GENERATE

August 8, 2022

Ms. Rajinder Sahota, Deputy Executive Officer
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Generate Capital's Comments on Potential Changes to the CA LCFS

About Generate

Generate Capital, PBC (Generate)[1] is a leading sustainable infrastructure company driving the infrastructure revolution. Generate builds, owns, operates, and finances solutions for clean energy, water, waste, and transportation. Founded in 2014, Generate partners with over 40 technology and project developers and owns and operates more than 2,000 assets globally.

Generate is the one-stop shop offering pioneers of the infrastructure revolution tailored funding and the support needed to get projects built. Our Infrastructure-as-a-Service model delivers affordable, reliable, and sustainable resources to over 2,000 customers, companies, communities, school districts and universities. Together, we are rebuilding the world.[2]

We Applaud California for Providing a Clear Long-Term Vision Toward Carbon Neutrality, and for Valuing Input from the Clean Investment Community

We are proud to be a California-headquartered company and we continue to appreciate the visionary thinking from California's leadership with respect to environmental issues. This vision makes it such an exciting jurisdiction to do business in.

Our experience financing, building, and operating these assets, gives us valuable perspective on what will help accelerate/enable the transformation of California's transportation (and related) infrastructure to address the climate crisis. We feel that in this iteration, and future iterations, of the LCFS, CARB should continue to find a way to highlight a role for the clean technology investor's voice.

Firms such as Generate are actively trying to turn the vision of a decarbonized California into reality, but there remain real world challenges that deserve attention from CARB, and other senior California leaders, and we appreciate the chance to provide input on both what's working and what could be improved. Included herein are our suggestions to update the LCFS so that California can continue to lead the nation in the cost effective, rapid decarbonization of the transportation sector.

CARB Should Swiftly Increase the LCFS Stringency in Line with Achieving Full Carbon Neutrality

Generate is a finance provider, owner, and operator of a range of transportation climate solutions in California and across the country (including renewable energy generation, electric bus fleets, hydrogen fuel cells, and anaerobic digestion (AD) facilities that produce renewable natural gas), and we strongly support strengthening the LCFS. The LCFS program has been critical to giving our investment committee

[1] As a Public Benefit Corporation, we have a fiduciary duty to the public benefit, in additional to the classic fiduciary duty to serve our shareholders from a financial standpoint.
[2] For more information, please visit www.generatecapital.com.

at Generate the confidence to green light our investments in renewable transportation fuels and vehicles for the California market. These investments have also given us valuable knowledge and experience that has allowed us to advocate for similar policies in other jurisdictions.[3]

We appreciate all of the considerations that CARB has to factor into its decisions about whether and how much to adjust the 2030 Carbon Intensity goals including: supply and demand for alternative fuels; carbon intensity trends of alternative fuels; clean fuels programs in other jurisdictions; and alignment with transportation and equity objectives. As a key investor in this market, we maintain a set of analytical tools internally to attempt to assess supply and demand balance in the credit market. Our current set of initial internal modeling, which includes these as well as many other market dynamics, shows that a 2030 program target of greater than 30% may be possible. We look forward to working with CARB to explore this level of ambition in more detail and maximizing GHG reductions in the transportation sector in California.

Methane Accounting from the Waste Sector Deserves to Be Updated

Generate Upcycle (a subsidiary of Generate Capital) invests, owns, and operates sustainable infrastructure assets in the waste-to-value and circular economy sectors. We invest in waste-to-value solutions including organic waste processing via composting, anaerobic digestion (AD), recycling, and wastewater treatment (including biosolids processing).

We own and operate a portfolio of North American AD and composting facilities as well as other food waste recovery assets with additional initiatives across biosolids, wastewater treatment, sustainable fuels, and sustainable fertilizer production. Across more than 20 facilities in the U.S. and Canada, Generate Upcycle currently processes approximately a half a million tons of food waste annually and composts an additional 365,000 tons of organic waste per year. Our highly trained expert engineers and operators utilize high tech monitoring and best in class maintenance regimes to prevent leakage at our facilities.

The flyover studies conducted by NASA's Jet Propulsion Laboratory for the California Methane Survey have demonstrated that California's landfill emissions are higher than previously understood and that both composting and AD must also be highly mindful of methane performance.[4] Consequently, CARB's landfill emission inventories and associated avoided methane benefits when organic material is diverted from landfills for beneficial use should be revisited.

More proper recognition of the facility-specific benefits for landfill diversion, to both composting and AD facilities, that directly leads to expedited funding for facility development is crucial. Properly valuing the methane generated by organic waste and the environmental/climate benefits of capturing and destroying that powerful GHG will be critical in helping to ensure that organic waste recyclers are able to invest in best practices in maintenance/operations and in the highest quality monitoring technologies.

A Portfolio Approach Will Lead to the Best Outcomes

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[3] For example, Generate is a strong stakeholder voice in support of a Clean Fuel Standard for New York. See a list of partners in that effort here: https://www.cleanfuelsny.org/

[4] Cusworth, D.H., Duren, R.M., Thorpe, A.K., *et al*. 2020. Using remote sensing to detect, validate, and quantify methane emissions from California solid waste operations. *Environmental Research Letters,* 15(5) [doi:10.1088/1748-9326/ab7b99]

Leaders at the highest levels of both climate science and the clean tech investment community agree that a balanced portfolio of technologies is the proper path forward to drive deep GHG reductions rapidly. For example, the Intergovernmental Panel on Climate Change (IPCC), in its most recent approved draft report on GHG mitigation, entitled *Climate Change 2022, Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*,[5] states that:

> "Reducing GHG emissions across the full energy sector requires major transitions, including a substantial reduction in overall fossil fuel use, the deployment of low-emission energy sources, switching to alternative energy carriers, and energy efficiency and conservation."

Similarly, McKinsey Sustainability's report[6] exploring the net-zero transition finds that:

> "Effective actions to accelerate decarbonization include shifting the energy mix away from fossil fuels and toward zero-emissions electricity and other low-emissions energy sources such as hydrogen; adapting industrial and agricultural processes; increasing energy efficiency and managing demand for energy; utilizing the circular economy; consuming fewer emissions-intensive goods; deploying carbon capture, utilization, and storage technology; and enhancing sinks of both long-lived and short-lived greenhouse gases."

California has long been the jurisdiction in the United States that has most fully embodied a multi-sector, multi-technology approach to decarbonization and increasing the ambition of the LCFS to at least a 30% reduction by 2030 would build on this tradition in commendable pursuit of the ultimate goal—carbon neutrality.

Conclusion

Generate shares CARBs commitment to Accelerating investment in low-carbon fuel production and the associated infrastructure buildout. We will continue to deploy billions of dollars of capital toward a broad set of solutions, and our commitment to continuously optimize toward the best answers is deep. We will keep our focus on the long-term outcomes of sustainability—as we say at Generate: our time horizon is forever.

Such long-term investment is easier when policy in leading jurisdictions, such as California, remains supportive. Thank you for the opportunity to provide our input on potential important changes to the LCFS. We commend the dedicated staff and leadership at CARB for their leadership of this process and look forward to continued investment to help the state achieve its environmental, economic, and social justice goals.

Sincerely,

Suzanne Hunt
Director, Policy

[5] https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_FullReport.pdf
[6] https://www.mckinsey.com/business-functions/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring