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California Energy Commission
Docket Office, MS-4
Re: Docket No. **09-IEP-1H**
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us

Re: Docket No. 09-IEP-1H: California Energy Commission (Energy Commission) Committee Workshop on Combined Heat and Power Issues

To Whom It May Concern:

Southern California Edison Company (SCE) appreciates the opportunity to provide comments on the Committee Workshop on Combined Heat and Power (CHP). Our comments herein focus on three main areas: the importance of efficiency and thermal matching when structuring regulations for CHP, the market assessments presented by ICF Consulting and Lawrence Berkeley Labs, and the study on CHP potential at wastewater treatment plants.

A consistent theme echoed by attendees was the importance of system efficiency to reduce fuel use and thermal matching to maximize the use of waste heat. Both elements are important design features in any CHP application. The fuel impacts and environmental benefits of CHP depend specifically on what fuel the CHP system uses and what fuel it replaces. As most CHP systems are fueled by natural gas and are, therefore, Greenhouse Gas (GHG) emitters, new CHP installations must be encouraged to use less fuel and operate more efficiently than alternative generation to assure overall GHG reduction for the State. Currently, AB 1613 proceedings are addressing these types issues for systems 20 Megawatt (MW) and less. SCE is hopeful that the Energy Commission, in developing the AB 1613 Guidelines, will pursue premium efficiencies and fuel standards that reduce waste heat and "dramatically advance the efficiency of the state's use of natural gas," as required by the statute[1].

SCE appreciates the analysis presented by ICF Consulting and Lawrence Berkeley Labs on the market and technical potential of CHP in California. SCE agrees with the assertions of both parties that the California Air Resources Board's (CARB's) goal of 4,000 MW of CHP associated with 6.7 million metric tons (MMT)of GHG reductions is overly optimistic in terms of penetration and expected GHG emissions reductions.[2] Appropriate assessment of the CHP market requires

[1] See Public Utilities Code §2840 through 2845
[2] CARB estimates 6.7 MMT/CO2e GHG reductions associated with 4,000 MW of CHP by 2020 versus the ICF Study estimate of 2.52 MMT/CO2e GHG reduction associated with 3,351 MW by 2020.

agreement on assumptions and methodologies, especially as these studies influence policy actions and regulatory changes. For example, according to the 2008 California Gas Report, total commercial and industrial natural gas consumption is about 500 million MMBtu. CARB assumes 144 million MMbtu, or nearly one-third of the process natural gas requirements could be converted to CHP. This is a very aggressive target. SCE recommends a coordinated effort among agencies to ensure consistency of data, assumptions, and any final conclusions used for CHP technical and market forecasts.

Finally, regarding the study on CHP at California's Wastewater Treatment Plants, presented by Pramod Kulkarni, SCE appreciates the opportunity to understand specific available applications for CHP systems. However, further studies should include input from California utilities, like SCE, that have extensive experience interconnecting and contracting with the types of facilities referenced in the study.[3] In our experience, the most significant problem in using CHP at wastewater treatment facilities is securing air permits (for dairies the issues are both air and water discharge permits). As noted in the study, SCE agrees that CHP units should be allowed to use waste gas, subject to the same air permit requirements that would apply to a boiler and an electricity generator that provides the same outputs.

The same report makes a specific comment indicating that CHP systems are "disqualified" from getting certain prices.[4] SCE would like to clarify that CHP generators are not, per se, qualified for pricing options. CHP Qualifying Facility (QF) generators receive prices based on avoided cost, as defined under the Public Utility Regulatory Policies Act (PURPA) and implemented in D. 07-09-040. Generators *choose* to provide either a firm or as-available product. The choice of firm or as-available is a business decision made by the generator. To the extent a facility operates on a 24/7 schedule, it may be able to identify a firm capacity component of the export energy it offers to the buyer, thus receiving firm capacity pricing.

In closing, SCE supports the advancement of cost-effective CHP to the extent systems can provide greater efficiency and lower emissions than from alternative generation. We look forward to working with the Energy Commission as the development and implementation of CHP policies continue. Thank you for your consideration of these comments.

[3] See Energy Commission-200-2009-014-SD. Refers to wastewater treatment, water reclamation, dairy, food processing, and beverage making facilities.

[4] "Uncertainty of gas production and fluctuating power needs at the wastewater treatment plant site lead the receiving utility to declare biogas-based CHP as an "intermittent" resource, thus disqualifying it from getting the prices offered to a "firm" resource."

If you have any questions or need additional information about these written comments, please contact me at 916-441-2369.

Very truly yours,

/s/ Manuel Alvarez

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