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California Energy Commission
Docket Office
1516 Ninth Street
Sacramento, CA 95814

Docket # 19-SB-100

Transmitted online via: <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-SB-100>

Re: California Association of Sanitation Agencies Comments on the SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future

Dear Commissioners and Members:

The California Association of Sanitation Agencies (CASA) appreciates this opportunity to comment on the draft SB 100 Joint Agency Report (Draft Report). CASA is an association of local agencies, engaged in advancing the recycling of wastewater into usable water, as well as the generation and use of renewable energy, biosolids, and other valuable resources. Through these efforts we help create a clean and sustainable environment for Californians. Our members are focused on helping the State achieve its 2030 mandates and goals for greenhouse gas emissions reductions, which include:

- Reducing short-lived climate pollutant (SLCP) emissions
- Effectively diverting organic waste from landfills
- Providing 60 percent of the State's energy needs from renewable sources
- Reducing carbon intensity of transportation fuel used in the State
- Increasing soil carbon and carbon sequestration under the Healthy Soils Initiative, Forest Carbon Plan, and Natural and Working Lands Climate Change Implementation Plan

Our comments address the importance of including renewable biogas and biomethane derived from anaerobic digestion in the Draft Report and the pathways modeled to determine the feasibility of achieving the mandate, as well as the potential role these renewable gases have in the short- and long-term resilience of communities. As regulations adopted under SB 1383 are implemented, significantly more renewable gas will be produced at publicly owned wastewater treatment plants (POTWs) through the co-digestion of wastewater residuals with organic waste diverted from landfills. Co-digestion is a proven approach of economically producing renewable energy/fuel and producing a soil amendment to improve California's soil ecosystem.

The Draft Report states the SB 100 mandate (to supply 100 percent of electric retail sales to end-use customers via renewable and zero-carbon resources by 2045) is achievable with existing technologies. However, existing technologies that meet zero-emissions criteria (including drop-in renewable biomethane) but have 'other barriers to development', were excluded. The referenced 'barriers to development' for biomethane were:

- Inadequate cost and supply data for modeling
- Inadequate supply potential for power sector

There have been multiple efforts to collect and/or produce cost and supply information over the years for various state agency objectives to mitigate climate change (including CARB, CalRecycle, CPUC, CEC, and

SWRCB). The latest of which has been an explicit call for POTWs to support the Short-Lived Climate Pollutant Reduction Strategy (in response to the State's Scoping Plans and Senate Bills 605 and 1383) by diverting organic waste from landfills to existing anaerobic digesters for the cost-effective recycling of the material into biosolids and production of biogas for beneficial use.

More than 94% of the state's wastewater flow is treated through anaerobic digestion which generates biogas. As quantified in the [SWRCB's Co-Digestion Capacity Analysis](#) (released by the Governor's office in August 2020), POTWs can utilize their existing infrastructure in the form of anaerobic digestion to co-digest the divertible food waste across the state thereby removing a major source of fugitive methane from landfills (which account for ~20 percent of the state's methane). Utilizing co-digestion, California's POTWs can significantly increase biogas production to provide, among other benefits, a source of low carbon fuel, onsite renewable energy, or flexible generation renewable power under the BioMAT. Additionally, the resulting biosolids can be utilized as a soil amendment to enrich the soil on which it is land applied as well as sequester carbon as called upon by the Governor's [Executive Order N-82-20](#), as well as the [Healthy Soils Initiative](#), [Natural and Working Lands Climate Change Implementation Plan](#), and [Forest Carbon Plan](#).

While CASA supports the collective goals of the state agencies, we have a growing concern that state agencies are not coordinating the development of their respective programs, resulting in conflicting objectives, thereby threatening the implementation of projects to divert organic waste and utilize the biogas produced. For example, while CARB strongly supports CalRecycle and the SWRCB in their efforts to implement SB 1383 regulations (influencing the production of biogas from co-digestion for use as a transportation fuel or for onsite power and heat production), CARB is also moving forward with Advanced Clean Truck and Fleet Rules to support electrification of government vehicles and eventually all passenger vehicles. While this promotes biogas to be converted to power, it disincentivizes the long-term opportunities for development of biogas into a low carbon fuel. Furthermore, electrification with renewable and clean resources is a key objective of the Draft Report, but the report does not consider biogas to power from POTWs citing there is not enough information on cost and supply for power production even though the production of biogas can play a significant role in offsetting the electrical demand of the sector and complement California's renewable energy portfolio. When POTWs satisfy their own power needs from biogas, it reduces demand from the grid, and helps achieve multiple state objectives which are not considered in the Draft Report.

CASA strongly recommends:

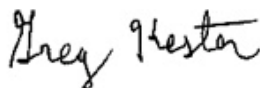
- Inclusion of biogas and biomethane in SB 100 PATHWAYS modeling.
- State level interagency coordination on the utilization of biogas and biomethane in alignment with and support of the goals and mandates firmly set in:
 - [2017 CARB Scoping Plan](#)
 - [2018 CEC Deep Carbonization in a High Renewables Future: Updated Results from the California PATHWAYS Model](#)
 - [2020 CalRecycle Organic Waste Methane Reduction Regulations](#)
- Utilizing the cost and supply information as provided in:
 - [2019 SWRCB Co-Digestion Capacity Analysis](#)
 - [2020 CEC The Challenge of Retail Gas in California's Low Carbon Future](#)
 - [2020 LLNL Getting to Neutral – Options for Negative Carbon Emissions in California](#)
 - CASA's 2015 estimate of statewide power, heat, and low carbon transportation fuel potential. Note the approach very conservatively estimated an additional 300 MWh per year of electricity or 1 million additional MMBtu per year of thermal energy or 27 million

addition gasoline gallon equivalents or 24 million additional diesel gallon equivalents could be produced annually if existing anaerobic digester capacity were fully utilized.

- Supporting the Draft Report's recommendation supporting research and innovation in clean energy technologies, including biogas/biomethane produced by POTW anaerobic digesters.

We appreciate the opportunity to comment on the draft SB 100 Joint Agency Report and the importance of incorporating biogas/biomethane utilization, and further appreciate your willingness to consider our recommendations. Please contact Greg Kester at gkester@casaweb.org (or 916-844-5262) and Sarah Deslauriers at sdeslauriers@carollo.com (or 925-705-6404) if you have any questions.

Sincerely,



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