California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

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

Date: May 10, 2010

Re: **Decision on Standard Capacity Product Phase II**

This memorandum requires Board action.

EXECUTIVE SUMMARY

The first phase of the ISO standard capacity product (SCP), which was approved last year, provides a standardized framework for resource adequacy contracting and provides enhancements to the resource adequacy program. Resource adequacy requirements are imposed on load serving entities by the California Public Utilities Commission (CPUC) and other local regulatory agencies to ensure that the ISO has adequate generation capacity offered into its markets to reliably operate the grid. Before the ISO's standard capacity product was implemented, there were no standard performance measures that provided incentives for resource adequacy units being counted on for grid reliability to be available to the ISO.

The ISO benefits from the standard capacity product by having an accepted set of minimum standards and incentives in the tariff to increase the availability of these resources. Stakeholder contracting negotiations are also streamlined by having a common set of standards in the tariff.

Management is seeking Board approval of the following two proposed enhancements to the resource adequacy program, known as standard capacity product phase II (SCP II):

1. Extending SCP to wind, solar, non-dispatchable cogeneration, non-dispatchable biomass and non-dispatchable geothermal resource adequacy resources that were previously exempt from the SCP measures; and
2. Modifying certain existing tariff sections related to resource adequacy to further elucidate current rules.

The initial standard capacity product was approved by FERC in June 2009. The key elements of the standard capacity product include:

- Availability standards. To ensure that there is enough generation capacity to meet the ISO's needs, there is an expectation that the full contracted amount of capacity of resource adequacy resources will be available to the ISO, i.e., the resource is not on a forced equipment outage or derate that diminishes its ability to provide the full amount of its contractual capacity obligation. Under the standard capacity product, resource availability is measured on a monthly basis and compared against a single availability target based on the historic performance of the resource adequacy resource fleet during the peak hours of each month of the previous three years.

- Availability incentives. This product provides incentives for each resource adequacy resource to meet or exceed the target availability standard. On a monthly basis the ISO assesses non-availability charges to resources whose availability fall short of the target and provides credit payments to resources whose availability exceeds the target. Availability payments are funded on a revenue neutral basis through the financial penalty revenues.

- Resource substitution. This provision allows a supplier of resource adequacy capacity tied to a specific generating unit to substitute an alternative resource in the event of a forced outage. The resource owners benefit from this provision by avoiding potential charges for non-availability and the ISO benefits by allowing additional flexibility to avoid backstop procurement.

In its order, FERC accepted the ISO's proposal to exempt renewable, non-dispatchable cogeneration, and demand response resources from the standard capacity product availability standards to provide time for the CPUC to align their rules to avoid possible double counting of forced outages and potentially over penalizing these resources. At that time, the ISO committed to work with the CPUC and file further tariff provisions to extend the standard capacity product availability standards to all resource adequacy resources.

This proposal brings the ISO one step closer to that goal by extending the standard capacity product provisions to include wind, solar, non-dispatchable cogeneration, non-dispatchable biomass and non-dispatchable geothermal facilities. Additionally, Management proposes changes to certain aspects of existing resource adequacy rules that will:

- Clarify the types of outages considered when determining resource non-availability; and
- Ensure that credit payments are properly allocated to load.

MOTION

Moved, that the ISO Board of Governors approves the policy to implement the second phase of standard capacity product and approves the modifications to existing resource adequacy rules, as detailed in the memorandum dated May 10, 2010; 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 proposed tariff change.

DISCUSSION AND ANALYSIS

Standard capacity product extension

For several years, stakeholders urged the ISO to adopt certain tariff elements to standardize aspects of bilateral resource contracts to facilitate the contracting process. Following an extensive stakeholder process, the ISO Board of Governors approved the first phase of the standard resource adequacy capacity product proposal in March 2009. The key elements of the SCP decision are the implementation of resource availability standards, creating a target for resource adequacy resource performance and availability incentives to encourage resources to meet or exceed that standard. FERC approved the ISO's tariff implementing these changes in June 2009. In its order, FERC granted temporary exemptions from the standard capacity product availability payments and charges for:

1. Resources whose qualifying capacity value is determined by the CPUC or a local regulatory authority using historical output that has not been adjusted to correct for the possible double-counting of outages (this includes wind, solar, non-dispatchable cogeneration, non-dispatchable biomass and non-dispatchable geothermal facilities); and
2. Demand response.

FERC directed the ISO to work with stakeholders, the CPUC, and local regulatory authorities to determine when the proposed exemptions should ultimately sunset. This initiative, known as "SCP II", addresses the FERC order by extending the standard capacity product provisions to the first category of resource adequacy resources listed above.

Implementing the standard capacity product for resources whose qualifying capacity value is determined by historical output is not limited solely to CPUC jurisdictional entities. It also applies to resource adequacy resources that are subject to local regulatory authorities. Currently local regulatory authorities use their own methodology to establish their qualifying capacity criteria, and in the event that they fail to do so, the ISO applies a default methodology defined in the tariff to establish these values.

For resource adequacy resources whose net qualifying capacity[1] is based on their historical energy production, the ISO proposes calculating the actual monthly standard

[1] Net qualifying capacity is determined by the ISO based on a deliverability assessment of the CPUC-determined qualifying capacity values.

capacity product availability based on the principle that the observed historical production of such a resource, on which its net qualifying capacity is based, occurred during hours when the nominal capacity of the resource was fully available. For such a resource, any forced outage or temperature related ambient de-rate that makes its nominal capacity less than fully available during an standard capacity product assessment hour will have its availability proportionally reduced in the monthly standard capacity product availability calculation. As a secondary check, the ISO will review the actual energy that these resources produced to ensure that, during a forced outage period, they do not get assessed charges if they produced energy in excess of the amount of resource adequacy capacity that they were obligated to provide.

Management is not at this time proposing to apply the standard capacity product availability calculations to demand response resources. We intend to commence a separate stakeholder process later this year to develop appropriate standard capacity product provisions for demand response resource adequacy resources for the 2012 resource adequacy compliance year (beginning in January 2012).

SCP tariff modifications

In addition to extending the SCP provisions to previously exempt resources, the ISO proposal for SCP II also includes two tariff modifications to the resource adequacy section of the tariff (section 40). First, in Section 40.9.4.2 which provides for the types of outages that can affect the availability of an resource adequacy resource, the phrase "Forced Outages, non-ambient de-rates, or temperature-related ambient de-rates" will be modified to remove the term "non-ambient de-rates" because non-ambient de-rates are included in the definition of forced outage. Second, Section 40.9.6.3 states that excess non-availability funds should be allocated in accordance with Section 11.5.2.3, which allocates funds to metered demand in the corresponding default load aggregation point. However, the original SCP policy intended that the allocation should go to all metered ISO demand. Accordingly Management proposes to modify this section.

POSITIONS OF THE PARTIES

In their most recent comments on the SCP II proposal, the majority of the market participants (Cogeneration Association of California, NextEra, SDG&E, PG&E, Dynegy, Calpine) either supported or did not object to the proportional de-rate availability calculation methodology. However, three of the commenters (PG&E, Dynegy and Calpine) do not support the consideration of the actual energy delivered. They believe that this treatment is asymmetrical; energy production should not serve as a proxy for availability only in cases when it favors these resources. Management believes that while the proportional de-rate methodology accurately accounts for a resource adequacy resource's availability, if the actual energy delivered covers the capacity obligation; it should be taken into account.

The joint comments of CalWEA and the Large-scale Solar Association do not support Management's proposal and indicate that the availability calculation is flawed. They recommend that SCP availability charges and payments provisions are not needed for

intermittent resources, given all of their other incentives regarding availability. While we appreciate this perspective, Management believes the current proposal provides a reasonable approach for subjecting these resources to availability standards and provides a more equitable application of the rule to all resources (except demand response, which will be handled in a future design effort).

Also, in the most recent set of stakeholder comments, other topics were discussed.

- Four commenters (Dynegy, PG&E, NextEra, CalWEA/LSA) supported the ISO's stance regarding the deferral of the implementation of a supplier replacement rule, conversely one commenter (AReM) was disappointed because, in their view, adding a supplier replacement rule to the tariff would enable enhanced tradability and fungibility of the standard capacity product.
- Two commenters had suggestions regarding the tariff clarifications. The Cogeneration Association of California supported the removal of "non-ambient de-rate" from Section 40.9.4.2 of the tariff, however they propose that Management add language to ensure that normal variations in output from a Qualifying Facility are not considered forced outages. SDG&E opposes Management's proposal to allocate surplus availability incentive payments to all metered ISO demand because they believe that not all metered demand shoulders RA requirements and do not face the prospect of being penalized for having insufficient capacity. Instead, they support the current language which allocates these funds to only the three default load aggregation points. In response to SDG&E's concerns, the tariff provides that resource adequacy provisions are applicable to all load serving entities with the exception of those with a metered peak less than 1 MW. Thus, Management is implementing this change to ensure consistency with the intention of the original proposal and extend the allocation to all metered ISO demand, instead of limiting it to the three default load aggregation points.

A stakeholder matrix is included as Attachment A to this memorandum and provides a summary of stakeholders' written comments.

MANAGEMENT RECOMMENDATION

Management recommends that the Board approve the policy to implement the second phase of standard capacity product and modify tariff provisions as outlined in this memorandum and authorize Management to make all necessary and appropriate filings with FERC to implement the proposed tariff change.