

WAPA-DSW

Update to Regional Issues Forum

Western Energy Imbalance Market

September 12, 2023



Topics

- Introduction to DSW (WALC BA)
- Factors in our decision to join WEIM
- Participation principals
- Experience in parallel operations
- Experience after go-live
- Ongoing challenges



Introduction to DSW

WALC BA Statistics:

- 3 PRSC Merchants
- Peak load 1450 - 1600 MWs
- Crossroads of the west – 9 intertie partners

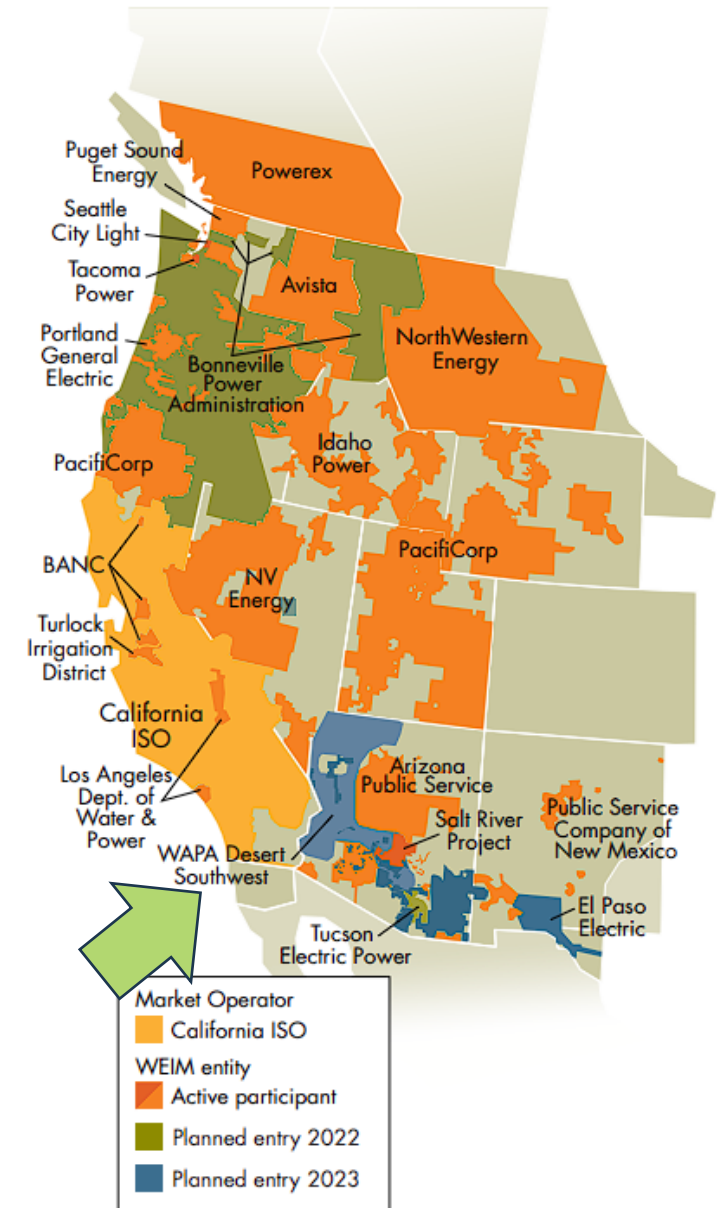
Merchant Operators in the WALC BA		
WAPA DSW / EMMO	AEPCO	Calpine Energy Services
Hydro: <ul style="list-style-type: none"> ○ Hoover (DSW's Share) ○ Parker ○ Davis ○ Headgate Rock ○ Siphon Drop Solar / Wind <ul style="list-style-type: none"> ○ River Mountain Solar Non-conforming Load <ul style="list-style-type: none"> ○ SNWA Pump 	Gas / Coal Assets: <ul style="list-style-type: none"> ○ Apache Assets Solar/Wind <ul style="list-style-type: none"> ○ Apache Solar ○ Salome Solar Hydro: <ul style="list-style-type: none"> ○ Hoover (AEPCO's share) Non-Conforming Load/Other: <ul style="list-style-type: none"> ○ Waddell Pump/Gen ○ Various Pump Loads (Havasu, Red Rock, Twin Peak, etc....) 	Gas: <ul style="list-style-type: none"> ○ Southpoint (during non-tolling periods with APS (November to end of April))

WAPA shares interties with the following partners:

- APS
- CAISO (CISO BA)
- IID
- LADWP
- NVE
- SRP
- TEP
- WACM
- Griffith – Generation only BA

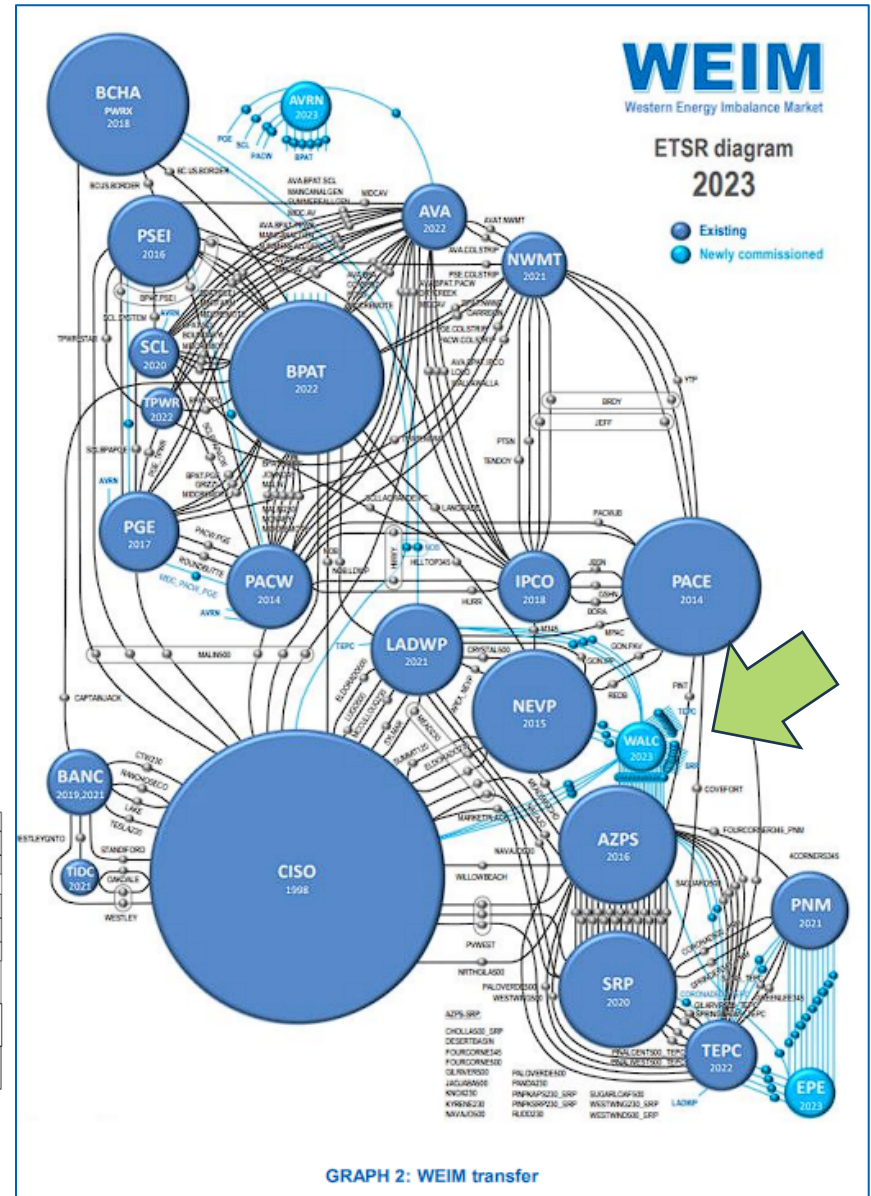
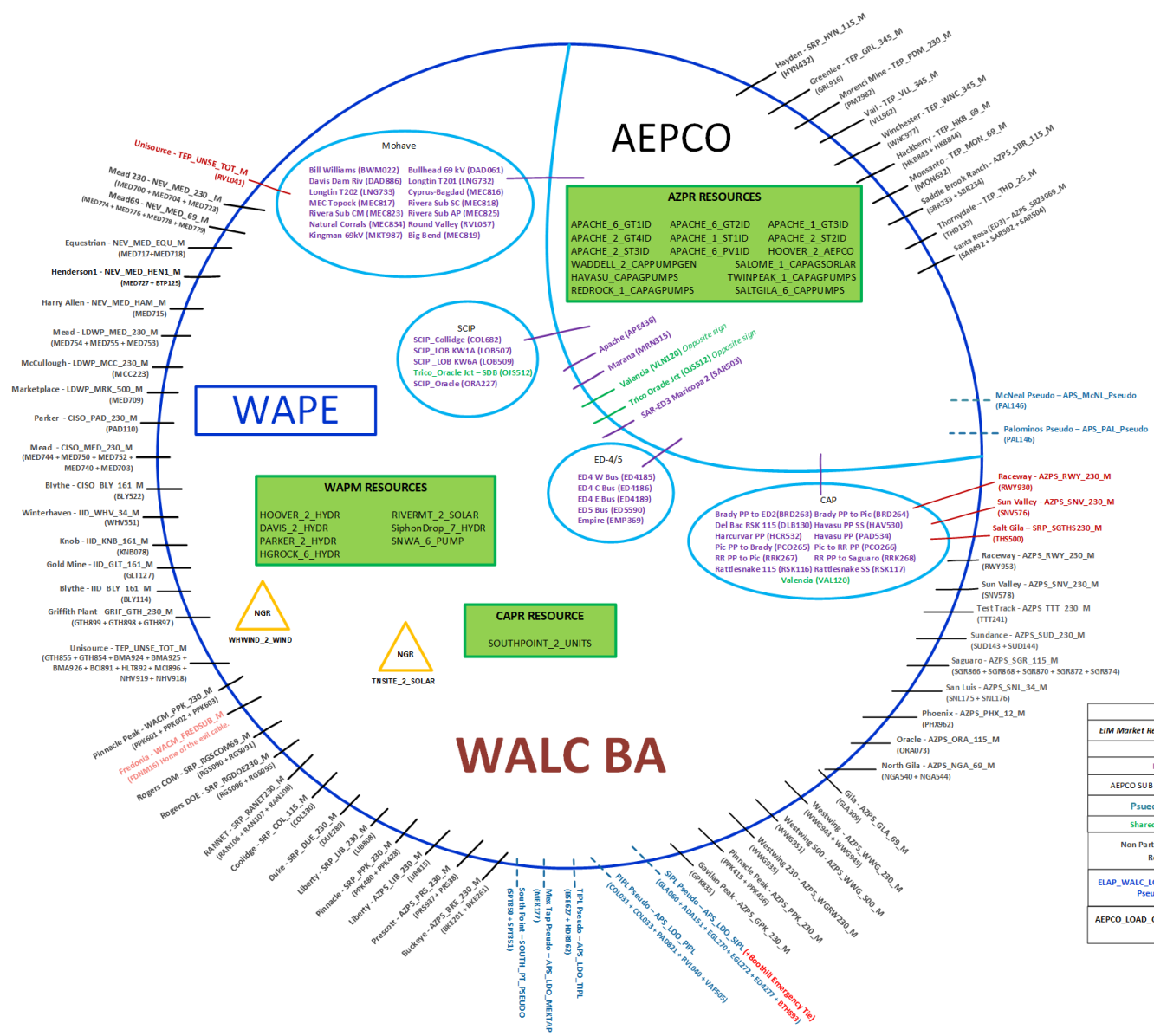
Non-participating resource generation:

- Townsite Solar / Battery Generation
- White Hills Wind Asset





*Settlements Team artwork courtesy of Trent Nunn & Rose Statler.



Factors in Our Decision to Join WEIM

- Fundamental shift observed in the United States electric industry impacting Bulk Electric System Operations, Marketing, and Planning, particularly in the West.
- Customer feedback.
- Market expansion increasingly becoming an attractive option due to the benefits of market participation over stand-alone BA operations.

WAPA DSW's ENTRY INTO WEIM

- On Sept. 16, 2021, DSW announced that it had signed an implementation agreement with the California Independent System Operator to participate in the Western Energy Imbalance Market starting in 2023. This decision is the result of nearly two years of analysis and collaboration with customers on the best path forward to manage real-time mismatches between supply and demand within the Western Area Lower Colorado balancing authority.
 - Joint news release: [WAPA Desert Southwest region announces it plans to join the EIM](#), Sept. 16, 2021
 - [EIM recommendation memo](#)



Participation Principals

- Supports DSW's ability to meet regulatory requirements for reliable operations
- Enhances real-time trading opportunities
- Provides efficient and affordable operations
- Addresses BA limitations and constraints due to the loss of bilateral trading partners to market constructs



Experience in Parallel Operations

- Learning market routines into the hour and the handoff between the Merchant and Power System Operations:
 - Improved / increased communications
 - Focus on the Load Forecast
 - Passing the tests
- Bidding strategies and formulation – getting our asset mix right for BA operations and water orders.
- Testing, testing, and some more testing of software and interfaces.



Experience After Go-Live!

- Market participation has been positive for merchant function and water orders on the Boulder Canyon Project and Parker / Davis.
- Adjusting on when to use SRSG vs. working within the market for support and when to use load biasing.
- DSW team is consistently learning and evolving our processes as additional time in the market provides additional insights.



Ongoing Challenges

- Continuing to get used to market rhythms through the day and the implications for energy scheduling and bidding strategies.
- Working with partners (mindful of SOC) to ensure reliable BA operations.
- Continued engagement with the CAISO and its forums to ensure market issues/anomalies are addressed quickly (e.g., system issues, tagging anomalies, pricing events, etc.)



Questions?

Contact:
John Paulsen
602-605-2557
paulsen@wapa.gov



www.wapa.gov