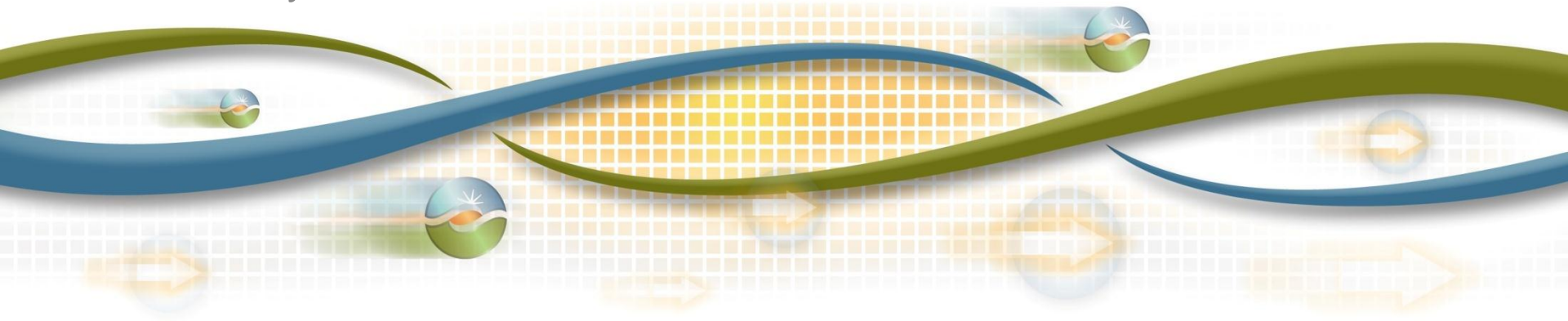




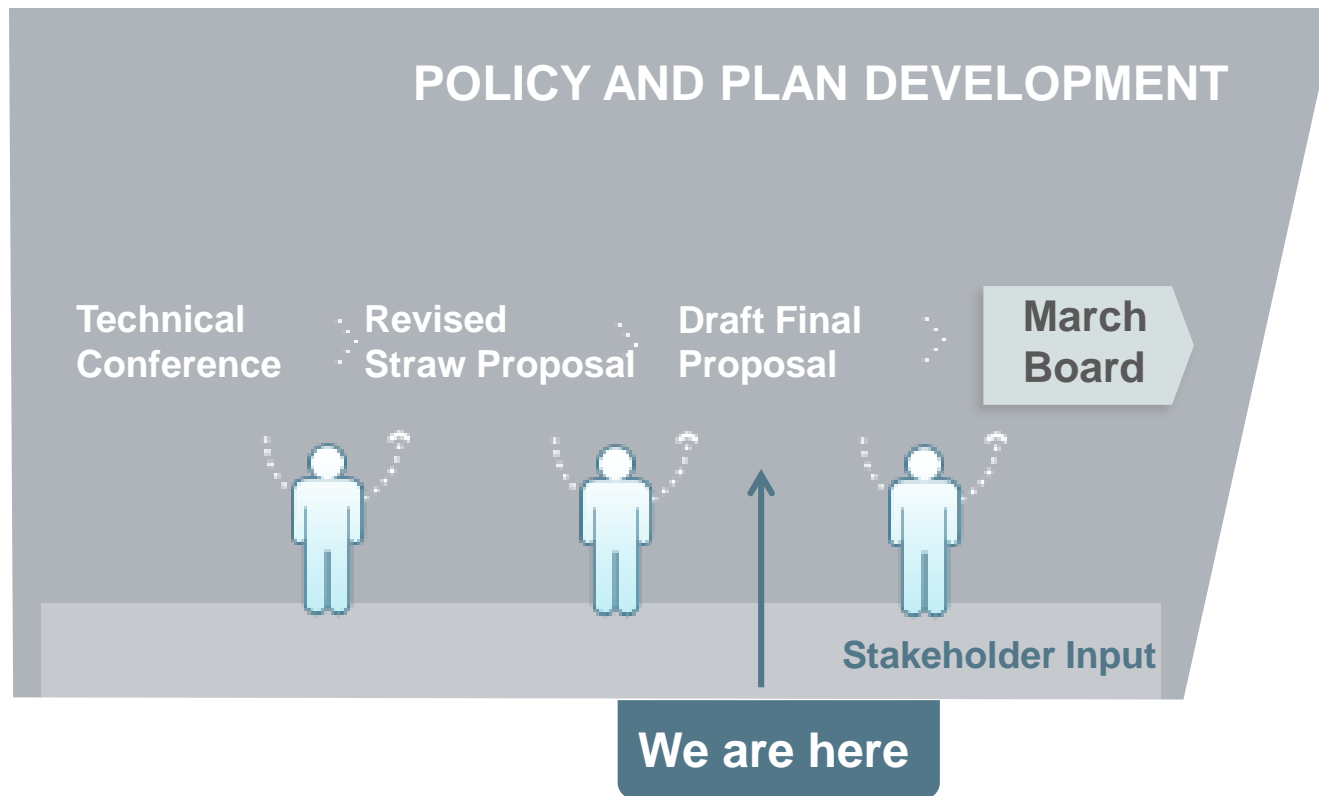
Commitment Cost Enhancements Phase 3 (CCE3) - Draft Final Proposal

Kallie Wells
Market Design and Regulatory Policy

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ISO Policy Initiative Stakeholder Process



Initiative Schedule

Milestone	Date
Draft final proposal published	February 15
Stakeholder conference call	February 25
Stakeholder comments due	March 2
Board of Governors decision	March 24-25

Commitment Cost Enhancements Phase 3 Overview

- Proposing a revised definition of use-limited and to no longer have default use-limited designation for certain resource types.
- Proposing a methodology to determine opportunity costs to be added to the bid cap for commitment costs or in the default energy bid. Upon implementation registered cost option will be eliminated.
- Proposing market based values for a subset of Masterfile resource characteristics to reflect preferred operational parameters of the resource, in addition to the design capability values.
- Proposing to not allow changes to Masterfile resource characteristics that would no longer support resource adequacy (RA) showings.
- Proposing new and changes to existing nature of work outage cards.
- Other minor modifications

Note: Presentation will focus on changes and added discussion to the proposal.

Use-limited definition

Intent of use-limited status under CCE3

- Under CCE3, use-limited status will indicate the need for that resource to reflect an opportunity cost in its commitment cost bids due to externally imposed restrictions.
 - Analogous to opportunity cost eligible in PJM and SPP
- Historically, use-limited status has been a catch-all category for resources not able to be available 24x7.
 - CCE3 intent is to have no impact on resources in terms of exemptions from bid insertion and mitigation and RAAIM treatment.

Use-limited definition – redefined per CCE3

Use-limited: *“A resource with one or more limitation on starts, run-hours, and/or output due to environmental restrictions or design considerations, which cannot be optimally dispatched over the limitation horizon without consideration of opportunity costs.*”

Acceptable environmental restrictions are those that are imposed by regulatory bodies, legislation, or courts. A non-exhaustive list of acceptable environmental restrictions include: limits on emissions, water use restrictions, or run-hour limitations in operating permits. Restrictions with soft caps that allow the resource to increase production above the soft cap through purchasing additional compliance instruments are not acceptable restrictions.

Acceptable design considerations are those that are due to physical equipment limitations. A non-exhaustive list of acceptable design considerations include: restrictions documented in original equipment manufacturer recommendations or bulletins, or limiting equipment such as storage capability for hydroelectric generating resources.”

Impact on resources currently default use-limited

	Default use-limited under RS11			Not default use-limited under CCE3		
Resource Type	Bid insertion	Bid mitigation	RAAIM Treatment	Bid insertion	Bid mitigation	RAAIM Treatment
Hydro	Exempt per Tariff section 40.6.8(e)	Subject to mitigation	Exempt from RAAIM when short-term use-limited reached or use-limited reached outage card submitted.	Continue to be exempt per section 5, page 12 of the Revised straw proposal.	Subject to mitigation	Exempt from RAAIM for remainder of month when a use-limited reached outage card submitted. Non-exempt from RAAIM starting the first day of the subsequent month.
Participating load		Exempt per Tariff section 31.2 and 34.1.5	Exempt from RAAIM		Exempt from RAAIM.	
PDR			Exempt from RAAIM when short-term use-limited reached or use-limited reached outage card submitted.			
RDRR		Required to be at or near energy bid cap.	Required to be at or near energy bid cap.		New outage card exempting DR from RAAIM once the resource has been dispatched 3 consecutive days for 4 hours each or 24 hours in a month.	

ISO does not envision storage resources needing an opportunity cost at this time. The needed discussions in regards to storage commitment costs and limitations have been identified as a potential topic for the Energy Storage and Distributed Energy Resources (ESDER) Phase 2 initiative.

Contractual limitations

Contractual limitations

- ISO currently does not allow contractual limitations to qualify a resource for use-limited status.
 - Market power concern if the ISO were to accept contractual limitations.
- While the ISO generally maintains its current position on contractual limitations, we are now proposing provisions for contractual limitations to temporarily qualify for an opportunity cost.
 - Contracts entered into prior to the ISO introducing the idea of an opportunity cost, and which have undergone a comprehensive review and approval process, likely do not have any intent to exercise market power.

Contractual limitations

- The ISO proposes the following exemption:

“Conventional resources that, as of January 1, 2015, are on an original long-term contract individually reviewed and approved through a comprehensive regulatory process as a new build which evaluated cost implications on rate payers with a limitation on starts, run-hours, or output, will be eligible for an opportunity cost reflective of such limitation, provided sufficient supporting documentation is provided, for up to three years following the effectiveness date of opportunity costs as determined through CCE3.”

- Temporary qualification, as recommended by the California Public Utilities Commission, allows sufficient time to evaluate RA implications and potential renegotiations of contracts.
- If the ISO can utilize more flexibility from these resources, it could diminish the need for new resources to be built.

Outage cards

Outage cards – demand response

- ISO recognized without use-limited status, demand response resources will no longer have access to the outage cards used to reflect “fatigue breaks” in accordance with the demand response programs.
- ISO is now proposing a new nature-of-work outage card for demand response (reliability demand response resource and proxy demand resource).
 - Submit outage to reflect fatigue breaks
 - Submit outage once maximum dispatch has been reached
 - Exempt from RAIM when outage card submitted

Outage cards - use-limited reached

- The ISO needs to ensure resources that are on monthly RA showings are actually available to commit.
- All non use-limited RA resources are required to provide substitute capacity when on outage.
- To remedy the concern, and provide consistent treatment to all RA resources, the ISO is proposing when a use-limited resource submits the use-limited reached outage card, it will be non-exempt from RAAIM starting the first day of the following month.

Outage cards – use-limited reached

- Primary stakeholder concern in regards to a resource being exposed to RAIM penalties if hits limit before the end of the RA obligation period due to miscalculated opportunity cost.
 - Policy proposes to use 90% of limitation in model, retain short term use-limited reached outage card for transition period, and loosened the criteria to request a negotiated value if calculated value is ineffective.
- Resource could also reach limitation if the optimal time to use the resource was before the end of the year.
 - ISO still needs enough RA resources each month for reliability.
 - SCs can use the short term use-limited reached card
- Recent discussion at Market Surveillance Committee meeting in regards to adding an estimated RA payment in the opportunity cost model.
 - ISO does not want to pursue a path where prices from the bilateral RA market are incorporated into the wholesale energy market.

Masterfile resource characteristics

Masterfile resource characteristics

- Currently, all Masterfile field resource characteristics must reflect the physical ability of the resource.
- ISO understands the need to reflect preferred operating parameters of resources for certain resource characteristics.
- ISO is proposing to include a market based value in Masterfile to allow scheduling coordinators to reflect a preferred operating value for maximum daily starts, ramp rates, and maximum daily multi-stage generator (MSG) transitions, in addition to the design capability value.
- Design capability value will reflect the maximum, or minimum, design capabilities of the resource to be used in exceptional dispatched under stressed system conditions.

Masterfile resource characteristics

- Market based value for maximum daily starts and MSG transitions must be, at a minimum, 2 starts/transitions per day.
 - Address market power concerns
- Under limited circumstances due to the age of a resource, a scheduling coordinator can request a market based start/transition of 1 per day.
 - Must provide detailed explanation to the ISO for review.
- Ramp rates must, at a minimum, support effective flexible capacity (EFC) showing of resource.

Changes to Masterfile resource characteristics

- The ISO will not allow changes to any Masterfile resource characteristics in such a way that will no longer support the RA showings of the resource.
 - Maximum daily start of at least 2 already ensures the RA will be supported
- Ramp rates must support EFC showing of the resource
- Minimum down time and dispatchability are used to determine category of flexible capacity category.
- Resource Data Template (RDT) will be rejected, notifying the scheduling coordinator that the change no longer supports RA showing.

Other modifications

Other modifications

- ISO is proposing to modify tariff and Business Practice Manual process to further clarify the use-limited registration and use-plan submittal process.
 - Removing from RA section of tariff to a more general section
- ISO will post technical appendix to provide transparency to market participants in March 2016.
- In the event the ISO cannot complete a monthly update, the ISO will give priority to those resources using more of the limitation than initially anticipated by the model.
- The ISO will allow resources with a calculated opportunity cost that is ineffective to request a negotiated opportunity cost if at risk of not being available for RA obligation period.

Next steps

- Please submit written comments by March 2, 2016 to initiativecomments@caiso.com
- March 24 – 25 - Board of Governors decision