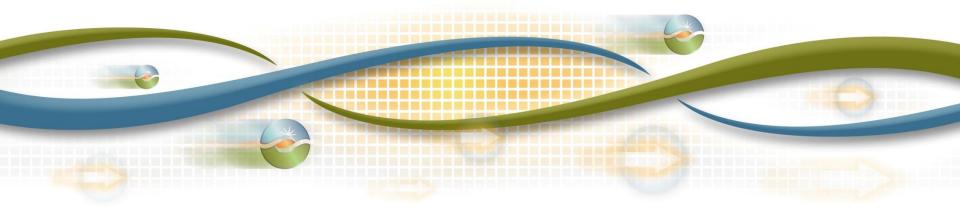


BPM Change Management Meeting

January 24, 2017

Julia Payton BPM Change Management Process BPM_CM@caiso.com



Agenda – BPM Change Management Meeting, January 24, 2017

Торіс	Presenter
Introduction/meeting overview	Julia Payton
Discussion of current PRRs:	
Market Operations	Jamal Batakji
Market Instruments	Jamal Batakji
Settlements and Billing	Elizabeth Caldwell
Outage Management	Abdul Mohammad-
Reliability Requirements	Ali
Managing Full Network Model	Vivian Liang
Wrap up and next steps	Julia Payton



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PRRs for Discussion – Recommendation Phase Market Operations BPM

PRR	PRR Title
945	Market power mitigation for real time dispatch market



PRR 945 – Market power mitigation for real time dispatch market

- Reason for revision:
 - To improve the accuracy of market power mitigation for 5-minute real time dispatch market. Effective date is March 1, 2017.
- Recommendation stakeholder comments:
 - No comments submitted
- ISO response/position:
 - ISO submitted the PRR.
- Recommendation comment period expiration:
 - January 12, 2017
- Next step: Post final decision



PRRs for Discussion – Recommendation Phase Settlements and Billing BPM

PRR	PRR Title
946	Update BPM for charge code 6478 real-time system imbalance energy offset and CC 6985 real- time marginal losses offset to align the documentation with the current active settlement configuration
947	Updated BPM for metered energy adjustment factor pre-calculation to clarify conversion of ramp rate in minutes to MWh
948	Updated capacity procurement mechanism related configuration guides to re-formulate the eligible CPM capacity designation quantity and pass through bill functionality
949	Update BPM configuration guide for spin non-spin no pay pre-calculation to retroactively adjust calculation impacting resources without regulation schedules
955	Update BPMs for start-up and minimum load cost and integrated forward market net amount pre- calculation to implement bidding rules enhancement Pmin rerate Pmax derate settlements
956	Update configuration guides in accordance with administrative pricing initiative to settle congestion revenue rights at the average hourly fifteen minute market price when specific conditions are triggered
957	Update existing BPM for real-time net amount pre-calculation to exclude hourly block bid opted intertie resources flex ramp product settlement amounts in bid cost recovery
958	Update real time market net amount pre-calculation for regulation up and regulation down bid cost recovery costs



PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
946	CC 6478 – Real- Time System Imbalance Energy Offset CC 6985 – Real- Time Marginal Losses Offset	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	 Update business practice manuals for charge code (CC) 6478 real-time system imbalance energy offset and CC 6985 real-time marginal losses offset to align the documentation with the current active settlement configuration. Charge code 6985 was updated to define the ISO total real-time marginal losses offset allocation amount. While configuration guide CC 6478 real-time system imbalance energy offset was updated to reflect the consumption of the ISO total real-time marginal losses offset allocation amount when calculating the EIM area total real-time losses offset amount. These are documentation only changes which do not result in a configuration change. <i>No changes since initial phase meeting.</i>
947	PC Metered Energy Adjustment Factor	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	In response to a CIDI ticket request, a documentation only change to the metered energy adjustment factor pre-calculation has been made to clarify how the ramp rate in MW/min is converted to energy consumed in 5-minutes in MWh. The conversion factor for the relevant ramp rate is provided in the input variable section. This is a documentation only change with no associated configuration change. <i>No changes since initial phase meeting.</i>



PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
948	Metered Demand Over TAC Area and CPM PC CC 7891 – Monthly CPM Settlement CC 7896 – Monthly CPM Allocation	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	 Configuration change will properly account for the portion of the CPM capacity designation quantity that is serving as substitution CPM for another resource or is considered to be RA capacity instead of CPM capacity. This will resolve the issue with CPM payment deduction for substitution capacity that is incorrectly deemed to be unavailable. Additionally, Pass Thru Bill functionality will be added to the Monthly CPM Settlement and Monthly CPM Allocation guides. Under the scenario where the ISO issues a 12-month CPM designation at the soft offer cap within a single RA compliance year for a given resource, the ISO will utilize Pass Thru Bill to adjust the compensation to ensure that the ISO does not exceed the annual cap pf \$75.68/kW-year. These changes have a retroactive effective date starting with Trading Day November 1, 2016. The ISO anticipates implementation on or about January 27, 2017. Changes from initial phase meeting: Implementation date changed to 1/24/17 Revised guide for MD TAC Area and CPM PC posted/announced on 12/13. Formula changes to use Pmax rather than NQC as reference point for determining committed RA capacity.
949	PC Spin Non-Spin No Pay Quantity v5.16 to 5.19	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	 Retroactive configuration change to resolve two defects: 1) To support adding hourly functionality for ancillary services test rescission in addition to the already existing daily functionality. 2) Address incorrect usage of BAResourceAGCFlag where calculated no pay quantities were being zeroed out for resources without Regulation Schedules. As the updates are retroactive to 5/1/2014, documentation changes were required to replace v5.12 to v5.15 and with v5.16 to v5.19. These change are anticipated for 01/27/2017 implementation. Changes from initial phase meeting: Implementation date changed to 1/24/17

PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
955	Start-Up and Minimum Load Cost PC IFM Net Amount PC	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	 To support recent Tariff filing related to Bidding Rules Enhancement Pmin and Pmax Settlements, configuration change is required to the PC for Start-up and Minimum Load Cost In particular, changes for: a. Transition cost eligibility when checking against resource meter, use updated Pmin/Pmax in case of outages as bounds for both from configuration and to configuration. b. Actual start up, use re-rated Pmin to detect if the unit is on. c. Cumulative UIE Pmin Test Limit (for persistent deviation at shutdown), to indirectly use re-rated Pmin, and d. Counting number of start-ups in a day for a use limited resource (for use in the RAAIM Precalculation), to use re-rated Pmin. Additionally, a documentation only change to the business rules of the IFM Net Amount PC is provided for multi-stage generators (MSGs) related to bid cost calculation. The ISO anticipates implementation of the Start Up Min Load PC change on or about 01/30/17 in order to support a 2/1/17 production effective trade date. <i>Changes from initial phase meeting:</i> Implementation date changed to 1/24/17 Revised guide for Start Up and Min Load PC posted/announced on 12/28 reflects re-formulation of Pmax derate to improve calculation performance.

PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
956	Real Time Energy Price (doc only update) CC 6473 – Convergence Bidding Real Time Energy, Congestion, and Loss Settlement (doc only update) CG CC 6700 – CRR Hourly Settlement	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Additional Recommendation comment period	 Based upon administrative pricing initiative filed at FERC as of November 23, 2016, if the ISO has declared a suspension of the day ahead market results for a given trade date and rely solely upon real-time market results, then congestion revenue rights will settle at the average hourly fifteen minute market prices. Configuration changes presented in charge code 6700 support this principle based on inputs from 6473 and real-time energy price calculations. The ISO anticipates implementation on or about 1/30/17 in support of a 2/1/17 production effective trade date. Changes from initial phase meeting: Updated guides posted 1/20; configuration of 6700 revised to create Administrative Pricing flag by materialized view. Details within the guide and associated output file. Effective date for all guides changed to 4/1/17 Implementation date changed to 1/24/17
957	RTM Net Amount PC	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	Configuration change is proposed to ensure that interties resources, for the specific trading hour when they opted hourly block bidding, are not eligible for bid cost recovery per Tariff definition of bid cost recovery eligible resources (due to contribution from flexible ramping product forecasted movement and/or uncertainty award settlement). An additional change is proposed for implementation to further exclude PIRP protective measures and circular scheduling resources from receiving any BCR that maybe due to flexible ramping product settlement amounts, which are also not eligible for bid cost recovery settlement. The ISO anticipates implementation on or about 1/30/17 with a retroactive production effective trade date of 11/1/16.

PRRs for Discussion – Recommendation Phase Settlements and Billing BPM

PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
958	RTM Net Amount PC	No recommendation comments submitted. Comment period expired 1/12/17; Next Step: Post final decision	 After investigation of a CIDI ticket, it was determined that the current Settlement configuration is incorrectly calculating the regulation mileage up and down costs associated with the real-time qualified self-provision capacity quantity of resources. The proposed revision for the real-time market net amount pre-calculation BPM guide will change the configuration to properly account for the real-time qualified self-provision in the calculation of the bid cost recovery costs for regulation up and regulation down mileage bid cost recovery. It is proposed that the change be implemented retroactively with an effective start date of March 1, 2014. The ISO anticipates implementation on or about January 30, 2017. Changes from initial phase meeting: Implementation date changed to 1/24/17



PRRs for Discussion – Initial Phase Settlements and Billing BPM

PRR	PRR Title
959	Emergency: Updated calculation of day ahead and real time self-scheduled bids for resource adequacy availability incentive mechanism
960	Emergency: Updated calculations and business rules for resource adequacy availability incentive mechanism settlement



PRRs for Discussion – Initial Phase

PRR	CC/ PC	Comment Expiration / Next Step	ISO Position / Reason for Revision
959	PC RA Availability Incentive Mechanism	No initial comments submitted. Comment period expired 1/11/17; Next Step: Post recommendation	A scheduling coordinator may submit self schedules on a resource under several self schedule types (e.g. ETC, TOR, RMT). The current configuration determines the max value among the self schedules, and uses that value to count towards a resource meeting its RA obligation. However, the max value logic can exclude some self schedules from being counted towards a resource meeting its RA obligation. Under RAAIM, this can lead the resource to not being fully available, exposing it to non- availability charges. The revisions will be to replace the max value logic with an alternative logic such that all self schedules are included in the RAAIM calculations. Configuration changes will be effective retroactive to 11/1/2016 and have an anticipated deployment date of 1/24/2017.
960	PC RA Availability Incentive Mechanism CC 8830 CC 8831	No initial comments submitted to date. Comment period expires 1/31/17; Next Step: Post recommendation	A recent CIDI ticket raised a concern with the BPM business rule, "Use limited resources that have reached their use limitation shall have their bids capped at zero" within the RA Availability Incentive Mechanism pre-calculation. Under this rule, when a use limited resource reaches its use limitation as submitted in its use plan, it would be exposed to RAAIM non-availability charges even as it continues to bid. As a result of cross-functional internal analysis, it has been determined that a fix to this rule is needed. The proposed fix is to remove the business rule such that when a use limited resource reaches its use limitation as submitted in its use plan, its bids would be eligible towards RAAIM availability. This rule and associated formula changes are anticipated for implementation on 1/24/2017 with a 11/1/2016 effective date. **Configuration guide version will include changes detailed under PRR 959 Additionally, a recent extension of the advisory period under RAAIM requires the removal of BPM language referencing that only the first two months of RAAM will be advisory; no impact to configuration - documentation only change impacting 8830 and 8831.
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PRRs for Discussion – Recommendation Phase Outage Management BPM

PRR	PRR Title
950	Outage reporting requirement reference



PRR 950 – Outage reporting requirement reference

- Reason for revision:
 - PRR submitted by San Diego Gas & Electric Co.
 - The original reference 40.9.5 is incorrect. The reporting requirement for resources with a Pmax between 1 and 10 MW is 40.9.3.5 (d)
- Recommendation stakeholder comments:
 - ISO posted a comment on 12/8/16
- ISO response/position:
 - ISO accepts the PRR and will update the BPM to reflect the correct tariff reference.
- Initial comment period expiration:
 - January 12, 2017
- Next step: ISO will post final decision

PRRs for Discussion – Recommendation Phase Reliability Requirements BPM

PRR	PRR Title
951	Annual acquired resources confirmation process



PRR 951 – Annual acquired resources confirmation process

- Reason for revision:
 - PRR submitted by San Diego Gas & Electric Co.
 - Tariff section 40.9.2.1(b)(2) allows a confirmation to be sent to the ISO to continue the exemption of Acquired Resource status after compliance year 2016. There are also other minor clean-up in the section within the submitted document
- Recommendation stakeholder comments: ISO posted initial comment on 12/8/16. No recommendation comments submitted.
- ISO response/position:
 - The ISO partially accepts the changes to the RR BPM. The following is our feedback:

1.Capitalizing "Acquired Resources" – ISO agrees with this change.

2. The tariff citation – SDG&E said it was wrong but it is accurate.

3. The request to not have an affidavit after 2016 – this requires more internal discussion and the ISO is committed to clarifying the language and process in the BPM.

- Recommendation comment period expiration: January 12, 2017
- Next step: ISO will post final decision



PRRs for Discussion – Recommendation Phase Market Instruments BPM

PRR	PRR Title
952	Aliso Canyon phase 2



PRR 952 – Aliso Canyon phase 2

- Reason for revision:
 - Due to Aliso Canyon phase 2 gas-electric coordination initiative and the interim tariff revisions from December 1, 2016 through November 30, 2017. Effective date December 1, 2016
- Recommendation stakeholder comments:
 - No comments submitted
- ISO response/position:
 - ISO submitted the PRR.
- Recommendation comment period expiration:
 - January 12, 2017
- Next step: Post final decision



PRRs for Discussion – Recommendation Phase Market Operations BPM

PRR	PRR Title
953	Aliso Canyon phase 2



PRR 953 – Aliso Canyon phase 2

- Reason for revision:
 - Due to Aliso Canyon phase 2 gas-electric coordination initiative and the interim tariff revisions from December 1, 2016 through November 30, 2017. Effective date December 1, 2016
- Recommendation stakeholder comments:
 - No comments submitted
- ISO response/position:
 - ISO submitted the PRR.
- Recommendation comment period expiration:
 - January 12, 2017
- Next step: Post final decision



PRRs for Discussion – Recommendation Phase Managing Full Network Model BPM

PRR	PRR Title
954	Aliso Canyon phase 2 and point of receipt clarification



PRR 954 – Aliso Canyon phase 2 and point receipt clarification

- Reason for revision:
 - This revision includes a new Section 4.2.7.1.2 to incorporate Attachment N of BPM for Market Instrument Version 42 and modification due to Aliso Canyon gas-electric coordination initiative phase 2 and the interim tariff revisions from December 1, 2016 through November 30, 2017. A language clarification of Point of Receipt (POR) in Section 4.2.3.8 is also included in this revision. Effective December 1, 2016.
- Recommendation stakeholder comments:
 - No comments submitted
- ISO response/position:
 - ISO submitted the PRR.
- Recommendation comment period expiration:
 - January 12, 2017
- Next step: Post final decision

Next Steps

Next Meeting: February 28, 2017

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