Energy Imbalance Information Sessions

November 12 | Phoenix, AZ

Jim Kendrick
VP of Power Marketing
AGENDA

1. Welcome & Introduction
2. Study Update
3. WALC Energy Imbalance Currently
5. Lunch break
6. Southwest Power Pool (SPP) presentation
AEPCO-CAWCD-SPPA-WAPA DSW
Market Study

Dave Slick
KR Saline & Associates
## Study Participants

<table>
<thead>
<tr>
<th></th>
<th>AEPCO</th>
<th>Arizona Electric Power Cooperative</th>
<th>649 MW</th>
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<tbody>
<tr>
<td>1</td>
<td>CAWCD</td>
<td>Central Arizona Water Conservation District</td>
<td>446 MW</td>
</tr>
<tr>
<td>2</td>
<td>SPPA</td>
<td>Southwest Public Power Agency</td>
<td>866 MW</td>
</tr>
<tr>
<td>3</td>
<td>WAPA DSW</td>
<td>Western Area Power Administration Desert Southwest Region</td>
<td>1,688 MW</td>
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<td>4</td>
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2019 Peak Demand from Each Entity’s Perspective
Balancing Area Perspective

- APS
- SRP
- TEP
- WAPA DSW
- AEPCO
- Other BAs

- SPPA

- • WAPA is a BA
- • AEPCO is a sub-BA
- • Neither CAWCD nor SPPA have BA responsibilities
Objective

For the Study Participants collectively, and each Study Participant individually, identify the representative annual economic impact associated with joining either CAISO’s Energy Imbalance Market (EIM) or SPP’s Western Energy Imbalance Service (WEIS).
Study Developments & Schedule

• The Study Participants began discussions in May 2019 and have had approximately 10 meetings to date.

• After soliciting study proposals from E3 and Brattle, the Study Participants selected one of the proposals provided by E3.

• The Study Participants are planning to conduct a WECC-wide production cost assessment of the representative future calendar year 2024.

• The Study Participants and E3 will collaborate in developing assumptions for the “base condition” analysis, and plan to explore a number of “sensitivity conditions” to enhance and further qualify the results and insights provided by the study.

• Study work is scheduled to begin in November 2019 and be completed by August 2020.
Non-Disclosure Agreement

• The Study Participants have established an NDA understanding among themselves and with E3.

• On one hand, the Study Participants do not want to expose proprietary, confidential and/or commercially sensitive information to people who are outside of the Study Participant group.

• On the other hand, the Study Participants are well integrated within the electric utility industry and the public power community in Arizona.

• Consequently, the Study Participants anticipate sharing some information with non-study participants at appropriate junctures as the study unfolds.
Cost – Benefit Considerations

• The AEPCO-CAWCD-SPPA-WAPA DSW market study performed by E3 is expected to provide estimates of “gross” benefits associated with participating in either EIM or WEIS. “Gross” benefits do not include costs associated with market participation.

• The Study Participants have initiated a separate effort aimed at identifying: a) initial costs of market participation, b) annual ongoing costs of market participation, and c) implementation costs associated with market participation.

• A comparison of the benefits identified by the market study with the costs identified by the separate effort is expected to provide an estimate of the net benefit of either EIM or WEIS market participation.
Questions?

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WALC Energy Imbalance
Currently

John Paulsen
Energy Management & Marketing Manager
WALC Energy Imbalance Currently

• WALC resources for Energy Imbalance
• Settlement of Energy Imbalance
• Resource Limitations
• Imbalance needs increasing
• DSW/WALC is studying how to adapt
Feedback desired

Send comments or concerns to:

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