

Stakeholder Comments

CAISO's Proposal on Reactive Power Requirements for Asynchronous Resources Working Group Meeting

Submitted by	Company	Date Submitted
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Southern California Edison (SCE) appreciates the opportunity to comment on the California Independent System Operator (CAISO), April 22, 2015, Working Group meeting to discuss the technical aspects of the Reactive Power Requirements for Asynchronous Resources Issue Paper and Straw Proposal (CAISO's Proposal). These comments are additive to those submitted by SCE on March 20, 2015, regarding the policy aspects of the CAISO Proposal. SCE makes recommendations and seeks clarifications as follows:

Clarification is needed on Response Time Associated with the Proposed VAR Requirement

SCE seeks clarification regarding response time with the proposed VAR requirement. A definition of the terms "Dynamic" and "Static" VARs that includes a response time requirement would more clearly describe the requirement. SCE recommends that the CAISO clarify this gap by providing language that reads: "The plant must provide 0.95 'static' VARs within [number] of seconds." And "The plant must provide 0.985 'dynamic' VARs within [number] of cycles."

All Generators, Regardless of Technology, Should Have the Same VAR Requirements

Dynamic reactive power capability for asynchronous generators should be .95 PF at rated MW capacity at the point of interconnection, comparable to the requirement for

synchronous resources. SCE is not aware of any technical basis for establishing disparate voltage regulation requirements such as the proposed .985 PF dynamic reactive power capability requirement for asynchronous generators, while synchronous resources are currently required to provide dynamic reactive power capability at a .95 PF. In the past, SCE has required some asynchronous generators to dynamically produce up to 0.95 PF as a means to mitigate adverse system conditions caused by the interconnection of new projects. It is unclear if the CAISO's proposal would limit SCE's ability to utilize the full dynamic capability of generators to mitigate system issues caused by the interconnection of new generators. If the 0.985 dynamic PF cannot be increased in the general requirement to 0.95, then there should be a provision to extend the requirement to 0.95 if interconnection studies demonstrate the need.

Proposed Revisions to Attachment 2

Attachment 2 (p. 28) of the CAISO Proposal contains seemingly typographical errors that have important implications and SCE recommends they be corrected as follows:

"...the Asynchronous Generating Facility shall have the capability to provide reactive power at 0.95 lagging when voltage levels are between 0.90 per unit and **1.0 per unit voltage unity power** at the Point of Interconnection" And

"...the Asynchronous Generating Facility shall have the capability to absorb reactive power at 0.95 leading when voltage levels are between **1.0 per unit voltage unity power factor** and 1.1 per unit at the Point of interconnection"