CALIFORNIA ASSOCIATION of SANITATION AGENCIES
925 L Street, Suite 200 • Sacramento, CA 95814 • TEL: (916) 446-0388 • www.CASAweb.org

August 19, 2022

Mr. Tony Brasil
Mr. Craig Duehring
Mr. Paul Arneja
Mobile Source Control Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: CASA Comments on the Proposed Advanced Clean Fleets Rulemaking – Public Fleet Requirements

Submitted online via: https://ww2.arb.ca.gov/applications/public-comments#COMM2

Dear Mr. Brasil, Mr. Duehring, and Mr. Arneja:

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to provide comments on the Proposed Advanced Clean Fleets (ACF) Regulations, specifically, the Public Fleet Requirements. CASA is an association of local agencies performing essential public services – cleaning wastewater to protect public health and the environment while advancing community resilience through the recovery of renewable resources (water, biogas, biosolids, nutrients, etc.). Through these efforts we help create a clean and sustainable environment for Californians.

Our members are focused on helping the state achieve carbon neutrality (both its current 2030 mandates and goals for greenhouse gas [GHG] emissions reductions) which include:

- Reducing short-lived climate pollutant (SLCP) emissions by accepting diverted organic waste from landfills
- Reducing carbon intensity of transportation fuel by using the biogas we generate
- Providing 60 percent (later 100 percent) of the state's energy needs from renewable sources
- Increasing soil carbon and carbon sequestration by land applying biosolids and supporting the Healthy Soils Initiative, Natural and Working Lands Climate Smart Strategy, and Wildfire and Forest Resilience Action Plan

However, as written, the draft Public Fleet Requirements do not support the continued recovery and use of biogas as a low carbon transportation fuel (a renewable resource that will be generated in perpetuity at publicly owned wastewater treatment works [POTWs]). As a result, the reliability of the essential public services we provide, as well as the viability of SB 1383 implementation, are severely threatened. As a parallel, the proposed regulation exempts emergency fire department vehicles due to their critical nature. While we are not opposed to cleaner technology, it is imperative that our ability to treat society's waste is not jeopardized.

We ask that the following comments be given strong consideration by the CARB Board and staff, as well as associated state agencies, to prioritize resilient essential public service operations (to protect public health and environment) while achieving carbon neutrality and environmental justice.

It is critical for CARB to understand that more than 90 percent of California's wastewater solids are treated via anaerobic digestion (AD). AD is a key component of the solids treatment process at POTWs, producing renewable non-fossil fuel biogas and biosolids (an organic soil amendment meeting EPA and

SWRCB requirements for land application replacing chemical fertilizers). By utilizing these recoverable resources, we close the loop on the circular economy.

As quantified in the SWRCB's Co-Digestion Capacity Analysis (released by the Governor's office in August 2020), POTWs can utilize their available AD capacity to co-digest all divertible food waste across the state thereby removing a major source of fugitive methane from landfills (representing ~20 percent of the state's methane). Utilizing co-digestion, California's POTWs will significantly increase biogas production.

We use the readily available and renewable, non-fossil low carbon biogas to produce renewable energy[1] and heat to sustain critical POTW operations (reducing the demand on the electrical grid), as a transportation fuel to support heavy-duty essential fleet and critical response vehicles, and a few members have pursued pipeline injection. The latter two uses are increasingly being considered by many utilities since no single use is sufficient for beneficially using all non-fossil fuel biogas produced today, and especially when factoring in SB 1383 implementation. The reason POTWs are unable to use all the biogas produced is due to various regulatory limitations (discussed below) and the resulting uncertainty in the future viability of incentive programs (e.g., LCFS and CEC alternative fuels programs) that have made these projects viable for POTWs being non-profit essential public service providers.

We do not believe CARB staff intended for the Proposed ACF Regulations (and the Scoping Plan Update) to halt projects that seek to accept diverted organic waste for methane reduction at landfills and investments in beneficially using the recovered biogas, in turn significantly decreasing the resilience of wastewater-related essential public services that rely on the beneficial use of renewable biogas for a variety of supporting functions.

The Role of Wastewater Sector Non-Fossil Fuel Biogas in Achieving Scoping Plan Goals, ACF Mandate, and Federal NO_x Reduction Mandates, While Ensuring Reliable Essential Public Services

A pillar of the 2017 SPU is the Short-Lived Climate Pollutant (SLCP) Reduction Strategy, targeting landfill methane emission reductions. SB 1383 requires organic waste be diverted to anaerobic digesters or compost facilities[2]. As mentioned earlier, the SWRCB estimates existing POTW anaerobic digester capacity can accept all divertible food waste, producing about 29 billion standard cubic feet of renewable wastewater-derived non-fossil fuel biogas. Adding this to what is produced from municipal sludge digestion results in about 87 million diesel gallon equivalents annually (fueling about 575 million truck-miles). Converting this biogas to a low carbon transportation fuel helps clean the air immediately by eliminating diesel particulate emissions, lowering nitrogen oxide (NO_x) emissions[3], and creating a potentially carbon negative fuel. Without the ability to use this as a vehicle fuel or otherwise, diversion of landfilled food waste to POTWs will be challenged and methane emission reductions are unlikely to be realized.

The Governor's Executive Order N-79-20 states regulations must be "… ***consistent with state and federal law***…" and implemented "…***where feasible***…" Our members are already required to invest in

[1] Existing and potential renewable energy projects are being limited by air districts due to federal ozone attainment requirements. As a result, POTWs need other reliable and resilient options for the management of biogas in the future.
[2] Due to Clean Air Act requirements, the expansion of existing or siting of new compost facilities will be significantly limited.
[3] We understand the 200-Vehicle Project managed by SCAQMD has yet to be completed. This study assesses real-world emissions from low-NO_x heavy-duty trucks and potential performance issues can be identified and rectified by CARB's Heavy-Duty Inspection and Maintenance, in the unlikely event that engine manufacturers are unable to resolve the discrepancy.

compressed natural gas (CNG) fueled vehicles and infrastructure by various regulatory requirements, including SCAQMD Rule 1196. Furthermore, the Clean Air Act (CAA) requires the South Coast air basin, which is in extreme non-attainment for ozone, to come into compliance by 2023 via NO_x reductions. However, Table 8 of CARB's October 28, 2021, Mobile Source Strategy shows that only 7.9 tons per day of NO_x reductions will be achieved in the South Coast Air Basin by 2023, which is about 100 tons per day less than CARB's commitment, which was adopted as part of the 2016 State Strategy for the Implementation Plan. For those in violation, the CAA Sections 179 and 185 allow the USEPA to withhold federal highway funding, increase offsetting requirements, and impose an annual penalty on major stationary sources (some public WWTPs estimated the penalty to exceed $1,000,000 per year).

The proposed ACF public fleet regulations only consider zero emission vehicles (ZEVs) for POTWs, since the definition of near-zero emission vehicles (N-ZEVs) in the draft language does not consider renewable CNG vehicles to be N-ZEV.[4] Our members have attempted to purchase ZEVs, but manufacturers are unable to deliver electric medium- and heavy-duty trucks specific to POTW needs and have stated in bids they will be unavailable for years to come. When they do become available, we have stated concerns unique to our sector where our members must respond to emergencies (that are far more frequent than those declared at the state level that are exempt per the regulation) and the needs for addressing those emergencies to ensure public safety. The question of feasibility is critical – heavy-duty ZEVs are not commercially available and will not be for years, nor will they provide the level of service and reliability of existing heavy-duty low-NO_x trucks fueled with wastewater derived non-fossil fuel biogas. These issues, if not addressed, will incentivize the continued use of diesel trucks and result in stranded assets for POTWs who have invested in vehicles that can be fueled with non-fossil fuel biogas.

While use of our biogas as a low carbon transportation fuel was determined to be the highest and best use in the SB 1383 Economic Analysis, it is not feasible for all POTWs; therefore, it is important to have a diverse set of beneficial uses. The recent decision by the CPUC to implement SB 1440 provides incentives for pipeline injection of our renewable non-fossil fuel biogas, especially when co-digesting food waste, but there are limitations to the amount that can be injected. This is due to requirements in the Cal/OSHA Process Safety Management (PSM) program under CCR Title 8 Section 5189(b). There are exemptions in Section 5189(b)(1) which apply to the wastewater sector, but injection is limited under the exemption to 10,000 pounds of biogas, or when all biogas is sold on the retail market. Compliance with the PSM requirements is very challenging and costly for POTWs and experience has shown it will be avoided. Thus, while there may be an increase in pipeline injection, it will not be the solution for much of the biogas produced nor will it work for many agencies. Many POTWs are too far removed from an interconnection point and PSM requirements will be too burdensome for pipeline injection to become a viable solution for the wastewater sector.

California POTWs have very limited experience with producing hydrogen from biogas. Moreover, we have experienced significant performance challenges with the reliability of stationary fuel cells. Considering mobile and on-site stationary uses of hydrogen fuel necessitates funding to support researching geographically diverse demonstration projects to vet the viability supporting essential public

[4] The draft ACF language states that "Near-zero-emissions vehicle" or "NZEV" means a vehicle as defined in title 13, CCR section 1963(c)(16), i.e.: An on-road plug-in hybrid electric vehicle which has the same definition as that in 40 CFR section 86.1803-01, amended on July 1, 2011, OR an on-road hybrid electric vehicle that has the capability to charge the battery from an off-vehicle conductive or inductive electric source and achieves all-electric range as defined in section 1963(c)(1).

services. Additionally, it is critical we fully understand the emissions profiles related to supplementing the existing natural gas pipeline with hydrogen. Studies have shown that combustion of natural gas supplemented with hydrogen gas can increase NO_x emissions, which is in direct conflict with federal and state mandates seeking its reduction.

This set of circumstances is threatening the use of a renewable resource which will continue to be produced as we flush our toilets and as a natural part of wastewater treatment and will have to be wasted in the absence of alternatives, putting essential public services at risk and stranding assets which have been procured with significant ratepayer funding.

During the Board's discussion of the Draft SPU the morning of June 24th, Board members stated that our sector is unique in the roles we play, supporting SLCP reduction per SB 1383 and being essential public service providers at the intersection of various regulations with an objective of protecting the public health and environment. Board Member Sperling added that it is important for CARB staff to consider flexibility, specifically with respect to our continued use of the resources we recover to ensure our services are not negatively impacted.

In summary, beneficial use of renewable non-fossil fuel biogas from POTWs is critical to achieving carbon neutrality and ensuring community resilience, while remaining in compliance with existing federal and local air and water quality regulations. The laudable objectives of SB 1383 will otherwise be in jeopardy and community resilience will be at risk.

CASA strongly requests CARB staff work directly with CASA and the wastewater sector to maintain multiple pathways for renewable non-fossil fuel biogas use. **Based on our August 19th conversation with Rajinder Sahota and Craig Segall, CASA will separately provide proposed regulatory language for CARB's consideration that would allow the wastewater sector to maintain reliability and achieve the emission reductions required to achieve clean air and carbon neutrality.**

Please contact me with any questions at sdeslauriers@carollo.com or at 925-705-6404. We are ready to work closely and collaboratively with you on this critical effort while reliably maintaining essential public and emergency services for all communities under all conditions.

Sincerely,

Sarah A. Deslauriers, PE, ENV SP
Climate Change Program Manager

cc: Liane Randolph – Chair, CARB
Sandra Berg – Vice Chair, CARB
John Eisenhut – CARB Board Member
Daniel Sperling – CARB Board Member
Gideon Kracov – CARB Board Member
John Balmes – CARB Board Member
Diane Takvorian – CARB Board Member
Dean Florez – CARB Board Member
Hector De La Torre – CARB Board Member
Davina Hurt – CARB Board Member

Barbara Riordan – CARB Board Member
Phil Serna – CARB Board Member
Nora Vargas – CARB Board Member
Tania Pacheco-Werner – CARB Board Member
Connie Leyva – CARB Board Member
Eduardo Garcia – CARB Board Member
Rajinder Sahota – CARB Deputy Executive Officer, Climate Change & Research
Craig Segall – CARB Deputy Executive Officer, Mobile Sources & Incentives
Anil Prabhu – CARB
Shereen D'Souza – CalEPA Deputy Secretary
Ashley Yee – CalRecycle
Mark de Bie – CalRecycle
Cara Morgan - CalRecycle
Kyle Pogue – CalRecycle
Brian Stalker – CalRecycle
Timothy Hall – CalRecycle
Karin Sung – CPUC
Chris Hyun – SWRCB
Adam Link – Executive Director, CASA
Greg Kester – Director of Renewable Resources, CASA