

# Memorandum

**To:** ISO Board of Governors

**From:** Keith Casey, Vice President of Market & Infrastructure Development

**Date:** July 5, 2012

**Re:** **Decision on Replacement Requirement for Scheduled Generation Outages**

---

***This memorandum requires Board action.***

## EXECUTIVE SUMMARY

The resource adequacy program was instituted by the California Public Utilities Commission after the 2000-2001 energy crisis to ensure that sufficient generation was available to the ISO to reliably operate the grid. The program requires each load serving entity under CPUC jurisdiction to secure sufficient capacity to meet local and system load requirements. Historically, the resource adequacy program has included a “replacement rule” that requires each jurisdictional load serving entity to meet its resource adequacy requirement with designated generating resources that are available and not on an extended scheduled maintenance outage. However, in 2010 the CPUC issued an order finding that resource adequacy capacity replacement requirements should be developed and enforced by the ISO. As a result, starting in 2013 the CPUC will no longer enforce a replacement rule that requires its jurisdictional load serving entities to provide replacement resource adequacy capacity for capacity that is unavailable due to a planned maintenance outage.

Accordingly, Management has worked with stakeholders to develop a resource adequacy replacement rule to replace the expiring CPUC rule. The proposed rule is designed to ensure that the ISO has sufficient generation available to meet forecasted loads and to maintain grid reliability.

Management’s proposal includes the following six elements:

1. Planned outages for designated resource adequacy capacity will be managed according to the 115% planning reserve margin;
2. Monthly resource adequacy showings and supply plans will be submitted 45 days prior to the resource adequacy month;

3. A load serving entity can provide non-designated resource adequacy capacity to automatically substitute for one if its designated resource adequacy resources that goes on a planned outage;
4. Short-term replacement resource adequacy capacity may be designated by the ISO for the duration of an outage for which a designated resource adequacy resource does not have substitute capacity;
5. Generators designated as providing resource adequacy capacity may request short-term opportunity outages; and
6. An electronic bulletin board will be established to facilitate bilateral transacting of substitute resource adequacy capacity.

Management believes that this recommended suite of provisions will provide for market efficiency and fairness to both generation and load while preserving the resource adequacy program objective of ensuring the ISO has sufficient generation capacity to reliably operate the grid.

***Moved, that the ISO Board of Governors approves the proposal for the ISO to adopt a replacement requirement for scheduled generation outages for resource adequacy resources, as described in the memorandum dated July 5, 2012; and***

***Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposal on January 1, 2013.***

## **DISCUSSION AND ANALYSIS**

Through this initiative, Management has worked with stakeholders to develop an outage management program for resource adequacy resources that ensures sufficient capacity is available to the ISO to reliably operate the grid. The proposal consists of six elements that are described more fully below.

### **Replacement requirement proposal**

#### ***1. Planned outages managed to maintain 115% planning reserve margin***

Management proposes that requests for planned outages for generators designated as supplying resource adequacy capacity be managed by the ISO according to the 115% planning reserve margin that is currently in effect. Once the resource adequacy showings have been provided, the ISO will reconcile the planned outage information received to date with the with resource adequacy showings and assess whether the 115% planning reserve margin has been met for the month. If the planned outages, assessed on a first come first served bases, result in insufficient resources to meet the 115% planning reserve requirement, the ISO will notify the load serving entities that are short of meeting the resource adequacy obligations. The short load serving entities will then have the opportunity to cure the shortage either by replacing a resource that has a

planned outage or by canceling the planned outage of a resource. Ten days prior to the start of the month the ISO will conduct a final assessment to ensure that the 115% reserve margin has been met. If the reserve margin has not been met, the ISO may procure additional capacity as short term replacement resource adequacy capacity, described below, and charge the short load serving entity for the cost of the capacity.

## *2. Require capacity showings 45 days prior to operating month*

Under current rules, load serving entities are required to provide resource adequacy showings and supply plans to the ISO 30 days prior to the operating month. Management proposes moving this requirement up to 45 days prior to the operating month to allow time for the ISO to analyze the impact of proposed planned maintenance outages on the 115% planning reserve margin resource adequacy requirement.

## *3. Non-designated resource adequacy capacity*

Because resource adequacy contracts between generators and load serving entities often extend over an entire year or block of months, on any particular month a load serving entity may have more contracted capacity than is needed to meet its monthly resource adequacy obligation and consequently will have to decide which resources to “designate” for meeting its monthly obligation. The proposal includes a provision to allow load serving entities to submit non-designated resource adequacy capacity that is in excess of the designated resource adequacy capacity shown to meet the 115% planning reserve margin requirement. A load serving entity’s non-designated capacity (in rank order of preference) would be automatically substituted if needed to fill in for a designated resource that goes on a planned outage. When substituted for a resource that is unavailable due to an outage, the substitute replacement capacity would then be deemed as designated and be subject to the resource adequacy rules (standard capacity product and the must-offer requirement) throughout the period during which it was providing the substitute capacity. Unless the non-designated resource is used for substitution, it will not be subject to resource adequacy provisions under the standard capacity product availability and must-offer requirements for resource adequacy resources tariff provisions.

This automatic use of a load serving entity’s non-designated capacity as replacement capacity will only be done during the initial resource adequacy analysis conducted after the monthly showings are provided to the ISO.

## *4. Short-term replacement resource adequacy capacity*

Under Management’s proposal, the ISO may procure short-term replacement resource adequacy capacity prior to the operating month for the duration of an outage for which a designated resource adequacy resource does not have substitute capacity. The capacity will be procured for the duration of the outage. The cost of the short-term

replacement resource adequacy capacity would be allocated to the load serving entity that had not provided replacement capacity for its resource adequacy deficiencies.

Short-term replacement resource adequacy capacity will be selected under the ISO's established criteria for backstop procurement from a list of resources which have indicated a willingness to provide short-term replacement resource adequacy capacity. By indicating their willingness to provide short-term replacement resource adequacy capacity, these resources agree to provide the capacity for as little as one day and up to a full month.

Management proposes that the capacity payment to the short-term replacement resource adequacy capacity be equal to the *pro rata* (daily) capacity procurement mechanism payment multiplied by the number of days the resource provides replacement capacity. During the period the resource is providing replacement capacity it will be subject to all resource adequacy conditions, including the must-offer obligation and standard capacity product availability penalties.

#### *5. Short-term opportunity outages*

Management's proposal includes a provision for generators designated as providing resource adequacy capacity to request short-term opportunity outages 72 hours prior to the requested start time of the outage. Short-term opportunity outages may only be in off-peak hours, and may be granted only as system reliability permits.

#### *6. Electronic bulletin board*

Management proposes to establish an electronic "bulletin board" as a forum through which market participants can find replacement resource adequacy capacity as needed. The bulletin board will list capacity available to substitute for a designated resource adequacy resource that is unavailable due to an outage. Any agreement to procure the capacity listed on the bulletin board for replacement will be the responsibility of the parties. The entities which have negotiated for substitute capacity will then communicate the information regarding the substitute capacity to the ISO, as is the practice today. Any non-designated resource adequacy capacity under contract to a load serving entity or any generator without a resource adequacy contract can be listed on the bulletin board.

#### *Local area considerations*

The ISO recognizes both the importance of generation being able to take planned maintenance outages and the challenges facing units designated as local resource adequacy resources because of the annual resource adequacy requirements for local resource adequacy resources and limited local supply (if any) of substitutable non-resource adequacy capacity. Therefore, for outage management purposes, the ISO will primarily consider

non-resource adequacy reliability measures in the local resource adequacy area, as long as the system level resource adequacy remains at or above a 115% planning reserve margin. This is consistent with how local resource adequacy outages are currently approved, with the additional requirement that system resource adequacy levels be maintained at 115%.

#### *Unapproved maintenance outages*

A generator that takes an unapproved maintenance outage during the operating month will be subject to availability charges under the ISO's standard capacity product provisions. This provision, along with allocating to the load serving entity the costs of this replacement capacity procured in the month-ahead time frame, creates incentives for both the load serving entity and the generator to work together to ensure that there is replacement capacity for any resource adequacy generation scheduling an outage. This in turn will minimize the likelihood that the ISO will have to use its backstop authority to procure replacement capacity.

### **POSITIONS OF THE PARTIES**

Stakeholders and the Market Surveillance Committee generally support the elements of the proposal. In particular, there is wide support for the short-term opportunity outages and the electronic bulletin board elements of Management's proposal.

Both Six Cities and GenOn expressed the preference that, rather than implementing the proposed replacement requirement, the ISO adopt the existing California Public Utility Commission rules. However, ISO Management recommends the proposed replacement requirement in order to ensure that sufficient resource adequacy capacity is available to operate the grid reliably, and to promote the efficiency with which that capacity is procured.

The Alliance for Retail Energy Markets and Pacific Gas and Electric underscored the importance of coordination with the CPUC and the California Energy Commission. ISO Management recognizes that some coordination with other entities involved with the resource adequacy program will be necessary, and is taking steps toward that end.

San Diego Gas and Electric contends that there is a potential for free-ridership for small load serving entities. It is possible that confirming system level resource adequacy capacity of 115% before evaluating the supply plans from individual load serving entities can, to a limited extent, have this result. However, this concern must be weighed against imposing excessive procurement costs or complicated cost allocation rules. Management's proposal to manage the system level of resource adequacy capacity to 115% ensures that excess resource adequacy capacity is not procured.

Several stakeholders have noted that there are remaining implementation issues that need to be addressed and that this proposal poses some difficulty in their resource adequacy contracting process. Management notes that the stakeholder policy initiative

has been expedited in order to provide as much certainty as possible around the replacement requirement for the 2013 resource adequacy contracting process. Management recognizes that there are outstanding implementation concerns and commits to addressing them.

More detailed information on stakeholder comments and ISO Management responses is provided in the attached stakeholder comments matrix.

## **CONCLUSION**

With the elimination of the CPUC's Replacement Rule on January 1, 2013, it is necessary for the ISO to adopt replacement rules for resource adequacy resources in order to ensure that the resource adequacy program continues to provide the ISO with the resources necessary to reliably operate the grid. Management believes that this recommended suite of changes provides an efficient and fair mechanism for replacing resource adequacy capacity that is unavailable due to planned maintenance outages while preserving the resource adequacy program objective of ensuring the ISO has sufficient generation capacity to reliably operate the grid.