Discussion on Markets

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SPP Membership Update
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SPP Update

• Background
• Integration
• Current Operations
  • Merchant
  • Settlements
  • Transmission/Reliability
• Summary
• Questions
Where WAPA gets Power

CRSP Management Center
Desert Southwest Region
Rocky Mountain Region
Sierra Nevada Region
Upper Great Plains Region

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Where UGP Gets Power: Pick-Sloan Missouri Basin, Eastern Division
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Integrated System

And Other Facility Owners:
- Missouri River Energy Services
- NorthWestern Energy

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North American Regional Transmission Organization Organizations

- Alberta Electric System Operator
- Electricity System Operator (IESO)
- New England ISO (ISO-NE)
- New York ISO (NYISO)
- PJM ISO
- California ISO (CAISO)
- Southwest Power Pool (SPP)
- Midcontinent ISO (MISO)
- Electric Reliability Council of Texas (ERCOT)

Discussion on Markets: SPP Membership Update
Integration into SPP: Public Process

- Public Comment period
  - Noticed in *Federal Register*
  - November 1- December 16, 2013

- Authorization to move forward:
  - Issued January 9, 2014
  - Staff notified to pursue formal negotiations for membership in SPP
Integration into SPP: Tariff

• Negotiations started January 2014 with SPP membership

• SPP Board approval in June 2014

• SPP filed Tariff, By-laws, Membership Agreement changes in June 2014

• FERC conditionally accepted filing November 2014
Tariff Integration

- FERC Proceedings almost completed
- WAPA active in several filings of other Transmission owners joining SPP
Integration into SPP: Task List

• IS transmission service converted to SPP
• Operational changes within the SPP footprint
• Market registration for loads and generation
• Load serving coordination with Co-suppliers
• Generation coordination with Corps of Engineers
• Market meter installation and data distribution
• Operational and financial data interface with SPP
Task List

• Equipment and software development requirements
• UGP Transmission Rate filing
• West system agreement with SPP
• Market Trials
• Staff Training
• Reliability Coordinator Services transfer from MISO to SPP
• Planning Coordinator Services transfer from MAPP to SPP
Current Operations: Cut Over

• Midnight October 1, 2015:
  ▪ UGP transferred operational control over to SPP

• Smooth transition:
  ▪ No significant issues
Current Operations: Merchant

• Hydro generation offered into the SPP Day-ahead Integrated Marketplace

• Hourly load obligation is coordinated with co-suppliers

• Regulation Up/Down, Spin, and Reserves offered but mostly not accepted

• Continue to evaluate market strategies
Current Operations: Settlements

• UGP receives a weekly invoice from SPP for market activities and monthly SPP transmission invoices

• Re-organized distributed settlements and power billing work into one new Settlements

• Settlements analytics are key to understanding financial results of your activities
Current Operations: Transmission/Reliability

• Merged WAPA east-side (WAUE) Balancing Authority (BA) into SPP BA
  ▪ No longer calculating and controlling to an Area Control Error signal (ACE)
  ▪ Now have several plants on control instead of only one
  ▪ Still doing after-the-fact checkouts with the adjacent Local BA’s and BA’s
  ▪ The Miles City DC tie is no longer an internal tie, now a tie between SPP and WAPA west-side BA (WAUW)
Comparison taken April 9, 2015 and 2016
Summary

• SPP provides greater flexibility
  ▪ Creates more options for buying and selling
  ▪ Reduces constraints in delivering power

• Helps keep costs low for customers

• 9 Months of Operation
  ▪ 38 market invoices
  ▪ 7 transmission invoices

• Alternate Operations Study
  ▪ $11.5 M net benefits predicted initial year savings/cost avoidance

• Savings estimated to be greater than the AOS