From: Ali-Ahmad, Nina N (RC-US PS S WST PNW) [mailto:nina.ali-ahmad@siemens.com]

Sent: Thursday, September 03, 2015 7:09 PM

To: Initiative Comments < Initiative Comments@caiso.com>

**Subject:** Reactive Power Requirements Straw Proposal/Siemens Comments

## < EXTERNAL email. Evaluate before clicking. >

We support the direction the straw proposal has evolved in and appreciate the opportunity for Siemens to provide further comment. These are our comments:

As California moves towards greater penetration of renewable/asynchronous generation, greater reactive support will be needed on the system then was required of traditional power networks as renewable resources tend to be located much further away from load centers than traditional fossil generation. Therefore, we believe a fair market mechanism to encourage the development and deployment of "clutch" or "STATCOM-mode" operation (reactive power support during no- or low- wind or solar operation) as an ancillary service would be the most overall-cost-effective mechanism to the rate payer to meet this need and maintain system reliability in lieu of PTOs needing to deploy additional SVC/STATCOM/Synchronous Condenser solutions to meet system requirements. The case study outlined in the straw proposal at the Ocotillo substation provides a retroactive example where, in addition to providing reactive power support during operation, the interconnected asynchronous resource could have provided additional system VAR support during non-operation, further reducing the need for the 300 MVAR SVC.

We believe fair compensation for this additional clutch/STATCOM-mode service would produce a fair rate of return for the system owner that takes into account the cost of the equipment and the operational costs (i.e. system losses associated with the conversion), as well as some incentive for making this capability available, e.g., an annual reactive capacity payment, as used in New York and New England. One possible market mechanism could be to have clutch- and STATCOM-mode operation provided as a special extension of the proposed voltage regulation ancillary services that could include existing units with this capability, on a volunteer basis.

All the best, Nina Ali-Ahmad

Siemens Energy, Inc. 2400 Camino Ramon San Ramon, CA 94583, USA Mobile: +1 925 2161142

nina.ali-ahmad@siemens.com