<table>
<thead>
<tr>
<th><strong>DOCKETED</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Docket Number:</strong> 21-IEPR-01</td>
</tr>
<tr>
<td><strong>Project Title:</strong> General Scope</td>
</tr>
<tr>
<td><strong>TN #:</strong> 241342</td>
</tr>
<tr>
<td><strong>Document Title:</strong> CASA Comments to CEC on IEPR 012822</td>
</tr>
<tr>
<td><strong>Description:</strong> CASA Comments to CEC on IEPR 012822</td>
</tr>
<tr>
<td><strong>Filer:</strong> Raquel Kravitz</td>
</tr>
<tr>
<td><strong>Organization:</strong> California Association of Sanitation Agencies</td>
</tr>
<tr>
<td><strong>Submitter Role:</strong> Public</td>
</tr>
<tr>
<td><strong>Submission Date:</strong> 1/31/2022 11:11:16 AM</td>
</tr>
<tr>
<td><strong>Docketed Date:</strong> 1/31/2022</td>
</tr>
</tbody>
</table>
January 28, 2022

The Honorable J. Andrew McAllister, Commissioner
California Energy Commission
1516 Ninth Street
Sacramento, CA  95814

Submitted via email: iepr@energy.ca.gov

Re: 2021 IEPR, Volume III – Renewable Gas and Hydrogen (Docket 21-IEPR-01)

Dear Commissioner McAllister:

The California Association of Sanitation Agencies (CASA) appreciates this opportunity to comment on Volume III of the Draft 2021 Integrated Energy Policy Report (Draft IEPR) focused on Decarbonizing the State’s Gas System. CASA strongly agrees with and supports the Commission’s recognition that California will continue to need gas for reliability purposes and the focus on moving to renewable gas to decarbonize the system.

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 gas, 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 carbon neutrality (and its current 2030 mandates and goals for greenhouse gas (GHG) emissions reductions) which include:

- Reducing carbon intensity of transportation fuel
- Reducing short-lived climate pollutant (SLCP) emissions
- Effectively diverting organic waste from landfills
- Providing 100 percent of the state’s energy needs from clean and renewable sources
- Increasing soil carbon and carbon sequestration under the Healthy Soils Initiative, Natural and Working Lands Climate Change Implementation Plan and Climate Smart Strategy, and Forest Carbon Plan

Specific comments on Chapter 4 of Volume III (Opportunities for Renewable Gas and Renewable Hydrogen) of the Draft IEPR are as follows for your consideration:

**CASA supports the intent of the definitions of renewable gas (or biomethane) and renewable hydrogen.**

As defined in the document, renewable gas or biomethane, is “biogas that has been upgraded to meet industry pipeline quality standards.” It further states that “raw gas streams cannot be directly delivered to end users as they may contain a range of hydrocarbons, carbon dioxide, hydrogen sulfide, nitrogen, water, and other impurities or contaminants. It is treated to reach the minimum quality demanded by pipeline transmission and distribution companies.” CASA interprets this to allow for both wastewater-derived biogas and thermal conversion process-derived gases to be conditioned to meet pipeline quality standards.

Under state law, the definition of renewable gas also includes biogas that can be used onsite for renewable energy generation as well as production of transportation fuel. For example, Senate Bill 1383 requires the Commission adopt recommendations for the development and use of “renewable gas, including biomethane and biogas.” **To maintain consistency with state law and avoid inadvertently limiting the definition of renewable gas, CASA recommends the Commission adopt the following definition:**

“Renewable gas is gas that is generated from a renewable (RPS-eligible) feedstock, including biogas, biomethane, and renewable hydrogen.”
Additionally, the definition of renewable hydrogen as stated in the document includes hydrogen derived from methane sources, including RPS-eligible sources.

**CASA agrees with the statement that “renewable gas and renewable hydrogen are zero-carbon fuels that may be able to displace or supplement fossil gas use in electric generation for reliability and renewable integration.”**

A “generic firm dispatchable resource” is defined as a zero-carbon generating technology that can be dispatched as needed. Examples include natural gas with 100 percent carbon capture and sequestration or 100 percent drop-in renewable fuels (e.g., green hydrogen and biomethane). While these definitions are sufficient (based on the definition of biomethane under Public Utilities Code section 650), the technologies are currently excluded from modeling under Senate Bill 100 efforts due to “inadequate cost and supply data.” This simply is not accurate. CASA provided comment on this as part of our review of the Joint Agency Report. We included the following cost and supply information for reference:

- 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.

CASA appreciates the opportunity to comment on the Draft IEPR, and further appreciate your willingness to consider our comments and recommendations. Please contact me at sdeslauriers@carollo.com if you have any questions.

Sincerely,

Sarah A. Deslauriers, P.E., ENV SP
Climate Change Program Manager, CASA

cc: Ms. Liane Randolph, Chair, California Air Resources Board
Mr. Richard Corey, Executive Director, California Air Resources Board
Ms. Rajinder Sahota, Climate Change and Research, California Air Resources Board
Mr. Max Gomberg, State Water Resources Control Board
Mr. Christopher Hyun, State Water Resources Control Board
Mr. Adam Link, Executive Director, California Association of Sanitation Agencies
Mr. Greg Kester, Director of Renewable Resources, California Association of Sanitation Agencies