

CAISO Regional Issues Forum

BANC EIM Phase II

June 29, 2021

BALANCING AUTHORITY OF NORTHERN CALIFORNIA



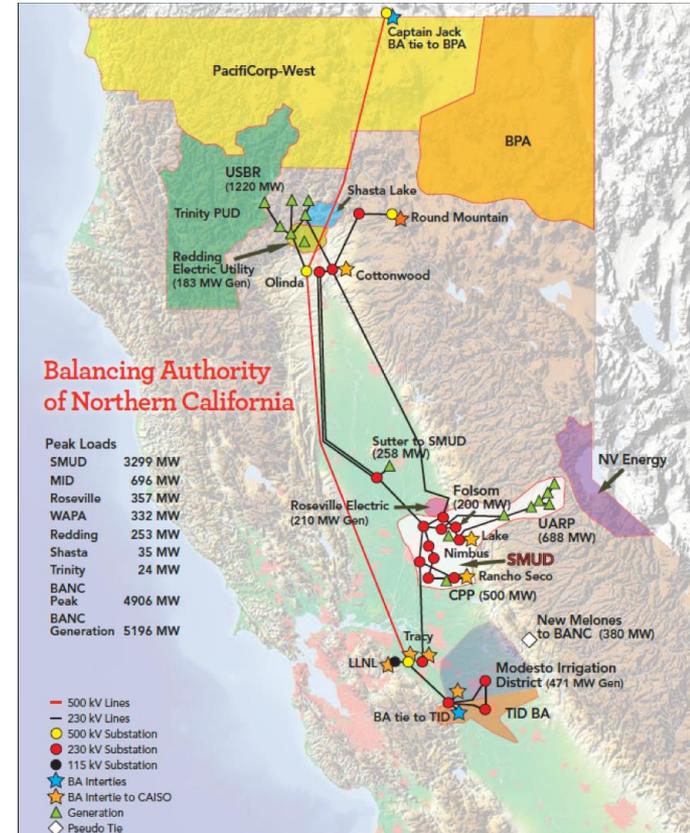
A JOINT POWERS AUTHORITY AMONG
Modesto Irrigation District, City of Redding, City of Roseville, Trinity Public Utilities District, City of Shasta Lake, and Sacramento Municipal Utility District

6001 S Street MS D109 Sacramento CA 95852-1830

W W W . T H E B A N C . O R G

BANC Background

- Balancing Authority of Northern California
 - Modesto Irrigation District (MID)
 - City of Redding
 - City of Roseville
 - Sacramento Municipal Utility District
 - City of Shasta Lake
 - Trinity Public Utility District
- Contract Relationships
 - WAPA – SNR: 230kV system
 - Transmission Agency of Northern California (TANC): 500kV California-Oregon Transmission Project (COTP)
- Operating Information
 - Generation: ~5200 MW
 - Load: ~5000 MW Peak
 - Import capability: ~5000 MW



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Timeline and Achievements

- Phase 1 (April 1, 2019) – BANC/SMUD
 - BANC became an EIM Entity
 - BANC built the infrastructure (EMS, EIM Desk, Settlements)
 - SMUD became BANC's first PRSC
 - SMUD developed expertise
- Phase 2 (March 25, 2021) – MID/Redding/Roseville/WAPA
 - Leveraged the infrastructure
 - Built a model and business/settlement practices for 5 PRSC's
 - Developed method for meeting Resource Sufficiency Tests
 - Leveraged the lessons of BANC/SMUD



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BANC EIM Model

- BANC: EIM Entity
 - Tools for monitoring the real-time PRSC's contributions
 - Procedures and timelines for dealing with RS shortfalls
- PRSC's (MID/Redding/Roseville/SMUD/WAPA):
 - Balance Capacity: tools for trading/exchanging next hour
 - Flex Ramp: monitoring flex contributions and tracking price indices
 - Subscription products to meet RS obligations
 - *Commitment of all PRSC's to contribute all economic resources*
- Outcomes
 - Balance Test: BANC has greater than 99% passing
 - Flex tests: BANC has 100%* passing
- *Key to Success – BANC and its member leadership commitment to collaboration*



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Lessons Learned for a “Small” LSE

- Roseville Electric
 - Peak 355MW, serve ~ 1,200GWh/yr
 - Participating resources: 160MW Combined Cycle & 2x24MW peakers
 - *Months of the year where resources are not economic*
- EIM Barriers for a Small LSE:
 - No scale to be an EIM Entity
 - Portfolio not diverse enough to meet 8,760hrs/yr resource sufficiency (RS) tests
 - Lack of expertise in CAISO rules and requirements
 - *Without BANC, we do not have the scale to participate in EIM*
 - *Without RS product trading from our partners, could not meet EIM tests*
- BANC Opportunity
 - Diverse footprint of resources
 - Partners willing to design and trade RS products
 - Expertise to share (GRDT), helping us all improve performance and outcomes
 - Excellent team of members, consultant’s, and contractors for implementation



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Thoughts for Future Entrants

- Multi-LSE BAA's - collaboration is key
- Small LSE's will need help from larger LSE's – the “have's” need to help the “have-nots”
- The earlier you solve your BAA's RS test allocation, the better
- GRDT-GRDT-GRDT: it's harder than we thought
- The implementation team is key!



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