



California ISO

Decision on ISO planning standards

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Seeking approval to changes to the Special Protection Systems guidelines in the ISO Planning Standards

- The ISO uses Special Protection Systems (also known as Remedial Action Schemes or RAS) extensively to lower costs, increase utilization of existing transmission, and speed interconnection of new resource
- Current guidelines focus primarily on the basic design of the RAS itself, and generally do not address the potential interaction of the RAS with market operations
- The complexity of various RAS logic has increased to a level that risks conflicting with market operations, and these issues must be addressed to ensure reliable system operation
- The existing guidelines also need to be updated to reflect changes to NERC standards

Changes to the guidelines:

- Simplifying how generation will be armed on a particular RAS by:
 - Setting RAS arming limits based on the maximum capacity of the generation, not the dispatched level at that time;
 - connecting only the most effective generation to the RAS; and
 - avoiding RAS arming and generation tripping based on generation output levels and transmission flow levels.
- Specifying that a RAS can be designed to trip storage in the discharging mode or in the charging mode but not both

Changes to the guidelines (continued)

- Allowing a relaxation of the guidelines under certain interim or exceptional conditions
- Updating the current guidelines in the ISO Planning Standards to align with and complement NERC Reliability Standards
 - Replacing use of the term “special protection system” with “remedial action scheme”, including in the title of the guidelines section; and
 - removing redundant language from the guidelines, now that NERC Standard PRC-012 has been implemented.

Stakeholder Process

- A stakeholder process to review and update the RAS guidelines was initiated in June 2021
 - Initiative was put on hold for period of time to address complexities of RAS implementation in ISO markets
- The ISO received generally supportive comments and detailed questions throughout the stakeholder process
- The ISO received comments on the Draft Final Proposal from San Diego Gas & Electric (SDG&E) and from AES Clean Energy (AES)

Stakeholder Process - Responses to Comments

- SDG&E recommended that the guidelines be classified as standards, or a tracking process should be established to document any RAS that do not meet the guidelines if these are not converted to standards
 - ISO response: The ISO will work with Participating Transmission Owners on a tracking process for all new and existing RAS documenting their alignment with the RAS guidelines

Stakeholder Process - Responses to Comments

- AES raised concerns with the guideline to avoid the monitoring of facilities more than 1 substation away
 - ISO response: Remote monitoring of facilities can add complexity to system operation due to the need for telecommunication facilities, and that remote facilities tend to be less effective for mitigating the problem
 - To address AES' concerns, the ISO modified the guideline language to allow relaxing this guideline in certain conditions

Management recommends

- Approving the ISO Planning Standards with renaming the updates to the SPS Guideline section (including renaming the section to the RAS Guideline section)