciates CARB's recognition of the importance of strengthening CI standards to provide long-term stability, spur investment, and support transition to a low carbon transportation system. Given the speed at which available technologies and the marketplace evolve relative to the duration of a rulemaking process, PineSpire also strongly supports including the proposed acceleration mechanisms in the Rule update.

Postponing Proposed Changes to Forklift EER

As evidenced in the lengthy input and revision process for the Zero Emission Forklift (ZEF) regulation, transitioning to fully electric forklifts, *specifically* for lifts trucks with <12,000 lbs. capacity, is a financial and logistical burden for California businesses.

There are significant unknowns as metering of forklifts is implemented for generating credits (see comments below), including the cost for implementation, the resources (i.e. staff time and expertise) for implementation of metering across a range of forklift owners, and the change to credits generated based on metered data compared to calculated data. Because of these unknowns, it is not clear if implementation of metering AND a reduced EER would be financially viable for entities to participate in the LCFS program. We caution CARB to implement the metering requirements first and in 2026 re-evaluate the resulting data on credit generation before making further adjustments to reflect marketplace adoption of electric forklifts. This approach would also align with the ZEF rule's phase out schedule which begins a gradual phase out in 2026.

Further, based on experience and expertise of our partners, PineSpire suggests using forklift Class instead of Capacity for *future* updates to forklift values. Forklift classes are easier to identify (visual compared to requiring a nameplate value), are trackable (similar to model years, any entity reporting now has the ability to track forklift class by individually registered equipment). Importantly, using forklift class starting in 2026 would align with the ZEF rule structure and associated compliance obligations that businesses will be working to meet.

Implementation of Measuring Energy Use and Fleet Owner Remaining as Credit Generator

PineSpire generally supports implementation of metering on forklifts in order to generate credits.

Flexibility in Data Source from Truck, Battery, Charger, or After-Market Meter.
To be successful for fleets and for data reporting integrity, it is key to allow for a range of energy reporting technologies. CARB should be open to a range of measurement solutions so that no entity is precluded by participating or bound to a single technology solution. Fleet owners have a range of skillsets, vending partners, warehouse layouts, and budget for implementing metering and there is no one-size-fits-all solution. Providing options, such as metering the forklift battery, can provide a tenfold savings compared to metering a charger circuit in many cases. We encourage CARB to leave the specific metering technology and source of data open to the forklift owner's preference. Attestations and proposed third-party verifications can help to ensure the measurement solution is effective.

Proposed "Owner of equipment capable of metering electricity" creates major ambiguity without improving data integrity or incentive alignment. Keep existing language aligning credits with the fleet owner.
As discussed above, there are a range of tools that can be implemented to measure electricty used by a forklift, not a single piece of "capable equipment". Therefore, the proposed change to the language does not provide a clear definition of what entity can claim credits and creates the possibility for competing claims.

Fleet owners are best equipped to collect data on all fleet operations including energy used, regardless if that is a static fleet owned by the facility operator, or a rental fleet that is mobile across the state. As discussed above, there are many measurement solutions already in trials by rental companies that measure energy use of the specific forklift, meaning as owner they would have access to the best data for their lifts. Regardless of business type, the Forklift Owner is subject to compliance (and costs) with the Zero Emission Forklift rule and is investing in the purchase, operations and maintenance of their fleet, making it only logical that the LCFS incentives associated with that fleet would default to the Owner.

Finally, it would not simplify fleet tracking and registrations to change the term as proposed. Typically rented forklifts are rented as a package with a battery and a charger, meaning the FSE would move with mobile fleets (i.e. rentals) regardless of how the measurement occurs. Changing the registration to a charger would create confusion and make it very difficult to align with the ZEF program which is based on forklift class.

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Phasing in Proposed Updates

PineSpire supports a phased in approach to the proposed changes in the regulation to avoid marketplace shock and negative impacts on participants electrification due to impractical timelines to adjust operations to account for rule updates.

For example, the metering rule could be phased in over the next 3 years based on forklift class, which again would help the LCFS program align with the ZEF rules.

The requirement for third-party verification should be phased in gradually with the metering requirements. We encourage CARB to carefully consider what information is specifically applicable in verification by equipment type (i.e. not having the same requirements for EV chargers as for forklifts). This can help to avoid gathering information that does not meaningfully contribute to credit integrity while failing to collect more relevant information.

Thank you for consideration of our comments. We look forward to continuing the stakeholder input process on the rulemaking.

Sincerely

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Principle
PineSpire