



March 15, 2023

VIA ELECTRONIC FILING

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

Re: February 2023 Workshop to Discuss to the Low Carbon Fuel Standard Program

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 create advanced technologies and sustainable infrastructure to prevent wasted food, driving social and environmental impact. Divert currently works with five Fortune 100 companies and nearly 5,400 retail stores providing technology, logistics and anaerobic digestion facilities to retailers to reach their sustainability goals.

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).

Divert is committed to helping the California Air Resources Board (CARB) and the State of California achieve its carbon-neutrality goals and would like to make the following recommendations:

- **Postpone the elimination of the avoided methane crediting and ensure this crediting remains available to those addressing the goals set forth in SB 1383**
- **Adjust carbon intensity calculations to incorporate fugitive landfill methane emissions**
- **Set a 2030 Compliance Target of at least 30% or higher reduction in carbon intensity targets**
- **Incorporate a True-Up Credit to properly recognize the True Environmental Performance of All Pathways**

We respectfully submit the following comments in response to the February 22, 2023 public workshop to discuss potential changes to the Low Carbon Fuel Standard (LCFS).

**Postpone the elimination of the avoided methane crediting and ensure this crediting remains available to those addressing the goals set forth in SB 1383**

SB 1383 requires the state to achieve a reduction in SLCP emissions, including a 40 percent reduction in methane, by 2030.<sup>1</sup> In its 2022 Scoping plan, CARB outlines its SLCP related emissions achievements, while noting that these reductions have not kept pace with the broader progress towards California's decarbonization goals.<sup>2</sup> The document states that "more aggressive action is needed" to meet the state's legislative goals.<sup>3</sup>

As CARB has acknowledged, the emission impacts of SLCP's are especially strong over the short term, and timely action on reducing these pollutants can have an immediate beneficial impact on climate change and public health.<sup>4</sup> Achieving reductions in SLCP's would help reduce ambient levels of ozone and particulate matter and the cardiovascular and respiratory effects associated with air pollution, and many of these benefits would accrue in disadvantaged communities, which are often located near sources of SLCP emissions.<sup>5</sup>

SB 1383 requires a 40 percent methane reduction target by 2030, but by 2025 the state is expected to remain roughly 8 million tons short of anaerobic digestion or composting capacity.<sup>6</sup>

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<sup>1</sup> California State Legislature, "SB 1383 - Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills" 2015

<sup>2</sup> California Air Resources Board, "Final 2022 Scoping Plan Update", Page 224

<sup>3</sup> ID

<sup>4</sup> California Air Resources Board, "Short-Lived Climate Pollutant Reduction Strategy", Page 1

<sup>5</sup> California Air Resources Board, "Short-Lived Climate Pollutant Reduction Strategy", Page 13

<sup>6</sup> Governing Magazine (March 10, 2022), "[It's Time America stopped Throwing Out Food Waste](#)"

Scaling up California's organic waste recycling infrastructure is crucial to achieving the adopted goals and such infrastructure can be incredibly costly to local jurisdictions. Private businesses can help the state achieve these goals with project investments both inside and outside of California.

Despite this, the February 22 workshop elaborated on a consideration to phase down the avoided methane crediting in the LCFS program. We appreciate the additional insight CARB provided from the November 9, 2022 workshop, however we are urging CARB to postpone the removal of avoided methane crediting opportunities until the state's SLCP goals are met, especially for entities that are helping California develop adequate organic waste recycling capacity. By phasing out the avoided methane crediting prematurely, CARB will be adversely impacting the investments private entities are willing to make in anaerobic digestion projects that help achieve California's SLCP reduction goals. These entities need long-term market certainty in order to finance projects that are often amortized over 30 year periods. Regardless of whether these private entities participate directly in the LCFS market or voluntary market (or whether these avoided SLCP reduction projects are inside or outside California), their customers look to the State of California and CARB's methodology to assign a value to their product's environmental attributes. The State of California and CARB have worked hard to create market certainty and demonstrate to project developers and investors that this market is viable and stable. The removal of avoided methane, a fundamental piece of what drives methane reduction innovations, would be a significant disruption to what makes this market so attractive to new investors. Should CARB continue to move forward with phasing out the crediting of avoided methane, we would urge the Board to be creative in developing additional incentives and opportunities for industry members to continue to pursue the SLCP emissions reduction goals of SB 1383.

We are also looking to CARB to expand upon their comment stating that they "expect complementary policies will also value methane reductions and support biomethane demand in the future." Divert welcomes insight on any future policies that help further reduce SLCP emissions and the opportunity to actively support and develop these industry impacting policies. At this time however, to adopt an end date to methane avoidance crediting without supporting policies in place will disincentivize new project investments before the state has had the opportunity to address organics processing needs and its SLCP reduction goals. Divert would recommend that CARB work with industry stakeholders to establish which sectors will be utilizing RNG and determine what alternative incentives are needed to advance projects that directly achieve the state's SLCP emissions reduction goals.

### **Adjust carbon intensity calculations to incorporate fugitive landfill methane emissions**

As CARB continues to look for opportunities to drive down methane emissions in California, we urge the Board to revisit the carbon intensity calculations to incorporate fugitive landfill emissions within the state. This will allow policymakers, regulators, and industry members to better understand the level of SLCP emissions that the state is actually working to reduce. Divert is supportive of CARB's interest in updating Emissions Factors (EFs) embedded in Tier 1

Simplified CI Calculators and its openness to consider life cycle inventory data from various sources, including Argonne's GREET 2021 model, United States Environmental Protection Agency, and peer reviewed literature, among others. With this latest rulemaking, we are urging CARB to update its 75% methane landfill capture assumption in the LCFS Tier 1 Calculator to reflect the latest monitoring data.

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.<sup>7</sup> 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.<sup>8</sup> 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%.<sup>9</sup> Fortunately, CARB and CalRecycle are leading the effort to aggressively reduce the amount of SLCPs that end up in landfills (notwithstanding the methane avoidance proposal referenced above which could reverse these efforts). It's imperative that the state incorporate new research so CI modeling can capture these critical emissions reductions and record California's progression towards carbon neutrality and true SLCP reduction.

To ensure that more recent research is being reflected within CARB's modeling, we suggest that CARB adopt the EPA's Waste Reduction Model v15 calculations for landfill capture efficiency presented in Exhibit 6-10 of "Documentation for Greenhouse Gas Emission and Energy Factors Used in the Waste Reduction Model (WARM)."<sup>10</sup> For food waste under landfill gas capture that meets California's regulatory requirements, the EPA estimated an average capture efficiency of 60%, including the oxidation of fugitive methane in the soil cover. By updating this assumption, new project developers will better articulate the emissions being offset through their operations, creating more incentive to further reduce SLCPs with increased organics processing capacity. CARB will further incentivize emissions reduction required by SB 1383 and help CalRecycle reach its organic waste recycling goals. Adjustments to this assumption will also provide CARB and the state of California a clearer understanding of what needs to be done to further mitigate methane levels in the state and allow for the greatest environmental benefit to California and beyond.

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<sup>7</sup> California Air Resources Board, "Draft 2022 Scoping Plan Update", Page 215

<sup>8</sup> 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>

<sup>9</sup> California Air Resources Board, "Airborne Methane Emissions Survey", Page 3

<sup>10</sup> U.S Environmental Protection Agency, Office of Resource Conservation and Recovery, "Documentation for Greenhouse Gas Emission and Energy Factors Used in the Waste Reduction Model (WARM)", Page 18

### **CARB should adopt a 30% or higher reduction in carbon intensity targets**

As CARB staff has highlighted in several of their recent workshops, the LCFS program has significantly exceeded expectations and low carbon fuels are coming to the market quicker and in greater volumes than previously anticipated. This indicates that the greater stringency in the program is possible to allow for even bolder reductions in emissions to take place.

We support the effort that CARB staff has taken to outline future scenarios that set forth carbon intensity reduction goals for 2030 and beyond in 2045. By undertaking this long term planning, fuel producers understand what is expected of their projects and initiatives and can adequately invest their resources accordingly (notwithstanding the methane avoidance proposal referenced above which would run counter to these efforts). Using a structured and transparent process for the LCFS targets will offer all parties the needed certainty to make the appropriate level of investments in the low carbon fuels needed to achieve California's goals. These recommendations are also well timed with Governor Newsom's bold call to climate action and align the LCFS nicely with California's goal to achieve carbon neutrality by 2045.<sup>11</sup> We understand that industry comments from the November 9th workshop overwhelmingly supported a 2030 compliance target of at least 30% CI reduction and that the 25% reduction by 2030 was indicated as insufficient. Divert reiterates its December 9, 2022 comments highlighting the desire to implement a projection scenario that includes a 30% carbon intensity reduction by 2030 and accelerates towards 90% by 2045. However, as noted in Divert's first recommendation above, one of the fastest ways to achieve this goal is to ensure methane avoidance crediting remains place to further the state's SLCP reduction goals and if that proposal remained in place it would counteract these accelerated goals.

### **Incorporate a True-Up Credit to properly recognize the True Environmental Performance of All Pathways**

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.<sup>12</sup> 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.

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<sup>11</sup>Office of the Governor Gavin Newsom, " Governor Newsom Calls for Bold Actions to Move Faster Toward Climate Goals", 2022

<sup>12</sup> State of Oregon Department of Environmental Quality, "Notice of Proposed Rulemaking - June 29, 2022", Page 168

## 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 reverse its historic emissions reduction accomplishments. These suggestions will strengthen the LCFS program by:

- Incorporating new innovations 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 develop necessary organics infrastructure
- Creating opportunities for a cohesive and uniform RNG marketplace across North America

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](mailto:cthomas@divertinc.com) or at 202-421-1107. We are eager to collaborate further on this critical effort.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris M. Thomas". The signature is fluid and cursive, with the first name "Chris" and last name "Thomas" being clearly legible.

Chris Thomas  
Vice President of Public Affairs  
Divert Inc.