BPM Change Management Meeting

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• Meeting is structured to stimulate honest dialogue and engage different perspectives.

• Please keep comments professional and respectful.
New instructions for raising your hand to ask a question

• If you are connected to audio through your computer or used the “call me” option, select the raise hand icon 🙋 above the chat window located on bottom right corner of the screen. **Note:** #2 only works if you dialed into the meeting.

• Please remember to state your name and affiliation before making your comment.

• If you need technical assistance during the meeting, please send a chat to the event producer.
## Agenda – BPM Change Management Meeting
March 22, 2022

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<td>Introduction / Meeting Overview</td>
<td>Nicole Hines</td>
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<td><strong>Discussion of active proposed changes:</strong></td>
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<td>Transmission Planning Process</td>
<td>Catalin Micsa</td>
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<td>Generator Management</td>
<td>Jill Jordan</td>
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<td>Generator Interconnection Procedures</td>
<td>Jill Jordan</td>
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<td>Generator Interconnection and Deliverability Allocation Procedures</td>
<td>Daune Wilson, Linda Wright</td>
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<td>Reliability Requirements</td>
<td>Melanie Bogen</td>
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<td>Market Operations BPM</td>
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<td>Michael Martin</td>
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<td>Settlements and Billing</td>
<td>Massih Ahmadi</td>
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<td>Wrap-Up and Next Steps</td>
<td>Nicole Hines</td>
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BPM Change Management Process

[BM CM@caiso.com](BM_CM@caiso.com)
• 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 through the PRR process will be referred to the policy initiative roadmap 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.*
## Transmission Planning Process BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1407</td>
<td>Implementation of the outcome resulting from the maximum import capability</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1407: Implementation of the outcome resulting from the maximum import capability

- Reason for revision
  - Implementation of the outcome resulting from the Maximum Import Capability (MIC) Enhancements stakeholder process.
  - Update to include Maximum Import Capability expansion requests in sections 3.2.2. and 3.2.6.

- Recommendation Comments: None
- Recommendation comment period expired: April 12, 2022
- Next step: Post Final Decision
## Generator Management

<table>
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<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1430</td>
<td>2021 Contract management enhancements initiative updates</td>
<td>Initial</td>
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</tbody>
</table>
PRR 1430: 2021 Contract management enhancements initiative updates

• Reason for revision
  – Update language to reflect changes made in the 2021 Contract Management Enhancements initiative.

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
### Generator Interconnection Procedures

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1428</td>
<td>Contract management enhancement updates for modifications and re-studies for serial projects</td>
<td>Initial</td>
</tr>
</tbody>
</table>
PRR 1428: Contract management enhancement updates for modifications and re-studies for serial projects

• Reason for revision
  – To align with updates made in the COMA initiative.

• Initial Comments: None

• Initial comment period expired: April 12, 2022

• Next step: Post Recommendation
## Generator Interconnection and Deliverability Allocation Procedures

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1420</td>
<td>Eliminate the use of the least squares methodology for allocating deliverability</td>
<td>Initial</td>
</tr>
<tr>
<td>1417</td>
<td>Updating section 6.1.5.1 title to &quot;Notifying the CAISO and affected Participating TO(s) for a study“ and adding process details and links to associated documents</td>
<td>Initial</td>
</tr>
</tbody>
</table>
PRR 1420: Eliminate the use of the least squares methodology for allocating deliverability

• Reason for revision
  – To remove the use of the least squares allocation methodology and to clarify what methods will be used in the Operational Deliverability Assessment and the Transmission Plan Deliverability Allocation.

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1417: Updating section 6.1.5.1 title to "Notifying the CAISO and affected Participating TO(s) for a study“ and adding process details and links to associated documents

• Reason for revision
  – Updating section to include process details and links to associated documents.

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
## Reliability Requirements BPM

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<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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<tbody>
<tr>
<td>1424</td>
<td>Short-long start definitions update</td>
<td>Initial</td>
</tr>
<tr>
<td>1423</td>
<td>Contract management 2021 updates</td>
<td>Initial</td>
</tr>
<tr>
<td>1408</td>
<td>Implementation of the outcome resulting from the maximum import capability</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1424 – Short-long start definitions update

• Reason for revision
  – Removing all references to medium start units in compliance with the revised tariff definitions of short and long start resources

• Initial comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1423 – Contract management 2021 updates

• Reason for revision
  – To include the retention of interconnection service rights with the retention of deliverability rights due to COMA 2021 updates

• Initial comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1408: Implementation of the outcome resulting from the maximum import capability

- **Reason for revision**
  - Changes are required in order to implement the outcome of the MIC Enhancements stakeholder process immediately upon FERC approval

- **Recommendation Comments:** None
- **Recommendation comment period expired:** April 12, 2022
- **Next step:** Post Final Decision
## Market Operations BPM

<table>
<thead>
<tr>
<th>PRR</th>
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<tbody>
<tr>
<td>1429</td>
<td>Guidance for scheduling coordinators to register high priority wheels</td>
<td>Initial</td>
</tr>
<tr>
<td>1415</td>
<td>Change to short and long start definitions</td>
<td>Initial</td>
</tr>
<tr>
<td>1413</td>
<td>Small updates to align with CAISO move from alert, warning or emergency</td>
<td>Initial</td>
</tr>
<tr>
<td></td>
<td>notice staged alerts to NERC EEA emergency language</td>
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<tr>
<td>1411</td>
<td>Update to penalty prices used to determine when the security constrained</td>
<td>Recommendation</td>
</tr>
<tr>
<td></td>
<td>unit commitment and security constrained economic dispatch software will</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relax an enforced transmission constraint</td>
<td></td>
</tr>
<tr>
<td>1406</td>
<td>Activation of minimum constraint in real time dispatch</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1429: Guidance for scheduling coordinators to register high priority wheels

- Reason for revision
  - These changes are intended to provide Scheduling Coordinators with a more uniform process by which to register their high priority wheels in our systems. The guidance itself closely follows the Tariff language that was implemented as part of the Summer 2021 Readiness efforts and provides more structured process steps for SCs to follow to ensure timely and efficient review.

- Initial Comments: SRP
- Initial comment period expired: April 12, 2022
- Next step: Post Recommendation
PRR 1415: Change to short and long start definitions

• Reason for revision
  – This is to activate a minimum constraint in the real-time dispatch (five minute) market. Currently, this constraint is used only in the fifteen minute market and with this activation, the RTD market will consistently have the same constraint. This constraint ensures that CAISO balancing area has a minimum requirement to procure flexible ramping capacity in the real-time markets.

• Initial Comments: SRP
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1413: Small updates to align with CAISO move from alert, warning or emergency notice staged alerts to NERC EEA emergency language

• Reason for revision
  – Starting May 1, 2022, the CAISO will use EEA 1,2 and 3 definitions for system emergencies and will not longer refer to as AWE (alerts/warnings/emergency) definitions. This better aligns the CAISO with NERC EEA standards

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1411: Update to penalty prices used to determine when the security constrained unit commitment and security constrained economic dispatch software will relax an enforced transmission constraint

• Reason for revision
  – BPM changes that mirror changes to Tariff section 27.4.3.2.1 to update Scheduling parameters, or penalty prices, which are used to determine when the SCUC and SCED software will relax an enforced Transmission Constraint rather than adjust Supply or Demand bids or Non-priced Quantities as specified in Sections 31.3.1.3, 31.4 and 34.12 to relieve Congestion on the constrained facility.
  – This BPM changes align with the changes proposed in the Adjustment to intertie penalty prices policy initiative. The objective is to ensure the market does not overschedule interties in RUC or RTM. Additional penalty prices are also changed in RTM to preserve the relative scheduling priority in the market optimization

• Recommendation comments: None
• Recommendation comment period expired: April 12, 2022
• Next step: Post Final Decision
PRR 1406 – Activation of minimum constraint in real time dispatch

- **Reason for revision**
  - This is to activate a minimum constraint in the real-time dispatch (five minute) market. Currently, this constraint is used only in the fifteen minute market and with this activation, the RTD market will consistently have the same constraint. This constraint ensures that CAISO balancing area has a minimum requirement to procure flexible ramping capacity in the real-time markets.

- **Recommendation comments:** None
- **Recommendation comment period expired:** April 12, 2022
- **Next step:** Post Final Decision
## Market Instruments BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1414</td>
<td>Change to short and long start definitions</td>
<td>Initial</td>
</tr>
<tr>
<td>1402</td>
<td>Updates to after-market cost recovery and reference level calculator change requests for Extremely Long Start resources</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>

**Recommendation**
PRR 1414 – Change to short and long start definitions

- Reason for revision
  - Clean-up edits related to ESDER4 initiative that was implemented few months ago. The scope of the edits are as follow: Revising language to remove the criteria of a resource’s ultimate parent company being a net buyer from the “safe harbor” mitigation exemption for small storage resources (under 5 MW)

- Initial comments: None
- Initial comment period expired: April 12, 2022
- Next step: Post Recommendation
PRR 1402 – Updates to after-market cost recovery and reference level calculator change requests for Extremely Long Start resources

• Reason for revision
  – Updates Attachment O to clarify aspects of the after-market cost recovery process and reference level change requests for Extremely Long Start resources. Also includes numerous minor editorial changes

• Recommendation comments: SRP
• Recommendation comment period: April 14, 2022
• Next step: Post Final Decision
## Settlements and Billing BPM

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<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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<tbody>
<tr>
<td>1427</td>
<td>Updated BPM for settlements and billing to accommodate aligning with annual FERC settlement process defined in charge codes 550 and 551 FERC fee settlement</td>
<td>Initial</td>
</tr>
<tr>
<td>1426</td>
<td>Update configuration guides to support short-long start unit definitions update initiative</td>
<td>Initial</td>
</tr>
<tr>
<td>1425</td>
<td>Updated charge code pre calc metered subsystem deviation quantity to capture spin/non-spin instructed imbalance energy under scenarios where the resource was exceptionally dispatched in a non-contingency interval</td>
<td>Initial</td>
</tr>
<tr>
<td>1422</td>
<td>Updated multiple BPM configuration guides for charge code 6045 over and under scheduling western energy imbalance market settlement and 6046 over and under scheduling western energy imbalance market allocation to accommodate MIAF 2021-100</td>
<td>Initial</td>
</tr>
<tr>
<td>1421</td>
<td>Updated multiple BPM configuration guides to accommodate invoicing issues discovered during functional testing of shortfall charge codes that have never been run in settlements production since their inception</td>
<td>Initial</td>
</tr>
<tr>
<td>1419</td>
<td>Updated charge code 6456 to implement changes related to the Tariff clarification filing</td>
<td>Initial</td>
</tr>
<tr>
<td>1410</td>
<td>Update configuration guides to reflect joint-owned units pilot initiative settlement</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1409</td>
<td>Update configuration guides to reflect fix to reliability must run adjustments for startup cost</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1427: Updated BPM for settlements and billing to accommodate aligning with annual FERC settlement process defined in charge codes 550 and 551 FERC fee settlement

• Reason for revision
  – Market Settlement Production (MSP) discovered that Section 4.2.2 Annual FERC Fee Invoice in the Settlements and Billing BPM did not align with Annual FERC Fee Invoice process details in CC 550 551 which MSP has been adhering to over the years. Business Rule 5.3 language which details the invoice process replaces the incorrect invoice process language in the Settlements and Billing BPM. Settlements and Billing BPM is impacted. The effective trade date is 2/1/2022 and anticipated implementation date is 5/25/2022

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1426: Update configuration guides to support short-long start unit definitions update initiative

• Reason for revision
  – There are inconsistencies in the use of short, medium, and long start resource definitions in the Tariff, BPMs, in the market as used for optimization, and in Settlements. This change is to align all these documents and related processes when referring to resource start definitions, and support the short-long start unit definitions update initiative.

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1425: Updated charge code pre calc metered subsystem deviation quantity to capture spin/non-spin instructed imbalance energy under scenarios where the resource was exceptionally dispatched in a non-contingency interval

- **Reason for revision**
  - A Market Participant Identified through a dispute a scenario in which an MSS resource was dispatched Spin IIE in a non-contingency interval. This is a rare yet valid case where the resource has been exceptionally dispatched into their Spin/NSpin Capacity. The portion of energy dispatched as Spin/NSpin IIE should be captured in the MSS LF Penalty calculation

- **Initial Comments**: None
- **Initial comment period expired**: April 12, 2022
- **Next step**: Post Recommendation
PRR 1422: Updated multiple BPM configuration guides for charge code 6045 over and under scheduling western energy imbalance market settlement and 6046 over and under scheduling western energy imbalance market allocation to accommodate MIAF 2021-100

- Reason for revision
  - To accommodate the MIAF 2021-100, changes were required to 6045 Over and Under Scheduling EIM Settlement 5.3 and 6046 Over and Under Scheduling EIM Allocation 5.1.1 & 5.3 to correctly calculate OUS Quantity based on ELAP excluding previously included pump storage load. This change is retroactive to 4/1/2020 and expected implementation is 5/27/2022.

- Initial Comments: None
- Initial comment period expired: April 12, 2022
- Next step: Post Recommendation
PRR 1421: Updated multiple BPM configuration guides to accommodate invoicing issues discovered during functional testing of shortfall charge codes that have never been run in settlements production since their inception

• Reason for revision
  – Market Services Production (MSP) tested the functionality of Shortfall related charge codes in Map Test that have never been run in Settlements Production since their inception. The change is required to ensure that CAISO Internal BAIDs are not invoiced and to address issues in billing and invoicing related templates that kept Default Loss Invoice from generating expected results. The BPM changes are documentation only updates as the fixes are associated with design template invoice related charge types not visible to market participants. The impacted charge codes are CG CC 5901 Shortfall Allocation Reversal, CG CC 5910 Shortfall Allocation, and CG CC 5912 Default Loss Allocation. The effective trade date of the change is 4/1/2011 and the anticipated implementation date is 4/27/2022

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1419: Updated charge code 6456 to implement changes related to the Tariff clarification filing

• Reason for revision
  – The CAISO has identified three ways the tariff rules related to the enhanced 75 percent penalty do not implement the policies underlying the under/over delivery charge. The CAISO now proposes targeted tariff amendments to address these three issues.

• Initial Comments: None
• Initial comment period expired: April 12, 2022
• Next step: Post Recommendation
PRR 1410: Update configuration guides to reflect joint-owned units pilot initiative settlement

- Reason for revision
  - The Settlement configuration changes will support the Joint-Owned Units Pilot project. It will allow the settlement of joint ownership of physical resources by two WEIM entities, specifically, the Public Service Company of New Mexico (PNM) and the Tucson Electric Company (TEP).
  - Configuration guides as listed above have been updated for documentation to reflect the changes.
  - The changes are to be deployed around 4/27/2022. The effective date will be Trade Date 5/3/2022.

- Recommendation Comments: None
- Recommendation comment period expired: April 12, 2022
- Next step: Post Final Decision
PRR 1409: Update configuration guides to reflect fix to reliability must run adjustments for startup cost

- Reason for revision
  - A dispute uncovered an issue with the formulation for the RMR adjustments for startup that duplicated adjustments when two or more markets are covered by a single commitment period. The fix applies the correct single adjustment per commitment period for startup across the different markets.
  - Configuration guides as listed above have been updated for documentation to reflect the changes.
  - The changes are to be deployed around 5/25/2022. The effective date will be Trade Date 2/1/2021.

- Recommendation Comments: None
- Recommendation comment period expired: April 12, 2022
- Next step: Post Final Decision
Next BPM PRR Review Monthly Meeting:
May 24, 2022 @ 11 a.m.

BPM change management process questions:
Nicole Hines
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