Standard Capacity Product Phase II
Draft Final Proposal

SCP II Team

Stakeholder Conference Call
February 26, 2010
ISO Stakeholder Process
Standard Capacity Product Phase II

We are here.

Opportunities for Stakeholder Input
# Meeting Agenda

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<tr>
<th>Time</th>
<th>Topic</th>
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<td>10:00-10:10</td>
<td>Introduction</td>
<td>Chris Kirsten</td>
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<td>10:10-10:40</td>
<td>Extending SCP Availability</td>
<td>Cindy Hinman</td>
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<td>10:40-11:20</td>
<td>Replacement Rule</td>
<td>Cindy Hinman</td>
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<td>11:20-11:35</td>
<td>Tariff Clarification</td>
<td>Cindy Hinman</td>
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<td>11:35-11:45</td>
<td>Next Steps</td>
<td>Chris Kirsten</td>
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SCP II has three elements.

1. Extend the standard capacity product to “temporarily exempt” RA resources in compliance with FERC Order;
2. Ensure reliability is maintained when the CPUC eliminates the “replacement rule”;
3. Clarify existing tariff language related to SCP.
Element 1 - Extend SCP to “temporarily exempt” RA resources

- On June 26 2009, FERC approved in part and rejected in part the SCP filing.
- This order deferred application of SCP to:
  - Demand Response resources
  - Resources whose Qualifying Capacity is determined using historical output data*
- Directed the ISO to work with stakeholders to sunset the deferrals as soon as possible

*May include wind, solar, non-dispatchable cogeneration, non-dispatchable biomass and non-dispatchable geothermal facilities
Demand Response resources are not addressed in SCP II.

- DR resources will continue to be temporarily exempt from SCP due to:
  - Ongoing ISO activities to develop provisions for DR participation in ISO markets
  - Ongoing CPUC proceedings
  - Implementation requirements
  - Lack of experience with DR

- ISO will initiate a subsequent stakeholder process to develop appropriate SCP provisions for DR

- Proposed implementation – January 2012.
Deferred RA resource types require a different availability calculation.

- Qualifying capacity (QC) is based on historical energy production
  - Production in peak hours – and hence QC – is typically much lower than resource’s nameplate or maximum capability
- Expect QC counting rules of CPUC and local regulatory authorities to be revised if needed to address “double counting” concern
  - QC should exclude hours in which the resource had full or partial forced outage or temperature-related ambient de-rate
- Thus production data for calculating QC is from hours of full nameplate capacity availability.
A forced de-rate that reduces a resource’s available capacity reduces its ability to provide its full QC.

- Consider a hypothetical wind farm having $P_{\text{max}} = 100$ MW comprised of $100 \times 1$ MW turbines.

- Its QC = 15 MW is calculated on hourly production during peak hours with all 100 turbines available.
  - QC for this resource = 15% of $P_{\text{max}}$

- If 20 of 100 turbines are forced out for an SCP assessment hour, the resource’s ability to provide its full QC is reduced by 20 percent for that hour.
  - Availability to provide RA = 80% x 15 MW QC = 12 MW
  - Equivalent to 15% of 80 MW available capacity = 12 MW
Example 1: Intermittent resource with QC = 15% of nameplate (P_max) has a 20% capacity de-rate

P_max = 100 MW

QC = 15 MW

RA sold = 10 MW

20 MW de-rate

This resource is at 80% of full capacity due to the de-rate.

Accordingly the resource is available to provide at most 80% or 12 MW of its QC.

Because RA sold is only 10 MW, the resource is considered 100% available for SCP purposes.
Example 2: Intermittent resource with QC = 15\% of nameplate (P_{\text{max}}) has a 50\% capacity de-rate

- P_{\text{max}} = 100 \text{ MW}
- QC = 15 \text{ MW}
- RA Sold = 10 \text{ MW}
- 50 \text{ MW de-rate}

Accordingly the resource is available to provide at most 50\% or 7.5 \text{ MW} of its QC. Because RA sold is 10 MW, the resource is considered 75\% available for SCP purposes.

This resource is at 50\% of full capacity due to the de-rate.
Proposal for non-resource specific system resources will be addressed in another venue.

- FERC June 26 Order directed the ISO to implement generated bids when NRS-RA resources fail to bid.
- The “Generated Bids” stakeholder process was initiated to comply with this part of the Order.
- Implementation of generated bids for NRS-RA should be accompanied by changes to SCP availability calculation.
- SCP II straw proposal (1/19/10) included changes to SCP rules to complement generated bid provisions.
- Due to revised timetable for generated bids, changes to SCP rules for NRS-RA will be included in the generated bids stakeholder process later this year.
Element 2 - Ensure reliability is maintained when the CPUC eliminates the “replacement rule.”

- Currently the CPUC requires LSE to replace RA capacity that will be on planned outage under certain conditions.
- Stakeholders have argued that CPUC should eliminate this rule in favor of alternative ISO tariff provisions:
  - Tariff standardization would make RA Capacity more tradable.
  - Place replacement obligation on supplier rather than LSE.
- In the SCP II straw proposal the supplier had the option of replacing its RA capacity on planned outage. In the draft final proposal the provision of replacement capacity is mandatory.
RA resources must report planned outages and replacement capacity in their monthly supply plans

- Non-RA capacity must be designated as a replacement.
  - Once designated, the capacity will become RA for the outage period.
- Local RA resources on planned outage should replace using other local capacity in same area, if possible.
  - If local capacity is unavailable, other system capacity must be designated.
  - If local area is deficient, local RA resource on planned outage with system replacement will be allocated ICPM cost.
- RA resources on planned outage that do not provide any replacement will be subject to ICPM cost allocation.
Element 3 - Clarify existing tariff language related to SCP.

- Section 40.9.4.2 – …Forced Outage, non-ambient de-rates, or temperature-related ambient de-rates….
  - Non-ambient de-rates are included in the tariff definition of “Outage”
  - Eliminate “non-ambient de-rate” from the tariff language

- Section 40.9.6.3 - …Real-Time neutrality charge for that Trade Month in accordance with Section 11.5.2.3…
  - Section 11.5.2.3 limits allocation to metered CAISO Demand that is scheduled at one of the three Default LAPs
  - New sentence reflects the allocation to all metered CAISO Demand.
The goal is to have these enhancements in place for the 2011 RA compliance year.

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<th>Date</th>
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<tr>
<td>March 2</td>
<td>Stakeholder Comments due (<a href="mailto:scpm@caiso.com">scpm@caiso.com</a>)</td>
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<tr>
<td>Early March</td>
<td>Updated Draft Final Proposal</td>
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<td>March 25, 26</td>
<td>Request affirmative Board decision</td>
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<tr>
<td>April</td>
<td>File tariff language with FERC</td>
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<tr>
<td>May/June</td>
<td>Expected FERC Order</td>
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<tr>
<td>Summer/Fall</td>
<td>Contract negotiations/Annual resource adequacy showing</td>
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<tr>
<td>January 1</td>
<td>Begin 2011 compliance year</td>
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