

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Consider Smart
Grid Technologies Pursuant to Federal
Legislation and on the Commission's own
Motion to Actively Guide Policy in California's
Development of a Smart Grid System.

Rulemaking 08-12-009
Filed December 18, 2008

**Prehearing Conference Statement of the
California Independent System Operator Corporation**

I. INTRODUCTION

The California Independent System Operator Corporation (ISO) submits this prehearing conference statement in response to the Assigned Commissioner's and Administrative Law Judge's Joint Ruling of July 30, 2010 in the above-captioned docket. The Joint Ruling scheduled a prehearing conference for August 20, 2010 to "discuss the steps that the Commission should take to protect the privacy of electricity consumers and the security of their energy usage data while providing timely access to information"

In advance of the prehearing conference, the Joint Ruling requests that parties to the proceeding provide prehearing conference statements addressing the following five issues:

1. How to provide customers with usage and pricing data in a timely manner;
2. What policies the Commission should adopt to protect the privacy of California's power customers and to protect the security of the grid;
3. What policies the Commission should adopt to allow third-party access to customer usage data and what conditions should be met to allow ongoing access;

4. Whether any part of a party's proposals would require evidentiary hearings; and
5. What schedule and procedures the Commission should follow in addressing these privacy and security issues.

The ISO respectfully submits the following brief comments on the first three issues.

II. PROVIDING CUSTOMERS WITH TIMELY USAGE AND PRICING DATA

One of the ultimate smart grid goals of both the ISO and the Commission is to enable retail electric consumers to evolve from being recipients of energy to active participants in managing energy use for both their benefit and for the benefit of the grid. Usage and pricing data provided to retail customers should be presented to them in a manner that facilitates this evolution.

In this proceeding, the ISO previously has discussed the issue of providing customers with information related to wholesale prices.¹ The ISO's wholesale prices are designed explicitly to reflect temporal and locational grid conditions. While the precise wholesale price may not always convey actionable information to retail customers, providing a meaningful signal correlated with the ISO wholesale price can help customers understand when their individual actions can have the greatest impact on the grid. The ISO encourages the Commission to explore ways to create such signals.

¹ Comments of the California Independent System Operator Corporation on the Assigned Commissioner's Proposed Decision Adopting Requirements For Smart Grid Deployment Plans Pursuant To Senate Bill 17 (Padilla), Chapter 327, Statutes Of 2009 at 4, CPUC Docket No. R.08-12-009 (June 10, 2010); Comments of the California Independent System Operator Corporation in Response to Assigned Commissioner and Administrative Law Judge's Joint Ruling Amending Scoping Memo and Inviting Comments on Proposed Policies and Findings Pertaining to the Smart Grid at 6, CPUC Docket No. R.08-12-009 (Mar. 9, 2010); Comments of the California Independent System Operator Corporation On The Assigned Commissioner's Proposed Decision Adopting Policies And Findings Pursuant To The Smart Grid Policies Established By The Energy Information [sic] And Security Act Of 2007 at 2-3, CPUC Docket No. R.08-12-009 (Dec. 7, 2009).

Providing customers with such information is only part of encouraging retail customers to become active participants in the grid. An additional element is providing customers with their usage information in a way that makes it clear to them how effective they were at curtailing their usage during times of scarcity on the system. For example, if a customer knows that demand reduction in their particular geographic area would be especially helpful at relieving a problem on the system at a particular time, the customer may choose to turn off an energy-intensive appliance, like an air conditioner, to help meet the system need. The usage information provided to the customer should be timely enough to indicate to the customer how successful their actions were at curtailing usage. Such timely information can help indicate to a customer if additional remedial action, such as turning off another energy-intensive appliance, would be helpful for the system.

III. PROTECTING THE SECURITY OF THE GRID

Security of the grid is a multi-faceted undertaking. The ISO's primary responsibility is ensuring the reliability of the grid. It does so in large part by operating the grid through market mechanisms. The ISO's major security concern with a smart grid is that the grid may face vulnerabilities that fall beyond the ISO's currently established electronic security perimeter both from a reliability and information perspective.

With respect to reliability, sources of generation, like distributed generation, that will be enabled by smart grid need to provide sufficient real-time information to Balancing Authorities to ensure that the grid is operated reliably. Along with this information, Balancing Authorities may also need the ability to interrupt distributed

generation in some way if it jeopardizes the reliability of the grid. Some instances in which distributed generation could jeopardize the reliability of the grid include situations of overgeneration or infeasible ramping of units.

With respect to information security, the smart grid involves technologies which gather information at the customer's location and feed that information to the local utility, which in turn provides that aggregated information to transmission operators like the ISO. Such equipment vastly increases the number of portals that ultimately feed information into the ISO's system. While there will not be a direct link from, e.g., a retail smart meter into the ISO's system, smart meters provide information that may be transmitted into the ISO's system. Such information will provide the basis for generator dispatch and other grid operations decisions. If the security of such data were compromised, it ultimately could lead to problems on the ISO's system. The concern is that responsibility for such security lies in the hands of parties beyond the ISO's control. By the time corrupted data is fed to the ISO, it has been aggregated and there is little way for the ISO to be aware that the data it is relying upon to operate the grid has been compromised. For these reasons, the ISO encourages the CPUC to address ways in which smart grid technologies on the distribution level can allow system security breaches to be masked and/or compound on each other in a way that the security breach is not evident to upstream users of that information until damage has already occurred.

IV. THIRD-PARTY ACCESS TO CUSTOMER USAGE DATA

One aspect of a robust demand response environment from the standpoint of the grid will be large-scale demand response provided by third-party demand response

aggregators. Without having timely access to customer usage data such aggregators will have a difficult time being successful. Any procedures designed to control such access should be designed with the objective of facilitating a robust demand response environment balanced against appropriate consumer protections.

The ISO certainly believes that informed customer consent should be required before individual customer usage data is shared with a third party. Consistent with the intent of building a robust demand response capability across the electric system, the question is what form that consent should take. The ISO believes that the Commission should allow such consent to be provided through multiple means, including electronic formats. Once that consent is provided, it should be presumed binding until the customer revokes that consent. Generally, a new form of consent should not be required each time there is some change to the format of the underlying data that is presented to the third party. One issue the Commission should clarify through this proceeding is what happens to the data once the consent has been revoked. For example, one circumstance the Commission may need to consider is what happens upon revocation of consent if the third party has performed additional analysis based on a customer's data. This circumstance raises the question of which party owns the additional analysis, as well as what means the Commission has to require the return of any consumer data to the consumer.

V. CONCLUSION

The ISO appreciates the opportunity to offer this prehearing conference statement and looks forward to participating in the prehearing conference and the

additional processes to follow. The ISO reserves the right to add further comment and additional issues as the privacy aspect of this proceeding progresses.

Respectfully submitted,

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Dated: August 13, 2010

CERTIFICATE OF SERVICE

I hereby certify that on August 13, 2010, I served, on the Service List for Proceeding R.08-12-009, by electronic mail and United States mail, a copy of the foregoing

**Prehearing Conference Statement of the
California Independent System Operator Corporation**

Executed on August 13, 2010 at
Folsom, California

Jane Ostapovich

Jane Ostapovich,

An employee of the California Independent
System Operator