

## DOCKETED

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*Comment Received From: Manuel Alvarez*

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**Southern California Edison Company's Comments on the California Energy  
Commission Docket No. 15-IEPR-03**

*Additional submitted attachment is included below.*

March 23, 2015

California Energy Commission  
Docket Office, MS-4  
Re: Docket No. 15-IEPR-03  
1516 Ninth Street  
Sacramento, CA 95814-5512  
docket@energy.state.ca.us

Re: *Southern California Edison Company's Comments on the California Energy Commission Docket No. 15-IEPR-03: Staff Workshop on Preliminary Assumptions Used in the Electricity Production Cost Model*

Dear Commissioner McAllister:

On March 10, 2015, the California Energy Commission ("Energy Commission") held a Staff Workshop on Preliminary Assumptions Used in the Electricity Production Cost Model ("the Workshop") as part of the 2015 Integrated Energy Policy Report ("IEPR") process. Southern California Edison ("SCE") participated in the Workshop and appreciates the opportunity to provide these written comments.

SCE has no comments on the Energy Commission's Electricity Production Cost Model. With respect to Energy Commission's Final Report on the Estimated Cost of New Renewable and Fossil Generation in California ("Report"), SCE requests that the Energy Commission clarify the portions of the Report that currently appear to be unsupported or to rely upon outdated information. SCE's specific comments are set forth below.

- **Chapter 4, Cost Trends for PV Components at p. 66:** The second paragraph discusses the elements that comprise instant costs. SCE requests that the Energy Commission explain whether the technology costs are different from equipment costs, and if so, how. In addition, SCE requests clarification regarding the absence of construction costs, e.g., direct and indirect materials engineering, in the Report.
- **Chapter 9:**
  - **Technology Description:**
    - **p. 122:** The second paragraph states that CC power plant rated a nominal capacity of 500 (no duct firing) and 550 MW (duct fired), but current "F" Class Frame CC units offer over 600 MW. Newer "F" class CT's are employed at the El Segundo G.S. and Lodi E.S. and are capable of Fast

Ramp/Start to 150 MW in 10 minutes. Given the current status of renewable deployment, SCE recommends that the Report use these units.

- **p. 123:** In the first paragraph, the Energy Commission refers to an “advanced design” CC power plant. The Energy Commission supplied no additional information (stating such information was not made available). In light of this, The Energy Commission should consider the 1x1 F class (El Segundo, Lodi) CC and CT (Marsh Landing) as the study reference.
- **Natural Gas Fired Technologies:**
  - **Conventional Combustion Turbine at p. 123:** The Energy Commission should delete the statement regarding there not being “a single F-class turbine operating in this configuration in California” and that such “use within California in the future is unlikely” “due to the lower efficiency of the F-Class turbine alone.” Marsh Landing Generating Station is a 4 x 0 “F” class unit site that has been online and generating as of 5/1/2013.
  - **Conventional Combined Cycle with Duct Firing at p. 125:** SCE requests that the Energy Commission provide support for the statement regarding the added efficiency of duct firing being similar to, but less advanced, than conventional CT gas turbines. SCE believes that the efficiency of an unfired CC is 55-59%, and that the efficiency of a conventional CT is 41-45%.
  - **Capacity Factor at p. 129:** The first paragraph refers to an “assumption of increased use” that is “supported by the experience of CT’s in the database.” SCE requests that the Energy Commission clarify what it means by an assumption of increased use and to what supporting experience it is referring.
  - **Plant Side Losses at p. 129, First Paragraph:**
    - The data acquisition period is seven years old. A more recent measurement would more accurately capture the efficiencies of newer equipment and parasitic load increases / decreases from additional equipment/uprates/upgrades.
    - SCE requests clarification regarding the statement that staff does not have values different from those determined for the LM6000 gas turbine facilities. The first LMS-100 units began generating in 2006.
  - **Fixed and Variable Maintenance Costs – CC Operating Costs at p. 129:** SCE requests clarification regarding the content of the third bullet about the cost of providing cooling water for plant operations. CC plants

use water for more things than cooling. Does the Report consider the costs for acquisition and treatment of water for steam cycle, make up water, CT NOX water injection, inlet air treatment fogging systems (if so equipped), and CT water washing?

- **Chapter 10, Levelized Benefits, Figure 65 at p. 173:** SCE requests clarification regarding whether CTs were considered in the ranking, and if not, why not?

In conclusion, SCE appreciates the Energy Commission's consideration of these comments and looks forward to its continuing collaboration with the Energy Commission. Please do not hesitate to contact me at (916) 441-2369 with any questions or concerns you may have. I am available to discuss these matters further at your convenience.

Very truly yours,

*/s/ Manuel Alvarez*

Manuel Alvarez