AGENDA

• Ramp Product Training Update
• RR361 Ramp Capability Products
• RR288 DVER Dispatch rules clean-up
• Member Test expectations
• SPP Test expectations
• Test Schedule
  • Market details
  • Settlement Scenarios
  • Known Issues
• Questions
RAMP PRODUCT TRAINING
RAMP PRODUCT: IT’S ALL ABOUT RAMP MANAGEMENT

- Pre-positions Resources
- Manages Net Load Variations & Uncertainties
- Provides Transparent Price Signals
- Incents Resource Flexibility
 Dispatchable (follow Setpoint Instructions)

 Submit feasible Ramp Rates

 Follow Dispatch Instructions

 Online & submitting Control Status 1 or 2

 Submit “MARKET” Dispatch Status

 1 - Online and capable of following Dispatch Instructions and/or Contingency Reserve (CR) Deployment instruction

 2 - Online and capable of following Dispatch Instructions, CR Deployment, and/or Regulation Deployment
PLEASE HELP!

Our testing will only be as good as your input.

Make Sure:

• Offer data for resources is realistic
• Appropriate physical parameters are submitted
  • Eco Min/Eco Max
  • Resource is available to market for clearing/dispatch
• Enough Load Demand Bids are submitted

Better Data = Realistic Settlement Invoices
REGISTER NOW!

Click [here](#) to log into the SPP Learning Center (LMS) to register.

**Wed, 1/19/22**
2:00-4:00 CST

**Thu, 1/27/22**
9:00-11:00 CST

**EVENT**

Ramp Capability Product Overview (2022)

Last Updated 10/26/2021  Duration 2 hours

**Details**

This virtual instructor-led training (VILT) will provide an overview of the Ramp Capability Product enhancement to SPP’s Integrated Marketplace. This course will detail the product, its benefits, and how ramp capability requirements are calculated. Attendees will also learn how Market Participants qualify for the product as well as how it is cleared, dispatched, and settled. Updated public data for the product will also be reviewed.

[Show More](#)
RR361 RAMP CAPABILITY PRODUCTS

RR361 creates two products: Ramp Capability Up and Ramp Capability Down. These products use existing operational abilities to:

• Systematically pre-position resources with ramp capability to manage net load variations and uncertainties

• Provide transparent price signals to incent resource flexibility and economic investment.

Ramp Capability Up and Ramp Capability Down are short term products, that will be deployed through the Real-Time Balancing Market (RTBM). These products will increase security of the grid and allow for fewer pricing excursions due to ramp limitations on the SPP system.

This change will become effective in production on operating day 03/01/2022.
RR361 RAMP PRODUCTS OVERVIEW

- Two new services & products: (RampUp/RampDn)
- No new offers (clearing based on opportunity in MCE)
- Resource Qualifications – If dispatchable/qualified for energy movement, then can clear Ramp product. This includes clearing RampUp on wind/DVERs.
- No explicit deployment. RTBM is basically the only thing “deploying” the RampUp/Dn reserves, and will be implicit in the clearing of other Energy/AS products.
- Requirements – Hourly values (based on historical uncertainty and planned “net load” ramps)
- Demand curves – Similar to (but lower than) Regulating Reserve demand curves, factor based, prices calculated monthly.
The purpose of RR288 is to remove barriers to DVERs utilizing control statuses, explained in Section 4.4.2.2.3 of the Market Protocols and to clean-up sections stating control status is ignored or not allowed for DVERs.

When this functionality is enabled for Integrated Marketplace, DVERs will have the ability to utilize control statuses as appropriate and dispatch instructions will be calculated accordingly.

All Market Participants with DVER units that do not currently send control status information via ICCP, need to prepare to begin sending that information when R288 implements.

In addition, DVER resources sending SPP a ‘Manual’ control status will no longer be dispatchable to the market. Market Participants will need to verify that their DVER resources will be sending a ‘FollowDispatch’ status when the resource can follow market dispatches.

This change will become effective in production on operating day 03/01/2022.
MEMBER TEST EXPECTATIONS

• What is the objective of Member Testing?

The purpose of member testing is to verify that SPP and member systems (or processes) are prepared for the implementation of Markets software and Settlements software to support RR361 Ramp Products and RR288 DVER Dispatch rules clean-up.

• Who should test?

• Market Participants that
  • Registered a DVER and provide the Real-Time Capability via ICCP
  • Use a shadow settlement system
  • Use an API to get Operating Reserve products clearing and MCP data
SPP TEST EXPECTATIONS

- Support member testing in MTE
- Respond to RMS tickets in a timely manner
- Communicate any changes or updates regarding testing to the CUF, and SUF
- Post testing scorecard weekly to Settlements project folder
- Post known defect log weekly to Markets and Settlements project folders
MARKETS TESTING
MARKETS TESTING

RR361 Ramp Products

- Will not require submission of new data
- Resource owning MPs should verify that data is present and reasonable
- Load MPs should validate that they have demand bids in the day ahead market
- Primary impact is to services that retrieve data from SPP (MUI & API) and notifications
- Requirements calculated at hourly granularity, and will be fixed after 0600 Day Ahead (same as Regulation requirements)
- Verify Ramp Capability products show up as necessary in clearing and pricing sets
MARKETS TESTING

• Testing is unstructured and can be conducted from 01/04/22 – 02/15/22

• Test cases have been created to help aid the Market Participant in testing changes:
  • API & MUI changes for new Ramp Products
  • Public Data changes
    • Day-Ahead Market data
    • Real-Time Balancing Market data
    • New Scarcity Demand Ramp Report
    • New Ramp Uncertainty Report
SETTLEMENT TESTING DETAILS

• ODs are 01/05 – 02/15 will be settled using an accelerated calendar:
  • Settlement reports will be posted 01/12 – 2/22
  • Scorecards will include new and modified bill determinants and post on Friday's beginning 01/14/22

• Test cases have been created to help aid the Market Participant in testing changes:
  • Submit/Process bilateral settlement schedules via API/UI for new Ramp Products (RAMPUPOBL, RAMPDNOBL)
  • Notifications for Ramp Products
  • View/download MP statements via API/UI and validate/shadow Ramp Capability Product Charge Types
  • View/download AO Daily Determinant Report and AO statement
  • View/download FERC EQR Report
  • View/download Market Public Report – Operating Reserve Cost Allocation
SETTLEMENT DETAILS

• New WSDLs and XSDs
  • BilateralScheduleService
  • NotificationService
  • SettlementReportService

• Future Tech Specs available on SPP.org:
  • https://www.spp.org/spp-documents-filings/?id=21071
SETTLEMENT RAMP PRODUCT SCENARIOS

• Unstructured / Base Settlement Calculations
  • Base Settlement Calculations include:
    • Day Ahead Market clearing Ramp Up and Ramp Dn products
    • RUC Market clearing/commitments Ramp Up and Ramp Dn products
    • CIR resources with Day Ahead Market clearing Ramp Up and Ramp Dn products
    • CIR resources with RUC clearing/commitments Ramp Up and Ramp Dn products

• Day Ahead MWP Calculations
  • MCR Transitions
  • Non-MCR

• Out-of-Merit Energy Calculations

• Re-pricing Ramp Up and Ramp Dn products
SETTLEMENT DVER SCENARIOS

• Unstructured / Base Settlement Calculations
• Out-of-Merit Energy Calculations
• DVER Day Ahead Market commitment that is in manual status in Real-Time
### SETTLEMENT SCENARIO CALENDAR

**First OD:** 01/05/22 (posts on 1/12/22)  
**Last OD:** 02/15/22 (posts on 2/22/22)

<table>
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<th>Scenario</th>
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| Unstructured / Base Settlement Calculations*  
- Day Ahead Market clearing Ramp Up/Dn products  
- RUC Market clearing/commitments Ramp Up/Dn products  
- CIR Resources w/Day Ahead Market clearing Ramp Up/Dn  
- CIR Resources w/RUC clearing/commitments Ramp Up/Dn | 01/05/22 - 01/31/2022 |
| Make Whole Payment Scenarios  
- Non MCR clear Ramp Up/Dn in DA with DA MKT Commitment  
- Non MCR clear Ramp Up/Dn in RT with RUC MKT Commitment  
- MCR transitioning in DA and clearing Ramp Up/Dn in Real-Time  
- MCR clears Ramp Up/Dn in DA and in RT transitions | 01/12/22 - 01/14/22  
01/18/22 - 01/20/22  
01/25/22 - 01/27/22 |
| Out-of-Merit Energy Scenarios | 01/05/22 - 02/15/22 |
| Repricing Scenarios for Ramp Up/Dn Products | 1/20/22 and 1/28/22 |
| DVER Scenarios | 01/12/22 - 01/14/22  
01/18/22 - 01/20/22  
01/25/22 - 01/27/22 |
| Scenario Reruns if needed | 02/01/22 - 02/15/22 |

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# CURRENT KNOWN DEFECTS

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<td>ITSETL-8282</td>
<td>MTE BSS API returns an error when MyPendingHeadersOnlyFlag is set to false in the SearchContracts and SearchContractsByDateRange XML request payload. This was introduced with the Ramp project and will be resolved prior to implementing this project in Production. As a temporary workaround, users may search BSS contracts in MTE using the BSS UI via the Portal.</td>
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<tr>
<td>ITMKTS-6832</td>
<td>When executing the API operation GetMarketDemandCurveSetByDay, an error is returned stating that the value returned has 4 fraction digits but the number of fraction digits has been limited to 3. As a workaround, the Markets UI does return the value and is rounding to 3 decimals. This functionality will be provided in the MOS 2.6.3 patch which should be available in MTE in the early February timeframe.</td>
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<td>ITMKTS-6910</td>
<td>Missing WEISMarketNotifyServiceV2 causing all of the operations in the service to no longer function. PostMarketMessageSet, PostMarketPing, PostMarketTimelineEventSet, PostMarketVRLByIntervalSet, and PostSupplyAdequacyDeliverabilityByIntervalSet This functionality will be provided in the MOS 2.6.3 patch which should be available in MTE in the early February timeframe.</td>
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HELPFUL LINKS

• **Markets Release 2.6 Project Folder**
  • MIPO
  • Test cases; including public data
  • Known Issues Log – Post each Friday

• **Ramp Capability Products - Settlements Project Folder**
  • MIPO
  • Test cases; including public data
  • Scorecard – Post each Friday beginning 01/14/22
  • Known Issues Log – Post each Friday

• **Future Technical Specifications Folder**
  • [Marketplace Markets Web Service 34.0 20211206](#)
  • [WEIS Markets Web Service 2.0 20211206](#)
  • [Settlement Management System API XML Specifications 20211208](#)

• **Training**
  • [Register - SPP Learning Center](#)
QUESTIONS

Questions about this release can be submitted to the ‘Submit an Inquiry’ Request Template via RMS:
https://spprms.issuetrak.com/login.asp

• Subtype 1 = Project / Initiatives
• Subtype 2 = Markets Release 2.6 or
• Subtype 2 = Settlements Ramp Project