

**Comments of Pacific Gas and Electric Company**  
*Draft 2015 Stakeholder Initiatives Catalog*

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on the California Independent System Operator (CAISO) 2015 Draft Stakeholder Initiatives Catalog (“Catalog”) and offers the following comments.

PG&E suggests the addition of three initiatives to the catalog which are discussed below:

1. Economic Transmission Planning Enhancements
2. Difference Bidding in Integrated Forward Market for Energy Storage Resources
3. Simplified Reporting of Forced Outages

PG&E also opposes the deletion of three initiatives which are discussed below:

1. 13.3 Develop a Process for Enforcement/Un-enforcement of Constraints
2. 13.6 Mitigating Transient Price Spikes, Real-Time Imbalance Energy Offset (RTIEO)/Real-Time Congestion Offset (RTCO)
3. 13.16 Protocol(s) for Simulation and Testing of New Models, Design Changes, or Products

PG&E also includes several clarifying questions concerning existing initiatives in the Catalog and a recommendation for improving the Catalog process going forward.

## **Additions of Discretionary Initiatives Not Listed in Catalog**

### **1. Economic Transmission Planning Enhancements**

As California's supply of intermittent renewable energy resources continues to grow, the transmission system will need to support more flexible system operations with rapid ramp requirements. Currently, the CAISO's economic transmission planning studies use deterministic tools and analysis that do not capture the wide-range of conditions, both expected and stress, that have occurred and are more likely to occur in the future. PG&E supports the use of stochastic analysis as part of the Transmission Planning Process (TPP) for economic projects. Stochastic tools will allow for testing a much wider range of conditions. Further, the CAISO economic transmission studies tend to focus on congestion during peak periods and losses as the key economic benefits of transmission, when in fact, new transmission can offer an array of benefits including optionality, flexibility to meet rapid ramp requirements, and avoidance of uneconomic curtailment of generation in non-peak periods. In summary, PG&E urges the CAISO to (1) develop new probabilistic tools to identify and quantify a more complete set of economic benefits of transmission, and (2) broaden the set of benefits it considers beyond peak congestion and losses when conducting economic analysis of new transmission additions.

### **2. Difference Bidding in Integrated Forward Market for Energy Storage Resources**

PG&E understands that the CAISO has expressed interest in exploring difference bidding in the Integrated Forward Market for Energy Storage Resources; PG&E supports such a bidding enhancement for the IFM. This initiative would address the ability for storage resources to bid energy based on price differentials, so that a storage resource could offer bid(s) to charge based on the hourly price(s) being a certain percentage or dollar amount less than the price(s) in available discharge hour(s), subject to other limitations. A further worthwhile enhancement for applicable storage resources would be the opportunity for scheduling coordinators (SCs) to submit an end-of-day 'State of Charge' (SOC) as an IFM bid parameter. This option would be available to be used instead of the current CAISO inferred end-of-day SOC. SCs have an opportunity to actively manage the SOC and can better forecast and target the end-of-day SOC than the current inferred SOC which is based solely on prior-day IFM awards.

### **3. Simplified Reporting of Forced Outages**

Currently there are several categories of forced outage reporting requirements for resources. These various thresholds and reporting timelines create implementation complexity relative to the benefits provided to SCs and the CAISO and increase compliance risk for SCs. These requirements vary depending on technology, capacity, and Resource Adequacy (RA) status of the resource. Most resources are required to report forced outages within 60 minutes for any forced outages that are at least 10MW or 5 percent of the Pmax and lasting 15 minutes or more. However, for renewable resources with a Pmax greater than or equal to 10MW, all forced outages between 1MW and 10MW must be reported to the CAISO within 60 minutes. But for renewable RA resources with Pmax below 10MW (but above 1MW) forced outages must be reported within 3 days after the end of the month.

PG&E recommends a more streamlined forced outage reporting requirement and the creation of uniform forced outage reporting criteria and elimination of the Standard Capacity Product (SCP) incentive mechanism for small resources.<sup>1</sup> PG&E recommends that all resources are required to report forced outages within 60 minutes for any forced outages that are at least 10MW or 5 percent of the Pmax (whichever is greater) and lasting 15 minutes or more. Resources with Pmax less than 10MWs would be exempt from any forced outage reporting<sup>2</sup> (i.e. no 60 minute reporting, no monthly reporting, and no special treatment for RA only resources). Additionally, under the current SCP design, resources that have a Pmax less than 1MW are exempt from non-availability charges and availability incentives. PG&E recommends that this SCP exemption threshold align with forced outage reporting requirements. For consistency, PG&E also recommends that the SCP exemption apply to resources that have a Pmax less than 10MW. This alignment between the forced outage reporting and the SCP exemption threshold would also simplify RA related SCP settlements. Such resources would continue to be eligible for RA demonstrations.

### **Deletions of Discretionary Initiatives Listed in Catalog**

PG&E does not propose to delete any discretionary initiatives listed in the Catalog.

PG&E does oppose the deletion of three initiatives from the Catalog which are discussed below. PG&E recognizes that there are a considerable amount of discretionary initiatives listed in this year's Catalog. PG&E also recognizes that the CAISO will undertake many stakeholder processes and implement several initiatives in 2015, as detailed in the Master Stakeholder Engagement Plan.<sup>3</sup> Currently, some initiatives discussed below that are up for deletion are considered process improvements and not stakeholder initiatives. If the CAISO pursues deleting these "process improvements" then the CAISO should inform stakeholders what forum is appropriate to address process improvement concerns, if not in the Catalog.

#### **1. 13.3 Develop a Process for Enforcement/Un-enforcement of Constraints**

This issue warrants a stakeholder initiative or at least a clear scoping of how a process improvement would address the issue. Calpine's comment on the un-enforcement of the SCE\_IMP\_PCT constraint is correct: although market participants may have generally agreed with the assessment of removing the constraint, there was considerable concern with the process of how the CAISO made the change. PG&E recommends that the CAISO develop a process for announcing such changes in the future so that all impacted market participants receive the information in a fair and transparent manner. This should include development of a set of criteria to be considered before the CAISO exercises discretion. If the CAISO deletes this item from the

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<sup>1</sup> PG&E estimates that by the end of 2015 small resources (capacity less than or equal to 10MW) will comprise nearly 45% of the total CAISO resources by count, but only 2% by capacity. The CAISO would still receive timely (within 60 minutes) forced outage notifications for 98% of the CAISO capacity. Existing outage tracking requirements for small resources represent a growing burden for the CAISO and SCs staffs seemingly with limited benefits.

<sup>2</sup> Variable Energy Resources (VERs) would continue to provide telemetry (as required) to the CAISO to support on-going VER forecasts.

<sup>3</sup> [http://www.caiso.com/Documents/MasterStakeholderEngagementPlan\\_090214.pdf](http://www.caiso.com/Documents/MasterStakeholderEngagementPlan_090214.pdf)

2015 Catalog, it should then identify which forum is most appropriate for stakeholders to address process improvements.

## **2. 13.6 Mitigating Transient Price Spikes, Real-Time Imbalance Energy Offset (RTIEO)/Real-Time Congestion Offset (RTCO)**

PG&E recognizes the considerable efforts<sup>4</sup> the CAISO undertook to address this initiative in the 2014 policy year. The implementation of FERC Order 764 (“764”) resulted in the creation of a 15 minute real-time market. This addressed one of the causes of high RTIEO uplift costs pre-764, which was the price difference between the hour-ahead market and the 5 minute market. While the frequency of real-time price spikes has gone down since the implementation of 764, high real-time uplift costs persist. PG&E recommends keeping a modified version of this initiative that focuses on uplift costs. This initiative would identify the causes of these uplift costs, look at ways to mitigate the costs, and further review uplift cost allocation.

## **3. 13.16 Protocol(s) for Simulation and Testing of New Models, Design Changes, or Products**

While this initiative may not be a market policy or design change, setting up protocols and parameters to improve transparency on how market simulation results are measured by the CAISO is critical. If the CAISO removes this item from the 2015 Catalog, the CAISO should identify which forum is appropriate to address process improvements where all stakeholders may provide input. Given recent implementation of various complex initiatives (e.g., Pay for Performance, FERC Order 764, Energy Imbalance Market and Full Network Model Expansion), an ad hoc process to address exit criteria inquiries is no longer sustainable. A transparent and systematic approach on how the CAISO evaluates market simulation or metric results is essential. Any standard criteria or metric should also be reviewed with stakeholders on a regular basis (e.g., annual or bi-annual) to ensure such measures are still applicable over time as new initiatives are being implemented.

### **Clarifying Questions on Initiatives Listed in Catalog**

PG&E has the following clarifying questions on initiatives listed in the catalog:

#### **1. 10.6 Energy Storage Interconnection**

Currently in the Catalog this initiative is coded as discretionary (D).<sup>5</sup> Should this initiative also be coded as In-Progress (I)? The stakeholder process for the Energy Storage Interconnection initiative is well underway. On June 24, 2014, the CAISO posted an Issue Paper & Straw Proposal on Energy Storage Interconnection<sup>6</sup> and on August 13, 2014, the CAISO held a stakeholder meeting on this initiative.

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<sup>4</sup> Draft 2015 Stakeholder Initiatives Catalog, pp.11-12.

<sup>5</sup> Draft 2015 Stakeholder Initiatives Catalog, p.37.

<sup>6</sup> [http://www.caiso.com/Documents/IssuePaper\\_StrawProposal-EnergyStorageInterconnection.pdf](http://www.caiso.com/Documents/IssuePaper_StrawProposal-EnergyStorageInterconnection.pdf)

## 2. 11.2 Opportunity Cost Methodology

PG&E seeks clarity on the timing of this initiative and whether it will address the opportunity cost for water.

### Process Improvements

The Catalog and its annual prioritization results in a road map of design priorities for the upcoming year. New projects may arise during the course of the year that could result in delaying the road map initiatives. Examples of such new projects that draw resources away from road map initiatives include the EIM or FERC-mandated developments.

PG&E recommends that the CAISO report out quarterly to stakeholders on its progress on moving the road map initiatives forward and provide stakeholders the opportunity to provide feedback on the CAISO's progress. The CAISO's quarterly report out could be done as part of the Market Performance and Planning Forum. The quarterly report could also be used as an opportunity to alert stakeholders of any major change on the initiatives on which it plans to work and provide stakeholders the opportunity to provide feedback on proposed change in priorities. In summary, the quarterly road map report helps do the following: 1) makes the road map a living document that is revisited throughout the year, 2) provides additional discipline in the design process, 3) provides transparency to stakeholders when the CAISO plans to make significant change in priorities, and 4) gives stakeholders the opportunity to provide feedback on significant changes in priority or other large deviations from the road map.