Reminders

• This call is being recorded for informational and convenience purposes only. Any related transcriptions should not be reprinted without ISO permission.
  – Video recording will be posted to the initiative webpage within 3 business days

• To ask a question, press #2 on your telephone keypad.

• Calls are structured to stimulate an honest dialogue and engage different perspectives.

• Please keep comments friendly and respectful.
## Agenda – BPM Change Management Meeting
December 15, 2020

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<th>Topic</th>
<th>Presenter</th>
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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>Direct Telemetry BPM</td>
<td>Priyanka Namburi</td>
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<td>Settlements and Billing BPM</td>
<td>Brenda Corona</td>
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<td>Generator Interconnection and Deliverability Allocation</td>
<td>Phelim Tavares</td>
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<td>Procedures BPM</td>
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<td>Energy Imbalance Market BPM</td>
<td>Jamal Batakji</td>
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<td>Market Instruments BPM</td>
<td>Jamal Batakji</td>
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<td>Market Operations BPM</td>
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<td>Scheduling Coordinator Certification and Termination</td>
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<td>Candidate CRR Holder Registration BPM</td>
<td>Nicole Hines</td>
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<td>Reliability Requirements BPM</td>
<td>Melanie Bogen</td>
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<tr>
<td>Wrap-Up and Next Steps</td>
<td>Nicole Hines</td>
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</table>

BPM Change Management Process
[BP Morgan and Partners](mailto:BP 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.*
# Direct Telemetry BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1310</td>
<td>New requirements for hybrid resources and transport layer security</td>
<td>Initial</td>
</tr>
</tbody>
</table>
PRR 1310 – New requirements for hybrid resources and transport layer security

• Reason for revision
  – New requirements for hybrid resources and transport layer security
  – This revision is effective 12/1/2020

• Initial comments:
  – No comments submitted to date

• Initial comment period expires:
  – January 5, 2021

• Next step:
  – Initial comment period closes
## Generator Interconnections and Deliverability Allocation Procedures BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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</thead>
<tbody>
<tr>
<td>1309</td>
<td>Clarification on point of interconnection changes, independent study process eligibility, interconnection financial security refunds, and allowable actions when projects are parked</td>
<td>Initial</td>
</tr>
<tr>
<td>1290</td>
<td>Clarifications in modifications between phase I and phase II, reliability network upgrades reimbursement, and date in interconnection request for requests in deliverability</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1309 – Clarification on point of interconnection changes, independent study process eligibility, interconnection financial security refunds, and allowable actions when projects are parked

• Reason for revision
  – Clarification on point of interconnection (POI) changes, independent study process eligibility, interconnection financial security (IFS) refunds, and allowable actions when projects are parked.

• Initial comments:
  – SDG&E; submitted on 12/10/2020
  – EDF-Renewables; submitted on 12/10/2020

• Initial comment period expires:
  – December 10, 2020

• Next step:
  – Post recommendation
PRR 1290 – Clarifications in modifications between phase I and phase II, reliability network upgrades reimbursement, and date in interconnection request for requests in deliverability

• Reason for revision
  – Clarifications in modifications between Phase I and Phase II, RNU reimbursement, and date in IR for requests in deliverability

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
# Settlements and Billing BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
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</thead>
<tbody>
<tr>
<td>1308</td>
<td>To support energy imbalance market enhancements 2020, specifically symmetrical wheeling. Configuration changes to the energy imbalance market real time marginal losses offset.</td>
<td>Initial</td>
</tr>
<tr>
<td>1307</td>
<td>Updated multiple BPM configuration guides to accommodate updating the procedure that documents the steps for submitting the transmission revenue requirement detail to the CAISO required for updating transmission access charge rates.</td>
<td>Initial</td>
</tr>
<tr>
<td>1306</td>
<td>Updated BPM configuration guides for enforcement protocol charge group charge code 1591, 1592, and 1593 to accommodate charge code 1593 associated with daily statements.</td>
<td>Initial</td>
</tr>
<tr>
<td>1300</td>
<td>Updated charge code 6045 over and under scheduling energy imbalance market settlement in the business rules to align with incremental price is applied for under scheduling with current configuration</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1299</td>
<td>Updated business practice manual configuration guide for pc spin non-spin no pay quantity to accommodate a specific fast start scenario not accounted for existing active configuration</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
## Settlements and Billing BPM

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<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1298</td>
<td>Updated settlement and billing business practice manual for market settlements timeline transformation initiative</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1297</td>
<td>To support the excess behind the meter production initiative, configuration enhancements to account for new energy measurement type excess behind the meter production and to settle charges to non-participating load.</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1296</td>
<td>Configuration adjustment to reliability must run capacity payments to ensure that residual unit commitment costs are considered in the calculation for the combined residual unit commitment and real-time market excess revenues</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1295</td>
<td>To support the slow demand response enhancement, documentation changes to include business rule for comparing resource locational marginal price to day ahead bid price for slow demand response resources in cases where exceptional dispatch type of non t-mo</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1294</td>
<td>Update settlements configuration guides to implement day ahead nodal pricing model initiative</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
### Settlements and Billing BPM (cont.)

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
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<tbody>
<tr>
<td>1293</td>
<td>To support energy imbalance market enhancements 2020, specifically symmetrical wheeling. Configuration changes to real time marginal losses offset, real time energy pre-calc and real time congestion pre-calc</td>
<td>Recommendation</td>
</tr>
<tr>
<td>1292</td>
<td>To support the intertie deviation settlement imitative, configuration changes to incentivize delivery of awarded energy on interties for more accurate estimates of the net scheduled interchange</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1308 – To support energy imbalance market enhancements 2020, specifically symmetrical wheeling. Configuration changes to the energy imbalance market real time marginal losses offset.

• Reason for revision
  – The proposed enhancement will settle all Base ETSR schedule deviations at an EIM BAA intertie at the same SP-Tie LMP that would have been used to settle TID schedule deviations with that EIM BAA at that intertie if the EIM BAA at the other end were a non-EIM BAA.
  – Updated EIM Real Time Marginal Losses Offset to accommodate settlements changes regarding new pricing locations.
  – The effective date of the changes is 2/1/2021.

• Initial comments:
  – No comments submitted

• Initial comment period expired:
  – December 10, 2020

• Next step:
  – Post recommendation
PRR 1307 – Updated multiple BPM configuration guides to accommodate updating the procedure that documents the steps for submitting the transmission revenue requirement detail to the CAISO required for updating transmission access charge rates.

• Reason for revision
  – Updating the procedure that documents the steps for submitting the TRR detail to the ISO required for updating Transmission Access Charge (TAC) rates triggered this change. This will result in a process document that can be posted to the web. The BPM configuration will be updated to reflect the new processing procedures for TAC Submission. CG CC 372 High Voltage Access Charge Allocation, CG CC 374 High Voltage Access Charge Revenue Payment, CG PC High Voltage Access Charge and Transition Charge, and CG PC Percent PTO Allocation are impacted. The effective trade date of the change is 1/1/2021 and the anticipated implementation date is 1/1/2021.

• Initial comments:
  – No comments submitted

• Initial comment period expired:
  – December 10, 2020

• Next step:
  – Post recommendation
PRR 1306 – Updated BPM configuration guides for enforcement protocol charge group charge code 1591, 1592, and 1593 to accommodate charge code 1593 associated with daily statements.

• Reason for revision
  – While validating the 10/21/2020 Invoice, it was discovered that CC 1593 showed up at the parent charge group total level for the monthly - TD 9/1/2020 T+12 statement.
  – This CC is not settled at the monthly but rather the daily level. Issue was corrected by reconfiguring the EP adjustment Charge Group such that is only associated with a Daily Parent Group. CG CC 1591 EP Penalty Charge, CG CC 1592 EP Penalty Allocation Payment, and CG CC 1593 EP Allocation for Under or Over Reported Load Generation are impacted.
  – The effective trade date of the change is 04/01/2009 and the anticipated implementation date is 11/16/2020.

• Initial comments:
  – No comments submitted

• Initial comment period expired:
  – December 10, 2020

• Next step:
  – Post recommendation
PRR 1300 – Updated charge code 6045 over and under scheduling energy imbalance market settlement in the business rules to align with incremental price is applied for under scheduling with current configuration

- **Reason for revision**
  - Update CG CC 6045 Over and Under Scheduling EIM Settlement to align the documentation with the current active settlement configuration.
  - This change is in sub business rules that did not align with the core business rule that was not included in the Configuration Guide but was present in the Settlements configuration (Effective date 1/1/2021) The business rule 11.1 to align with 11.0 from indicating a 25% to a 75% of hourly real time Load Aggregation Point (LAP) price, and business rule 12.2 to align with 12.0 to indicate the level 2 incremental price is applied for under scheduling, not over scheduling.
  - This document change only correction will be date back to the original version of the charge code, which do not result in no configuration or financial impact.

- **Recommendation comments:**
  - No comments submitted

- **Recommendation comment period expired:**
  - December 10, 2020

- **Next step:**
  - Post final decision
PRR 1299 – Updated business practice manual configuration guide for pc spin non-spin no pay quantity to accommodate a specific fast start scenario not accounted for existing active configuration

- **Reason for revision**
  - ISO confirmed that Fast Start units that were ‘ON’ during the course of the day but later turned ‘OFF’ in the Real Time are not accounted in the existing settlements configuration. The Total Expected Energy (TEE) bill determinant to the existing equation will address this issue as the scenario will evaluate to a TEE= 0 and the resource will be correctly defined as ‘off’.
  - The effective trade date of the change is 5/1/2019 and the anticipated implementation date is 12/16/2020.

- **Recommendation comments:**
  - No comments submitted

- **Recommendation comment period expired:**
  - December 10, 2020

- **Next step:**
  - Post final decision
• Reason for revision
  – The Settlement configuration changes are needed to support the Market Settlements Timeline Transformation initiative. The initiative alters current market settlement timeline in order to:
    • Reduce market participant financial exposure by producing initial settlement statements that will closely approximate the final settlement.
    • Allow sufficient time for the ISO and market participants to resolve disputes.
    • Extend flexibility in publishing settlement statements and weekly invoices.
    • The ISO anticipates implementation of the BPM changes on 1/1/2021

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
PRR 1297 – To support the excess behind the meter production initiative, configuration enhancements to account for new energy measurement type excess behind the meter production and to settle charges to non-participating load.

- **Reason for revision**
  - The frequency and magnitude of excess behind the meter production (EBTMP) – periods when a customer’s behind the meter resources generate output above host load – are increasing as more behind the meter resources are integrated into the system. The treatment of EBTMP directly impacts downstream financial settlement allocations based on Gross Load figures that scheduling coordinators submit to the ISO. Because of these settlement impacts, it is critical that scheduling coordinators report Gross Load values to the ISO in a consistent manner.
  - The effective date of the changes is 1/1/2021 and the anticipated implementation date is 9/29/2020.

- **Recommendation comments:**
  - No comments submitted

- **Recommendation comment period expired:**
  - December 10, 2020

- **Next step:**
  - Post final decision
PRR 1296 – Configuration adjustment to reliability must run capacity payments to ensure that residual unit commitment costs are considered in the calculation for the combined residual unit commitment and real-time market excess revenues

• Reason for revision
  – ISO received a dispute that RMR owners may currently be underpaid in the market for their capacity payments. Under the RMR policy, costs and revenues are compared to determine potential excess revenues. If the costs exceed revenues, that means an absence of excess revenue where the full capacity payment amount should be paid. If, instead, the revenues are greater than the costs for these RMR resources, the ISO will claw back that amount. This is done by adjusting the capacity payment amount by the RMR excess revenue amount which uses the net costs.
  – Because of this adjustment, the capacity payments referenced in the dispute above are being reduced as the RUC commitment costs are not being taken into account when determining the RTM RMR excess revenue amount. Because the cost calculation did not include RUC commitment costs, the calculation showed that there was excess revenue.
  – The ISO anticipates implementation of the BPM changes on or about 12/16/2020, with an effective retroactive Trade Date of 1/1/2020.

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
PRR 1295 – To support the slow demand response enhancement, documentation changes to include business rule for comparing resource locational marginal price to day ahead bid price for slow demand response resources.

- **Reason for revision**
  - Updated CC 6470 Real Time Instructed Imbalance Energy Settlement to align with ISO commitment to operationalizing “slow DR” such that they can be useful as a local RA resource. “Slow” demand response resources are those that cannot fully respond within 20 minutes post-contingency. CC 6470 Real Time Instructed Imbalance Energy Settlement to include the business rules that account for this dispatch using the NonTModel Exceptional Dispatch Type, which result to a document only change and utilizing current active settlement configuration
  - The effective date of the change is 11/18/2020 and the anticipated implementation date is December 2020.

- **Recommendation comments:**
  - No comments submitted

- **Recommendation comment period expired:**
  - December 10, 2020

- **Next step:**
  - Post final decision
PRR 1294 – Update settlements configuration guides to implement day ahead nodal pricing model initiative

- Reason for revision
  - ISO was requested to provide a high-level design proposal for a Nodal Pricing Model (NPM) that can be used to clear energy supply and demand bids for an existing Balancing Authority Area (BAA) one day ahead, in addition to the existing Energy Imbalance Market.
  - The ISO proposed to leverage its existing Day-Ahead Market (DAM) technology platform, full network model, and data interfaces available in the real-time Energy Imbalance Market (EIM) to provide to EIM Merchants with Day Ahead Nodal Pricing Model. The ISO will provide any participant that elect to utilize Day-Ahead NPM, advisory settlement of Day Ahead Energy and Ancillary Service Schedules.
  - The updated and new configuration guides supports this advisory settlement feature of the initiative.
  - The ISO anticipates implementation of the BPM changes on or about 12/16/2020, with an effective Trade Date of 1/1/2021.

- Recommendation comments:
  - No comments submitted

- Recommendation comment period expired:
  - December 10, 2020

- Next step:
  - Post final decision
PRR 1293 – To support energy imbalance market enhancements 2020, specifically symmetrical wheeling. Configuration changes to real time marginal losses offset, real time energy pre-calc and real time congestion pre-calc

• Reason for revision
  – The proposed enhancement will settle all Base ETSR schedule deviations at an EIM BAA intertie at the same SP-Tie LMP that would have been used to settle TID schedule deviations with that EIM BAA at that intertie if the EIM BAA at the other end were a non-EIM BAA.
  – Updated Real Time Marginal Losses Offset, RT Energy PC and RT Congestion PC to accommodate settlements changes regarding new pricing locations.
  – The effective date of the changes is 2/1/2021.

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
PRR 1292 – To support the intertie deviation settlement imitative, configuration changes to incentivize delivery of awarded energy on interties for more accurate estimates of the net scheduled interchange

• Reason for revision
  – Intertie Deviation Settlement is to incentivize delivery of awarded energy. Its objective is to decrease the number of undelivered intertie resources that occur due to declines and under-tagging. Therefore, the purpose is to incentivize acceptance and delivery of market awards – if an award is either declined or not tagged, the market participant will be charged based on the price implications to the real-time market
  – Terminated Charge Code 6455 Intertie Schedules Decline Charges, and Charge Code 6457 Intertie Schedules Decline Charges Allocation to accommodate the changes as per the Intertie Deviation Settlement Project.
  – Created Charge Code 6456 Intertie Deviation Settlement, and Charge Code 6458 Intertie Deviation Allocation to accommodate the changes as per the Intertie Deviation Settlement Project
  – The effective date of the changes is 2/1/2021.

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
## Energy Imbalance Market BPM

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<th>PRR Title</th>
<th>Stage</th>
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<tbody>
<tr>
<td>1305</td>
<td>Negotiated rates new process changes for energy imbalance market BPM</td>
<td>Initial</td>
</tr>
<tr>
<td>1289</td>
<td>Hybrid resources co-located resources phase 1</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1305 – Negotiated rates new process changes for energy imbalance market BPM

• Reason for revision
  – This is a new process related to requests for some negotiated rates (major maintenance adders, negotiated default energy bids, custom variable operations and maintenance adders, etc.) will now be submitted through a Customer Inquiry Dispute and Information (CIDI) ticket application rather than through the current email practice.

• Initial comments:
  – No comments submitted

• Initial comment period expired:
  – December 10, 2020

• Next step:
  – Post recommendation
PRR 1289 – Hybrid resources co-located resources phase 1

• Reason for revision
  – This enhancement is to allow individual resources, with potentially different SCs and technologies, to share a common point-of-interconnection (POI) to the transmission grid.
  – Effective date: by 1/15/2021

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
## Market Instruments BPM

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<th>PRR</th>
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<th>Stage</th>
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<tbody>
<tr>
<td>1304</td>
<td>Negotiated rates new process changes for market instruments BPM</td>
<td>Initial</td>
</tr>
</tbody>
</table>
PRR 1304 – Negotiated rates new process changes for market instruments BPM

• Reason for revision
  – This is a new process related to requests for some negotiated rates (major maintenance adders, negotiated default energy bids, custom variable operations and maintenance adders, etc.) will now be submitted through a Customer Inquiry Dispute and Information (CIDI) ticket application rather than through the current email practice.

• Initial comments:
  – No comments submitted

• Initial comment period expired:
  – December 10, 2020

• Next step:
  – Post recommendation
## Market Operations BPM

<table>
<thead>
<tr>
<th>PRR</th>
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<th>Stage</th>
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<tbody>
<tr>
<td>1303</td>
<td>Intertie deviation settlement</td>
<td>Initial</td>
</tr>
<tr>
<td>1288</td>
<td>Hybrid resources co-located resources phase 1</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
Reason for revision
  - This change is to incentivize the delivery of awarded energy on interties and to improve operational awareness and grid reliability. It also eliminate the decline charge and replace it with a new settlement mechanism known as the under/over delivery charge. Effective date: 1/1/21

Initial comments:
  - No comments submitted

Initial comment period expired:
  - December 10, 2020

Next step:
  - Post recommendation
PRR 1288 – Hybrid resources co-located resources phase 1

- Reason for revision
  - This enhancement is to allow individual resources, with potentially different SCs and technologies, to share a common point-of-interconnection (POI) to the transmission grid. Phase 1 is for Co-located resources only.
  - Effective date; by 1/15/2021.

- Recommendation comments:
  - SDG&E; submitted on 12/3/2020

- Recommendation comment period expired:
  - December 10, 2020

- Next step:
  - Post final decision
Scheduling Coordinator Certification and Termination BPM

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<tbody>
<tr>
<td>1302</td>
<td>Scheduling coordinator registration fee increase and minor formatting</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1302 – Scheduling coordinator registration fee increase and minor formatting

• Reason for revision
  – After a study completed by financial planning at the CAISO, it is determined the fee for Scheduling Coordinator application fees need to increase to cover costs associated with onboarding and registration processes.
  – Formatting and links have also been updated at this time.
  – Effective Date is 1/1/2021
• Recommendation comments:
  – No comments submitted
• Recommendation comment period expired:
  – December 10, 2020
• Next step:
  – Post final decision
Candidate CRR Holder Registration BPM

<table>
<thead>
<tr>
<th>PRR</th>
<th>PRR Title</th>
<th>Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1301</td>
<td>Candidate congestion revenue rights holder registration fee increase and minor formatting</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
• Reason for revision
  – After a study completed by financial planning at the CAISO, it is determined the fee for Congestion Revenue Rights (CRR) holder application fees need to increase to cover costs associated with onboarding and registration processes.
  – Formatting and links have also been updated at this time. Effective date for this change is 1/1/2021

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
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<table>
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<tr>
<th>PRR</th>
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<tbody>
<tr>
<td>1291</td>
<td>Clarification of maximum deliverability due to the hybrid policy resources phase 1</td>
<td>Recommendation</td>
</tr>
</tbody>
</table>
PRR 1291 – Clarification of maximum deliverability due to the hybrid policy resources phase 1

• Reason for revision
  – Due to the hybrid policy resources phase 1, changes are required in order to provide clarification on maximum deliverability available to any resource or aggregation of multiple resources, including co-located resources

• Recommendation comments:
  – No comments submitted

• Recommendation comment period expired:
  – December 10, 2020

• Next step:
  – Post final decision
Next BPM PRR Review Monthly Meeting:
January 26, 2021 @ 11 a.m.

BPM change management process questions:
Nicole Hines
BPM_CM@caiso.com