Energy Storage and Distributed Energy Resources Phase 2

Customer Partnership Group
June 1, 2018
9 a.m.– 11 a.m. (Pacific Standard Time)
## Agenda

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## Fall 2018 – ESDER Phase 2 - Project Schedule

<table>
<thead>
<tr>
<th>Milestone Type</th>
<th>Milestone Name</th>
<th>Dates</th>
<th>Status</th>
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<tbody>
<tr>
<td>Board Approval</td>
<td>Obtain Board of Governors Approval</td>
<td>Jul 26, 2017</td>
<td>✓</td>
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<tr>
<td>External BRS</td>
<td>Post External BRS</td>
<td>Oct 17, 2017</td>
<td>✓</td>
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<tr>
<td></td>
<td>Post Revised External BRS</td>
<td>Mar 01, 2018</td>
<td>✓</td>
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<tr>
<td>Tariff</td>
<td>Post Draft Tariff</td>
<td>Nov 17, 2017</td>
<td>✓</td>
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<tr>
<td></td>
<td>Post Updated Draft Tariff (based on feedback)</td>
<td>Apr 09, 2018</td>
<td>✓</td>
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<td></td>
<td>File Tariff with FERC</td>
<td>Aug 01, 2018</td>
<td></td>
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<tr>
<td>Config Guides</td>
<td>Settlements Config Guides</td>
<td>May 18, 2018</td>
<td>✓</td>
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<tr>
<td>BPMs</td>
<td>Post Draft BPM changes</td>
<td>Aug 06, 2018</td>
<td></td>
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<tr>
<td>Tech Spec</td>
<td>Publish ISO Interface Spec (Tech spec)</td>
<td>May 21, 2018</td>
<td>✓</td>
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<tr>
<td>External Training</td>
<td>Deliver external training</td>
<td>Aug 07, 2018</td>
<td></td>
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<tr>
<td>Market Sim</td>
<td>Market Sim Window</td>
<td>Aug 20, 2018 - Sep 28, 2018</td>
<td></td>
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<tr>
<td>Production Activation</td>
<td>ESDER Phase 2</td>
<td>Nov 01, 2018</td>
<td></td>
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Response to comments received:

- Could the CAISO please clarify when it would be applicable for SCs to submit the Customer Load Baseline? Will this requirement only be for intervals during which an event occurred?
  
  This will be clarified in the BPM and/or User Guide
  
  - Continuous set of data needed from time resource ID becomes active to the trade date the event occurred with minimum set of days being 90 days
  
  - Submit on a daily basis or ability to submit full set of data once dispatch occurs

- Section 11.6.1 “Proxy Demand Resources and Reliability Demand Response Resources are not subject to Rules of Conduct penalties pursuant to Section 37.”
  
  - This will be removed based on ISO review of change impact and comments received on revised draft tariff.
Response to comments received:

- Do both the 5-in-10 and weather matching methodology employ a two-hour buffer?

  Tariff revisions to reflect the following:

  - Adjustment hour clarification for weather matching and the 5 in 10 day matching methodologies:
    - Two hours immediately prior to the event period with a two hour buffer before the event and two hours after the event with a two hour buffer.
    - For example, for an event occurring from 3 p.m. to 6 p.m., the adjustment windows are 11AM-1PM and 8PM-10PM

  Tariff alignment to ESDER2 proposal (Appendix A)

  - Adjustment limit clarification for weather matching and the 5 in 10 day matching methodologies:
    - Cap the ratio between +/- 1.4x. If the ratio is larger than 1.4, limit it to 1.4. If the ratio is less than 1/1.4 = 0.71, limit it to 0.71
    - Non-business day: Cap the ratio between +/- 2x. If the ratio is larger than 2.0, limit it to 2.0. If the ratio is less than 1/2 = 0.50, limit it to 0.50 (applicable to 5 in 10 day matching ONLY)
External Training Overview

- Process Changes
  - New Baseline Approval Process and Timeline
  - SCs/DRPs Calculate Baselines & Performance (DREM)
  - Ancillary Service and Demand Response
- Application Changes
  - Decommissioning DRS, Parallel Operations, Transition Timeframe
  - Changes to DRRS, Selecting New Baselines
  - Submitting Baseline and DREM into MRIS
- Settlements Changes
  - Charge Code Configuration Changes
  - Net Benefits Test
- Business Process Manuals
  - Affected Business Process Manuals
DRS Retirement - Transition

For trade dates prior to go-live, DRPs have the following options during the transition timeframe:
• Submit meter data or corrected meter data to DRS
  (OR)
• Submit performance data or corrected performance data to MRI-S

For trade dates after go-live, DRPs can submit only the performance data to MRI-S

For example, if ESDER2 activation is on 11/1/2018, if a DRP had to correct meter data for 8/2/2018, they would submit the meter data to DRS, where we would calculate the baseline and send the performance value to settlements.

However, there is an option for the DRP to calculate the performance value for 8/2/2018 and submit it to MRI-S as performance value to replace the previously calculated performance value from DRS.
Questions Received

Q: Could the CAISO allow event intervals with real-time dispatch for resources that are designated by the LRA to be day-ahead only to be excluded from performance calculations and thus included in baseline calculations for future events? Would this remedy the extra payment resources receive “non-performance” when dispatched in real-time during RUC commitment periods?

A: Currently, there is no DA only designation for Resource Adequacy resources. DRAM resources must still meet all RA MOO which include RUC and potential RT participation. (ESDER3 & DAME further addresses)

Tariff defines event day as “excluding calendar days on which the Proxy Demand Resource was subject to an Outage or previously provided Demand Response Services (other than capacity awarded for AS or RUC)”. Therefore, non-performance days would not be recognized as an event day with ESDER2 implementation.

Extra payment will be eliminated with ESDER2 implementation as the SC calculated performance measurement should be 0 when there is no response.
Q: Today, all baseline calculations are done on a registration level, with no regard to the resource ID. However, resources may undergo semi-frequent registration changes that are often relatively small in scale due to customer additions, account closures, or LSE changes.

Would it be more accurate to exclude event days at a PDR resource ID level instead of a registration level?

A: Currently, event days are excluded based on resource ID not registration ID.

Registrations representing a resource ID can change dynamically and may consist of locations that responded to a prior dispatch of that resource. If the resource responded this would be considered an event day and must be removed from the calculation of the baseline because of the effect of the response to that resource's baseline under the new registration.
Questions Received

Q: Is Settlement only using the 5 minute DREM performance for each interval with nonzero TEE, without regard to any hourly performance amount?

A: Yes, if TEE is non-zero for that 5 minute interval. If hourly, then TEE for hour will be non-zero. DREM submitted when TEE is not non-zero will be ignored.
Questions?
Next Steps

• Please submit further questions or comments to:
  Elaine Siegel at esiegel@caiso.com
  or
  initiativecomments@caiso.com

• Customer Partnership Groups webpage available at: