

# Revised 2/1/10

## FAQs - Grid Assets Under ISO Operational Control

### a. What are grid assets?

**Answer:** Grid assets are major electrical equipment and facilities used to transport electricity from the power generators to distribution receiving centers. The assets are generally high voltage (e.g. 55,000 volts and higher) and consist of transmission lines, substations, transformers, circuit breakers, protection/control circuitry and reactive power devices.

### b. What facilities are under the ISO operational control?

**Answer:** The ISO, under the Transmission Control Agreement and the ISO tariff, manages transmission lines and facilities to ensure non-discriminatory access and to keep electricity flowing. The ISO has operational control of more than 80 percent of California's electrical load and serves more than 30 million residents. The ISO monitors and manages an estimated 55,000 megawatts from more than 1,400 generation units connected to 25,526 circuit miles of transmission lines.

### c. What is a Transmission Register and how is it used?

**Answer:** The Transmission Register is a computer database that records the current major equipment ratings that the ISO uses to determine the limits of the grid assets. See the following link for more information: <http://www.caiso.com/docs/2005/09/28/200509281729045775.html>. All transmission facilities and their ratings under the ISO operational control must be entered into the Transmission Register and kept current by the transmission owners.

### d. What and why is the Resource Interconnection Management System (RIMS) used to track new or modified grid assets?

**Answer:** Resource Interconnection Management System is software that the ISO uses to track and generate status reports for all proposed new, removed, or modified grid assets that require a change to the ISO's full network model. The ISO operations use the full network model to assess the real-time electrical power system. The full network model uses software to determine the price of power at each location (i.e. Locational Marginal Prices) on the grid. The full network model business practice manual located at <http://www.caiso.com/17ba/17baa8bc1ce20.html> has more information on this subject. Transmission owners should inform the ISO at least 120 days in advance of a grid asset change, by entering the information in RIMS, so that the ISO can update the full network model in conjunction with the asset change.

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### e. What is the Transmission Maintenance Coordination Committee (TMCC)?

**Answer:**

- i. **Membership** includes one member for each participating transmission owner with transmission facilities subject to *ISO Transmission Maintenance Standards*, two members representing labor interests and five members representing other organizations.
- ii. **Purpose** of the committee is to perform all duties specified under Sections 7 and 8 of *Appendix C* to the *Transmission Control Agreement*, including:
  - Periodically briefing the ISO Board of Governors;
  - Seeking input from transmission owners and interested stakeholders regarding *ISO Transmission Maintenance Standards*;
  - Recommending amendments and revisions to the *ISO Transmission Maintenance Standards* to the ISO Board of Governors; and,
  - Reviewing any proposed changes to the *ISO Transmission Maintenance Standards* submitted by the ISO, transmission owners or any interested stakeholder, and recommending revisions to the ISO.

### f. Why is the ISO involved in the maintenance of the critical grid assets?

**Answer:** Maintenance of the critical grid assets is the foundation that supports the ISO's core responsibilities including operating the grid so that power flows are uninterrupted, scheduling market transactions, and coordinating planned outages. The ISO's maintenance monitoring and management is required as a part of California legislation AB 1890 ([http://info.sen.ca.gov/pub/95-96/bill/asm/ab\\_1851-1900/ab\\_1890\\_bill\\_960924\\_chaptered.html](http://info.sen.ca.gov/pub/95-96/bill/asm/ab_1851-1900/ab_1890_bill_960924_chaptered.html)) that created the ISO. In addition, *California Public Utilities Code 348* requires the ISO to adopt inspection, maintenance, repair, and replacement standards for the transmission facilities under its control.

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**g. How is the ISO involved in the maintenance of critical electrical facilities?**

**Answer:** In addition to informal analysis of forced equipment outages, the ISO has the following formal programs:

- Documented maintenance practices;
- Standardized maintenance reporting system to help track maintenance accomplishment during the year;
- Annual maintenance records and field reviews;
- Review for cause;
- Transmission line availability performance measures;
- The Transmission Maintenance Coordination Committee, which provides a forum for stakeholders to tackle maintenance related issues.