

DOCKETED

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Description:	Letter regarding inclusion of synchronous condensers in combustion turbine projects for potential discussion at the December 8, 2015, Site Visit and Informational Hearing
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Steve Berberich
President & Chief Executive Officer

November 23, 2015

Michael Picker, President
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear President Picker,

As you know, California is experiencing unprecedented changes in how electricity is generated, delivered and consumed. As increasing amounts of renewable resources come on line, we are encountering new challenges in maintaining grid stability.

One of those challenges is that renewable resources, though they provide clean power to serve load, often do not provide the reactive power and inertia that is commonly supplied by gas-fired synchronous generators. As a result, when these services are needed, grid operators must inefficiently run carbon-intensive generators at minimum load.

A low cost solution is to ensure that future gas-fired generation, where feasible, be designed with synchronous condenser capability. This capability can be accomplished with the installation of a clutch that enables the generator to disconnect from the gas turbine. The generator can then operate as a synchronous condenser, supplying essential reliability services needed for grid stability, without burning natural gas.

Adding a clutch to a combustion turbine project increases the total installed cost by about 1%-2%. This modest investment is often prudent, in that it increases the optionality of the generator by enabling it to operate in synchronous condenser mode when required by system conditions. If clutches are not installed when combustion turbine projects are first constructed, and the grid later needs low-carbon sources of essential reliability services, retrofits or standalone synchronous condensers may have to be procured, at a cost of hundreds of millions of dollars.

We thus request the Commission to consider making clutches a default option in procurement decisions related to new combustion turbine generation projects.

I look forward to discussing this with you, your fellow Commissioners and staff.

Sincerely,

Steve Berberich
President and Chief Executive Officer

Cc: Chair Robert Weisenmiller, California Energy Commission
Commissioner Karen Douglas, California Energy Commission
Commissioner David Hochschild, California Energy Commission
Commissioner Andrew McAllister, California Energy Commission
Commissioner Janea Scott, California Energy Commission
Commissioner Mike Florio, California Public Utilities Commission
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