Divert, Inc.
23 Bradford Street, Third Floor
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May 30, 2023

VIA ELECTRONIC FILING

Cheryl Laskowski
Branch Chief
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: May 2023 Comments to the Proposed Changes for Tier 1 Simplified Calculators

Divert is an impact technology company with a mission to protect the value of food. We are founded on the purpose of creating innovative and efficient solutions toward eliminating food waste. We are passionate about proving that environmental sustainability can be as good for business and consumers as it is for the planet. To that end, Divert is focused on decarbonizing unconsumed food through source reduction, food rescue, and recycling.

We work toward our purpose every day, and have achieved successes such as:

- Using our technology platform to optimize the reduction of food waste generation for the retail food industry, which is the largest generator of food waste in the U.S.
- Cultivating partnerships with retailers and food banks to increase donations for unsold food that meets food donation guidelines but would otherwise be bound for the landfill.
- Establishing ourselves as the largest anaerobic digestion processor of food waste in the U.S., converting food waste to renewable energy via proprietary liquefaction and anaerobic digestion.

Divert is committed to helping California reduce short-lived climate pollutants through the rescue, recovery, and recycling of food waste. As California continues to achieve its food waste reduction and carbon neutrality goals, Divert is:

- Partnering with Feeding America, local food banks, and a private retailer to service over 900 California based stores to identify and facilitate the rescue of unsold food to provide to local communities and families in need.
- Providing California food retailers access to Artificial Intelligence (AI) and Internet of Things (IoT) technology to maximize source reduction and improve the proper handling and freshness of perishable goods.
- Expanding food waste processing and anaerobic digestion capabilities with a new California food waste to energy facility that makes carbon negative renewable natural gas (RNG).

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Divert is committed to helping the California Air Resources Board (CARB) and the State of California achieve its carbon-neutrality goals. CARBs recent publication of the Proposed New Simplified Tier 1 Calculator for Biomethane from Anaerobic Digestion of Organic Waste is overall a step in the right direction of accurately reporting the carbon reduction benefits associated with these projects. However, Divert believes there is opportunity to provide more accurate and simplified reporting. In response to CARBs call for feedback, Divert would like to make the following recommendations:

- **Identify and ensure recognition of avoided landfill methane benefits of organic waste diversion**
- **Adjust implementation details of the landfill-specific gas collection efficiency to allow for a workable solution**
- **Create a co-production credit for scenarios in which multiple byproducts are created**
- **Incorporate net mileage into the feedstock transport distance calculation**
- **Ensure that draft calculations provide less complex solutions across the calculator**

We respectfully submit the following comments in response to the request for comments on the "Draft Proposed Changes for Tier 1 Simplified Calculators" from the Low Carbon Fuel Standard (LCFS).

Identify and ensure recognition of avoided landfill methane benefits of organic waste diversion

Divert is supportive of CARB's continuous interest in exploring opportunities to ensure that their mandatory emission control requirements for landfills help reduce methane emissions. As CARB has mentioned in the Draft 2022 Scoping Plan, annual methane emissions from landfills will be higher through 2030 than originally anticipated because the state of California did not achieve its goal of reducing organic waste disposal of 50% below 2014 levels by 2020.[1] Currently, the state of California assumes that 20% of methane emissions comes from landfills in California. However,a 2019 study by NASA that was conducted in partnership with CARB and the California Energy Commission stated that landfill contributions to the state's methane emissions could be as high as 41% of all methane point sources in California.[2] Additionally, a 2021 Scientific Aviation Phase II Report released by CARB suggests that CARB inventory underestimates the total amount of methane emissions by more than 30%.[3] Fortunately, CARB and CalRecycle are leading the effort to aggressively reduce the amount of SLCPs that end up in landfills.

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[1] California Air Resources Board, "Draft 2022 Scoping Plan Update", Page 215
[2] Duren, R.M., Thorpe, A.K., Foster, K.T. *et al.* California's methane super-emitters. *Nature* 575, Pages 180−184 (2019). https://doi.org/10.1038/s41586-019-1720-3
[3] California Air Resources Board, "Airborne Methane Emissions Survey", Page 3

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Continuous exploration into accurately measuring and reporting methane emissions from landfills is crucial to measuring the success of California's methane reduction goals. Currently, CARB assumes that there is a 75% methane capture rate among landfills, but there are several other reports and models that suggest this assumption rate is too high. Alternative methods of measurement, including satellite imagery reporting, have been suggested as a solution to determining accurate leakage, but these methods remain complex and individualized per landfill. Divert urges CARB staff to focus on opportunities for simplified but accurate quantification of the methane benefits of avoided landfilling and develop opportunities to incentivize these reductions. By properly recognizing the true methane reduction benefits of organic waste diversion projects CARB will be directly aligning with state initiatives aimed at reducing SLCP emissions and diverting organic waste.

Adjust Implementation Details of the Landfill-Specific Gas Collection Efficiency to allow for a workable solution

In the recent publication of the Draft Simplified Tier 1 Calculator, CARB has provided the opportunity for applicants to receive greater recognition for the methane reduction benefits of their projects through the diversion of organic waste from landfills by allowing the use of landfill-specific gas collection efficiencies. Divert welcomes the opportunity to highlight greater methane avoidance, however as outlined, the details of determining landfill-specific values are unworkable as they require significant analysis by the pathway applicant that is not possible.

Per CARB's Draft Instructions released with the Calculator, when proposing a site-specific GCE, the quantity of methane generated must be calculated using information about the gas collected by the landfill and the quantity of fugitive methane emissions measured over the landfill surface for a period of no less than one year. The owners and operators of AD facilities simply have no way of knowing the quantity of gas collected or the amount of fugitive methane emissions measured from a landfill that they do not control.

Additionally, applicants seeking to use a site-specific GCE must also demonstrate from which landfill(s) the feedstock was diverted using historic bills of lading or waste collection routes. This information would be extremely difficult for companies like Divert to track down as oftentimes the generators of wasted food may not even have consistent records. Currently Divert services over 1,500 stores within the State of California using backhaul logistics to take the wasted food to the appropriate facility either for donation or processing. Our customers are hard at work to comply with the requirements of SB 1383, which includes providing CalRecycle with a new set of recordkeeping requirements that they have not previously needed to provide.

Under the regulations, a self-hauler of organic waste must keep delivery receipts and weight tickets from each entity receiving organic materials. The recordkeeping requirement for generators donating wasted food is even more intensive, with generators having to provide the contract or written agreement information for food recovery organizations and services, schedules of donation deliveries or collections, quantity of the food donated in pounds per month, and the types of food each organization and service will receive or collect. There is

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currently no requirement that the generators keep a record of which landfill the waste has been diverted from and it would be unlikely that generators of waste develop this record without a requirement to do so.

To ensure consistency among reporting and given that there is no first-mover advantage of developing such landfill-specific GCEs and the commercial challenges of gathering this information as an AD facility, we recommend that CARB instead publish best estimates of individual landfill GCE and let applicants use these values, as they become available, in place of the statewide default value. The development of these estimates would be in line with the intention of the simplified calculator, providing project developers a clear path towards determining their CI score.

Create a co-production credit

In scenarios where multiple byproducts are created, Divert is recommending that a co-production credit be calculated into the net-savings section of the Tier 1 Calculator. At Divert, we are focused on reducing carbon emissions in every step of our operations. Our facilities accept unsold food material that cannot be donated and incorporate depackaging and processing that readies it for on site anaerobic digestion. The stored carbon in food is transformed into biogas and then converted into RNG. In wastewater treatment facilities and other production processes similar to ours, a solid digestate byproduct is produced that has many agricultural uses.

The development of biosolids increases opportunities to offset the development of energy-intensive synthetic fertilizer, which is currently responsible for 2.1% of global greenhouse gas emissions.[4] Biosolid development is likely to increase in the coming years as CalRecycle meets its capacity planning requirements to process organic waste through SB 1383 mandates and the incorporation of any carbon reduction calculations associated with its production would be timely. Application of these biosolids to land can help improve soil health and can help meet the objectives of the California Department of Natural Resources' Healthy Soils and Natural and Working Lands Climate Strategy.[5] The 2022 Draft Scoping Plan put forth by CARB has, for the first time, included projections for a reduction in the natural and working lands emissions and highlights that a key objective of the plan is to "accelerate the pace and scale of healthy soil practices to 50,000 acres annually by 2025". By allowing for the creation of a co-production credit in scenarios in which multiple byproducts are developed, CARB will be leading alongside the British Columbia LCFS program and further reinforcing its commitment to the carbon neutrality goals set forth in the 2022 Draft Scoping plan by expanding the types of fuels incentivized for use in its carbon neutrality goal.

Introduce a true-up to the crediting to accommodate scenarios where the CI goes above and beyond the initial modeling

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[4] Menegat, S., Ledo, A. & Tirado, R. Greenhouse gas emissions from global production and use of nitrogen synthetic fertilisers in agriculture. *Sci Rep* 12, 14490 (2022). https://doi.org/10.1038/s41598-022-18773-w

[5] California Department of Natural Resources, "Natural and Working Lands Climate Smart Strategy",

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Divert recommends that CARB adjust all crediting by allowing for a true-up to accommodate scenarios where the CI score goes above and beyond the initial modeling. Allowing this true-up or allowing for the adjustment based on verified CI levels rather than estimated CI levels, permits CARB to better capture the real-world benefits and create incentives for participants to further reduce their carbon emissions in operations.

California is a leader in the development of a clean-fuels credit market and has paved the way for additional jurisdictions to adopt similar standards. Oregon is currently considering an expansion of its Clean Fuels Program that would incorporate a true-up for projects that are an improvement upon the initial CI estimates.[6] Creating consistent requirements across the west coast creates a stronger market for the adoption of low-carbon fuels and places California as a continued driver of market standards.

Incorporate net mileage into the feedstock transport distance calculation

In the current form, the Tier 1 model seeks to calculate the total distance in miles that the feedstock travels between destinations. We are recommending that CARB consider clarifying that this calculation can be made to accommodate a total net miles driven. Many companies have made operational strides to lower emissions and meet sustainability goals, and innovations to more efficiently aggregate feedstock and remove pollution from the transportation process should be recognized in CI modeling.

For example, Divert utilizes an innovative reverse logistics process that aggregates unsold food products from food retailers with negative carbon emissions. Divert's process removes the need for diesel trucks to pick up material from separate store locations or make separate trips to landfills.

Divert has worked directly with the Washington Department of Ecology and S&T Squared, the independent owners and maintainers of the tool that British Columbia adopted for their LCFS program. Both have endorsed the usage of net mileage in their CI calculations. By clarifying its use within this calculation and developing a high-level calculation for net mileage, California will further incentivize organizations to incorporate carbon-reducing innovations into their logistics operations.

The draft calculator errs in increasing complexity in some areas

Overall, we caution CARB against areas of added complexity that are not aligned with the intent of a simplified tool. For example, the Draft Calculator requires moisture measuring of feedstock, but the supporting documents do not describe sufficient detail about what measurement methods would be sufficient. The requirement for moisture measuring also complicates how residuals should be accounted for instead of a simple calculation of net feedstock processed.

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[6] State of Oregon Department of Environmental Quality, "Notice of Proposed Rulemaking - June 29, 2022", Page 168

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An additional example of increased complexity can be found in the calculation change to the fugitive emissions from biogas upgrading. Where the previous version of the calculator assumed a flat 1% rate, the Draft Calculator attempts to calculate the methane slip by difference from the reported raw biogas, pipeline injection, and flare flows and compositions. Standard instruments that are not used for custody transfer typically do not guarantee an accuracy better than 1% of their full range. Calculating the small methane slip based on several instruments reading much higher flows and concentrations introduces an uncertainty range larger than the methane slip itself and could have substantial impact on the overall CI while varying significantly across reporting periods. Retaining a standard value or using an alternative estimate such as technology vendor performance expectations would likely be no less accurate than attempting to calculate the value.

Such complexity in calculations such as the examples provided above diminishes the value of a Tier 1 application and, as is current practice today, may motivate many applicants to select a Tier 2 calculation. Divert would welcome the opportunity to meet with CARB staff to talk through opportunities to diminish complexity in specific calculations and develop a simplified tool for all projects aimed at reducing organic waste.

Conclusion

By considering the above recommendations, CARB staff has the opportunity to inspire further innovation in the low-carbon fuel sector while ensuring that the state does not prematurely move backwards. These suggestions will strengthen the LCFS program by:

- Incorporating accurate reporting in emissions reduction and inspiring additional carbon reduction operational improvements
- Ensuring that the LCFS program prioritizes the removal of short lived climate pollutants by keeping incentives in place to build up necessary organics infrastructure
- Creating opportunities for a cohesive and simplified calculator that remains accessible for all project developers

We would welcome an opportunity to discuss these suggestions further and additionally talk through our operations to provide further context to our suggestions. If you have any questions, please do not hesitate to contact me at cthomas@divertinc.com or at 202-421-1107. We are eager to collaborate further on this critical effort.

Sincerely,

Chris Thomas
Vice President of Public Affairs
Divert Inc.