

BPM Change Management Meeting

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- Calls are structured to stimulate an honest dialogue and engage different perspectives.
- Please keep comments friendly and respectful.



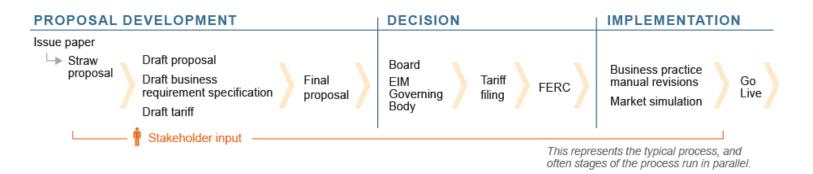
Agenda – BPM Change Management Meeting March 23, 2021

| Торіс | Presenter |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Introduction / Meeting Overview | Isabella Nicosia |
| Discussion of active proposed changes: Settlements and Billing BPM Direct Telemetry BPM Metering BPM Market Operations BPM Market Instruments BPM Definitions and Acronyms BPM Reliability Requirements BPM Outage Management BPM | Brenda Corona Priyanka Namburi Priyanka Namburi Jamal Batakji Jamal Batakji Jacqueline Meredith Melanie Bogen Kalyani Abhyankar |
| Wrap-Up and Next Steps | Isabella Nicosia |

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California ISO Stakeholder Initiative Process



- Business Practice Manuals
 - The purpose of BPMs is to set forth business practices that implement the ISO tariff.
 - The ISO conducts a yearly policy initiative roadmap process to consider and rank initiatives.
 - Policy changes submitted though the PRR process will be referred to the policy initiative road map process.
 - Each subject area in a BPM is based on enabling language in the ISO tariff.
 The PRR process cannot be used to introduce changes that are not supported by existing tariff authority.



Settlements and Billing BPM

| PRR | PRR Title | Stage |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1333 | Updated BPM configuration guide for pc spin non-spin no pay quantity to accommodate channel 4 meter quantity being included for LESR and DDR resources | Initial |
| 1332 | Adding attribute to support unique pricing for day ahead marginal cost of losses price in day ahead settlement | Initial |
| 1331 | Updated BPM configuration guide pc system resource deemed delivered energy quantity to accommodate system resources whose e-tags are curtailed in the middle of the trade hour | Initial |



Settlements and Billing BPM

| PRR | PRR Title | Stage |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1330 | Updated BPM configuration guide for CC 8835 annual resource adequacy availability incentive mechanism neutrality to accommodate adding a flexible formula stream | Initial |
| 1329 | Updated multiple BPM configuration guides to accommodate the real time settlement review - phase 1 initiative | Initial |
| 1328 | To support the hybrid resources phase 1 initiative, configuration changes are needed to settle hybrid resources for forecasting services | Initial |



Settlements and Billing BPM

| PRR | PRR Title | Stage |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1323 | To eliminate double penalty settlement for intertie resources that switch between 15 minute economic bid and hourly bid option within a given trade date | Initial |
| 1322 | Update settlements configuration guide for grid management charge bid segment fee in relation to day ahead nodal pricing model initiative to correct bid segment counts | Initial |
| 1320 | Update metered subsystems deviation penalty quantity pre-calculation BPM to resolve excess behind the meter production issue for load following metered subsystems | Recommendation |



PRR 1333 – Updated BPM configuration guide for pc spin non-spin no pay quantity to accommodate channel 4 meter quantity being included for LESR and DDR resources

- Reason for revision
 - CAISO confirmed that currently DReAMS is considering only Channel 4 meter quantity in the meter measure for LESR and DDR resources. If the resource is in charging mode, DReAMS is not taking the Channel 1 meter data. This is causing incorrect settlement for these resources. In order to correct, Gen & Load Measurement Types in DReAMS will be netted for LESR & DDR. The BPM will reflect a documentation only update to account for the new netting process. PC Spin Non-Spin No Pay Quantity is impacted.
 - The effective trade date of the change is retroactive to 11/1/2019 T-18M and the anticipated implementation date is 5/28/2021.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1332 – Adding attribute to support unique pricing for day ahead marginal cost of losses price in day ahead settlement

- Reason for revision
 - Currently the DA MCL has a non-unique price. The addition of the intertie ID/ flowgate ID attribute will allow for a unique price for settlement if a node has a different price for an associated contract for DA Energy. This change is in Charge Code 6011 Day Ahead Energy, Congestion, Loss Settlement v5.6.
 - The effective date of the changes is 5/1/2021 and the anticipated implementation date is 4/28/2021, this is a prospective Settlements config change.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1331 – Updated BPM configuration guide pc system resource deemed delivered energy quantity to accommodate system resources whose e-tags are curtailed in the middle of the trade hour

- Reason for revision
 - System Resources e-tags are curtailed in the middle of the trade hour it results in an incorrect Logical Meter Calculation (LMC) for CAISO Dynamic Resources. The solution is to enhance the LMC settlement calculation to multiply LMC Allocation Factor against the sum of the 12 hourly tagged quantities provided by the interchange transaction scheduling system (ITS) and then divide the end result by 12. PC System Resource Deemed Delivered Energy Quantity is directly impacted.
 - The effective trade date of the change is 5/1/2021 and the anticipated implementation date is 4/28/2021.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1330 – Updated BPM configuration guide for CC 8835 annual resource adequacy availability incentive mechanism neutrality to accommodate adding a flexible formula stream

- Reason for revision
 - Settlements configured a Flexible allocation stream in order to allocate Flexible unallocated funds to the Flexible MW quantity that the Load Serving Entities (LSE) were required to show on each monthly Resource Adequacy (RA) plan. This is required in order to allocate Flexible unallocated funds from 2018 on the January 2019 T+33M monthly recalculation statement. A Flexible allocation stream has been added to the already existing Generic allocation stream. CC 8835 Annual Resource Adequacy Availability Incentive Mechanism Neutrality is directly impacted.
 - The effective trade date is 1/1/2019 and the anticipated implementation date is 4/28/2021.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1329 – Updated multiple BPM configuration guides to accommodate the real time settlement review - phase 1 initiative

- Reason for revision
 - This change is made to support the Real Time Settlement Review Phase 1 initiative. This change is necessary to implement the CAISO proposed changes in the Tariff. More specifically, The changes for Real Time Settlements Review – Phase 1 are:
 - Eliminate the option for EIM entities to settle their base ETSR schedule deviations bilaterally. Deviations will be settled through the CAISO market at scheduling point intertie prices at a unique pricing location. (Impacted CCs: 64600, 64770, 64700, 6477, 6985, PC Real Time Congestion, PC Real Time Energy Quantity)
 - Change calculation for real-time bid cost recovery (BCR) transfer adjustment amount to be allocated based upon ETSR export over ETSR export plus load and exports (load and exports are equivalent to measured demand). (Impacted CCs: PC Real Time Energy Quantity)
 - This change will be deployed on 4/28/2021, and retroactive on 4/1/2021.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1328 – To support the hybrid resources phase 1 initiative, configuration changes are needed to settle hybrid resources for forecasting services

- Reason for revision
 - As part of the Hybrid Resources Phase 1 initiative, the ISO requires a way to assess forecast fees on hybrid resources that have a VER component.
 - 701 Forecasting Service Fee was modified to accommodate hybrid resources separately to account for this change.
 - The effective date of the changes is 12/1/2020 and the anticipated implementation date is 4/28/2021, this is a retroactive Settlements config change.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1323 – To eliminate double penalty settlement for intertie resources that switch between 15 minute economic bid and hourly bid option within a given trade date

- Reason for revision
 - An issue was identified through CIDI by a market participant wherein a resource was getting penalized in both the hourly and 15m category of IDS penalty settlement. After further research, it was determined that the resource switched between 15 minute economic bid and hourly bid option within the same trading day.
 - The solution is to update the settlements configuration to account for such behavior. The ISO anticipates implementation of the BPM changes on or about 2/17/2021, with a retroactive effective Trade Date of 2/1/2021.
- Initial comments:
 - No comments submitted to date
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1322 – Update settlements configuration guide for grid management charge bid segment fee in relation to day ahead nodal pricing model initiative to correct bid segment counts

- Reason for revision
 - As part of the DA Nodal initiative, NPM SCs were given advisory statements and the charge configuration was modified to allow this. There was a defect noted that changes from the DA Nodal initiative zeroed all bid count segments for NPM and existing market resources.
 - The proposed change to 4515 GMC Bid Transaction Fee v5.6.1 re-enables the normal bid segment count for market participants while preserving the advisory settlement for NPM SCs.
 - The ISO anticipates implementation of the BPM changes on or about 2/17/2021, with a retroactive effective Trade Date of 1/1/2021.
- Initial comments:
 - No comments submitted to date
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1320 – Update metered subsystems deviation penalty quantity pre-calculation BPM to resolve excess behind the meter production issue for load following metered subsystems

- Reason for revision
 - Production issue found with Excess Behind the Meter Production (EBTMP) in relation to Metered Subsystems (MSS). For MSS Deviation Penalty Quantity pre-calculation, meter value intended for MSS generators were nullified.
 - The solution is to revert any EBTMP changes under MSS Deviation Penalty Quantity Precalculation. EBTMP does not apply to MSS. An MSS must submit generation/load at the citygate pursuant to its MSSA. The patch is already in production and impacts only MSS that is Load Following.
 - The ISO has implemented a production fix around January 14, 2021. This BPM change accompanies that fix.
 - The change is effective trade date January 1, 2021, which matches EBTMP initiative's implementation date. Trade dates that were already settled prior to the production fix will be resettled with the scheduled recalculation for those trade dates.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Direct Telemetry BPM

| PRR | PRR Title | Stage |
|------|-------------------------------------------------------------|----------------|
| 1327 | Pseudo ties for shared resources | Initial |
| 1318 | New telemetry requirements due to NERC standard BAL-003-1.1 | Recommendation |



PRR 1327 – Pseudo ties for shared resources

- Reason for revision
 - Section 6.1 has been updated to include requirements for Pseudo ties of Shared Resources.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



PRR 1318 – New telemetry requirements due to NERC standard BAL-003-1.1

- Reason for revision
 - To comply with North American Electric Reliability Corporation Reliability Standard BAL-003-1.1.
 - For more information, please see the FAQ Posted at: <u>http://www.caiso.com/Documents/TelemetryRequirements_FAQs</u>.
 .pdf
- Recommendation comments:
 - CDWR; submitted 3/12/21
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision





| PRR | PRR Title | Stage |
|------|----------------------------------|---------|
| 1326 | Pseudo ties for shared resources | Initial |



PRR 1326 – Pseudo ties for shared resources

- Reason for revision
 - Updated Section 3.4
 - Added requirement of backup meter for loss compensation schemes.
 - New Section 4.4
 - Pseudo-ties for shared resources.
- Initial comments:
 - No comments submitted
- Initial comment period expired:
 - March 16, 2021
- Next step:
 - Post recommendation



Market Operations BPM

| PRR | PRR Title | Stage |
|------|----------------------------------------------------------------------------------------|----------------|
| 1334 | State of charge reservation for regulation | Initial |
| 1317 | Clarifying language for market operations BPM for resource adequacy bidding obligation | Recommendation |
| 1312 | Following trajectory between dispatch operating target | Recommendation |



PRR 1334 – State of charge reservation for regulation

- Reason for revision
 - CAISO Tariff requires all resources awarded regulation are able to respond to automatic generator control (AGC) signals, the storage resources providing regulation must have sufficient state of charge to respond to automatic generator control signals.
- Initial comments:
 - No comments submitted
- Initial comment period expires:
 - April 13, 2021
- Next step:
 - Initial comments due



PRR 1317 – Clarifying language for market operations BPM for resource adequacy bidding obligation

- Reason for revision
 - This is a clarifying language related to fast, medium, and long start for RA bidding obligation.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



PRR 1312 – Following trajectory between dispatch operating target

- Reason for revision
 - This Proposed Revision Request clarifies the expectation under existing tariff that all resources follow their Dispatch Operating Point (DOP). Effective Date: Upon completion of the PRR.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Market Instruments BPM

| PRR | PRR Title | Stage |
|------|---------------------------------------------|----------------|
| 1321 | Proxy demand resources dispatch information | Recommendation |



PRR 1321 – Proxy demand resources dispatch information

- Reason for revision
 - This is a result of a discussion with a market participant. The change is intended to clarify how some PDRs will get dispatch information from CMRI. The material was developed in a training document and we are memorializing it in the BPM.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Definitions and Acronyms BPM

| PRR | PRR Title | Stage |
|------|--------------------------------------------------------------|----------------|
| 1319 | Annual update an reconciliation for definitions and acronyms | Recommendation |



PRR 1319 – Annual update an reconciliation for definitions and acronyms

- Reason for revision
 - Definitions and acronyms have been added, modified or removed in the other BPMs and CAISO Tariff since the last revision. This document is a reconciliation since the last update.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Reliability Requirements BPM

| PRR | PRR Title | Stage |
|------|----------------------------------------------------------------------------|----------------|
| 1316 | Clarification on PRR 1280 Status | Recommendation |
| 1315 | Commitment cost enhancement tariff clarification process policy initiative | Recommendation |



PRR 1316 – Clarification on PRR 1280 Status

- Reason for revision
 - While PRR 1280 is under "Appeal Pending" status, this PRR states that the language from PRR 1280 is currently not in effect.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



PRR 1315 – Commitment cost enhancement tariff clarification process policy initiative

- Reason for revision
 - Clarifications made for Commitment cost enhancement tariff clarification process policy initiative
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Outage Management BPM

| PRR | PRR Title | Stage |
|------|-----------------------------------------------------------------------------|----------------|
| 1314 | Commitment cost enhancement phase 3 Tariff clarification for hydro units | Recommendation |



PRR 1314 – Commitment cost enhancement phase 3 Tariff clarification for hydro units

- Reason for revision
 - Clarifications notated for Commitment Cost Enhancement Phase 3 (CCE3) tariff clarification.
- Recommendation comments:
 - No comments submitted
- Recommendation comment period expired:
 - March 16, 2021
- Next step:
 - Post final decision



Next BPM PRR Review Monthly Meeting: April 27, 2021 @ 11 a.m.



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