

November 30, 2010

California Energy Commission
Docket Office, MS-4
Re: Docket No. 11-IEP-1N
1516 Ninth Street
Sacramento, CA 95814-5512
docket@energy.state.ca.us

DOCKET	
11-IEP-1N	
DATE	<u>NOV 30 2010</u>
RECD.	<u>NOV 30 2010</u>

Re: California Energy Commission Docket No. 11-IEP-1N: Comments Related to Staff Workshop on Energy Storage and Automated Demand Response Technologies to Support Renewable Energy Integration

To Whom It May Concern:

On November 16, 2010, the California Energy Commission (“Energy Commission”) held a Staff Workshop on Energy Storage and Automated Demand Response Technologies to Support Renewable Energy Integration (the “Workshop”) in connection with the 2011 Integrated Energy Policy Report (“2011 IEPR”). At the Workshop, several automated demand response and energy storage market participants presented on technologies that can support renewable energy integration in California. Southern California Edison Company (“SCE”) participated in the Workshop and appreciates this opportunity to provide the following additional comments.

While technologies such as energy storage may improve the integration of renewables to the grid, the specific operating characteristics of such technologies that are most beneficial to optimize the operation of the grid remains unclear. There is a wide range of variation in operating performance (such as response speed, cycling ability, and storage capacity) among the various types of automated demand response and energy storage technologies. Studies have been or are now being undertaken by the Energy Commission, the Investor-Owned Utilities (“IOUs”), and others to identify the specific amount and type of technologies most useful to integrate renewable resources under a 33% RPS. The results of these studies can be used to build a viable foundation for the selection of existing and emerging technologies in light of system need and the cost, efficacy, and scalability of the technology itself. Gaining a better understanding of the specific operating attributes that automated demand response and energy storage technologies should possess in order to be most valuable for renewable integration is an important initial step.

Furthermore, while all of the technologies that the Energy Commission is considering for renewable integration have the potential to alleviate problems related to intermittency of renewable resources and assist in renewable energy integration in California, no single technology solution is

likely to be dominant. Instead, a variety of technologies (as well as other measures including renewable generation operational changes) may be required to successfully integrate 33% qualified renewables into California's supply portfolio.

The Energy Commission has stated that "the driving force for California's energy policies continues to be maintaining a *reliable, efficient, and affordable* energy system that also minimizes the environmental impacts of energy production and use."¹ SCE believes that the market will direct load serving entities toward the most useful and cost-effective renewable integration technologies. Therefore, in order to support this goal of reliability, efficiency and affordability of the energy system, the Energy Commission should consider not only current and future system needs but also market realities in studying the potential role of demand response and energy storage technologies in alleviating the problems associated with integrating renewable generation. Additionally, the Energy Commission should avoid recommending the use of technology mandates (such as specific goals, incentives, portfolio targets) altogether and should instead allow the market to drive the technology selection process.

SCE's service territory contains more renewable resources than any other California utility. Accordingly, SCE has a strong interest in working collaboratively with the Energy Commission in considering the integration issue. As always, we appreciate the opportunity to submit comments on the Workshop. Feel free to contact me regarding any questions or concerns.

Sincerely,

/s/ Manuel Alvarez

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¹ California Energy Commission, *Committee Scoping Order in the Matter of the Preparation of the 2011 Integrated Energy Policy Report*, August 31, 2010 at 2 (emphasis added).