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May 31, 2023

Matthew Botill
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Tier 1 Calculator Tool – Biomethane from Anaerobic Digestion of Organic Waste

Dear Mr. Botill:

True North Renewable Energy (TNRE) would like to express our continued support for the LCFS as a transformational, technology-neutral, and performance-based program that has helped to rapidly usher in a wide array of low carbon fuels for California's transportation market. TNRE has worked through the proposed Simplified CI Calculator for LCFS fuel life cycle analysis for Biomethane from Anaerobic Digestion of Organic Waste (T1 OW) and would like to provide the following recommendations and observations.

T1 OW Calculator Tool

To complete the calculator tool, TNRE input data based on the following assumptions:

- This is a California Biogas Facility.
- Feedstock is mixed organic waste including food scraps, green waste, and other organic waste as feedstock.
- The project includes diverting a fraction of this waste to anaerobic digesters, producing biogas, cleaning and purifying the biogas, and then injecting it into a natural gas pipeline. The digestate and the rest of the waste is composted. The ultimate use of purified pipeline quality biogas is expected to be transportation fuel in the form of compressed natural gas (CNG) in California.

TNRE would like to provide the following comments and recommendations on the T1 OW Calculator Tool:

- The tool was very intuitive and easy to use.
- In Section 2.1 Organic Waste Feedstocks, include additional options as well as "other" to include "mix waste organics" from a materials recovery facility, for example.
- Calculations under the Pathway Summary tab seem to be incorrect. In rows 17 and 18 "Avoided Landfilling and Compost Emissions", those rows have a negative, which made "avoided emissions" positive instead of negative. When completing the tool, the Pathway Summary reveals a CI equal to 100 value points in the positive which seems to be an error.

About TNRE

TNRE develops, builds, and operates state-of-the-art organics-to-renewable energy facilities, including large scale, regional high-solids anaerobic digestion infrastructure. These facilities reuse and repurpose organic resources diverted from landfills to create beneficial, sustainable products, including biomethane

and soil-amending compost. TNRE is focused on partnering with communities in California to meet local and state requirements for diverting organic waste from landfills and cutting short-lived climate pollutant (SLCP) emissions, while generating compost and renewable natural gas to help decarbonize other sectors of the economy and meet California's climate goals.

Conclusion

Thank you again for the opportunity to comment on this tool. We hope you will continue to leverage the LCFS as a critical tool to achieve SLCP methane reductions and organics diversion goals. As noted in our comments on previous workshops, California has enough existing organic waste resources to achieve greater than a 90% reduction in CI, *just from in-state, waste-based pathways*.¹ Accordingly, we hope CARB will fully explore the opportunity the LCFS can play in advancing the State's carbon neutrality and other climate goals.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary Aguinaga". The signature is fluid and cursive, with the first name "Gary" and last name "Aguinaga" clearly distinguishable.

Gary Aguinaga
President
True North Renewable Energy, LLC

¹ <https://www.arb.ca.gov/lists/com-attach/16-lcfs-wkshp-jul22-ws-AXUHb1EiVmAGX1Q4.pdf>