MARKETS

DEVELOPMENT UPDATE

March 29, 2022
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OPENING REMARKS

BARBARA SUGG
SPP CHIEF EXECUTIVE OFFICER
PARTICIPANTS
INTRODUCTION
SPP’S VISION FOR WESTERN MARKETS

BRUCE REW
SPP SR. VP, OPERATIONS
RTO West
• 7 organizations joining RTO in 2024; expected $49M annual savings for new & existing members

Western Energy Imbalance Service (WEIS) Market
• Launched Feb. 2021; 3 new members joining in 2023 bringing load to 13.5GW

Markets+
• New real-time/day-ahead market in development with western parties (will replace WEIS)

Western Reliability Coordination Service
• Maintaining reliability for 13 western transmission operators

Western Interconnection Unscheduled Flow Mitigation Plan
• Helping western organizations manage grid congestion

Western Resource Adequacy Program Operator
• Partnering with Western Power Pool to ensure resource adequacy
SPP’S MARKETS VISION

• WEIS continues for period of time
  • Imbalance market a great introduction to markets
  • Short-term solution for market participants

• RTO development
  • Provides long-term solution to market needs
  • Consolidated BA, Regional Planning, Unit Commitment

• Markets+ development
  • Possible long-term solution to meet some market needs
2022 MARKETS+ GOAL AND SCHEDULE

• Draft Service Offering – End of September
  • Written Comment Period
• Final Service Offering – Mid-November
  • Will Not Include: Market Protocols and Tariff Language
• Commitment to Investigate – Q1 2023
  • Financially Binding to Scope Implementation
• Stakeholder Process to Develop Market Protocols and Tariff Language
• Participant Agreement Execution – Fund Implementation
WESTERN MARKETS ROADMAP

CAISO

Standard approach with import/export bids
or
Market-to-market optimized transfers
(preferred)

EIM
(RT Only)

SPP Markets+
(DA and RT)

EIM
(RT Only)

WEIS
(RT Only)

Eastern Interconnection

Western Interconnection

SPP RTO

Ideally a single co-optimized unit commitment and dispatch under a robust governance framework with an independent board
# STAKEHOLDER LEADS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Company</th>
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<tbody>
<tr>
<td>Sarah Edmonds</td>
<td>Director, Transmission Services</td>
<td>Portland General Electric</td>
</tr>
<tr>
<td>Aly Koslow</td>
<td>Director, Federal Regulatory Affairs and Compliance</td>
<td>Arizona Public Service</td>
</tr>
<tr>
<td>David Rubin</td>
<td>Federal Energy Policy Director</td>
<td>NV Energy</td>
</tr>
<tr>
<td>Joe Fina</td>
<td>Assistant General Counsel</td>
<td>Snohomish County Public Utility District No. 1</td>
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<tr>
<td>Lea Fisher</td>
<td>Senior Policy Analyst</td>
<td>Public Generating Pool</td>
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# SPP Support Team

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<thead>
<tr>
<th>Name</th>
<th>Position</th>
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<tbody>
<tr>
<td>Kara Fornstrom</td>
<td>Director, State Regulatory Policy</td>
</tr>
<tr>
<td>Mike Riley</td>
<td>Associate General Counsel</td>
</tr>
<tr>
<td>Nicole Wagner</td>
<td>Manager, Regulatory Policy</td>
</tr>
<tr>
<td>Patti Kelly</td>
<td>Lead Regulatory Analyst</td>
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GOVERNANCE DESIGN TEAM PUBLIC WEBINARS

• January 31: Operational Relationships
• February 14: Topic Scope and Governance Objectives
• February 28: SPP Board of Directors and Western Contract Services Governance Frameworks
• March 14: Governance Options Introduction
GOVERNANCE OBJECTIVES

• Independent Board of Directors with Skills and Experience Reflective of All Regions, Market Participants and Interests within Its Oversight

• Open, Transparent Stakeholder Process that Balances Diverse Interests

• Board Nominating Process that is Clearly Defined and Geographically/Sector Representative

• Effective Forums for Stakeholders within the Governance Framework
## MARKETS+ GOVERNANCE OPTIONS

<table>
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<th>2B</th>
<th>Add 3?</th>
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<td><strong>SPP Independent Board</strong></td>
<td><strong>Markets+ Participants Executive Committee (MPEC) – Participant Based</strong></td>
<td><strong>Markets+ State Committee</strong></td>
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<td><strong>Markets+ Working Group (M2WG) – Sector Based</strong></td>
<td><strong>Future Joint (with RTO) Work Groups</strong></td>
<td><strong>SPP By-Laws Modification Board Qualifications?</strong></td>
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<td><strong>Markets+ Independent Governing Board</strong></td>
<td><strong>Nominating Committee (Sector Based)</strong></td>
<td><strong>SPP CGC Add Markets+ Seat?</strong></td>
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</table>
MARKETS+ GOVERNANCE OPTIONS

SPP Independent Board

Add 3?

Modify SPP RTO Governance

SPP CGC

SPP President
SPP Board Chair
1-IOU
1-Cooperative
1- Muni
1-IPP/Marketer
1 State power agency
1-Public interest
1-Retail
1 Federal power agency
1 – Markets+ Seat?

SPP Bylaws
Board Qualifications

Markets+ Independent Governing Board

Nominating Committee
(Sector Based)

Markets+ Working Group (M2WG)
(Sector based)

Future Joint
(w/ RTO)
Work Groups

Markets+ Participants Executive Committee (MPEC)
(Participant Based)

Markets+ State Committee

Committee reports directly to SPP Board

2A

Indirect to SPP Board: Markets+ Governing Board

2B
GDT FUTURE MEETINGS/SCHEDULE

• April 20: Written Comments Due
• April 25: Governance Design Team Webinar
  • Provide Summary of Written Comments
• April 27: Development Update Webinar
• May 23: Governance Design Team Webinar
  • Present Governance Concept Proposal
• June 1-2: In-Person Meeting - Denver
JOINT TRANSMISSION AVAILABILITY AND MARKET PRODUCTS/PRICE FORMATION DESIGN TEAMS UPDATE

STEVE JOHNSON, SPP PRINCIPAL OPERATIONS SPECIALIST

JIM GONZALEZ, SPP MANAGER, REAL TIME MARKETS
## Transmission Availability Team

### Stakeholder Leads

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Joe Taylor</td>
<td>Manager, Transmission Access</td>
<td>Xcel Energy</td>
</tr>
<tr>
<td>Chris Hofmann</td>
<td>Director Transmission &amp; Generation Operations</td>
<td>Salt River Project</td>
</tr>
<tr>
<td>Mike Linn</td>
<td>Director, Market Analytics</td>
<td>Public Power Council</td>
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### SPP Support Team

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<tbody>
<tr>
<td>Steve Johnson</td>
<td>Principal Operations Specialist</td>
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<tr>
<td>Hamilton Bitely</td>
<td>Senior Operations Analyst</td>
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# MARKET PRODUCTS AND PRICE FORMATION

## DESIGN TEAM

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<tr>
<td>Jeff Spires</td>
<td>Director, Power</td>
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<tr>
<td>Carrie Simpson</td>
<td>Director, Western Markets</td>
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<tr>
<td>Brian Cole</td>
<td>General Manager, Resource Management</td>
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<tr>
<td>Russ Mantifel</td>
<td>Director of Market Initiatives</td>
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## SPP Support Team

|  |
|-------------------|---|
| Jim Gonzalez      | Manager, Real Time Markets |
| Micha Bailey      | Supervisor, Congesting Hedging |
JOINT TADT/MPPF DESIGN TEAM MEETING

• First joint meeting on March 16\textsuperscript{th}
  • Physical vs. Financial Transmission rights
    • Why the transition is needed

• Congestion Rents Options
  • Day ahead as imbalance market
  • Non-Auction based financial rights
  • Full ARR/TCR
JOINT TADT/MPPF DESIGN TEAM MEETING

• Bilateral Settlement Schedules (Financial Schedules)
  • Current tool in SPP tool box

• Base Schedules Discussion
  • Began discussion regarding application and function of Base Schedule concept
  • Seeking to understand if existing tools like Bilateral Settlement Schedules could facilitate Base Scheduling
QUESTIONS/DISCUSSION
MEETING GOALS AND EXPECTATIONS

BRUCE REW
Foster engaging discussions
Understand and give voice to diverse perspectives
Develop cohesive vision for Markets+
Recognize Markets+ role in benefitting market evolution in the Western Interconnection
Enjoy personal interaction and Have Fun!
TODAY’S SCHEDULE

- 9:45-10:00 Break
- 10:00-12:00 Breakout Sessions
  - Governance - Ocotillo
  - Transmission – Desert Star
  - Market Products – Larkspur
- 12:00-1:00 Lunch
- 1:00-3:00 Breakout Sessions
  - Governance – Desert Star
  - Joint Transmission/Market - Ocotillo
- 3:00-3:15 Break
- 3:15-5:00 Breakout Sessions
- 5:00-6:30 Reception SRP
TOMORROW’S SCHEDULE

• 7:30-8:00 Continental Breakfast
• 8:00-9:30 Breakout Sessions
  • Governance – Desert Star
  • Joint Transmission/Market - Ocotillo
• 9:30-9:45 Break
• 9:45-12:00 General Session
  • Design Team Readouts
  • Questions/Discussion
  • GHG Design Element
  • Next Steps/Schedule