

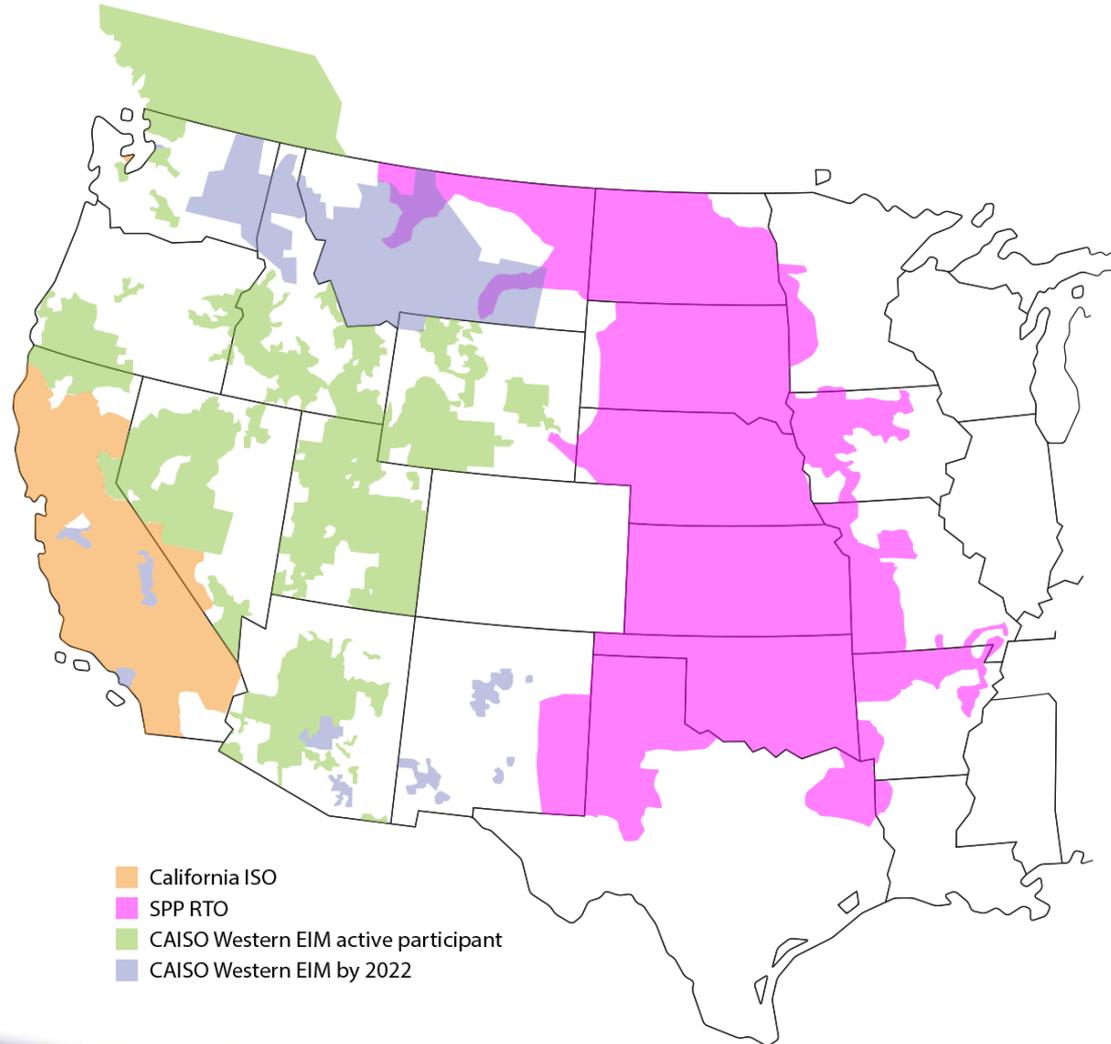
# Energy Imbalance Markets in the West

July 25, 2019 | Bozeman, MT

Lori Frisk

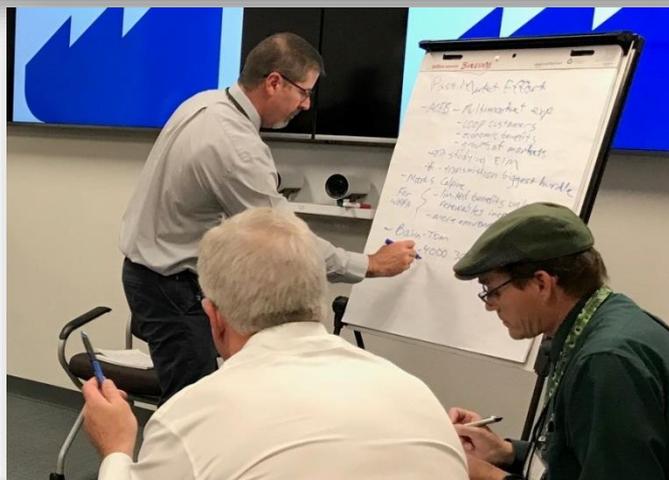
VP of Power Marketing

# Markets are here

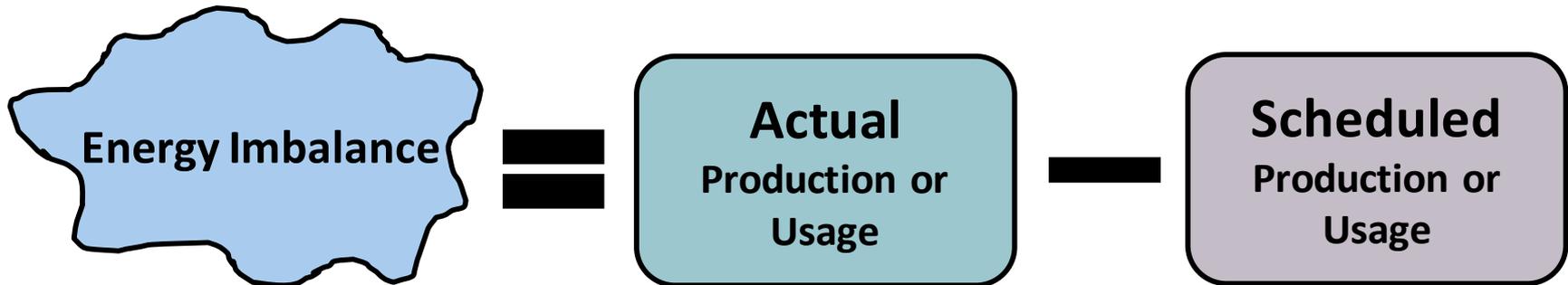


- California ISO
- SPP RTO
- CAISO Western EIM active participant
- CAISO Western EIM by 2022

# Markets in the West Workshop, April 9-10



# Energy Imbalance & Energy Imbalance Markets



## Today: WAPA handles imbalance for its balancing authorities

- We use either hydro or bilateral agreements to handle EI
- EI calculated and priced hourly
- Region settles and bills each customer

## Future: Market Operator handles imbalance

- Market Operator optimizes market resources to supply EI
- EI calculated and Locational Marginal priced sub-hourly
- Market Operator does some or all settlement and billing

# Why is WAPA interested in EIM/EIS?

**Ensure reliable delivery of our hydropower while adjusting to a changing energy mix**

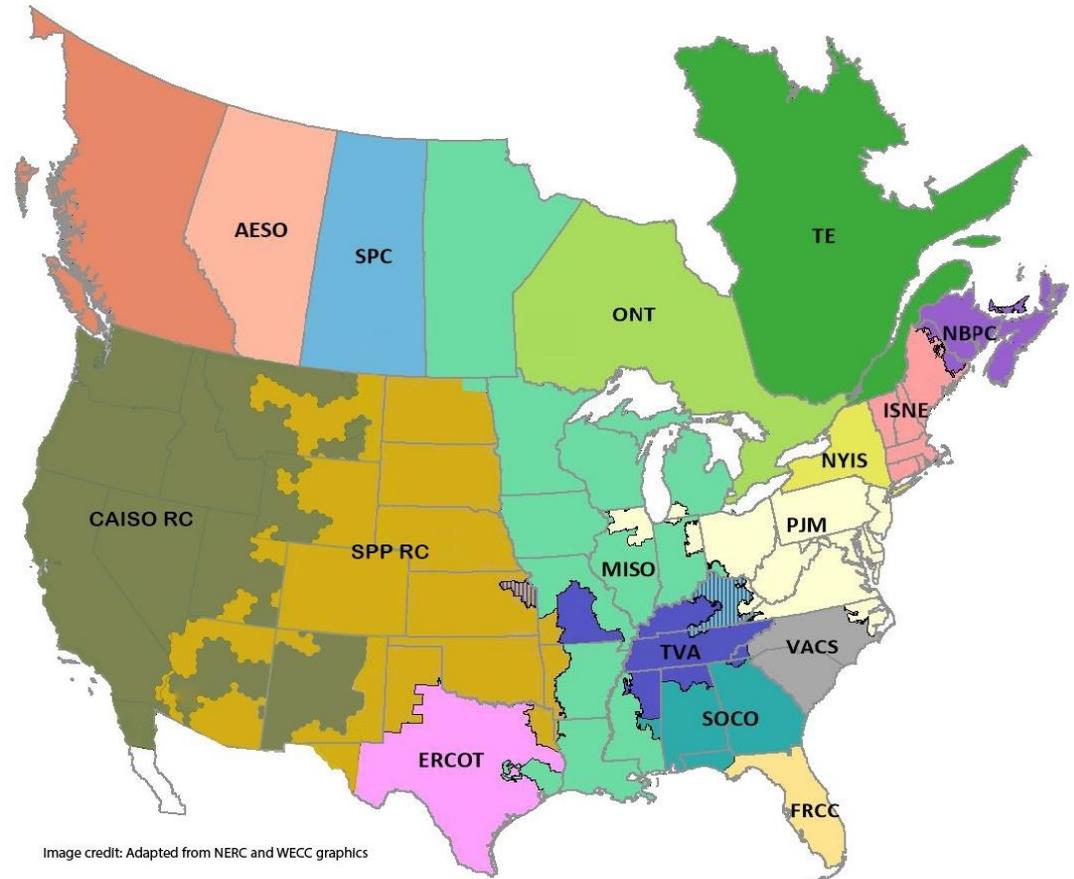
- Respond to customer feedback requesting WAPA to lead organized market discussions
- Address WAPA balancing authority limitations
- Facilitate integration of variable resources
- Enable participants who want to optimize their resources

# Energy Imbalance Options

- WAPA reviewed CAISO's EIM in 2013
- WAPA received WEIS proposal from SPP last month
  - Need to ensure reliable delivery of our hydropower in a changing energy landscape.
  - We are NOT joining a full market; we are looking at participation in an energy imbalance service.
  - Focus on longer-term solutions to meet our needs in a rapidly changing environment.
  - We will engage with stakeholders and document our decisions.
- WAPA's considering CAISO's EIM as well
  - Especially for Sierra Nevada

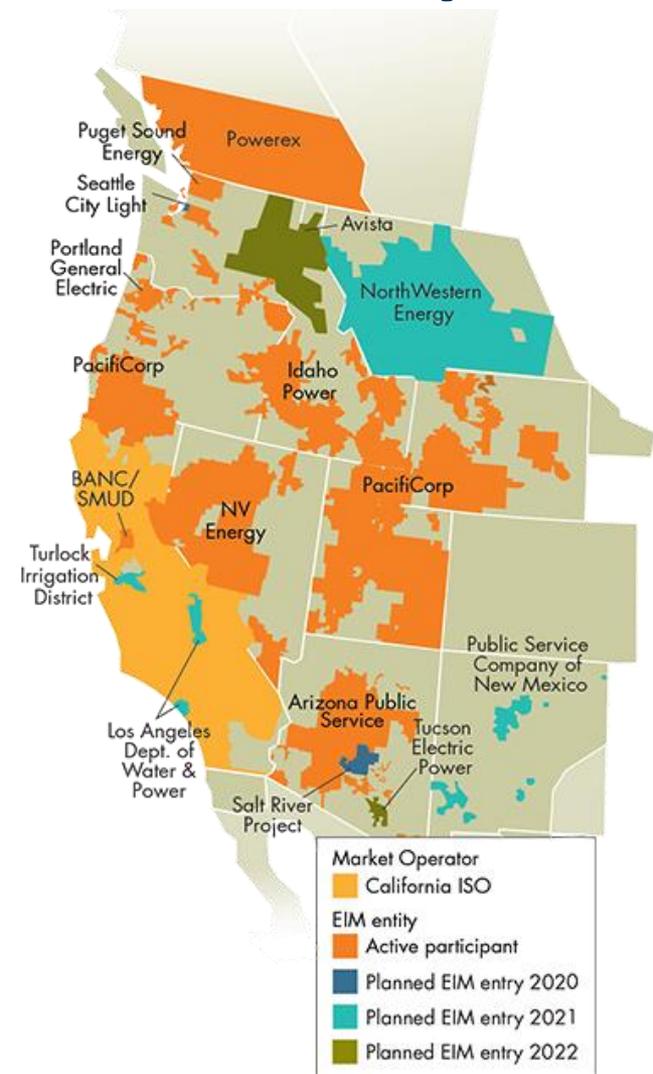
# SPP Reliability Coordinator

- PEAK RC terminating RC services
- Parallel RC operations October and November
- SPP RC takes over Dec. 3, 2019
- Enables SPP to readily add market



# California ISO EIM (Western EIM)

- BANC became active participant this year
- SN's sub-BA within BANC is evaluating options



# SPP Western Energy Imbalance Service (WEIS)

June 17, 2019

## **SPP proposes Western Energy Imbalance Service Market to bring cost savings and grid modernization to the west**

Southwest Power Pool (SPP) has announced to western utilities its proposal for the Western Energy Imbalance Service market (WEIS) it intends to launch in December 2020. The wholesale electricity market will balance generation and load regionally and in real time. SPP's previous energy imbalance market went live in 2007 and provided participants with \$103 million in benefits in its first year of operation.

# SPP WEIS proposal

- Two meetings in spring 2019 on high-level design of WEIS
- Commitment date of September 3, 2019
- SPP proposed market “go-live” February 1, 2021
  - One year after RC “go-live”
- Additional market participants may be added at approximate 6-month intervals after go-live



# Possible impacts to BA EI service

- Changes to Schedule 4 and 9 of OATT or BA contracts
  - Entering rate process for all our transmission rates, that will include changes to Schedule 4 and 9 that would allow the pass through of EIS if UGP joins a Western Interconnection energy imbalance service market
  - Federal Register starting the process will be coming out shortly
  - Information and Comment Forums
    - September 24 – Omaha, NE
    - September 25 – Bismarck, ND
- Depending on implementation, this could entail a cost change of BA administration

# Next Steps

- Sierra Nevada (SN) Region
  - SN region will host their 3rd and 4th customer meetings July 30 and August 14
  - SN will decide if they will join the CAISO EIM by August 21st for an April 2021 entry date
- Desert Southwest (DSW) Region
  - Currently writing a scoping document to study joining the CAISO EIM or SPP WEIS
- Colorado River Storage Project (CRSP)
  - WAPA CRSP customer in the DSW region are having another customer meeting on August 1st
- Upper Great Plains (UGP) Region
  - Meeting with NWE
- UGP, CRSP and Rocky Mountain Region (RMR)
  - Continue to meet with interested parties
  - WAPA, Basin and Tri-State are meeting face to face on August 8th with SPP
  - WAPA's decision on September 3rd for a February 2021 SPP WEIS entry date

# Feedback desired

Send comments or concerns to:

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*Yellowtail Dam*