

January 20, 2011

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

**Discussion on RTO/ISO Performance
Metrics**

Docket No. AD02-1-000

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Chairman Wellinghoff and Honorable Commissioners:

The California ISO appreciates the opportunity to address the Commission on the topic of ISO/RTO performance metrics. As you are aware, the California ISO operates approximately 80 percent of California's transmission grid and oversees an organized wholesale market in which a large number of entities operating in the Western Interconnection participate.

The ISO/RTO metrics report addresses reliability of the bulk power system as well as the effectiveness of coordinated wholesale organized markets and ISO/RTO organizations. The joint report includes the details of our data related to this common set of metrics. In my brief address, I will hit the highlights.

Before I do that I want to clarify the ISO's philosophy on corporate metrics in general. Annually, management and the board together agree on a set of significant areas to target for sustaining or improving performance; we set goals, identify the necessary corporate initiatives to achieve the goals, and a set of performance metrics to assess our progress. That set of corporate metrics translates into layers of business unit objectives and a larger number of layers of metrics that cascade all the

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way down to every individual in the organization, all aligned to achieve the goals set at the corporate level. Our criteria used to determine the metrics are:

- They must target areas requiring the most attention;
- They must be measurable and transparent;
- We must have enough control on the variables to ensure that we can achieve the goals; and
- They must be able to influence behavior

If you consider the first element of the criteria, areas requiring most attention, let me give you some examples of how the California ISO has tailored its metrics to meet this element. Five years ago, the cost of dispatch for reliability was at an unreasonably high level, so we targeted this cost and used cost reduction as a metric. When the ISO's Market Design & Technology Upgrade (MRTU) project development was the elephant in the room, about half of the metrics were related to successful completion of that project. After implementing the new market, the ISO shifted focus to market quality metrics. Of course, as you know, none of the other sister ISO/RTO organizations shared those issues at the time and you wouldn't expect them to have similar metrics for assessing their performance. This leads me to advise you that although we are committed to report on the performance metrics at issue today, these metrics, while indicative and representative of a good set of common measures, are not by any means inclusive of the metrics we measure ourselves by which are dynamic and very different from one ISO/RTO to another.

I also want to draw your attention to some areas where we have limited data. This is because as the ISOs and RTOs developed new metrics for the purpose of commonality, we were at different stages of development. For example, our

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locational marginal price-based congestion management market is just over a year old, compared to others who have operated this market for much longer and have more data to assess trends. But that does not mean that we did not measure congestion costs, it was just a different metric.

Now, let me hit the highlights of the California ISO report:

I. Reliability

The metrics addressing the reliability of bulk power system show that the ISO exceeded the minimum standards for dispatch operations between 2005 and 2009 and realized improvements in the accuracy in forecasting wind resources. As you know, reliability of the bulk system is a first priority among equals in the ISO's function and we all have been doing a very good job at it. I want to take this opportunity to highlight the challenges ahead in meeting the same level of reliability performance. In two years, California's renewable portfolio is expected to reach about 30 percent of the state's nameplate capacity. While we still experience 10 to 15 percent inaccuracy in the day-ahead forecast of wind generation, which seems to be a universal level in the industry, you would expect that when the volume increases dramatically, this inaccuracy would not be acceptable as it impacts performance and cost. Solar forecasting is significantly more challenging than wind forecasting and California is experiencing significant growth in the deployment of solar generation. Therefore, the point I want to make here is that maintaining the reliability performance metrics that have been historically straightforward to achieve will require significantly more investment on our part going forward.

II. Transmission Planning

I want to emphasize here that planning is the means, not the ends, although in all debates we seem to focus on the wrong thing. The purpose is the steel in the ground, not the process to plan for it. Internally, we changed the title of our planning group to Infrastructure Development and our corporate metrics are more related to achieving approval and construction of projects. In this respect, Mr. Chairman and Commissioners, I thank you and your staff for your prompt actions and insightful decisions in support of the changes that we needed to translate plans into real projects. You have adopted or approved changes to policies that have been around for decades. Your capable staff stepped in and facilitated several forums to close philosophical gaps amongst the stakeholders and you acted in record time to support state policies in this regard. The report includes some measures regarding transmission planning but the measure you most likely are interested in is the projects that have been approved by the ISO, largely approved by your commission for cost recovery, and largely approved by the state commission for siting are under construction or are far enough along to facilitate access to in-state renewable resource regions to meet the 33 percent renewable goal in 2020 for the California ISO's footprint. That is an accomplishment that wasn't in my wildest dreams possible a few years ago. Moreover, your approval of reforms to the generation interconnection process has facilitated a significant volume of generation interconnection requests.

III. Organized Markets

The California ISO implemented a new market in April 2009, which provides significant new functionality, including a day-ahead market and locational marginal

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prices. Market reform started in California in 2004 and has been steadily enhanced, with reforms continuing even as we speak. The market has been liquid and competitive even before the 2009 reform but it is now significantly more liquid and efficient. All indices of prices and competitiveness showed excellent trends even before the economic downturn. Our challenge in the future is to maintain market efficiency and liquidity with the significant change in the energy resource portfolio, demand participation, changes in consumer behavior, and the change in the volume and type of services needed from the traditional generation fleet.

III. Organizational Effectiveness

The ISO/RTO report addresses two quantitative measures, namely cost and customer satisfaction. But, as you know, the elements of organizational effectiveness are usually in the form of three buckets; people, process, and technology. People are our most valuable assets and we have several corporate initiatives and metrics to ensure the effectiveness of the organization in the short term and the longer term.

IV. Conclusion

We will continue work with the Commission to meet the challenges and take advantage of opportunities facing California and the Western Interconnection. As much as we are proud of our record, we acknowledge the challenges and the gaps. Metrics are usually designed to address those gaps rather than calling out success or failure. Thank you for the opportunity to address the Commission on this matter.