

## DOCKETED

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**To:** Commissioners, California Energy Commission

**From:** Christiana Darlington, District Counsel

**Subject:** Electric Program Investment Charge Draft Triennial Investment Plan for 2018-2020

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Thank you for the opportunity to make comments on the first draft concepts for the new Electric Program Investment Charge (EPIC) Triennial Investment Plan covering 2018-2020. There are several specific topics that the Placer County Air Pollution Control District would like to support, as well as expand. We look forward to participating in the upcoming activities as well, as you push towards a late April approval of the Plan. We hope that there will be another opportunity to comment when the Plan is more fully developed.

The Theme that the District will be primarily commenting on is Theme 4, and more specifically Section 4.4. The first subsection, 4.4.1, focuses on the problems related to tar and impurities in the syngas produced from gasification. This is an important topic, but we would also strongly recommend looking at barriers to interconnection of small scale facilities in terms of the technologies associated with preventing islanding of electricity, specifically how small scale projects can handle Direct Transfer Trips in a more affordable fashion. For example, examining recent work developing Variable Speed Generator set (VSG) and hybrid platform control systems could significantly reduce the costs of many renewable energy technologies – increasing penetration while maintaining grid stability. Another challenge for gasification technology is their feeder systems that can be sensitive to feedstock density and size. Research on this topic could also be helpful.

With regards to Subsection 4.4.2, the District supports the initiative and appreciates the reference to the tree mortality crisis in California. We would like to add that biochar production should be added to the list of innovative solutions that should be studied. In some gasification systems, the biochar is reused for energy production, and in others, it can be removed and used for other purposes, such as soil amendment or media for odor or water control, that facilitate market development for innovative biomass to energy projects. Another important issue mentioned in this section is the transportation costs challenge to bioenergy. We look forward to discussing this issue further, and hope to see more details about how you envision this work in future drafts.

Subsection 4.4.3 is another important section that discusses impurities in biogas generally. We would encourage the Commission to design funding incentives around the identification of impurities that are truly a problem for human health or the infrastructure, by looking at the control systems and fuel specifications used around the United States and the world, so that time is well spent. It is also essential that the CPUC closely follow this work, as that agency plays a

significant role in determining the use of biogas. Note that the topic of tars within gasification, discussed in Subsection 4.4.1, could be integrated within this general topic area.

Also, please consider looking at not just air pollution control technologies when considering direct combustion technology, such as Selective Catalytic Conversion (SCR), but also how less water can be used when implementing these technologies, as the water use is the other major challenge for these projects at a small scale. As noted, making improvements to “reliable off the shelf” technology that could meet air quality requirements and reduce water consumption could be a breakthrough for the beneficial use for energy of dead trees in California, and for biomass removed from fuel reduction treatments.

The District would also like to comment on Section 6.3 of Theme 6, relating to optimizing management of the energy-water nexus. Forest health and sustainable management practices are an essential component of improving water management in California. Funding studies that focus on forest management practices in terms of water storage, sedimentation, soil moisture content and uptake to the vegetation will provide critical information.

Our last comment pertains to Theme 7. The Section could be improved by recognizing that one significant barrier to achieving California’s goals is the interface between technology providers and the local governments within which they are located. Particularly in rural areas, local rules and processes can serve as impediments for deployment when no significant technical reason for the delay exists, while at the same time outdated understandings within the rules may miss important environmental considerations. An analysis of regulatory systems at local governments, including water and air districts, would provide opportunities for an increased awareness of the opportunities that renewable energy can provide, as well as the impetus to make changes to local ordinances and policies that can often determine whether a project is successful. We recommend adding these concepts to Theme 7.

Thank you for your time, and we do hope that another round of comments will be made available so that we can continue to participate in this important process.