

**Balancing Authority of Northern California**

# Regular Meeting of the Commissioners of BANC

**2:00 P.M.**

**Wednesday, May 28, 2025**

**2600 Capitol Avenue, Suite 400**

**Sacramento, CA 95816**

# Balancing Authority of Northern California

## NOTICE OF REGULAR MEETING AND AGENDA

Notice is hereby given that a regular meeting of the Commissioners of the Balancing Authority of Northern California (BANC) will be held on **May 28, 2025 at 2:00 p.m. at 2600 Capitol Avenue, Suite 400, Sacramento, CA 95816.**

The following information is being provided as the forum by which members of the public may observe the meeting and offer public comment:

**Phone:** 1-301-715-8592 or 1-305-224-1968

**Meeting ID:** 894 5252 7874

**Passcode:** 142666

**Meeting Link:** <https://us06web.zoom.us/j/89452527874?pwd=an1aZVsmFQBXlb4bFDSnsoYvkGghEF.1>

If a member of the public would like to make a comment during the public comment period, please use the 'Raise Hand' function and staff will note your desire to speak. For members of the public joining by telephone (audio only), please email your public comment to [administrator@braunlegal.com](mailto:administrator@braunlegal.com). Public comment received by email will be read within the allotted public comment period.

### AGENDA

- 1 Call to Order and Verification of Quorum.**
- 2 Matters subsequent to posting the Agenda.**
- 3 Public Comment** – any member of the public may address the Commissioners concerning any matter on the agenda.
- 4 Consent Agenda.**
  - A. Minutes of the Regular Commission Meeting held on March 27, 2025.
  - B. BANC Operator Reports (March and April).
  - C. Compliance Officer Reports (April and May).
  - D. PC Committee Chair Reports (April and May).
  - E. General Manager's Report and Strategic Initiatives Update.
- 5 Regular Agenda Items – Discussion and Possible Action.**
  - A. General Manager Updates.
    - i. Market Updates – EIM, EDAM, Markets+, WRAP.
    - ii. Strategic Plan Updates.
    - iii. WECC Audit Update.
  - B. Consider and Possibly Approve Resolution 25-05-01 *Acknowledgement and Acceptance of the 2025 Summer Load & Resources Assessment of the Balancing Authority of Northern California.*
  - C. Consider and Possibly Approve Resolution 25-05-02 *Approval of BANC Participation in CAISO EIM Assistance Energy Transfer Program.*
  - D. Consider and Possibly Approve Resolution 25-05-03 *Approval of Revised 2025 Annual Budget for BANC.*
  - E. Consider and Possibly Approve Resolution 25-05-04 *Approval of Revised Participant Percentages and Cost Allocation Methodology.*
  - F. Member Updates.
- 6 Adjournment.**

Accessible Public Meetings - Upon request, BANC will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. Please send a written request, including your name, mailing address, phone number and brief description of the requested materials and preferred alternative format or auxiliary aid or service at least 3 days before the meeting. Requests should be sent to: Kris Kirkegaard, 2600 Capitol Avenue, Suite 400, Sacramento, CA 95816 or to [administrator@braunlegal.com](mailto:administrator@braunlegal.com).

## **Balancing Authority of Northern California**

# **Consent Agenda Items**

- A. Minutes of the March 27, 2025 BANC Regular Meeting.**
- B. BANC Operator Reports (March and April).**
- C. Compliance Officer Reports (April and May).**
- D. PC Committee Chair Report (April and May).**
- E. General Manager's Report and Strategic Initiatives Update.**

MINUTES OF THE REGULAR MEETING  
OF THE COMMISSIONERS OF  
THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

March 26, 2025

On this date, a Regular Meeting of the Commissioners of the Balancing Authority of Northern California was held at 555 Capitol Mall, Suite 570, Sacramento, CA 95814.

Representatives:

<b>Member Agency</b>	<b>Commissioner</b>
Modesto Irrigation District (MID)	Martin Caballero
City of Redding	Nick Zettel, remote
City of Roseville	Shawn Matchim, Alternate
Sacramento Municipal Utility District (SMUD)	Paul Lau
City of Shasta Lake	James Takehara, remote
Trinity Public Utilities District (TPUD)	Paul Hauser, Chair

Other Participants:

Jim Shetler	General Manager
Tony Braun	General Counsel
Jen-Ann Lee	General Counsel
Kris Kirkegaard	General Counsel Support
Michelle Williams	Western Area Power Administration
Aaron Worthman	Baker Tilly, LLP

1. Call to Order and Verification of Quorum: A quorum was confirmed; attendance is noted above. Chair Hauser called the meeting to order at 2:00 p.m.
2. Matters Subsequent to Posting the Agenda: None.
3. Public Comment (any matter on the agenda): None.
4. Consent Agenda: Chair Hauser invited comments from the Commission and a motion on the Consent Agenda; no comments.

<b>ACTION:</b> M/S (Lau/Matchim) to <b>approve the Consent Agenda</b> . Motion carried by a unanimous vote. (Absent: Commissioner Zettel).
--

5. Regular Agenda Items.

A. General Manager Updates:

i. Market Updates – EIM, EDAM, Markets+, WRAP.

Mr. Shetler overviewed the ongoing status of EIM and the EDAM Implementation. Mr. Braun gave an update related to congestion revenue allocation and answered

MINUTES OF THE REGULAR MEETING  
OF THE COMMISSIONERS OF  
THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

questions.

Mr. Shetler also shared brief updates on the West-wide Governance Pathways Initiative, SPP Markets+, and WPP. No action requested or taken.

ii. Strategic Plan Updates.

Mr. Shetler provided updates on the IRP Summary Report, RA Policy Development, and Resource Procurement initiatives and answered questions from the Commission. No action requested or taken.

B. Discussion on Possible Future Action on 2025 BANC Budget Amendment.

i. Member Percentages.

Mr. Shetler shared a staff proposal to shift the allocation methodology from retail sales to net energy load and answered questions from the Commission. This proposal will likely be brought back to the Commission for action at a future meeting.

ii. EDAM Implementation.

Mr. Shetler noted that the EDAM project management support contract had been suspended due to the slower than expected ramp up of the EDAM effort. He also noted the likely need for additional SMUD operations and settlements support and commented on the potential need for additional WAPA support.

C. Consider and Possibly Approve Resolution 25-03-01 *Acceptance of BANC 2024 Audited Financials.*

This item was moved to the top of the agenda. Mr. Shetler introduced Aaron Worthman, lead audit partner for the BANC engagement from Baker Tilly, LLP. Mr. Worthman overviewed their audit responsibilities, planned scope and timing, audit approach and results, and required communication to the governing body. There were no questions from the Commission.

**ACTION:** M/S (Caballero/Lau) to **approve Resolution 25-03-01 Acceptance of BANC 2024 Audited Financials.** Motion carried by a unanimous vote.

D. Discussion on Recent WECC Reliability Related Reports.

Mr. Shetler shared highlights from the report, and members of the Commission commented and asked questions.

E. Member updates.

Mr. Braun noted that BB&W would be moving to a new location at the end of April and future meetings will be moved to that location (refer to the BANC website and future agendas for additional information.) Commissioner Caballero noted that MID had executed a financial prepay on renewable portfolios, which translates to ~\$7M in annual savings. Commissioner Lau gave an update on SMUD's rate proposal and on a \$130M Department of Energy Contract. Alternate Commissioner Matchim gave an update on the upcoming 2025 Public Power Lineworkers Rodeo that will be hosted by Roseville over the coming weekend and provided an update regarding the multi-year planned relocation of peaking units currently located in Yuba City to the Roseville power plant. Commissioner Zettel shared an update regarding debt financing/bond issuance and shared an update on rates. Commissioner Takehara noted that he was preparing to share a term sheet for a battery project within city limits with council. Chair Hauser shared

MINUTES OF THE REGULAR MEETING  
OF THE COMMISSIONERS OF  
THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

information on planned rate updates along with a CEC PUC report on affordability and the net energy metering subsidy. Ms. Williams shared WAPA potential interest in the possibility of a fall of 2027 EDAM implementation.

The Commission moved to closed session at 3:19 p.m. and adjourned from closed session at 3:21 p.m. where no action was taken.

Minutes approved on May 28, 2025.

---

C. Anthony Braun, Secretary



# BALANCING AUTHORITY OF NORTHERN CALIFORNIA

P.O. BOX 15830 • D109 • SACRAMENTO • CA 95852 -1830

**TO:** BANC Commission

**RE:** BANC Operator Report for March 2025

## Operations:

- BA Operations: Normal
- Significant BA Issues: None
- Declared BA Energy Emergency Alert Level (EEA): N/A
- RSG Activations
  - 1 Qualifying Event(s)
  - 0 MW Qualifying Event request
  - 60 MW average generation lost
  - 60 MW maximum generation lost
  - Generating unit(s) and date(s) affected: Shasta Unit #5 tripped and Folsom Unit #2 failed to start to cover the loss
  - All recoveries within 5 minutes
- USF
  - 7 of 31 days with instances of USF mitigation procedure utilized
  - 0 days on Path 66
  - No operational impact on BANC
- BAAL Operation:
  - Maximum duration of BAAL exceedance: 6 Minutes  
*WAPA generators (Shasta) not following EIM dispatch due to AGC issues*
  - Number of BAAL exceedance >10 minutes: None
  - BAAL violation (BAAL exceedance >30 minutes): None
- Frequency Response (FR) Performance – Quarterly Metric:
  - 2025 Frequency Response Obligation (FRO): -18.7 MW/0.1 Hz

## Monthly Notes:

- None

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



# BALANCING AUTHORITY OF NORTHERN CALIFORNIA

P.O. BOX 15830 • D109 • SACRAMENTO • CA 95852 -1830

**TO:** BANC Commission

**RE:** BANC Operator Report for April 2025

## Operations:

- BA Operations: Normal
- Significant BA Issues: None
- Declared BA Energy Emergency Alert Level (EEA): N/A
- RSG Activations
  - 0 Qualifying Event(s)
  - 0 MW Qualifying Event request
  - 0 MW average generation lost
  - 0 MW maximum generation lost
  - Generating unit(s) and date(s) affected: None
  - All recoveries within 0 minutes
- USF
  - 7 of 30 days with instances of USF mitigation procedure utilized
  - 0 days on Path 66
  - No operational impact on BANC
- BAAL Operation:
  - Maximum duration of BAAL exceedance: 2 Minutes
  - Number of BAAL exceedance >10 minutes: None
  - BAAL violation (BAAL exceedance >30 minutes): None
- Frequency Response (FR) Performance – Quarterly Metric:
  - 2025 Frequency Response Obligation (FRO): -18.7 MW/0.1 Hz

## Monthly Notes:

- None

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

# Compliance Officer Report

## BANC Commission Meeting

### April 2025

---

The following summarizes routine issues for the Commission's information and consideration. Any major issues or action items will be identified on a future Commission agenda for action.

#### **BA Compliance Issues:**

- No significant operational Balancing Authority compliance events occurred.
- All required BA compliance reports and operating data were submitted to WECC.
- BANC's 2025 Entity Monitoring Schedule (WECC):
  - BANC and SMUD are currently accepting early Requests for Information (RFIs). Responses to all RFI received to-date have been submitted.
  - 'Level 2' submittals, which are due at the end of April, have been submitted early.
  - Two interviews have been completed, and three more interviews will be scheduled in the coming weeks.
  - The WECC Compliance Audit is scheduled to take place May 12 - 23, 2025 (off-site and on-site weeks.)

#### **BANC MCRC:**

The next BANC MCRC meeting is scheduled to be held at 10:00 AM on Monday, April 28<sup>th</sup> via teleconference.

# Compliance Officer Report

## BANC Commission Meeting

### May 2025

---

The following summarizes routine issues for the Commission's information and consideration. Any major issues or action items will be identified on the Commission agenda for action.

#### **BA Compliance Issues:**

- No significant operational Balancing Authority compliance events occurred.
- All required BA compliance reports and operating data were submitted to WECC.
- BANC's 2025 Entity Monitoring Schedule (WECC):
  - The 2025 BANC/SMUD audit has concluded, with minimal findings and some positive observations, including recognition for our overall compliance culture. One potential non-compliance (PNC) was identified, but the issue has already been mitigated. Additional information will be shared with the MCRC at the next meeting and the Commission as it moves through the process.
  - Additional information will be shared once the final audit report has been circulated by WECC.

#### **BANC MCRC:**

The next BANC MCRC meeting is scheduled to be held at 10:00 AM on Monday, June 23<sup>rd</sup> via teleconference.

# PC Committee Chair Report

## BANC Commission Meeting

### April 2025

---

The following summarizes Planning Coordinator-related activities and updates for the Commission's information and consideration. Any major issues or action items will be identified separately on a future Commission agenda for action.

#### **BANC PC Committee Updates and/or activities:**

SMUD staff continues to work toward demonstrating compliance with PC-related NERC reliability standards.

- FAC-002-4 – Facility Interconnection Studies – Staff is reviewing and updating BANC PC FAC-002-4 R6 Qualified Changes document based on the NERC guideline for implementation. An updated document will be provided to BANC PC for review and comment by May 9, 2025.
- FAC-014-3 - Establish and Communicate SOLs – Staff received some data requests and provided the requested data to WECC audit team by the deadline. Staff is also working on the FAC-014-3 procedure that describes how the FAC-014-3 R6 process will be followed for BANC PC. Staff is awaiting Audit interview(s) for FAC-014-3.
- MOD-033-2 Model Validation – MOD-033-2 model validation study will be started Fall of 2025 for both dynamic and steady state and completed by the end of this year.
- PRC-012 Remedial Action Schemes Assessment – Staff will perform a comprehensive “once in every 60 calendar months” Remedial Action Scheme (RAS) assessment to demonstrate that the BANC PC portion of the Bulk Electric System (BES) meets all performance and other requirements specified in the NERC Reliability Standard PRC-012-2 Requirement 4. Staff sent out the study plan for comments and review on March 31<sup>st</sup> and requested comments and/or suggested changes by April 15<sup>th</sup>. The final study report will be completed by December 31<sup>st</sup>. A survey on the BANC's member's RAS schemes was sent out early March.
- PRC-023-6 and PRC-026-1 – The study plans are being drafted and will be shared for review and comment with BANC PC Participants by April 11, 2025.
- TPL-001-5.1 - Transmission System Planning Performance – Study plan is to be finalized upon Redding confirming their voltage criteria to be used for assessment. Base cases are being developed.
- 2025 Annual BANC PC Committee Meeting was held on March 18<sup>th</sup>, 2025 from 9:30am to 11am at the SMUD office in person and through MS Teams virtually. Three SMEs from SMUD Transmission Planning group presented NERC PC related reliability

standards compliance activities, especially preparing for the 2025 WECC BANC/SMUD audit of FAC-014-3 and TPL-001-5.

The table below shows the current status of all PC-related NERC standards:

	PC Standard	Estimated % Complete	Notes
1	FAC-002-4 Interconnection Studies	60%	Staff has received responses from BANC PC Participants for a list of qualified changes for their system for years 2025-26 and any generation resource projects 20 MVA or more that are connecting to 60 kV or above. There are no BES level projects requiring additional FAC-002 assessments. Staff is also reviewing and updating BANC PC FAC-002-4 R6 Qualified Changes document based on the NERC guideline for implementation. An updated document will be provided to BANC PC for review and comment by 05/19/2025.
2	FAC-014-3 Establish and Communicate SOLs	40%	Staff received some data requests and provided the requested data to WECC audit team by the deadline. Staff also working on the FAC-014-3 procedure that describes how the FAC-014-3 R6 process will be followed for BANC PC. Staff is now awaiting any Audit interviews for FAC-014-3.
3	IRO-017-1 Outage Coordination	0%	Awaiting the acceptance of the 2025 annual assessment to send to the Reliability Coordinator.
4	MOD-031-3 Demand and Energy Data	100%	The 2025 WECC Loads and Resources data and narrative response requests have been provided by BANC PC participants and WASN for data entry and narrative response, and this information was uploaded to WECC on 02/14/2025.
5	MOD-032-1 Data for Power System Modeling & Analysis	50%	Ongoing activity. Data requests to fulfill 13-month cycle for compliance.
6	MOD-033-2 System Model Validation	0%	MOD-033-2 study will be started in Fall of 2025 and the final report will be completed by the end of this year.
7	PRC-006-5 Underfrequency Load Shedding	10%	Staff continues to participate in WECC Under-Frequency Load Shed Working Group representing BANC PC as necessary. A new data request is anticipated around May-June 2025.
8	PRC-010-2 Undervoltage Load Shedding	100%	Staff had completed performing the UVLS assessment studies. The final Report was issued on 12/24/2024.

	PC Standard	Estimated % Complete	Notes
9	PRC-012-2 Remedial Action Schemes	10%	Staff sent the study plan for review and comments. The final study report will be completed by 12/31/2025. A survey on the BANC's member's RAS schemes was sent out early March.
10	PRC-023-6 Transmission Relay Loadability	20%	Staff will start a new assessment next month with a study plan. The study plan will be shared for review and comment with BANC PC Participants by 04/11/2025.
11	PRC-026-2 Relay Performance During Stable Power Swings	20%	Staff will start a new assessment next month with a study plan. The study plan will be shared for review and comment with BANC PC Participants by 04/11/2025.
12	TPL-001-5 Transmission System Planning Performance	20%	Study plan is being finalized, and base cases are being developed
13	TPL-007-4 Transmission System Planned Performance for Geomagnetic Disturbance Events	100%	Staff completed GMD voltage portion of the study to assess the GMD event impact on the bulk system voltages and reactive power consumptions within the BANC PC participants' areas. The GMD voltage portion of the study was not included in the WECC 2022 GMD study which only included GIC portion of the study. The GMD additional voltage study report was sent out to the BANC PC participants on 3/12/2025.

# PC Committee Chair Report

## BANC Commission Meeting

### May 2025

---

The following summarizes Planning Coordinator-related activities and updates for the Commission's information and consideration. Any major issues or action items will be identified separately on the Commission agenda for action.

#### **BANC PC Committee Updates and/or activities:**

SMUD staff continues to work toward demonstrating compliance with PC-related NERC reliability standards.

- FAC-002-4 – Facility Interconnection Studies – Staff is finalizing the BANC PC FAC-002-4 R6 Qualified Changes document after BANC PC review and will have it posted on the BANC PC site and distribute it after the document is posted.
- FAC-014-3 – Establish and Communicate SOLs – Staff finalized the FAC-014-3 procedure that describes how the FAC-014-3 compliance actions process will be followed for BANC PC. Staff participated in audit interviews for FAC-014-3 with WECC. This process is ongoing, and the auditing should be concluded by May 23<sup>rd</sup>.
- MOD-033-2 – Model Validation – MOD-033-2 model validation study will be started Fall of 2025 for both dynamic and steady state and completed by the end of this year.
- PRC-006-5 – Automatic Underfrequency Load Shedding – Staff sent out a data request to BANC PC Participants for their 2025 ULFS data to use in response to the annual Southern Island Load Tripping Plan (SILTP) being coordinated by the Off-Nominal System Protection & Restoration (OFSPR). The OFSPR will then send the SILTP as a coordinated annual plan to WECC for PRC-006-5 compliance. Data is due back to BANC PC by May 29<sup>th</sup>.
- PRC-012 – Remedial Action Schemes Assessment – Staff will perform a comprehensive “once in every 60 calendar months” Remedial Action Scheme (RAS) assessment to demonstrate that the BANC PC portion of the Bulk Electric System (BES) meets all performance and other requirements specified in the NERC Reliability Standard PRC-012-2, Requirement 4. Staff sent out the study plan for comments and review. The final study report will be completed by December 31<sup>st</sup>. A survey on the BANC members' RAS schemes was sent out in early March.
- PRC-023-6 and PRC-026-1 – The study plans were finalized and distributed to BANC PC Participants on May 2<sup>nd</sup>, and staff is in the process of initiating powerflow simulations for the 2025 assessments.
- TPL-001-5.1 – Transmission System Planning Performance – Preliminary steady state runs are being performed.
- TPL-007-4 – Transmission System Planned Performance for Geomagnetic Disturbance Events – Staff completed GMD voltage portion of the study to assess the

GMD event's impact on the bulk system voltages and reactive power consumptions within the BANC PC Participants' areas. The voltage portion of the study was not included in the WECC 2022 GMD study, which only included the GIC portion of the study. The 2024 mock auditor recommended to perform the additional voltage study for compliance. The GMD voltage study report was sent out to BANC PC Participants for review on March 12<sup>th</sup>.

The table below shows the current status of all PC-related NERC standards:

	PC Standard	Estimated % Complete	Notes
1	FAC-002-4 Interconnection Studies	90%	Staff is finalizing the BANC PC FAC-002-4 R6 Qualified Changes document after BANC PC review and will have it posted on BANC PC website and distribute it after the document is posted. Staff also received responses from BANC PC Participants for a list of qualified changes for their system for years 2025-26 and any generation resource projects 20 MVA or more that are connected to 60 kV or above. There are no BES level projects requiring additional FAC-002 assessments.
2	FAC-014-3 Establish and Communicate SOLs	45%	Staff finalized the FAC-014-3 procedure that describes how the FAC-014-3 compliance actions process will be followed for BANC PC. Staff participated in Audit interviews for FAC-014-3 with WECC. This process is ongoing, and the auditing should conclude by 05/23/25.
3	IRO-017-1 Outage Coordination	0%	Awaiting the acceptance of the 2025 annual assessment to be sent to the Reliability Coordinator.
4	MOD-031-3 Demand and Energy Data	100%	The 2025 WECC Loads and Resources data and narrative response requests have been provided by BANC PC Participants and WASN for data entry and narrative response, and this information was uploaded to WECC on 02/14/25.
5	MOD-032-1 Data for Power System Modeling & Analysis	50%	Ongoing activity. Data requests to fulfill 13-month cycle for compliance.
6	MOD-033-2 System Model Validation	0%	MOD-033-2 study will be started in Fall of 2025 and the final report will be completed by the end of this year.

	PC Standard	Estimated % Complete	Notes
7	PRC-006-5 Underfrequency Load Shedding	25%	Staff continues to participate in WECC Under-Frequency Load Shed Working Group representing BANC PC as necessary. Staff sent out a data request to BANC PC Participants for their 2025 ULFS data to use in response to the annual Southern Island Load Tripping Plan (SILTP) being coordinated by the Off-Nominal System Protection & Restoration (OFSPR). The OFSPR will then send the SILTP as a coordinated annual plan to WECC for PRC-006-5 compliance. Data is due back to BANC PC by 05/29/25.
8	PRC-010-2 Undervoltage Load Shedding	100%	Staff had completed performing the UVLS assessment studies. A draft version of the report was sent to Roseville for review and comments on 9/19/24 and the final Report was issued on 12/24/24.
9	PRC-012-2 Remedial Action Schemes	10%	Staff sent the study plan for review and comments. The final study report will be completed by 12/31/25. A survey on the BANC member's RAS schemes was sent out early March.
10	PRC-023-6 Transmission Relay Loadability	25%	The study plans were finalized and distributed to BANC PC participants on 05/02/25 and staff is in the process of initiating powerflow simulations for the 2025 assessments.
11	PRC-026-2 Relay Performance During Stable Power Swings	25%	The study plans were finalized and distributed to BANC PC participants on 05/02/25 and staff is in the process of initiating powerflow simulations for the 2025 assessments.
12	TPL-001-5 Transmission System Planning Performance	25%	Preliminary steady state runs are being performed
13	TPL-007-4 Transmission System Planned Performance for Geomagnetic Disturbance Events	90%	Staff completed GMD voltage portion of the study to assess the GMD event impact on the bulk system voltages and reactive power consumptions within the BANC PC participants' areas. The GMD voltage portion of the study was not included in the WECC 2022 GMD study which only included GIC portion of the study. The GMD additional voltage study report was sent out to the BANC PC participants on 3/12/25.

# GM Report

## BANC Commission Meeting

### May 28, 2025

---

I wanted to summarize routine issues for the Commission's information and consideration. Any major issues or action items will be identified separately on the Commission agenda for action.

#### **Outreach Efforts:**

Refer to GM outreach report provided under separate distribution. In addition, here are some other noteworthy items:

#### **LADWP/Seattle City Light/SRP**

Dialogue continues with these entities on an as needed basis regarding EIM participation and day-ahead market issues. We are holding periodic calls as appropriate to provide updates and discuss issues.

#### **Market Initiatives:**

##### **EIM Participation**

Staff continues monitoring EIM participation. CAISO quarterly benefit reports show that BANC is seeing benefits from EIM participation, with the 1<sup>st</sup> Quarter 2025 report showing gross benefits of \$28.76 million for BANC, with a total of \$821.33 millions of gross benefits for BANC since joining in 2019.

With respect to BANC EIM Phase 2 effort, BANC has been passing the EIM Balancing, Capacity, and Flex Ramp tests with a high success rate. Both the Technical Evaluation Subcommittee and the Settlements Subcommittee are meeting routinely and evaluating EIM operations, with reports out to the Markets (EIM) Committee. The Settlements Subcommittee will be updating the Markets Committee in May regarding the need for a Seasonal funding adjustment to handle larger settlement values in the summer months. We will also be updating the Markets Committee on the proposal to have BANC participate in the CAISO EIM Assistance Energy Program as an additional reliability tool for the BAA.

##### **EDAM Participation**

FERC approved the EDAM/DAME tariff on 12/21/23 with the exception of the Access Charge. In its order, FERC accepted the overwhelming majority of the proposed market rules and rejected without prejudice one element of the EDAM proposal related to transmission revenue recovery (TRR) for market participants.

The CAISO filed a revised proposal on TRR with FERC on April 12, 2024, which was approved by FERC on June 12, 2024. In October, CAISO filed another tariff amendment that would allow the use of inter-SC trades by EIM and EDAM entities. FERC approved the amendment on December 23, 2024. As a result of comments received in the PacifiCorp EDAM OATT filing at FERC, the CAISO has initiated a stakeholder process to evaluate concerns raised regarding congestion revenue allocation. This will likely result in an amendment to the EDAM tariff this summer.

A group of Western state regulators (AZ, CA, NM, OR, and WA) sent a letter to CREPC/WIRAB in July 2023 supporting the creation of an independent entity that would leverage the existing CAISO infrastructure for EIM and eventually EDAM to develop a cost-effective West-wide market. This would include a range of voluntary market services from EIM to EDAM to an RTO. BANC has been an active participant in the Western Markets Governance Pathways Initiative Launch Committee. The Launch Committee issued a draft proposal on April 10, 2024, outlining a stepwise approach to independent oversight over CAISO markets. The Launch Committee approved the Step 1 proposal which recommended WEM Governing Body primary authority over market rules on 5/31/24. The CAISO Board of Governors and the WEM Governing Body approved the Step 1 proposal on 8/13/24. On 11/8/24 the combined boards approved the necessary documentation to allow the Step 1 primary authority model to move forward once the level of EDAM Implementation Agreement signatories reaches the designated threshold value and FERC approvals are received. The CAISO filed the tariff changes with FERC for the Step 1 proposal. The Launch Committee approved a final draft of the Pathways Step 2 proposal on November 22, which would move oversight of market design to the sole authority of a new independent Regional Organization board. The BANC General Manager is participating in the Formation Committee which is working with the CAISO to move forward with creation of the proposed Regional Organization for Step 2. The Formation Committee initiated its discussions in January 2025 and is currently finalizing its scope, schedule, and budget for this effort. California legislation (SB540) that would allow the Step 2 proposal to be implemented has been filed at the California Legislature. An initial informational hearing was held on 3/12/25 and a Senate Utilities committee hearing was held on 4/21/25.

The BANC EDAM Implementation project is moving forward. The EDAM Implementation Agreement has been executed with the CAISO and was approved by FERC in January. Staff provided an updated implementation schedule to the EDAM participants during the Markets Committee meeting in January 2025. We are currently working with the BANC participants to ramp up the EDAM implementation effort to meet the Spring 2027 go live date.

### **Other Market Developments**

In parallel with the EDAM process, SPP is moving forward with its “Markets+” effort to support interested utilities in the West with a range of market options from EIM to full RTO services. SPP filed the Markets+ tariff at FERC on March 29, 2024. FERC approved the SPP Markets+ tariff at its meeting on January 16, 2025. It is our

understanding that entities in the West that are supportive of Markets+ (e.g. – APS, SRP, and BPA) are in the process of seeking approvals to fund the next phase of the development. BPA has issued its draft decision letter supporting Markets+ participation. SPP has indicated that “go-live” for Markets+ is currently forecasted for 2027.

## **WAPA:**

### **Market Engagement**

WAPA-SNR continues to be an active participant in the EIM.

As noted previously, the WAPA administrator issued her decision in late October to allow SNR to move forward with finalizing negotiations to participate in EDAM. WAPA-SNR has subsequently approved the funding agreement with BANC for their participation in the 2025 efforts. BANC is working with WAPA-SNR to facilitate their implementation efforts.

## **WECC**

### **WECC Board Meetings**

The last set of Board and committee meetings were held on March 11-12, 2025, in Salt Lake City, UT. The next set of meetings will be June 10-11, 2025, in Salt Lake City, UT.

## **Western Power Pool (WPP)**

### **Western Resource Adequacy Program (WRAP)**

As agreed previously, BANC has informed WPP that it will not be participating in the Western Resource Adequacy Program (WRAP) due to our lack of ability to have firm, long-term transfer capability at Mid-C, which is the hub for the WRAP interchanges. BANC continues to monitor development of the WRAP and hold periodic discussions with WPP regarding their development efforts. The WRAP participants recently formally voted to extend the binding date to 2027. Based upon this request, WPP filed an amended WRAP tariff at FERC in December 2024 which was approved by FERC in January 2025.

### **RSG and FRSG Participation**

BANC continues to participate in the Reserve Sharing Group and the Frequency Response Sharing Group through the WPP and receive benefits in doing so.

### **WestTEC**

WPP has initiated a new process called the Western Transmission Expansion Coalition (WestTEC) which is intended to provide coordination among the current

regional transmission planning entities in the West (CAISO, Northern Tier, and WestConnect) to determine if there are some broader regional transmission projects that should be considered. WPP has obtained DOE funding for this effort and implementation is moving forward. They are currently envisioning a 2.5-year process with an initial 10-year plan to be issued in 2025 and a 20-year plan in 2026.

### **CDWR Delta Pumping Load:**

SMUD reported that CDWR has approached them regarding the revised environmental review and updated project schedule and SMUD is initiating updated studies. The current schedule for the project is to initiate construction in 2033 with operations initiated in 2040's.

### **SB100 Implementation**

As part of SB100, the CPUC, CEC, and CARB (Joint Agencies) are required to collaborate with the California BAs to develop a quadrennial report on the status of achieving the goals of SB100. The four POU BAs (BANC, IID, LADWP, and TID) are collaborating on positions and responses, facilitated by CMUA. The final, initial report was issued on 3/15/21. The CEC did reach out to the POU BAAs in early March 2021 seeking more engagement with the BAAs for the next round of analysis for the SB100 effort. Based upon recent discussions, the POU BAAs have hired a consultant via CMUA to assist in this effort. BANC is working with IID, LADWP, and TID to coordinate our engagement in this effort. The CEC has reached out to the POU BAAs to discuss the status of their modeling efforts with an initial meeting held on 3/28/25. We expect additional meetings with the CEC as it prepares its final triennial report, which is now not scheduled until later this year.

### **Western Electricity Industry Leaders (WEIL) Group**

The WEIL CEOs last met on February 21, 2024, in San Diego, CA. The next meeting of the WEIL group is planned for September 26, 2025, in Portland, OR.

### **Strategic Initiatives**

The 2024/2025 Strategic Initiatives are attached to this report.

BANC 2024/2025 Strategic Plan - Routine Initiatives - May 2025 Update

No./Priority	Focus Area	Initiative	Responsibility	Target Due Date	Status
1 Medium	INDEPENDENCE	Effectively oversee the BA operations.	Jim Shetler	Ongoing	See monthly Ops, PC, Compliance, & GM Reports
2 Medium		Maintain long-term succession plan and traits for General Manager	Jim Shetler/Commission	Ongoing as Necessary	No update planned for 2025
3 Medium		Develop appropriate policies, procedures, & action tracking	Jim Shetler/BB&W	4th Qtr. 2025	
4 Medium	OUTREACH	Engage in industry forums (WECC, RC West, NWPPA, etc.)	Jim Shetler	Ongoing	Attend RC West, WECC Board, WEIL, & WPP mtgs.
5 Medium		Coordinate with other POU BAs (Ca and regionally)	Jim Shetler	Ongoing	Coordinating with SCL/SRP/LA/TP/TID on EIM/EDAM & SB100
6 Medium		Outreach to regulatory and legislative bodies on key issues	Jim Shetler/BB&W	Ongoing as Necessary	CEC Pathways Workshop: 1/24
7 Medium		More formal engagement with TID on BA/EIM/EDAM issues	Jim Shetler/BB&W	Ongoing	Continue periodic discussions on areas of collaboration
8 Medium	ASSETS	Monitor RA development in WI	Jim S./BB&W/Res. Com.	4th Qtr. 2025	WRAP tariff amendments approved by FERC in Jan.
9 Medium		Develop BANC-wide IRP Report	Jim S./Res. Comm	3rd Qtr. 2025	SMUD provided estimate to develop IRP report
10 High		Upgrade BANC RA Program	Jim S./Res. Comm.	4th Qtr. 2025	Short-list of 3 proposals being reviewed
11 Low	MEMBER SERVICES	Identify and outreach to potential new BANC members	Jim Shetler	Ongoing as Appropriate	Scheduling discussion w/ TID on EDAM coord. & Sutter CCS

BANC 2024/2025 Strategic Plan - Focused Initiatives - May 2025 Update

No./Priority	Focus Area	Initiative	Responsibility	Target Due Date	Status
12 High	INDEPENDENCE	Manage EIM Phase 2 Going Forward	Jim Shetler/SMUD	Ongoing	Manage Phase 2 operations including EIM, Tech Anal. & Settlements committees
13 High		EDAM implementation effort ~ Manage BANC EDAM implementation	Jim Shetler/BB&W/ Utilicast	Apr-27	EDAM IA approved by FERC
14 Medium	OUTREACH	Evaluate opportunities to engage other entities in market development	Jim Shetler	Ongoing	Coordinating with SCL, SRP, LADWP, TID, Tacoma, Idaho, PAC, & PGE
15 Medium		Regional Policy Issues: Monitor/ weigh-in where appropriate	Jim Shetler/Commission	Ongoing	
16 High		Market Regionalization: ~Monitor ongoing discussions at WEIL, WWGPI, & etc.	Jim Shetler/BB&W	Ongoing	Formation Committee efforts ongoing
17 High		Coordinate with CA BAs on SB100 effort	Jim Shetler/BB&W	Ongoing	Next CEC mtg - 5/22
18 High	ASSETS	~ Develop agreements for Sutter CS Project	Jim S./BB&W/Res. Com.	4th Qtr. 2025	Waiting on Calpine update
19 High		~ Develop/issue BANC resource solicitation	Jim S./BB&W/Res. Com.	2nd Qtr. 2025	Finalizing RFP
20 Medium	MEMBER SERVICES	Evaluate possible support to participants for EIM operations	Jim S.	Ongoing	

## Balancing Authority of Northern California

### Agenda Item 5B

1. **2025 Summer Loads & Resources Assessment of the Balancing Authority of Northern California.**
2. **Resolution 25-05-01 *Acknowledgement and Acceptance of 2025 Summer Load & Resources Assessment of the Balancing Authority of Northern California.***

# Braun Blaising & Wynne, P.C.

---

Attorneys at Law

05/20/25

**To: BANC Commission**  
**From: BANC Counsel**  
**RE: 2025 BANC Summer Load & Resources Assessment**

Included in the Commission packet for the May 28, 2025 BANC Commission meeting is the 2025 Summer Load and Resources Assessment. This document is produced by the Operating Committee. It includes a summary of expected conditions, including peak loads, generation availability, planned physical outages of generation and transmission, and other information. The information is included for individual members, each of the Sacramento Municipal Utility District and Western Area Power Administration sub-areas, as well as on a BANC-wide basis.

It should be noted that, similar to the last several years, the Operating Committee again developed a much more detailed evaluation looking at such issues as:

- Peak and Net Peak for both 1:2 and 1:10 load forecasts
- Reassessed both Effective Load Carrying Capability (ELCC) and Net Qualifying Capacity (NQC) based upon actual historical data
- Dependability of planned imports
- Various scenarios

The Assessment concludes that BANC will be able to meet the load demand for the 2025 summer operating season with sufficient Operating Margins and low risks of energy or capacity shortage.

Because reliable grid operation is the central and paramount function of BANC, the Commission is requested to acknowledge receipt and accept the 2025 Summer Load and Resources Assessment by resolution.

# 2025 SUMMER

## LOAD & RESOURCE ASSESSMENT



May 2025  
Balancing Authority of Northern California

*A Joint Powers Authority Among  
Modesto Irrigation District, City of Redding, City of Roseville, City of Shasta Lake,  
Trinity Public Utilities District, and Sacramento Municipal Utility District  
[www.thebanc.org](http://www.thebanc.org)*

## Table of Contents

1. Executive Summary.....	3
2. 2024 Summer Review .....	7
2.1 System Load .....	7
2.2 System Generation.....	7
2.3 System Import.....	8
3. 2025 Summer Assessment.....	9
3.1 Forecasted System Load .....	9
3.2 Forecasted Resource Supply .....	12
3.2.1 Hydro Generator ELCC and NQC .....	15
3.2.2 Thermal Generator ELCC and NQC.....	15
3.2.3 Solar and Wind Generation ELCC and NQC.....	15
3.3 Forecasted System Import.....	16
3.4 Forecasted System Export.....	16
3.5 Forecasted Demand Response.....	16
3.6 Forecasted Operating Reserves.....	17
3.7 Scheduled Generation and Transmission Outages .....	17
3.8 Forecasted Base Case Supply & Demand Outlook.....	17
3.9 Monte Carlo Probability Simulation.....	20
3.10 Wildfire Outlook.....	22
3.11 Special Operating Scenarios.....	22
3.11.1 Loss of Two 500 kV Lines Due to Wildfires .....	23
3.11.2 Extreme West-Wide Heat Wave .....	24
3.11.3 CAISO in EEA 3.....	27
3.11.4 Smoke Impacts Due to Wildfires.....	27
3.12 Engineering Studies.....	27
3.13 Conclusions.....	28

## 1. Executive Summary

The Balancing Authority of Northern California (BANC) is a Joint Powers Authority (JPA) consisting of the Sacramento Municipal Utility District (SMUD), Modesto Irrigation District (MID), City of Roseville (RSC), Redding Electric Utility (REU), City of Shasta Lake (CSL), and Trinity Public Utilities District (TPUD). BANC assumed the Balancing Authority (BA) responsibilities on May 1, 2011, from SMUD that include balancing the generation, load, and interchange, and coordinating system operations with neighboring BAs – Bonneville Power Administration (BPA), Turlock Irrigation District (TID), and California Independent System Operator (CAISO). There are two sub-footprints within BANC – SMUD and Western Area Power Administration – Sierra Nevada Region (WAPA), which includes WAPA, MID, RSC, REU, CSL, and TPUD. The Figure 1-1 below shows the geographical map of BANC system.

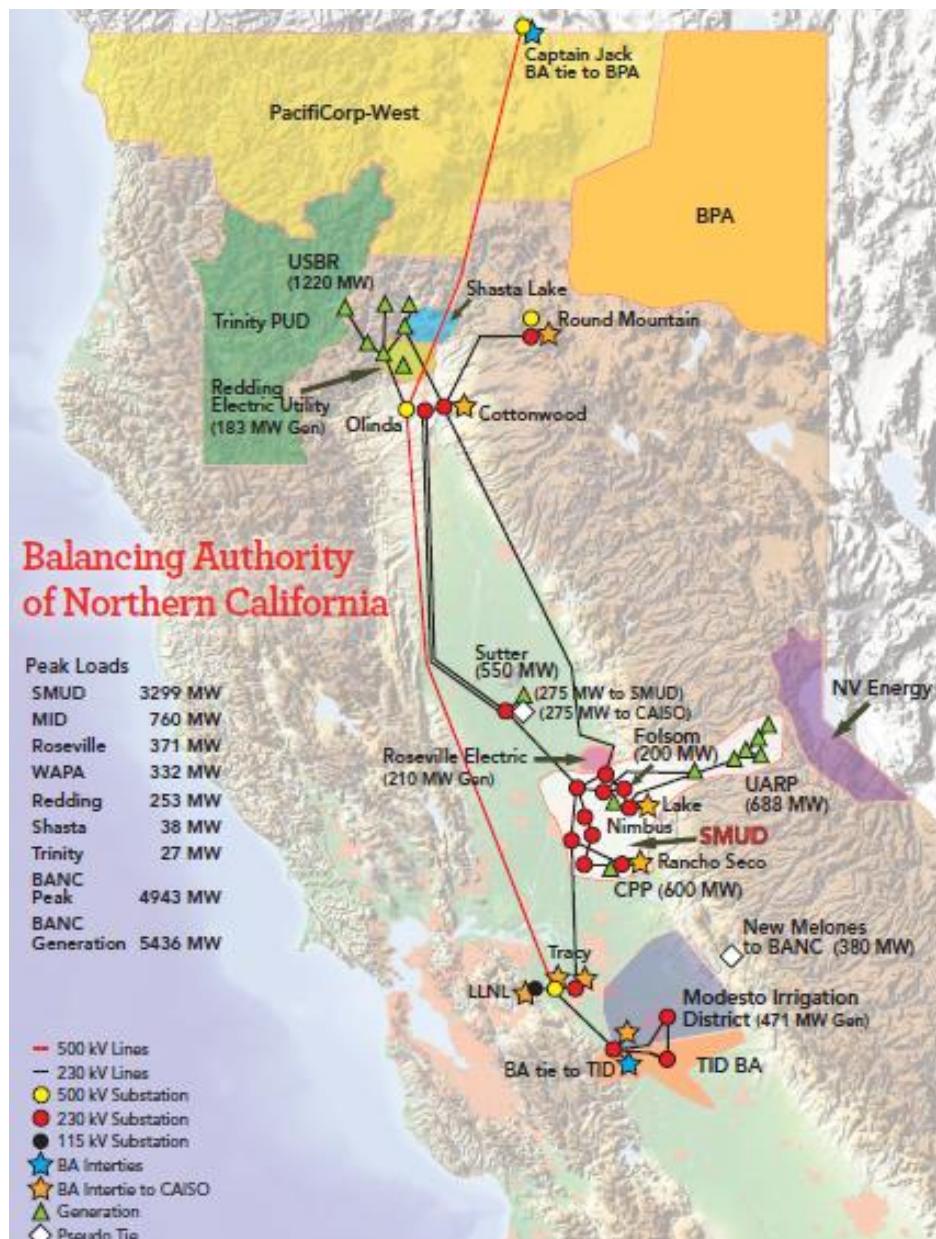


Figure 1-1: Geographical Map of BANC System

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

---

This BANC summer load and resource assessment report provides an assessment of the load forecasts, resource supplies, and energy imports for the 2025 summer operating season – June 1<sup>st</sup>, 2025, through October 31<sup>st</sup>, 2025, for the BANC Balancing Authority Area (BAA).

The forecasted BANC 1-in-2 peak load for 2025 summer is 4686 MW, which is 91 MW or 1.9% lower than BANC's actual peak load of 4777 MW in 2024. The forecasted 1-in-2 peak loads for the SMUD and WAPA footprints are 3060 MW and 1626 MW, respectively.

The forecasted BANC 1-in-10 peak load for 2025 summer is 5004 MW, which is 61 MW or 1.2% higher than BANC's all-time peak load of 4943 MW recorded in 2022. The forecasted 1-in-10 peak loads for the SMUD and WAPA footprints are 3305 MW and 1699 MW, respectively.

Considering the rotating outages within the CAISO BAA that occurred during the 2020 summer, the potential resource shortfalls in CAISO and Western Power Pool (WPP) areas, and the reliance of BANC entities on the imports from the CAISO and WPP areas, more thorough and detailed analyses are performed to assess BANC's load and resource outlook and evaluate BANC's risk of energy or capacity shortages either during normal or emergency conditions. The key analyses and studies that are performed are summarized as follows:

- (1) Assess the critical hours of the peak load day, i.e., Hour Ending (HE) 16 through HE 21, to cover both the gross peak load as well as the net peak load
- (2) Calculate the hourly Effective Load Carrying Capability (ELCC) and Net Qualifying Capacity (NQC) for all resources and imports, such as Hydro, Thermal, Solar, Wind, etc.
  - Hydro ELCC and NQC are calculated based on the historical hydro capacity in the past 3 similar water years.
  - Thermal ELCC and NQC are calculated based on the ambient temperature derate and the forced outage data in the past 3 years.
  - Solar and wind ELCC and NQC are calculated based on the actual generator outputs during the critical hours in the past 3 years.
- (3) Evaluate the detailed availability of import resources, including both the firm contracted resources and non-dependable import resources
- (4) Assess the availability of the Demand Response programs
- (5) Evaluate the Operating Margins for both the 1-in-2 peak load and the 1-in-10 peak load
- (6) Conduct Monte Carlo probability simulations to assess the Loss of Load Probability (LOLP) as follows:
  - Simulate 2,000 cases for each of the critical hours HE16 through HE21, representing 2,000 years of simulation
  - Simulate thermal generator outages based on the forced outage data of past 3 years
  - Simulate Hydro generator capacity based on the actual operating capacities in the past 3 similar water years
  - Simulate solar and wind generator outputs based on the actual data of past 3 years
  - Simulate load beyond 1-in-10 peak load forecast
  - Simulate the reduction of non-dependable import when the load is higher than 1-in-10 forecast, representing west-wide heatwaves
- (7) Perform analysis to the special operating scenarios as listed below:
  - California Oregon Intertie (COI) derate due to wildfires tripping two 500 kV lines
  - CAISO BAA is in an Energy Emergency Alert 3 (EEA 3)
  - West-wide heat wave causing the reduction of non-dependable imports
  - Impacts of wildfire smoke on the solar generation and system load

## **2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT**

---

### Water Conditions as of April 1, 2025:

- United States Bureau of Reclamation's (USBR) Central Valley Project (CVP) reservoir storage levels were at approximately 118% of historical average.
- Northern Sierra snowpack was at 118% of its historical average.
- Northern California precipitation was at 118% of its historical average.
- Forecasted statewide snowmelt runoff is at about 105% of an average water year.
- SMUD's storage reservoirs were at 106% of historical average and the inflow to the storage reservoirs is projected to be 121% of median.
- With 118% precipitation, 118% snowpack, and 118% of reservoir storage level, the 2024-2025 water season is classified as "Above Normal" according to California Department of Water Resources' (CDWR's) Bulletin 120 released on March 25, 2025.

### Resource Availability Forecasts as of April 1, 2025:

- A total of 52 MW new solar generation will come online during 2025 summer.
- Based on the current outage information, the USBR's Spring Creek Unit #1 (95 MW) and New Melones Unit #2 (191 MW) are on major maintenance outages throughout the summer peak months – June, July, and August. Therefore, the total hydro power peak or energy production is projected to be slightly lower than the normal although the 2024 -2025 water season is "Above Normal".
- One-half of the Sutter Energy Center (SEC) or 275 MW will continue to be available to SMUD and the other half of the SEC or 275 MW is available to the CAISO BA.

### California Oregon Intertie (COI) Import Capability and Wildfire Outlook:

- Starting from April 1<sup>st</sup>, 2025, the California Oregon Intertie (COI) operating nomogram has increased by 300 MW under lower Northern California Hydro conditions. However, this 300 MW transmission capacity increase will not be realized in summer 2025 due to the transmission limitations in the Pacific Northwest area.
- Wildfire threat continues to be a risk with the threat areas and fire-season period both expanding and increasing the risk of Public Safety Power Shutoff (PSPS) events or actual outages.
- The CAISO has committed to support BANC if a PSPS event on the CAISO controlled portion of COI should create resource shortage conditions for BANC.
- According to the National Significant Wildland Fire Potential Outlook released by the Predictive Services National Interagency Fire Center on April 1, 2025, the wildfire risk for June and July is "Above Normal" for California.

### The assessment results show that

- BANC's hourly gross peak load is forecasted to be at HE17, and BANC's hourly net peak load is forecasted to be at HE18.
- Although BANC's peak load could occur on any day between June 15 and September 15 based on historical data, the most stressed operating condition will be when BANC's peak load occurs in August as the available Hydro generation and Solar generation in August is forecasted to be less than June and July. BANC's peak load only occurred in September once, which was a very rare case.
- The base case assessment demonstrates that BANC has sufficient generation, transmission capacity, and import resources to meet the forecasted 1-in-2 and 1-in-10 loads for the 2025 summer with sufficient operating margins when counting the non-dependable imports, as shown in Table 1-1 below. However, BANC's operating margins in the 2025 summer are estimated to be 3% lower than BANC's operating margins in 2024 due to the increased load forecasts and the scheduled generation outages.

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

- The Monte Carlo probability simulation results show that BANC has a risk of 7.2% (or 1 day in 13 years) to be in EEA 3 and a risk of 4.2% (or 1 day in 23 years) with unserved energy, which is slightly higher than BANC's unserved energy risk of 2.8% in 2024.
- The analyses indicate that BANC would have sufficient operating margins for the special operating scenarios of wildfire smoke and the CAISO BA in EEA 3.
- However, BANC, especially the SMUD footprint, would have risks of firm load shedding when there is a west-wide heatwave causing 1-in-20 load with no non-dependable import available or when the COI has a significant derate after losing two 500 kV lines due to wildfires under 1-in-10 load condition.

Table 1-1: 2025 Summer Base Case Load and Resource Outlook at Gross & Net Peak Hours

	BANC BA		SMUD Footprint		WAPA Footprint	
2024 Generation (MW)	5,437		2,623		2,814	
Generation Outage (MW)	(0)		(0)		(0)	
Retired Generation (MW)	0		0		0	
New Generation (MW)	52		52		0	
2025 Generation (MW)	5,489		2,675		2,814	
Peak Load Hour	HE17	HE18	HE17	HE18	HE17	HE18
Equivalent ELCC	82.5%	81.5%	82.0%	80.1%	83.1%	83.1%
Total Generation NQC (MW)	4,294	4,242	2,193	2,142	2,101	2,100
Forecasted Import (MW)	2,301	2,230	1,556	1,496	745	734
Forecasted Export (MW)	(712)	(712)	0	0	(712)	(712)
Demand Response (MW)	104	104	89	89	15	15
Total Supply (MW)	5,987	5,864	3,838	3,727	2,149	2,137
1-in-2 Load + Reserves (MW)	5,000	4,952	3,231	3,178	1,769	1,774
1-in-2 OM * (MW)	987	912	606	549	380	363
1-in-2 OM * (%)	19.7%	18.4%	18.8%	17.3%	21.5%	20.5%
1-in-10 Load + Reserves (MW)	5,339	5,287	3,490	3,433	1,849	1,854
1-in-10 OM * (MW)	648	577	348	294	301	282
1-in-10 OM * (%)	12.1%	10.9%	10.0%	8.6%	16.3%	15.2%

\* Operating Margin (OM) (MW) = Total Supply – (Load + Reserves)  
 \* Operating Margin (OM) (%) = (Total Supply – (Load + Reserves)) / (Load + Reserves)

## 2. 2024 Summer Review

### 2.1 System Load

The 2024 summer was the hottest summer for Northern California area in the past 130 years. The Sacramento area experienced 45 days with the high temperature above 100 °F – as a comparison, the Sacramento area only has 23 days above 100 °F a year on average. The recorded BANC's peak load for the 2024 summer reached 4777 MW at 16:53:24 on July 11, 2024, which was 121 MW higher than BANC's peak load in 2023, but 166 MW lower than BANC's all-time peak load of 4,943 MW recorded in 2022.

Because BANC entities are located in different geographical areas, they may not reach their peak loads at the same time or date. The BANC entities' load levels at the time of the BANC peak load moment are defined as the simultaneous peak load and their individual peak load levels are defined as the non-simultaneous peak load.

The WAPA footprint reached its non-simultaneous peak load of 1635 MW at 17:52:32 on July 23, 2024, while the SMUD footprint reached its non-simultaneous peak load of 3168 MW at 16:52:28 on July 11, 2024 – the same day when BANC reached its peak load. At the BANC peak load moment of 16:53:24 on July 11, 2024, the WAPA footprint's simultaneous peak load was 1611 MW and the SMUD footprint's simultaneous peak load was 3166 MW.

Table 2-1 below shows the comparison of 1-in-2 non-simultaneous peak loads and actual non-simultaneous peak loads, and the actual simultaneous peak loads for BANC and all BANC entities in 2024.

Table 2-1: 2024 Simultaneous and Non-simultaneous Peak Loads vs. 2024 Forecasts

Entity	1-in-2 Non-simultaneous Peak Load Forecast (MW)	Actual Non-simultaneous Peak Load (MW)	Non-simultaneous Peak Load Forecast Error (MW)	Non-simultaneous Peak Load Forecast Error (%)	Actual Simultaneous Peak Load <sup>1</sup> (MW)
BANC BA	4616	4803	-187	-3.9%	4777
SMUD	3036	3168	-132	-4.2%	3166
MID	699	713	-14	-2.0%	688
RSC	331	362	-31	-8.6%	359
REU	232	241	-9	-3.7%	237
CSL	38	38	0	0.0%	32
TPUD	27	29	-2	-6.9%	25
WAPA Footprint	1580	1635	-55	-3.4%	1611

### 2.2 System Generation

An additional 3 MW of net metered solar generation went online in the BANC footprint in 2024 summer so that BANC's total installed generating capacity increased to 5437 MW. Although the

<sup>1</sup> The Actual Simultaneous Peak Load values came from the PI historian data.

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

2023-2024 water season was classified as “Above Normal”, BANC’s hydro generation produced less-than-average power due to some generation outages. Table 2 shows generation levels of BANC entities collected in PI at the 2024 BANC peak load moment (16:53:24 on 7/11/2024).

Table 2-2: BANC Entities Generation Levels at 2024 BANC Peak Load Moment

	Actual Simultaneous Generation (MW)	Forecasted Generation (MW)	Simultaneous Peak Load (MW)	Generation Capacity (MW)	Generation Output %
<b>BANC BA</b>	3306	2521	4777	5437	60.8%
<b>SMUD</b>	1809	1700	3166	2623	69.0%
<b>MID</b>	168	244	688	469	35.8%
<b>RSC</b>	172	161	359	239	72.0%
<b>REU</b>	61	171	237	182	33.5%
<b>CSL</b>	0	0	32	0	N/A
<b>TPUD</b>	0	0	25	0	N/A
<b>WAPA Footprint</b>	1497	1098	1611	2814	53.2%

### 2.3 System Import

The California-Oregon Intertie (COI) is the major transmission path for BANC entities to import power from Pacific Northwest area. For 2024 summer, the transfer capability of COI was reduced by approximately 250 MW due to the derate on various 500 kV transmission lines owned by PG&E. In addition, BANC entities’ hydro generation produced less-than-average power due to some generation outages. Therefore, BANC imported slightly higher-than-average power in 2024 summer, especially during peak hours. Table 2-3 below shows BANC entities’ simultaneous import levels at the 2024 peak load moment.

Table 2-3: BANC Entities’ Import Levels at 2024 Peak Load

	Actual Simultaneous Import (MW)	Forecasted Import (MW)	Simultaneous Peak Load (MW)	Import/Load Ratio
<b>BANC BA</b>	1471	1425	4777	30.8%
<b>SMUD</b>	1357	1336	3166	42.9%
<b>MID</b>	520	469	688	75.6%
<b>RSC</b>	187	201	359	52.0%
<b>REU</b>	176	61	237	74.3%
<b>CSL</b>	32	38	32	100.0%
<b>TPUD</b>	25	27	25	100.0%
<b>WAPA Footprint</b>	114	89	1611	7.1%

### **3. 2025 Summer Assessment**

In light of the rotating outages within the CAISO BAA that occurred during the 2020 summer, the potential resource shortfalls in CAISO and Western Power Pool (WPP) areas, and the reliance of BANC entities on the imports from the CAISO and WPP areas, more thorough and detailed analyses are performed to assess BANC's load and resource outlook and evaluate BANC's risk of energy or capacity shortages either during normal or emergency conditions. The key analyses and studies that are performed are summarized as follows:

- (1) Assess the critical hours of the peak load day, i.e., Hour Ending (HE) 16 through HE 21, to cover both the gross peak load as well as the net peak load
- (2) Calculate the hourly Effective Load Carrying Capability (ELCC) and Net Qualifying Capacity (NQC) for all resources and imports, such as Hydro, Thermal, Solar, Wind, etc.
  - Hydro ELCC and NQC are calculated based on the historical hydro capacity in the past 3 similar water years.
  - Thermal ELCC and NQC are calculated based on the ambient temperature derate and the forced outage data in the past 3 years.
  - Solar and Wind ELCC and NQC are calculated based on the actual generator outputs during the critical hours in the past 3 years.
- (3) Evaluate the detailed availability of import resources, including both the firm contracted resources and non-dependable import resources
- (4) Assess the availability of the Demand Response programs
- (5) Evaluate the Operating Margins for both the 1-in-2 peak load as well as the 1-in-10 peak load
- (6) Conduct Monte Carlo probability simulation to assess the Loss of Load Probability (LOLP) as follows:
  - Simulate 2,000 cases for each of the critical hours HE16 through HE21, representing 2,000 years of simulation
  - Simulate thermal generator outages based on the forced outage data of past 3 years
  - Simulate Hydro generator capacity based on the actual operating capacities in the past 3 similar water years
  - Simulate Solar and Wind generation outputs based on the actual data of past 3 years
  - Simulate load demand beyond 1-in-10 peak load forecast
  - Simulate the reduction of non-dependable import when the load is higher than 1-in-10 forecast, representing west-wide heatwaves
- (7) Perform analysis for some special operating conditions as listed below:
  - California Oregon Intertie (COI) derate due to wildfires tripping two 500 kV lines
  - CAISO BAA is in an Energy Emergency Alert 3 (EEA 3)
  - West-wide heatwave causing the reduction of non-dependable import
  - Impacts of wildfire smoke to the solar generation and system load

#### **3.1 Forecasted System Load**

Due to the increase of the renewable generation within BANC footprint, BANC's summer assessment will need to cover both the gross peak load and the net peak load. The gross peak load is the conventional peak load that is served with all resources. The net peak load is defined as the peak load that is served with dispatchable traditional resources, such as Hydro and Thermal, and is calculated as gross peak load less the non-dispatchable renewable generation.

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

As shown in Table 3-1 below, the forecasted BANC 1-in-2 gross peak load for the 2025 summer is 4686 MW, which is 91 MW lower than the actual 2024 BANC peak load of 4777 MW. The forecasted BANC 1-in-10 gross peak load is 5004 MW, which is 61 MW higher than BANC's all-time peak load of 4943 MW recorded in 2022. For 2025 summer, the hourly load profiles for the critical hours (HE16 through HE21) are developed for all BANC entities based on the historical hourly load data to assess both the gross peak load and the net peak load. The load profiles showed that BANC's gross peak load is at HE17 and the net peak load is at HE18.

Table 3-1: 2025 Forecasted Gross and Net Peak Loads for BANC Entities

	Forecasted 1-in-2 Gross Peak Load (MW)	Forecasted 1-in-2 Net Peak Load (MW)	Forecasted 1-in-10 Gross Peak Load (MW)	Forecasted 1-in-10 Net Peak Load (MW)
<b>SMUD</b>	3060	2796	3305	3041
<b>WAPA Footprint</b>	1626	1612	1699	1686
<b>MID</b>	705	687	750	732
<b>Roseville Electric</b>	363	363	384	384
<b>REU</b>	235	235	237	237
<b>Shasta Lake</b>	34	34	38	38
<b>Trinity PUD</b>	27	27	28	28
<b>Forecasted BANC Peak Load</b>	4686	4408	5004	4727

Figure 3-1 below shows a comparison of forecasted 2025 non-simultaneous 1-in-2 peak loads with the historical peak loads since 2006 for BANC, SMUD, and WAPA.

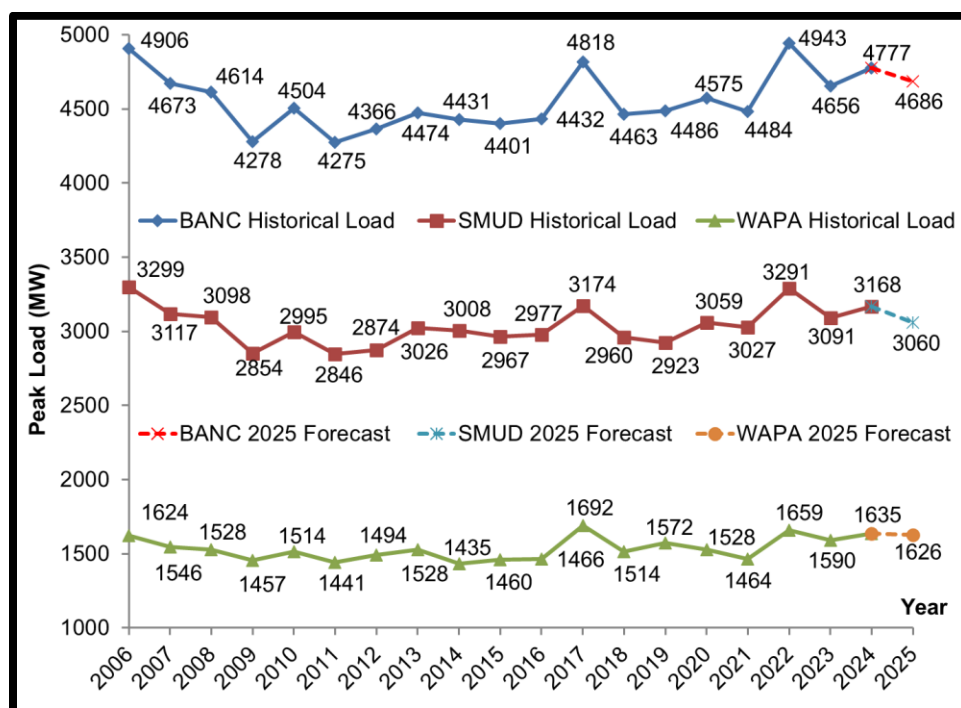


Figure 3-1: 2025 Forecasted Peak Load vs. Historical Peak Load

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

Figure 3-1 shows that all BANC entities' peak loads declined significantly due to the economic recession after the previous all-time peak recorded during the 2006 multi-day heatwave. The subsequent peak load demands reached their lowest in 2011 and then started recovering. Due to the unusual heatwaves and economic recovery from the recession, BANC's 2017 peak load reached the highest level since 2006, despite the increased installations of the behind-the-meter photovoltaic solar generation. Several BANC entities, such as MID, RSC, CSL, and WAPA footprint, even set their new all-time peak load records in 2017. In 2018 and 2019, BANC entities peak loads have been fairly flat due to the increased installations of BTM solar and SMUD's implementation of the Time-Of-Day rates in 2019.

Two extreme heatwaves hit California and the western U.S. in 2020 summer, the original day-ahead load forecast showed that the loads of BANC BA and all BANC entities might get close to or even higher than the all-time peak. However, the severe smoke and ash from the wildfires reduced solar radiation such that the forecasted loads did not materialize. Despite the reduction in solar radiation, MID and CSL still set new peak load records in 2020.

In 2022 summer, an extreme heat wave occurred in California from August 30<sup>th</sup> to September 9<sup>th</sup> such that the Sacramento area experienced 10 consecutive days above 100 degrees with a new highest temperature record of 116 degrees. BANC also set a new all-time peak load of 4943 MW.

The Figure 3-2 below shows the highest temperatures in Sacramento area in recent years. BANC's peak load occurred either on these days or the subsequent days due to the impact of holidays or weekends, except for 2017, when BANC's peak load occurred on 6/20/2017, instead of 8/28/2017. The data also shows that the highest temperature day has been occurring more in August in recent years. In addition, considering that the hydro generator capabilities and solar generation in August are lower than June and July, this assessment assumes the 2025 BANC peak load day to be in August as it will represent the most severe operating condition.

Max °F	Date	Max °C
113	July 11, 2024	45
109	July 16, 2023	43
116	September 6, 2022	47
113	July 10, 2021	45
112	August 16, 2020	44
107	August 15, 2019	42
109	July 25, 2018	43
109	August 28, 2017	43
108	July 26, 2016	42
108	July 29, 2015	42
107	August 1, 2014	42
110	July 4, 2013	43
107	August 13, 2012	42
102	July 5, 2011	39
108	August 25, 2010	42

Figure 3-2: The Highest Sacramento Temperatures in Recent Years

## 3.2 Forecasted Resource Supply

In 2024, 3 MW of net metered solar generation in SMUD footprint went online and there will be 52 MW of new solar generation coming online during 2025 summer. One-half of SEC (275 MW) will continue to be available as a part of SMUD's generation. Thus, BANC's total installed generation capacity will increase to 5489 MW, of which, 2704 MW (49.3%) is hydro generation, 2323 MW (42.3%) is thermal generation, 16 MW (0.3%) is biogas generation, and 443 MW (8.1%) is solar generation. In total, 57.7% of the installed generation capacity within BANC is carbon-free.

As one half of BANC's generation capacity is Hydro, it is critical to forecast hydro generation capabilities based on the Water Conditions, including reservoir levels, snowpack levels, precipitations, and snowmelt runoffs. According to the CDWR's website, the 2025 Water Conditions as of April 1, 2025, are summarized as follows:

- USBR's CVP reservoirs were at approximately 118% of historical average (Figure 3-3).
- Northern Sierra snowpack was at 118% of its historical average (Figure 3-4).
- Northern California precipitation was at 118% of its historical average (Figure 3-5).
- Forecasted statewide snowmelt runoff is projected to be 105% of an average water year (Figure 3-6).
- SMUD's storage reservoirs were at 106% of historical average and the inflow to the storage reservoirs is projected to be 121% of median.

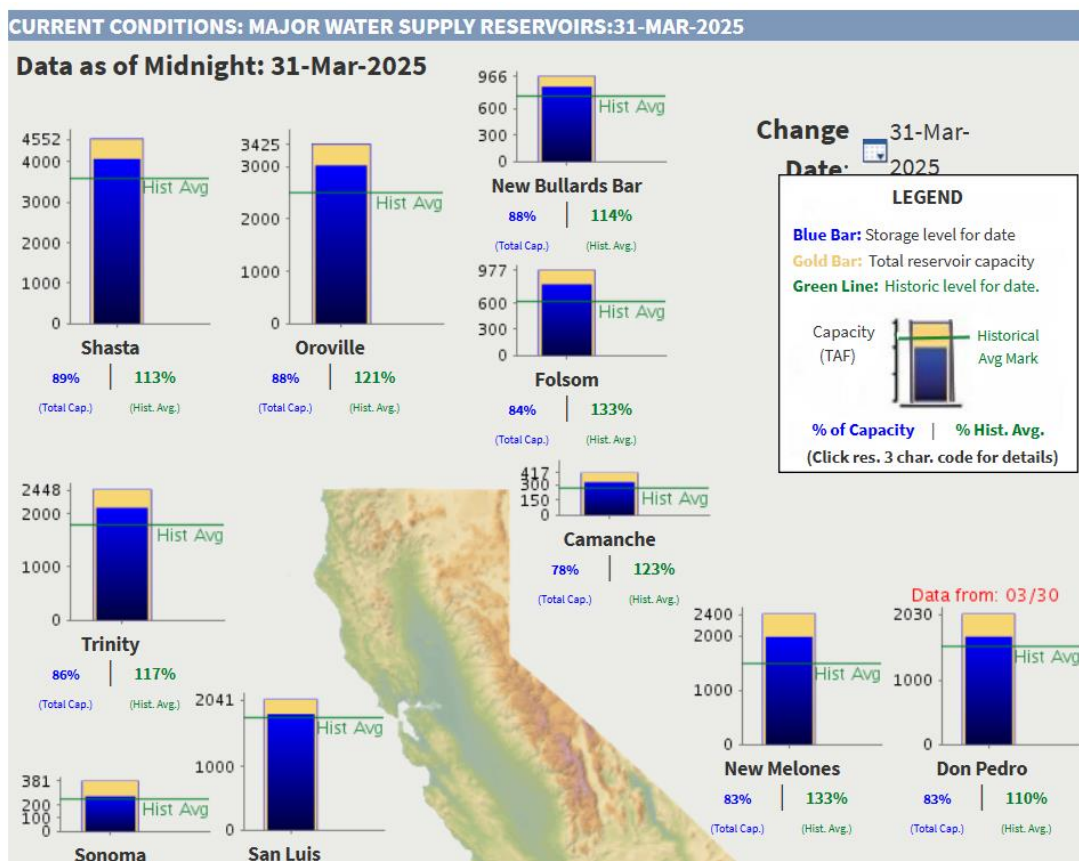


Figure 3-3: Northern California Major Reservoir Levels as of 4/1/2025

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

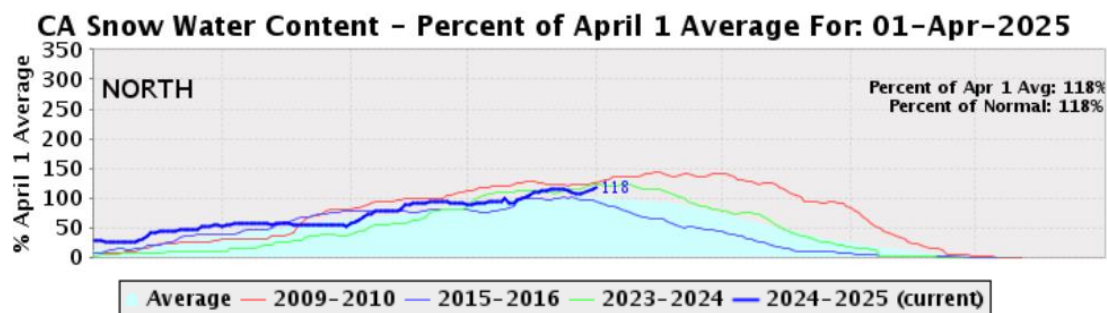


Figure 3-4: Northern CA Snowpack as of 4/1/2025 Compared with 3 Similar Historical Years

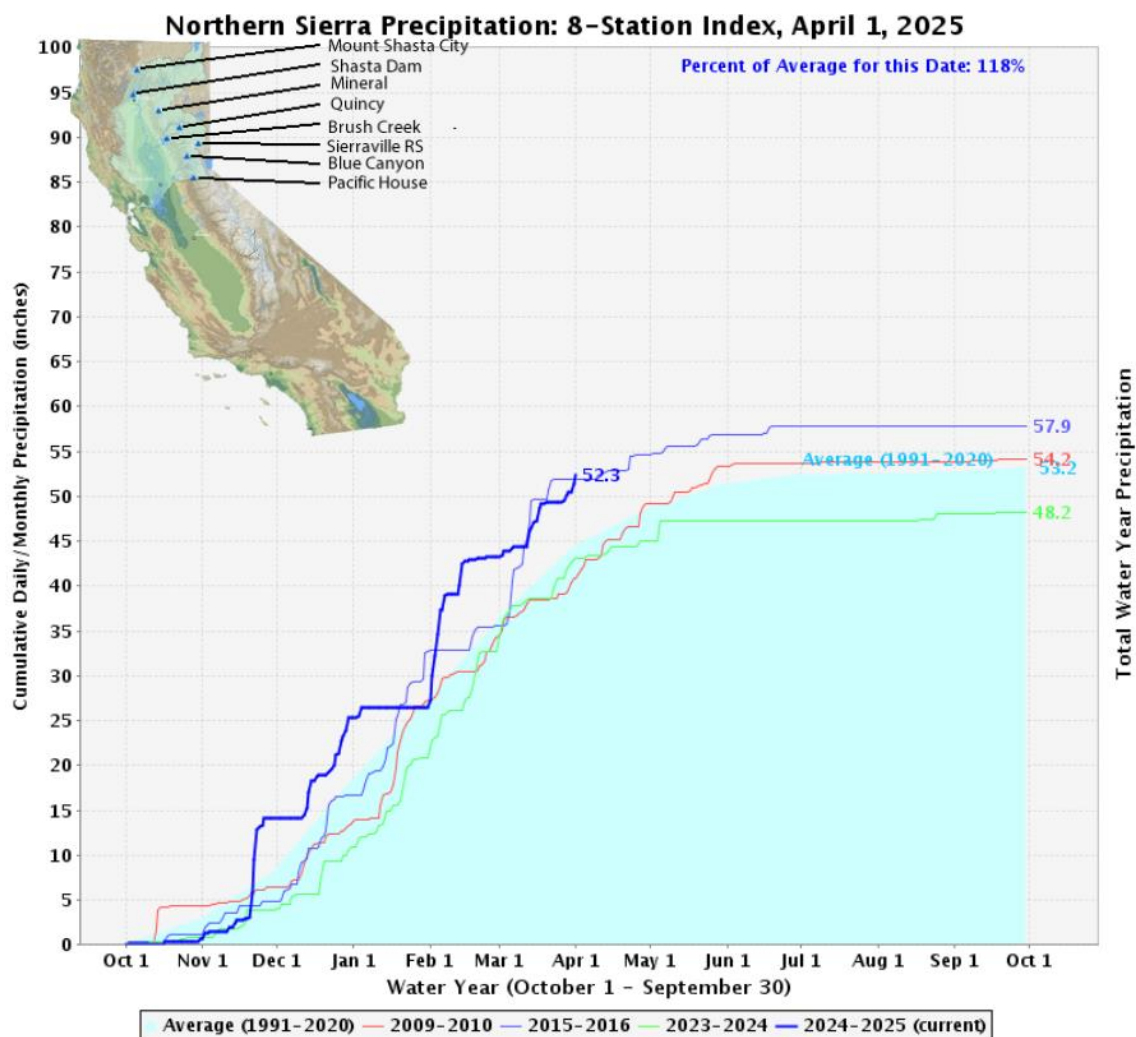


Figure 3-5: Northern CA Precipitation as of 4/1/2025 Compared with 3 Similar Historical Years

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

### UNIMPAIRED FLOW FOR - March 25, 2025

(Provisional data, subject to change)

Report generated: March 27, 2025 10:50

WATER YEAR FORECAST SUMMARY AND MONTHLY DISTRIBUTION (IN THOUSANDS OF ACRE-FEET)													
WATERSHED	OCT THRU JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	WATER YEAR TOTAL	80% PROBABILITY RANGE		WY % AVERAGE
											90%	10%	
Trinity, Lewiston	491	290	210	275	330	195	50	14	10	1,865	1,660	2,225	141
Inflow to Shasta	2,122	1,552	960	845	630	350	255	225	221	7,160	6,455	8,335	127
Sacramento, Bend	3,407	2,496	1,350	1,110	800	480	330	282	285	10,540	9,500	12,690	126
Feather, Oroville	1,542	1,550	780	750	680	310	140	102	86	5,940	5,390	7,350	137
Yuba, Smartsville	506	633	310	360	400	145	35	18	18	2,425	2,120	3,085	107
American, Folsom	333	622	370	420	460	190	40	15	10	2,460	2,090	3,265	91

Figure 3-6: Forecasted Snowmelt Runoffs as of 4/1/2025

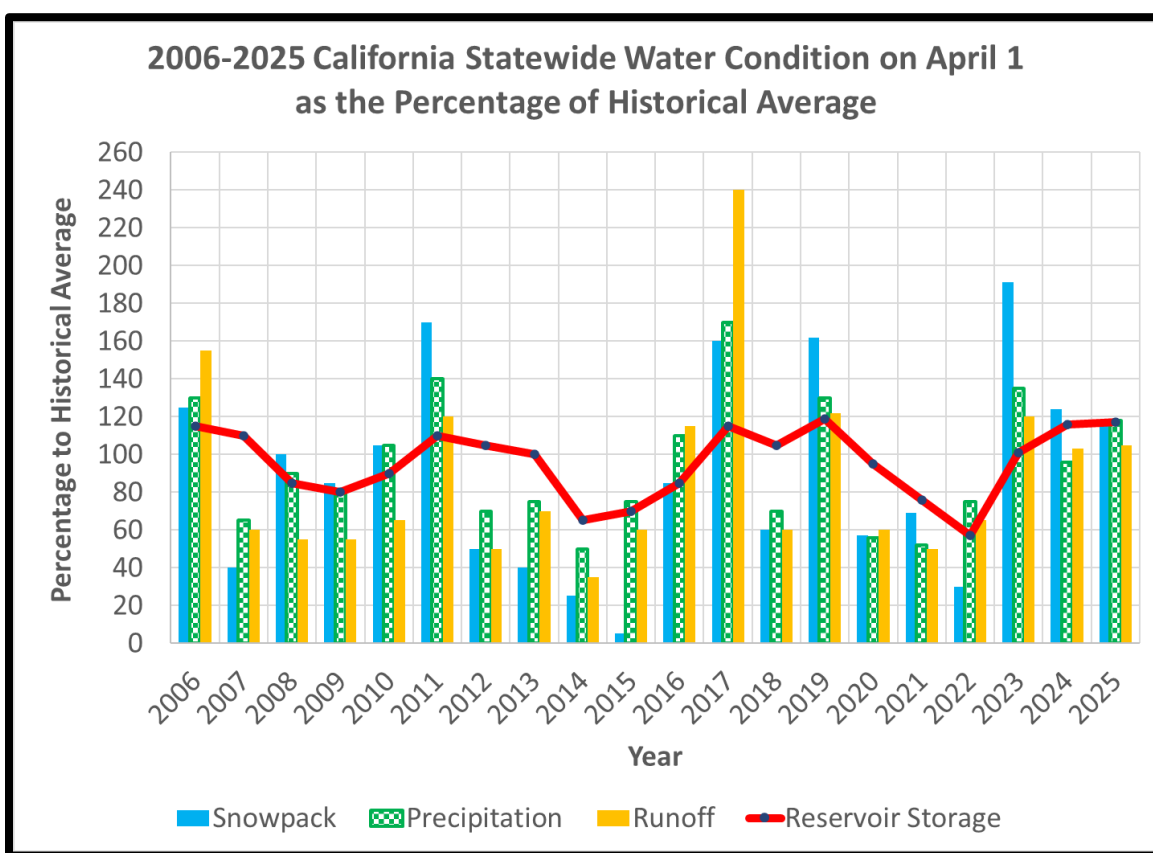


Figure 3-7: 2006-2025 California Statewide Water Condition on April 1

Based on the current outage information, a total of 286 MW generation outages will go through the summer such that the total hydro power production might be slightly lower than the historical average level.

Although BANC's installed generation capacity will reach 5489 MW, not all this MW capacity can be available to serve load. There are several factors that will limit generator's capacities, especially during the critical hours (HE16~HE21) of the peak load day. For example, thermal generators will be derated due to high ambient temperature, hydro generators will be derated due to lower reservoir levels, and solar generators will reduce output when sun sets. To accurately

assess BANC's ability to serve load, more detailed studies are performed to calculate BANC generators' Effective Load Carry Capability (ELCC) and Net Qualifying Capacity (NQC).

ELCC is a metric to evaluate how effective a generator can be to serve load for a given hour of the year and is defined as the percentage of a generator's installed capacity (i.e.,  $P_{max}$ ) in this assessment. ELCC can be calculated for each individual generator or for a group of generators with similar characteristics.

NQC is defined as the MW capacity of a generator that can be counted in the resource plan to serve the load for a given hour of the year and can be calculated as:

$$NQC = ELCC * P_{max}$$

Different types of generators have different characteristics and therefore different ways of calculating the ELCC and NQC. In this summer assessment, the monthly ELCC and NQC are used and they are calculated as monthly values for each 24 hours of the day.

### 3.2.1 Hydro Generator ELCC and NQC

Within BANC footprint, there are storage hydro generators and run-of-river hydro generators but no pumped-storage hydro generators. For this summer assessment,

- Storage hydro generators' monthly ELCC and NQC are calculated as the average of the hourly historical operating capacity in each summer month of the past 3 similar water years.
- Run-of-river hydro generators' monthly ELCC and NQC are calculated as the average of the hourly actual output in each summer month of the past 3 similar water years.
- Based on the 2025 Water Conditions shown in Figure 3-3 through Figure 3-7, 2010, 2016, and 2024 are selected as similar water years.

### 3.2.2 Thermal Generator ELCC and NQC

As shown in Figure 3-2, BANC entities' peak load in recent years occurred on a hot summer day with temperature between 107 °F and 116 °F and the maximum capacities of thermal generators on the peak load day will be lower than their nameplate capacities. In this assessment, all BANC's thermal generators will use their ambient temperature derated capacities at 112 °F.

In addition, although these thermal generators will normally not have planned outages during summer months, unexpected, or forced outages do occur occasionally. To account for this impact, the Average Forced Outage Rates (AFORs) are calculated for all thermal generators using the historical forced outage data in the summer months of the past 3 years. Therefore, for thermal generators,

$$\text{Thermal ELCC} = 1 - \text{AFOR}$$

$$\text{Thermal NQC} = \text{ELCC} * P_{max} \text{ at } 112 \text{ } ^\circ\text{F}$$

### 3.2.3 Solar and Wind Generation ELCC and NQC

The hourly solar and wind generators' ELCC are calculated as the average solar outputs for each hour for the days with temperature higher than or equal to 100 °F in the month of August of the

past 3 years. The new solar generation will use the data of the nearby solar generation with similar solar panel technology.

### 3.3 Forecasted System Import

The California Oregon Intertie (COI) is the major path for BANC entities to import capacity and energy from Pacific Northwest (Washington and Oregon) sources. In the 2025 summer, although the COI operating nomogram has increased by 300 MW under lower Northern California Hydro conditions, this increased transmission capacity would not be realized in this summer due to the transmission limitations in Pacific Northwest area.

According to National Oceanic and Atmospheric Administration (NOAA), the water supply of the Columbia River – the major river supporting hydroelectric power generation in Pacific Northwest (PNW), was forecasted to be 90% of the 30-year average at the Dalles Dam as of April 1, 2025, indicating a slightly lower-than-normal hydro energy supply from PNW for this summer.

In order to accurately assess the imports that BANC entities can obtain during the high load days, this assessment classifies BANC entities' imports into three categories:

- WAPA Base Resources (adjusted by WAPA's Hydro ELCC)
- Contracted Firm Imports from PNW or CAISO (adjusted by ELCC for Hydro, Solar, Wind)
- Non-Dependable Imports

The Non-Dependable Import is defined as the import which is expected to achieve in the week-ahead or day-ahead timeframe based on historical real-time import data. The Non-Dependable Import is not backed-up with long-term firm contracts and could come from the PNW and/or CAISO market with the risk that there may not be sufficient energy/capacity available in the week-ahead or day-ahead timeframe during a west-wide heat wave.

In order to calculate the hourly Expected Non-Dependable Import for each BANC entity, the Expected Max Import is calculated for each BANC entity as the average of the maximum hourly historical real-time import for the month of August in the past 3 years on high load days. Then, the equation is as follows:

$$\text{Expected Non-Dependable Import} = \text{Expected Max Import} - \text{Firm Import}$$

### 3.4 Forecasted System Export

All the BANC entities rely on imports to serve load on the high load days, except WAPA, which will export a portion of its Base Resources to the entities within CAISO BAA per contract. In this assessment, the hourly Expected Export is calculated for WAPA as the average of the hourly historical real-time export for the month of August in the past 3 years.

### 3.5 Forecasted Demand Response

Demand Response (DR) can reduce end-user loads in response to high prices, financial incentives, environmental conditions, or reliability issues. DR can play an important role to offset

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

the need for more generation and provide grid operators with additional flexibility in operating the system during periods of limited supply. There are several DR programs, including California State's Demand Side Grid Support (DSGS) program, available within BANC BAA with a maximum amount of 105 MW. However, these DR programs have different contracts to be available on different days and hours. Therefore, the hourly DR profiles are created for all BANC entities in this assessment.

### 3.6 Forecasted Operating Reserves

Per NERC/WECC Reliability Standards, BANC shall maintain sufficient Regulating Reserve and Contingency Reserve during real-time operations. In this summer assessment, the amount of Operating Reserves (Regulating Reserve plus Contingency Reserve) is calculated for each hour and is considered as a part of BANC's load obligation.

### 3.7 Scheduled Generation and Transmission Outages

According to the current available information, USBR's Spring Creek Unit #1 (95 MW) and New Melones Unit #2 (191 MW) are on major maintenance throughout the summer peak months – June, July, and August. In addition, COI will have a light derate of 200 MW due to the outage of Round Mountain-Table Mountain #1 500 kV line series capacitor. Table 3-2 below lists the major transmission and generation outages within the BANC footprint and the surrounding areas for the 2025 summer.

Table 3-2: Scheduled Major Outages for 2025 Summer

Start Time	End Time	Outage Facility	Description	Outage Area	Outage Impact
12/02/2024	12/31/2025	Spring Creek Unit #1	Major Maintenance	WAPA	95 MW generation outage
03/21/2025	09/21/2025	New Melones Unit #2	Major Maintenance	WAPA	191 MW generation outage
04/21/2025	06/13/2025	Shasta Unit 2	Maintenance	WAPA	142 MW generation outage
06/01/2025	11/01/2025	Round Mountain-Table Mountain #1 500 kV Line Series Cap	Maintenance	CAISO	200 MW COI N->S derate
06/09/2025	06/20/2025	Jaybird Unit #2	Maintenance	SMUD	76 MW generation outage
08/25/2025	08/29/2025	Folsom Unit #1	Maintenance	WAPA	70 MW generation outage
09/29/2025	10/31/2025	Consumnes Power Plant	Maintenance	SMUD	612 MW generation outage
10/1/2025	11/01/2025	Olinda-Tracy 500 kV Line	Maintenance	WAPA	700 MW COI N->S derate
10/1/2025	11/30/2025	Roseville Energy Park	Maintenance	WAPA	168 MW generation derate

### 3.8 Forecasted Base Case Supply & Demand Outlook

In the base case assessment, the average August ELCC are used for all resources – Hydro, Thermal, and Solar, and the Operating Margins (OMs) are calculated for BANC BA, and SMUD and WAPA footprints for both 1-in-2 and 1-in-10 forecasted peak loads as follows:

$$\text{Operating Margin} = \text{Generation NQC} - \text{Outages} + \text{Import} - \text{Export} + \text{DR} - \text{Load} - \text{Reserves}$$

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

The Operating Margin calculated in this assessment is different than the Planning Reserve Margin (PRM) that is used in the Resource Adequacy analysis as reserves are counted as a part of the load obligation. Table 3-3 defines the operating conditions for the BANC BA per NERC Reliability Standard EOP-011-4. As SMUD and WAPA will provide emergency assistance to each other, they would be in EEA conditions only when the BANC BA is in EEA conditions.

Table 3-3: BANC Operating Condition Definitions

Operating Condition	BA Status	Note
OM $\geq$ DR	Sufficient OM	No need to utilize DR
0 $\leq$ OM < DR	EEA 2	BA relies on DR to maintain Reserves
OM < 0 & OM + Reserves $\geq$ 0	EEA 3	BA unable to maintain Reserves
OM + Reserves < 0	Firm Load Shedding	BA unable to serve all load

The base case results show that BANC BA, SMUD footprint, and WAPA footprint all have sufficient resource supplies to meet the forecasted 1-in-2 and 1-in-10 load demands and reserve requirements for 2025 summer with sufficient Operating Margins (OMs) as shown in Table 3-4 below when counting the expected Non-Dependable Imports.

Table 3-4: 2025 Summer Base Case Load & Resource Outlook at Gross & Net Peak Hours

	BANC BA		SMUD Footprint		WAPA Footprint	
2024 Generation (MW)	5,437		2,623		2,814	
Generation Outage (MW)	(286)		(0)		(286)	
Retired Generation (MW)	0		0		0	
New Generation (MW)	52		52		0	
2025 Generation (MW)	5,203		2,675		2,528	
Peak Load Hour	HE17	HE18	HE17	HE18	HE17	HE18
Equivalent ELCC	82.5%	81.5%	82.0%	80.1%	83.1%	83.1%
Total Generation NQC (MW)	4,294	4,242	2,193	2,142	2,101	2,100
Forecasted Import (MW)	2,301	2,230	1,556	1,496	745	734
Forecasted Export (MW)	(712)	(712)	0	0	(712)	(712)
Demand Response (MW)	104	104	89	89	15	15
Total Supply (MW)	5,987	5,864	3,838	3,727	2,149	2,137
1-in-2 Load + Reserves (MW)	5,000	4,952	3,231	3,178	1,769	1,774
1-in-2 OM * (MW)	987	912	606	549	380	363
1-in-2 OM * (%)	19.7%	18.4%	18.8%	17.3%	21.5%	20.5%
1-in-10 Load + Reserves (MW)	5,339	5,287	3,490	3,433	1,849	1,854
1-in-10 OM * (MW)	648	577	348	294	301	282
1-in-10 OM * (%)	12.1%	10.9%	10.0%	8.6%	16.3%	15.2%

\* Operating Margin (OM) (MW) = Total Supply – (Load + Reserves)  
 \* Operating Margin (OM) (%) = (Total Supply – (Load + Reserves)) / (Load + Reserves)

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

The Figure 3-8 through Figure 3-10 show the charts of the resource stack vs. load + reserve on the forecasted peak load day over the critical hours of HE16~HE21 under the base case conditions for BANC BA, SMUD footprint, and WAPA footprint.

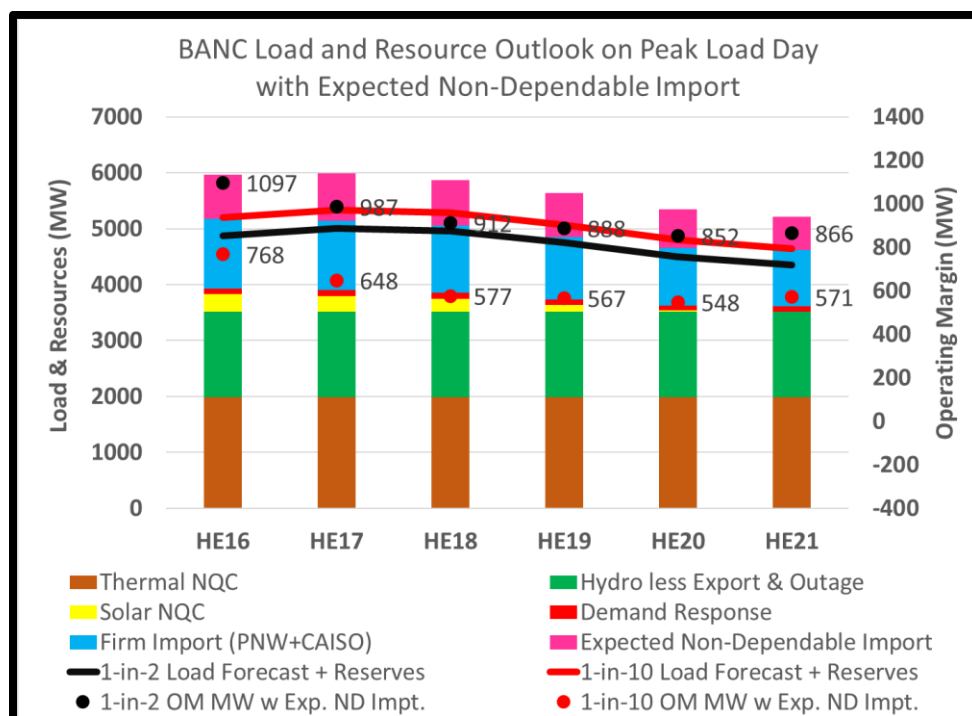


Figure 3-8: BANC Base Case Load and Resource Outlook on Peak Load Day

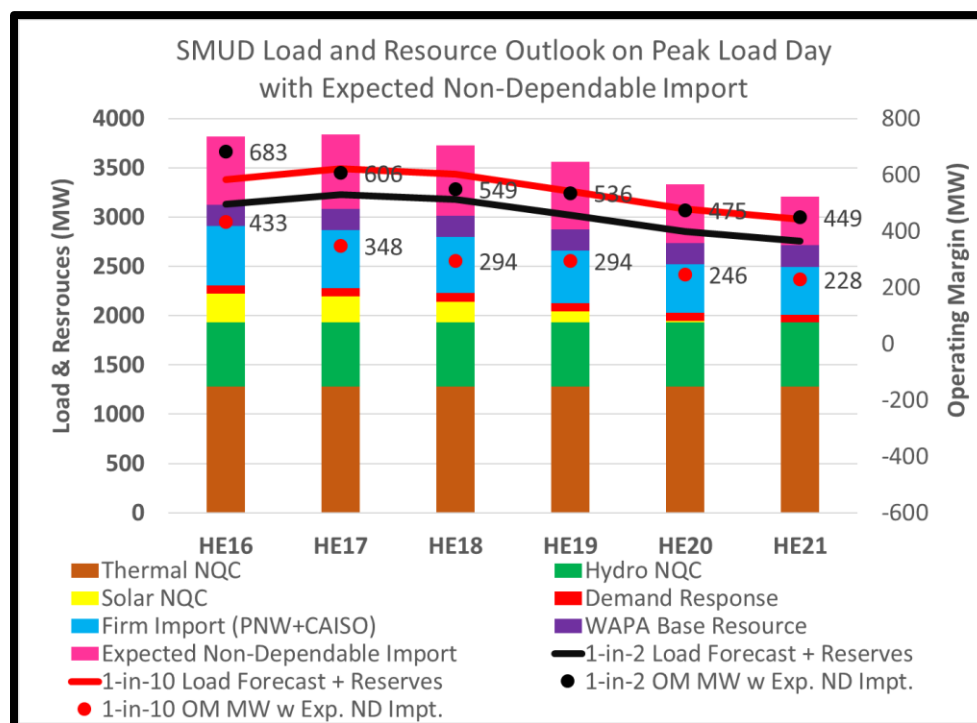


Figure 3-9: SMUD Base Case Load and Resource Outlook on Peak Load Day

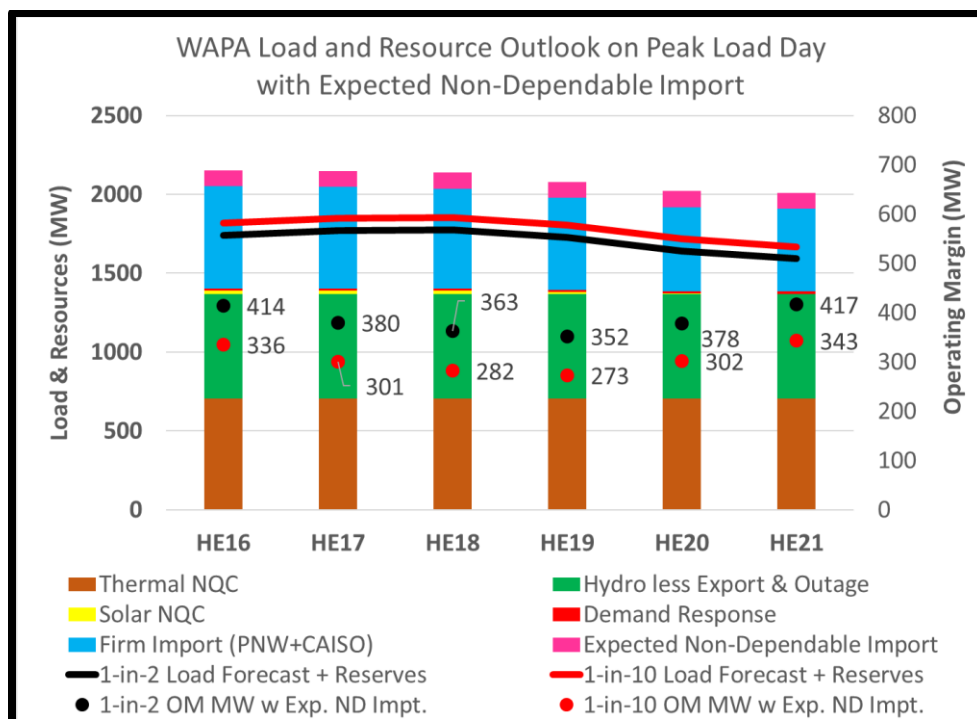


Figure 3-10: WAPA Base Case Load and Resource Outlook on Peak Load Day

Below is a summary of SMUD, WAPA, and BANC's 2025 load and resource outlook:

- SMUD's 2025 total resource supply is slightly lower than 2024 due to lower estimated Imports. In addition, SMUD's 2025 1-in-2 and 1-in-10 load forecasts are also slightly higher than 2024. Therefore, SMUD's 2025 operating margins are estimated to be approximately 100 MW (or 3%) lower than 2024.
- Although 2025 has a "Above Normal" water condition, WAPA's 2025 CVP hydro capacity is estimated to be lower than 2024 due to the planned outages of Spring Creek Unit #1 (95 MW) and New Melones Unit #2 (191 MW). Therefore, WAPA's 2025 operating margins are estimated to be approximately 30 MW (or 1.5%) lower than 2024.
- Overall, from BANC BA's perspective, the estimated 2025 operating margins for both 1-in-2 and 1-in-10 peak loads are approximately 100 MW (or 2%) lower than 2024 when counting the expected non-dependable imports.

### 3.9 Monte Carlo Probability Simulation

There are numerous uncertain factors that could affect the actual real-time operating conditions in the upcoming summer, such as unexpected generator outages may occur at any time, water conditions may still change, and extreme heat wave may cause load beyond the 1-in-10 forecast, etc. In order to further evaluate the risks that BANC BA and all BANC entities may encounter in the summer, the Monte Carlo probability simulation is conducted to assess BANC's Loss of Load Probability (LOLP).

The Monte Carlo probability simulation produces a series of random sampling of data based on mathematical distribution, such as Normal Distribution. Then, the operating conditions are

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

developed based on the randomly sampled data to evaluate the operating risks. The simulated operating conditions are summarized as follows:

- Simulate 2,000 cases for the critical hours HE16~HE21 of the peak load day, representing 2,000 years of simulation.
- Simulate thermal generator outages based on the Average Forced Outage Rate (AFOR) in the past 3 years, i.e., any thermal generator could be forced out of service based on AFOR.
- Simulate hydro generator capacity based on the actual operating capacity in the past 3 similar water years. The hydro generator capacity could be at any level between the minimum level and the maximum level that occurred during the past 3 similar water years.
- Simulate Solar and Wind generation output based on the historical data in the past 3 years. As the solar and wind generation are related to the temperature, solar and wind generation are simulated to be between the maximum and minimum levels in the past 3 years on the days when the temperature exceeded 100 °F.
- Simulate load demand beyond 1-in-10 peak load forecast.
- Simulate the reduction of non-dependable import when the load is higher than 1-in-10 forecast, indicating a West-Wide heat wave. The non-dependable import will be reduced to zero when the load reaches 1-in-20 forecast and beyond.
- The operating condition definitions in Table 3-2 are used to determine BANC BA status.

As shown in the Table 3-5 through Table 3-7 below, the LOLP study results indicate that

- (1) BANC BA has a risk of 7.20% (or 1 day in 13 years) to be in EEA 3 and a risk of 4.20% (or 1 day in 23 years) with unserved energy. Although BANC's risk of having unserved energy (i.e., firm load shedding) is slightly higher than the firm load shedding risk of 2.80% (or 1 Day in 35 Years) in 2024, it is still well below the industry LOLP benchmark of 10% (or 1 day in 10 years).
- (2) WAPA maintains sufficient Operating Margins in all 2000 cases.
- (3) SMUD has a risk of 8.55% (or 1 day in 11 years) to not be able to maintain a positive Operating Margin and a risk of 7.35% (or 1 Day in 13 Years) with unserved energy, which is slightly higher than 2024's unserved energy risk of 7.0% (or 1 Day in 14 Years).

Table 3-5: BANC LOLP Study Results

BA Status	EEA 2	EEA 3	Unserved Energy
Number of Cases	154	144	84
Probability	7.70%	7.20%	4.20%
Number of Years	1 Day in 12 Years	1 Day in 13 Years	1 Day in 23 Years

Table 3-6: WAPA LOLP Study Results

WAPA Status	OM < DR	OM < 0	Unserved Energy
Number of Cases	0	0	0
Probability	0%	0%	0%
Number of Years	N/A	N/A	N/A

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

Table 3-7: SMUD LOLP Study Results

SMUD Status	OM < DR	OM < 0	Unserved Energy
Number of Cases	196	171	147
Probability	9.80%	8.55%	7.35%
Number of Years	1 Day in 10 Years	1 Day in 11 Years	1 Day in 13 Years

### 3.10 Wildfire Outlook

As California is becoming hotter and drier in recent years, climate changes expand California's wildfire threat area and lengthen the fire season, increasing the risk and the impacts of the wildfires. The wildfire threat has become the No.1 risk to California utility operations. The Carr Fire and the Camp Fire in 2018 caused devastating impacts to people's lives. With an "Above Normal" 2024-2025 water season, more vegetation will grow and turn into dry vegetation in late summer, which may expand wildfire risk, potentially impacting the availability of transmission lines and generating units. Potential wildfires in or near the 500 kV line corridors pose a significant risk of derate to the COI (such as the Tucker Fire in July 2019, the Bootleg Fire in July 2021, and the Park Fire and the Pine Fire in 2024), and potential wildfires in the mountain areas could affect the availability of hydro generating units (such as the King Fire in 2014 and the Carr Fire in 2018). Public Safety Power Shutoff (PSPS) is instituted by California utilities as a measure to mitigate wildfire risks. Under a program to coordinate impacts of PSPS, the CAISO BA agrees to provide emergency support to BANC BA when a PSPS event that is initiated by PG&E impacts the COI and reduces the import capability of BANC entities to the point of threatening service to load.

According to the National Significant Wildland Fire Potential Outlook released by the Predictive Services National Interagency Fire Center on May 1, 2025, the wildfire risk for June, July, and August is "Above Normal" for Northern California as shown in the Figure 3-11 below.

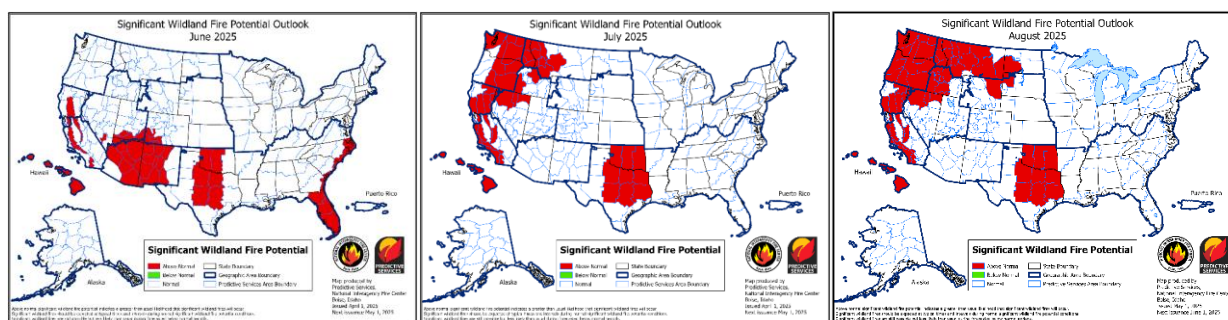


Figure 3-11: U.S. Significant Wildland Fire Potential Outlook for June, July, and August 2025

### 3.11 Special Operating Scenarios

In addition to the base case analysis and LOLP study, four special operating scenarios are also simulated to assess the potential risks that BANC may face in the upcoming summer.

### 3.11.1 Loss of Two 500 kV Lines Due to Wildfires

In the past several years, the wildfires created significant impacts to the California's transmission grid, such as the Carr Fire in 2018 (tripped nine 230 kV lines), the Tucker Fire in 2019 (tripped two 500 kV lines), the Lake Fire in 2020 (tripped two 500 kV lines), the Bootleg Fire in 2021 (tripped three 500 kV lines), the Park Fire in 2024 (tripped two 500 kV lines), and the Pine Fire in 2024 (tripped three 500 kV lines).

In order to capture the significant operational risk, the scenario that two of the 500 kV lines in the COI transmission corridor trip due to wildfire is simulated to assess the impacts to BANC entities under both 1-in-2 and 1-in-10 load forecasts. The results are shown in Figure 3-12 through Figure 3-14 and are summarized as follows:

- With the loss of two COI 500 kV lines, BANC would need to curtail more than 800 MW imports from PNW region which is approximately 70% of the total imports from PNW.
- Under 1-in-2 load condition, BANC would be in EEA 3 with SMUD area having potential firm load shedding risk.
- Under 1-in-10 load condition, BANC, mainly the SMUD footprint, would face significant risk of firm load shedding.
- The WAPA footprint would be able to maintain sufficient operating margins under both 1-in-2 and 1-in-10 load conditions.

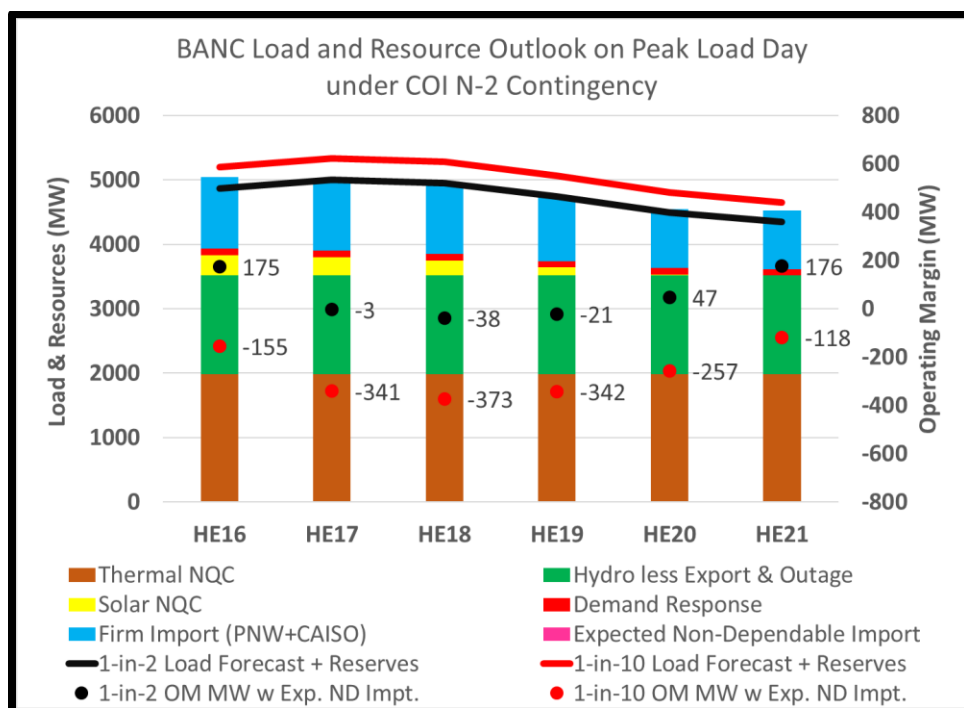


Figure 3-12: BANC Load & Resource Outlook under COI N-2 Contingency Due to Wildfires

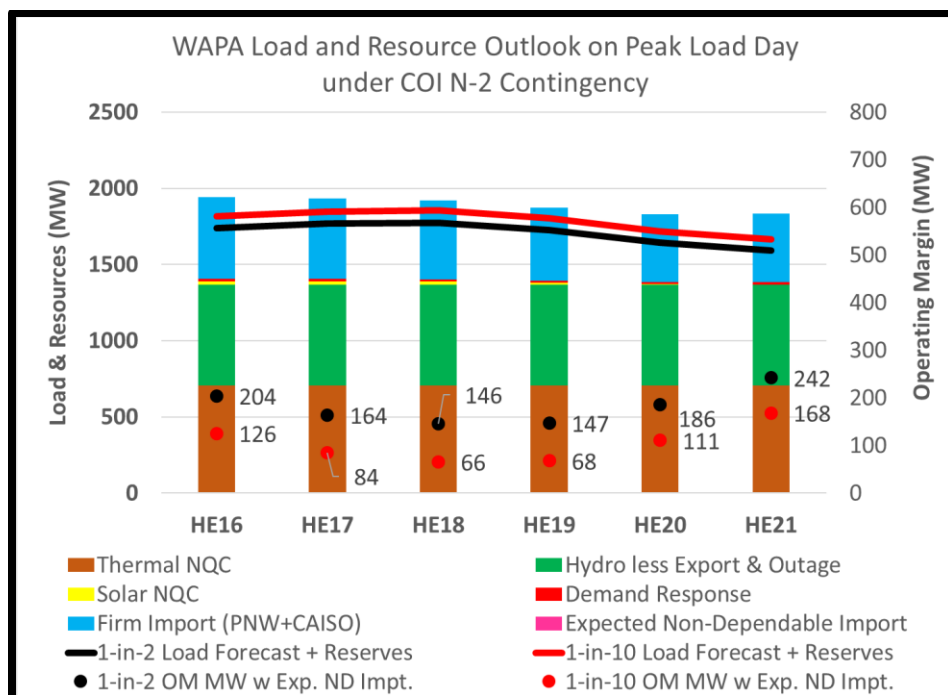


Figure 3-13: WAPA Load & Resource Outlook under COI N-2 Contingency Due to Wildfire

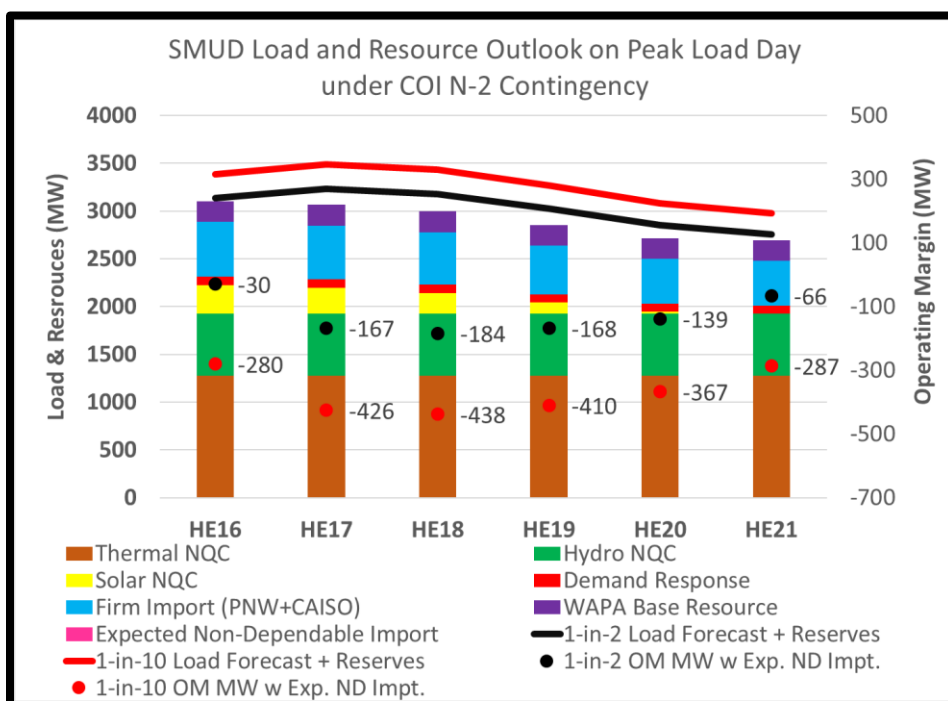


Figure 3-14: SMUD Load & Resource Outlook under COI N-2 Contingency Due to Wildfire

### 3.11.2 Extreme West-Wide Heatwave

The BANC entities rely upon the energy and capacity that can be procured in the week-ahead and day-ahead timeframes from PNW and/or CAISO areas to serve load. These energy and capacity are normally available for BANC entities to import. However, they are non-dependable imports as they are not supported by long-term firm contracts. If an extreme west-wide heatwave

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

causes high loads across the western U.S., those non-dependable energy and capacity may not be available to import.

This special operating scenario is evaluated in this assessment, where it is assumed that an extreme west-wide heatwave impacts the western U.S causing 1-in-20 load in BANC with no non-dependable imports available. The simulated 1-in-20 loads are listed in Table 3-8 together with the 1-in-2 and 1-in-10 load forecasts as a comparison.

Table 3-8: Simulated 1-in-20 Peak Loads for BANC Entities

	Forecasted 1-in-2 Gross Peak Load (MW)	Forecasted 1-in-10 Gross Peak Load (MW)	Simulated 1-in-20 Gross Peak Load (MW)
<b>SMUD</b>	3060	3305	3374
<b>WAPA Footprint</b>	1626	1699	1720
<b>MID</b>	705	750	762
<b>Roseville Electric</b>	363	384	390
<b>REU</b>	235	237	238
<b>Shasta Lake</b>	34	38	39
<b>Trinity PUD</b>	27	28	28
<b>BANC Total</b>	4686	5004	5094

As shown in Figure 3-15 through Figure 3-17, the analysis results indicate that BANC would be in EEA 3 with SMUD area having potential risk of firm load shedding risk for 1-in-20 load. This is due to the high forecasted load and higher than normal reliance on the non-dependable import. On the other hand, WAPA would still be able to maintain sufficient Operating Margin.

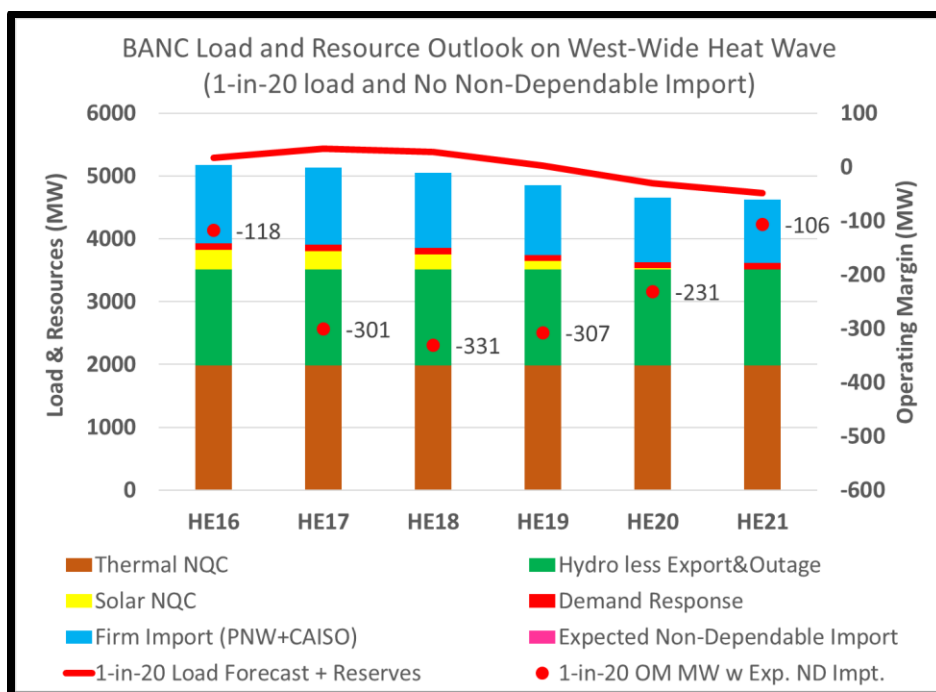


Figure 3-15: BANC Load & Resources Outlook with 1-in-20 Load and No ND Import

## 2025 BANC SUMMER LOAD & RESOURCE ASSESSMENT

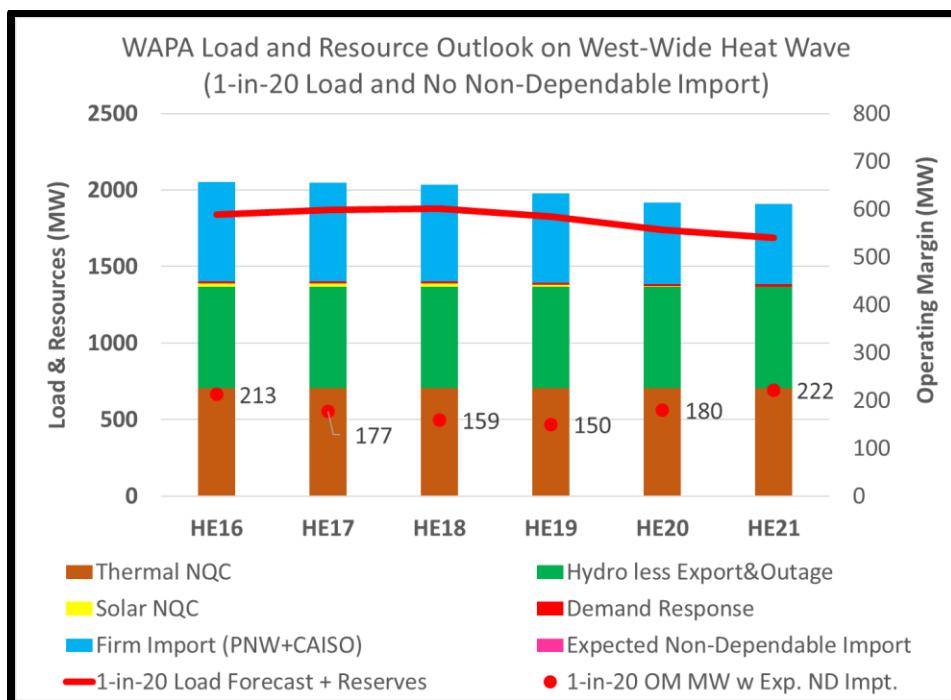


Figure 3-16: WAPA Load & Resources Outlook with 1-in-20 Load and No ND Import

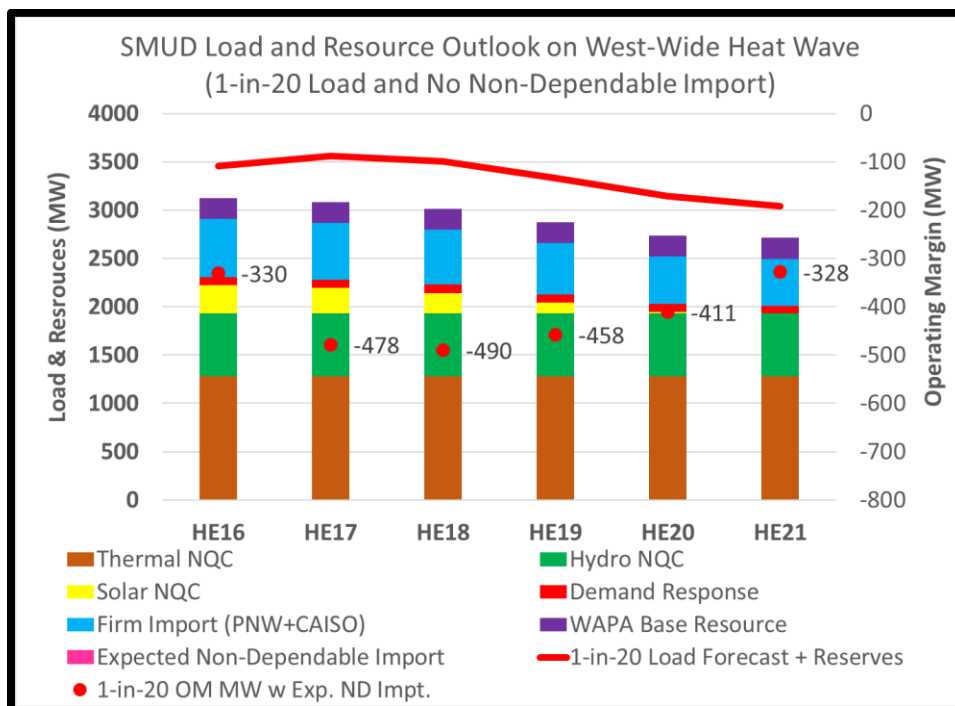


Figure 3-17: SMUD Load & Resources Outlook with 1-in-20 Load and No ND Import

Another special operating condition related to the heatwave is that BPA created a new process since 2023 summer to derate COI when the forecasted temperatures at BPA's load centers are higher than 104°F for two or more consecutive days – under this heatwave operating conditions, COI could be derated to 3000~3200 MW depending on system conditions. The analysis showed

that if COI is derated to 3000 MW when BANC BAA is experiencing 1-in-10 load, BANC could still maintain a positive operating margin although the Demand Response programs may need to be initiated within SMUD footprint.

### 3.11.3 CAISO in EEA 3

As the BANC entities also rely on importing the energy and capacity from the CAISO BAA, some of these imports may be subject to curtailment if the CAISO BA is in EEA 3. The current CAISO market rule is to treat the Price-Taker Exports, Price-Taker Wheels, and Self-Scheduled Load with the same priority in market optimization and they will be curtailed pro-rata if needed. Therefore, if a rotating load shed event occurred again like August 2020, BANC entities' Price-Taker imports from CAISO would only be curtailed by a minimal amount of 1~4%. SMUD, WAPA, and BANC BA would still be able to maintain sufficient Operating Margins for both 1-in-2 and 1-in-10 load forecasts.

### 3.11.4 Smoke Impacts Due to Wildfires

During the Carr Fire and Camp Fire in 2018 and a series of wildfires in August 2020, the severe smoke and ash covered the central valley area for many days, reducing the output of solar generation. The analysis estimated that the solar generation could be reduced by 30~50% due to smoke, which would be approximately 90~150 MW reduction during the peak load hours.

However, further analysis showed that the smoke could also reduce the temperature and therefore reduce the load. In the heatwave of August 2020, the original weather forecast was above 110 °F for several consecutive days such that the original peak load forecast was above 4900 MW for BANC. However, due to the smoke cover and delta breeze, the original peak load forecast did not materialize. The estimated peak load reduction by wildfire smoke was approximately 3~5%, which was 140~230 MW.

Therefore, at the current solar generation level, the impact of smoke on solar output is less than the reduction on load for BANC. With more and more solar integration within BANC footprint, the impact of smoke on solar output could be more than the reduction on load.

## 3.12 Engineering Studies

The BANC entities coordinated with the neighboring BAs, TOPs, and RC West and performed the following engineering studies for the 2025 summer:

- California Operating Study Sub-committee (OSS)
- Sacramento Valley Study Group (SVSG)
- Westley Transmission Study Group (WTSG)

The OSS study focuses on COI transfer capability and produces the COI operating nomogram, the SVSG study focuses on determining the Load Serving Capability (LSC) of Sacramento Valley area (SMUD and RSC) and developing associated operating nomograms, and the WTSG study focuses on identifying the import and export limits for MID and TID and developing associated operating nomograms. All studies concluded that BANC will be able to serve the forecasted 2025 summer 1-in-2 and 1-in-10 load demands while meeting NERC/WECC Reliability Standards.

### 3.13 Conclusions

The 2025 forecasted 1-in-2 and 1-in-10 peak loads for BANC BA are 4686 MW and 5004 MW respectively. For Northern California, with 118% of snowpack, 118% of precipitation, and 118% of reservoir level, the 2024-2025 water season is classified as “Above Normal”. However, the BANC’s hydro energy might be even slightly lower than normal due to the scheduled generation outages. This summer load and resource assessment and engineering studies show that BANC will be able to meet the forecasted 1-in-2 and 1-in-10 peak loads for the 2025 summer operating season with sufficient Operating Margins and low risks of energy or capacity shortage.

The BANC/SMUD Power System Operators and the System Operators and Dispatchers of WAPA, MID, RSC, & REU have been provided summer readiness training on the updated Operating Procedures to prepare for the 2025 summer operations. Additionally, BANC has coordinated with the State and local agencies, RC West, and neighboring BAs and TOPs to ensure reliable operations for the 2025 summer under normal and emergency system conditions.

**Balancing Authority of Northern California  
Resolution 25-05-01**

**ACKNOWLEDGEMENT AND ACCEPTANCE OF THE 2025 SUMMER LOAD & RESOURCES  
ASSESSMENT OF THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA**

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, in consultation with the Operating Committee, the BANC Operator has coordinated and collaborated with members and produced the 2025 Summer Load & Resource Assessment ("Assessment"), which describes expected loads, resources, and operating conditions for the coming summer season, and the Operating Committee has concurred with the inputs, assessments, and conclusions contained therein.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby acknowledge and accept the Assessment.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28<sup>th</sup> day of May 2025, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Dan Beans				
City of Shasta Lake	James Takehara				
SMUD	Paul Lau				
TPUD	Paul Hauser				

---

Paul Hauser  
Chair

---

Attest by: C. Anthony Braun  
Secretary

## Balancing Authority of Northern California

# Agenda Item 5C

1. Resolution 25-05-02 *Approval of BANC Participation in CAISO  
EIM Assistance Energy Transfer Program.*



# BALANCING AUTHORITY OF NORTHERN CALIFORNIA

P.O. Box 15830 • MS B305 • SACRAMENTO • CA 95852 -1830

05/21/25

**To:           BANC Commission**

**From:       BANC General Manager**

**RE:         WEIM Assistance Energy Transfer Program**

The BANC Operator has proposed that BANC consider participation in the WEIM Assistance Energy Transfer (AET) Program as a means to assist in reliable participation in the WEIM. BAA's that have voluntarily opted into receiving AETs will not have their WEIM transfers limited when they fail the resource sufficiency evaluation (RSE) upward capacity test or the RSE upward flexibility test. BAAs will instead have access to excess supply offered by other WEIM entities which may not otherwise be available in the bilateral market outside of the WEIM. There is no upfront charge to participate in the program. However, WEIM Entities that have opted in and fail the RSE will be subject to an ex-post surcharge of either \$1,000/MWh or \$2,000/MWh depending on whether the market is accepting bids above the \$1,000/MWh soft bid cap. Opting into participation would require submitting a CIDI ticket with defined start and end dates at least 5 business days in advance of the effective start date.

The proposal has been reviewed with both the Operations and the Markets Committee. There was general concurrence with the proposal with comments around how the costs, or revenues, of the ex-post surcharge would be allocated. Staff is proposing that we initially use a load-ratio share allocation methodology with a commitment to have the Settlements Subcommittee work with the BANC Operator to develop alternative allocation methodologies for consideration. Staff would come back to the Commission with any recommendations on allocation methodologies and with a post summer update on the use of the program. This proposal will be discussed at the May Commission meeting with consideration for possible action.

A JOINT POWERS AUTHORITY AMONG

Modesto Irrigation District, City of Redding, City of Roseville, Trinity Public Utilities District,  
and Sacramento Municipal Utility District

**Balancing Authority of Northern California  
Resolution 25-05-02**

**APPROVAL OF BANC PARTICIPATION IN  
CAISO EIM ASSISTANCE ENERGY TRANSFER PROGRAM**

WHEREAS, the Balancing Authority of Northern California ("BANC") was created by a Joint Powers Agreement ("JPA") to, among other things, acquire, construct, maintain, operate, and finance Projects; and

WHEREAS, in 2018, BANC executed an Implementation Agreement with the California Independent System Operator ("CAISO") and became an EIM Entity to facilitate participation in the Western Energy Imbalance Market ("WEIM") by its members; and

WHEREAS, in consultation with the Operating Committee and the Markets Committee, the BANC Operator has proposed that BANC consider participation in CAISO's WEIM Assistance Energy Transfer Program ("AET"); and

WHEREAS, participation in the WEIM AET Program will assist BANC with reliable participation in the WEIM through the avoidance of having transfers limited when either the resource sufficiency evaluation ("RSE") upward capacity test or RSE upward flexibility test is failed.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Direct the General Manager to take all necessary actions to enable BANC's participation in the WEIM AET Program.
2. Direct the General Manager to work with the BANC Operator and the Markets Committee, settlements sub-committee, to develop alternative allocation methodologies for consideration by the Commission.
3. Provide a post-summer update to the Commission regarding the use of the program and request approval of any recommended allocation methodology.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28<sup>th</sup> day of May 2025, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Dan Beans				
City of Shasta Lake	James Takehara				
SMUD	Paul Lau				
TPUD	Paul Hauser				

---

Paul Hauser  
Chair

---

Attest by: C. Anthony Braun  
Secretary

## Balancing Authority of Northern California

# Agenda Item 5D

1. Resolution 25-05-03 *Approval of Revised 2025 Annual Budget for BANC.*
2. Attachment A to Resolution 25-05-03: *BANC 2025 Budget - Amended 05/28/2025.*



# BALANCING AUTHORITY OF NORTHERN CALIFORNIA

P.O. Box 15830 • MS B305 • SACRAMENTO • CA 95852 -1830

05/20/25

**To: BANC Commission**  
**From: BANC General Manager**  
**RE: 2025 BANC Budget Amendment – May 2025**

In reviewing the 2025 BANC Budget and the status of some of our projects, staff has identified the following suggested changes to the budget for Commission consideration:

1. **Base Budget:**

- a. Administrative Expenses, Accounting/Treasury Support: Reduce the amount from \$248,600 to \$124,300. There was a miscommunication with SMUD on the amount needed for 2025 vs. once we enter into EDAM.
- b. Resource Committee Support: Increase the amount from \$100,000 to \$224,300. The estimates for the RA Project are coming in higher than originally expected and staff is recommending using the Administrative Expenses reduction to help offset these higher estimates

The result is no overall increase in the Base Budget.

2. **PA-1: PC Services:** The original budget assumed that WECC would still be conducting the required 5-year Geomagnetic Disturbance (GMD) studies. We have been informed that they will no longer be doing so. Though the study is not required to be conducted until 2026, SMUD will need to perform some preparatory work which will require additional expenses for staff training (\$~2000) and a software license fee (\$~8,000). The total increase of \$~10,000 will raise the fee for PA-1 from \$328,750 to \$338,750.
3. **PA-8: EDAM Implementation:** Based upon discussions with SMUD, they have requested that they be compensated by BANC for Operations and Settlements support for EDAM implementation. The estimate is ~4,000 hours over the 2025 through mid-2027 timeframe. The fully loaded estimate for this support is \$1,169,556. In addition, BANC staff has discussed with SMUD the ability to provide some minor project management support for EDAM implementation to allow us to not use the outside project management contract. We have agreed on ~375 hours of support for an amount of \$~100,000. The decision to not use

A JOINT POWERS AUTHORITY AMONG

Modesto Irrigation District, City of Redding, City of Roseville, Trinity Public Utilities District,  
and Sacramento Municipal Utility District

the project management consultant will result in a savings of ~\$1,000,000. The net impact to the EDAM project budget is an increase of ~\$270,000, including contingency. The impact to the 2025 Budget for PA-8 is an increase of ~\$45,500, including contingency.

The revised budget markup is included as Attachment A to Resolution 25-03-03. Overall, the recommended changes result in an increase in the total BANC 2025 budget from \$10,011,610.84 to \$10,067,134.34, or an amount of \$55,523.50. Staff will be reviewing the proposed budget changes at the Commission meeting and requesting action to approve the budget amendments.

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

**Balancing Authority of Northern California  
Resolution 25-05-03**

**APPROVAL OF REVISED 2025 ANNUAL BUDGET FOR BANC**

WHEREAS, the Balancing Authority of Northern California ("BANC") Joint Powers Agreement ("JPA") Section 11.4 describes both the responsibilities and the non-delegable duties of the BANC Commission which include approving an annual budget and approving assessments to each Member; and

WHEREAS, JPA Section 12 provides that the BANC Commission may assess each Member for its respective Participation Percentage share of funds required to carry out BANC's purposes as specified in the annual budget; and

WHEREAS, BANC Resolution 12-02-03 established a process whereby Member assessments shall be required no less than two times per year; and

WHEREAS, under the Base Budget, it was determined that there was a miscommunication with SMUD on the amount needed for 2025 in the Administrative Expenses, Accounting/Treasury Support, and where the amount can be lowered concurrent with the staff recommendation that those savings be transferred to the Resource Committee Support line item, where estimates for the RA Project are coming in higher than originally expected; and

WHEREAS, in PA-1: PC Services, WECC is no longer conducting the required 5-year Geomagnetic Disturbance studies, thus necessitating additional expenses for SMUD to do so; and

WHEREAS, in PA-8: EDAM Implementation, SMUD is requesting compensation for Operations and Settlements support for EDAM Implementation; and

WHEREAS, the General Manager has prepared a revised budget incorporating these revisions for consideration and possible adoption by the Commission.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby:

1. Approve the Amended 2025 Annual Budget for BANC in the form attached hereto as Attachment A.
2. Direct the BANC Treasurer to assess each BANC Member in accordance with Resolution 12-02-03 and WAPA in accordance with the agreement (20-SNR-02422) between BANC and WAPA, and further direct the General Manager to work with WAPA to effectuate any amendments to the agreement.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28<sup>th</sup> day of May, 2025, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Dan Beans				
City of Shasta Lake	James Takehara				
SMUD	Paul Lau				
TPUD	Paul Hauser				

---

Paul Hauser  
Chair

---

Attest by: C. Anthony Braun  
Secretary

# BANC 2025 Budget

## Amended 05/28/2025

---

1. Base Budget (*Amended May 2025*)

a. General Manager Expenses = **\$474,000**

- i. Scope: General Manager retainer (@\$37,500/mo.) and expenses (@\$2,000/mo.) = \$474,000
- ii. Assumptions: \$6,600/month increase in retainer to reflect discussion on moving GM support to full-time and \$500/month increase in expenses from 2024

b. Legal Services = **\$614,855**

- i. Assumptions: Increase in base legal services from 2024 of 3% for retainer, with the notation that additional legal services may be required based on the level of activity in overall engagement. The proposed increase reflects several factors, including salary and other business cost pressures, expected policy and delegation matters for the agency; with increased activity in such areas as ongoing state legislation, summer reliability initiatives, and similar matters, it seems reasonable to anticipate considerable non-project specific work. Allowance for travel expenses @\$1,500/mo.

ii. Scope of Services includes:

- 1. All public agency support including Commission meetings, committee meetings, Brown Act, public records, Fair Political Practices Commission support;
- 2. Vendor and other contract review;
- 3. General business support with GM;
- 4. Development of new and refreshed policies and procedures;
- 5. Strategic planning and coordination with GM;
- 6. Compliance matters including MCRC;
- 7. Support for initial stages of any initiatives;
- 8. Other issues that may arise. In the past this has included such things as the dissolution of Peak RC and formation of RC West
- 9. Support for Integrated Resource Plan initiative, including meetings, production of written products, legal review and supporting regulatory outreach and communications;
- 10. RA Policy development, including program organizational support, meetings, work product productions and review, legal review and supporting regulatory outreach and communications.

iii. Retainer = \$596,855

iv. Expenses = \$18,000

- c. WPP Membership Payments = **\$105,000**
  - i. Scope: Covers NWPP charges to BANC as an NWPP member, including RSG, FRSG, and Executive Forum.
- d. Resource Committee Support = **\$234,300**
  - i. Scope: Potential consultant support for: developing IRP summary for BANC footprint, Resource Adequacy policy development, and potential consultant support for ongoing efforts.
- e. Asset Valuation = **\$1,025,908**
  - i. Energy Management System
    - 1. Assumptions:
      - a. Amortized capital cost, excluding EIM module (BANC share) = \$517,238
      - b. Annual Siemens support cost (BANC share) = \$113,470
      - c. Revised to reflect latest capitalization amount for Siemens EMS upgrade (\$5,508,835) and annual support services (\$263,883) both excluding EIM module. Assumes capital investment is amortized over 5 years @ 3%/year. BANC share of EMS capital and support services costs is 43%.
    - 2. Total = \$630,708
  - ii. Energy Management Center/Backup Control Center
    - 1. Assumptions:
      - a. Total estimated amount for EMC+BCC= \$~1,300,000/year
      - b. TOP/BA share is 76% = \$988,000
    - 2. BANC share of TOP/BA= 40% = \$395,200
- f. Administrative Expenses = **\$157,300**
  - i. Accounting/Treasury Support = **\$124,300**
  - ii. Annual Audit Fees = \$10,000
  - iii. CMUA Membership = \$21,000
  - iv. Bank Charges = \$2,000
- g. Sub-total = **\$2,601,363**
- h. Contingency: **\$130,000**

Total = **\$2,731,363**

Member Breakdown Comparison of 2024 vs. 2025 Base Budgets (based on 2023 Retail Sales for 2025):

MEMBER ALLOCATION (2025 %s)	2025	2024
SMUD (69.18%)	\$ 1,872,261.92	\$ 1,622,171.48
MID (16.99%)	\$ 459,811.07	\$ 403,249.01
ROSEVILLE (7.55%)	\$ 204,330.41	\$ 180,215.13
REDDING (4.87%)	\$ 131,799.88	\$ 113,869.62
SHASTA LAKE (1.41%)	\$ 38,159.72	\$ 33,172.76
Subtotal	\$ 2,706,363.00	\$ 2,352,678.00
TPUD (fixed)	\$ 25,000.00	\$ 25,000.00
TOTAL	\$ 2,731,363.00	\$ 2,377,678.00

2. Participation Agreement #1 (PA-1) – PC Services (*Amended May 2025*)

a. Assumptions:

- i. SMUD to provide contract PC services to BANC
- ii. Total Base Cost to BANC = \$328,750
  1. Main PC evaluation labor = \$288,377
  2. \$40,373 for labor to perform an overview assessment of full BANC footprint
  3. Includes a 3.0% labor rate adjustment for 2025
  4. *Forecasted training for Geomagnetic Disturbance (GMD) training = \$2,000*
  5. *Forecasted license fee for GMD software = \$8,000*
- iii. WAPA-SNR does not participate, TPUD and Shasta Lake embedded within WAPA-SNR; all other members participate
- iv. Cost to be allocated based upon 50% to SMUD and 50% to remaining members prorated by share of generation/60kV and above buses among the remaining members:
  1. SMUD = (50%)
  2. MID = (30%)
  3. Roseville = (10.5%)
  4. Redding = (9.5%)

b. Estimated costs by member:

MEMBER	PA-1 ASSESMENT
SMUD (50%)	\$ 169,375.00
MID (30%)	\$ 101,625.00
ROSEVILLE (10.5%)	\$ 35,568.75
REDDING (9.5%)	\$ 32,181.25
<b>TOTAL</b>	<b>\$ 338,750.00</b>

### 3. Participation Agreement #2 (PA-2) – RC Funding

#### a. Assumptions

- i. BANC transitioned from Peak RC to RC West (CAISO) for RC services on 7/1/19 and going forward.
- ii. RC West Funding
  1. TPUD and Shasta Lake are embedded within WAPA-SNR, which becomes a TOP Funding Party under CAISO RC West tariff.
  2. MID, Redding, and SMUD become TOP Funding Parties under CAISO tariff.
  3. BANC pays the remaining amount allocated to the BA footprint per CAISO tariff for Roseville.
  4. Assumed RC West 2024 charge-out rates = \$0.03/MWH
  5. 2022 NEL for remaining BANC footprint:
    - a. Roseville = 1,181,128 MWH

#### b. Estimated costs under PA-2 based upon RC West proposed rates for Roseville:

MEMBER	2023 NEL - MWH	2025 ASSESSMENT
ROSEVILLE	1,181,128	\$ 35,433.84
<b>TOTAL</b>	<b>1,181,128</b>	<b>\$ 35,433.84</b>

### 4. Participation Agreement #3 (PA-3) – EIM Implementation (Phase 1) - CLOSED

## 5. Participation Agreement #4 (PA-4) –Market Tracking & Evaluation

### a. Assumptions

- i. We believe that continued monitoring of general market activities in the West is warranted. This likely will include FERC filings and also possible FERC meetings and technical conferences. Also, regionalization discussions will likely continue as reflected in recent studies performed by various advocacy groups and the Pathways Initiative. We assume the total monthly legal services retainer will be \$12,000, which is a decrease from 2024.
- ii. It is assumed that all Participating Resources (SMUD, MID, WAPA-SNR, Roseville, and Redding) participate in this effort. (NOTE: Shasta Lake loads assumed part of Redding load for this allocation). Cost allocation based upon 2025 3-year rolling average NEL as follows:
  1. SMUD – 64.4%
  2. MID – 15.6%
  3. WAPA-SNR – 7.3%
  4. Roseville – 6.9%
  5. Redding – 5.8%

### b. Scope of services includes:

- i. High level monitoring of Western regional developments outside of the CAISO, such as WRAP, SPP Markets+, WestTec, or other similar initiatives;
- ii. Regional engagement on behalf of BANC in forums such as the Council for Regional Power Cooperation (CREPC), WIEB, NARUC Western meetings, and other similar forums;
- iii. Coordination with EDAM Entities on regional matters;
- iv. Coordination with Western POUs on regional matters;
- v. Interface as Body of State Regulators public power liaison;
- vi. Interface on Regional Issues Forum and/or Regional Organization Stakeholder Review Committee.

- c. Estimated costs for monitoring day-ahead market development reflect that, while the character of the engagement will change, focus and extensive effort will continue through the year. Consultant support will be limited to part of the contract support from CES.

IMPLEMENTATION CATEGORY	COST ESTIMATE	SMUD	MID	WAPA-SNR	ROSEVILLE	REDDING
Legal Support	\$ 144,000.00	\$ 92,736.00	\$ 22,464.00	\$ 10,512.00	\$ 9,936.00	\$ 8,352.00
Consultant Support ~ Market Dev, Spt. (CES)	\$ 24,000.00	\$ 15,456.00	\$ 3,744.00	\$ 1,752.00	\$ 1,656.00	\$ 1,392.00
<b>Total Estimate</b>	<b>\$ 168,000.00</b>	<b>\$ 108,192.00</b>	<b>\$ 26,208.00</b>	<b>\$ 12,264.00</b>	<b>\$ 11,592.00</b>	<b>\$ 9,744.00</b>
Contingency (5%)	\$ 8,400.00	\$ 5,409.60	\$ 1,310.40	\$ 613.20	\$ 579.60	\$ 487.20
<b>TOTAL</b>	<b>\$ 176,400.00</b>	<b>\$ 113,601.60</b>	<b>\$ 27,518.40</b>	<b>\$ 12,877.20</b>	<b>\$ 12,171.60</b>	<b>\$ 10,231.20</b>

## 6. Participation Agreement #5 (PA-5) – EIM Participation

### a. Assumptions

- i. BANC serves as EIM Entity
- ii. SMUD/MID/Roseville/Redding/WAPA-SNR participate as PRSCs for full year
- iii. Costs allocated in accordance with 2025 3-year rolling average NEL for all five participants as follows:
  1. SMUD – 64.4%
  2. MID – 15.6%
  3. WAPA-SNR – 7.3%
  4. Roseville – 6.9%
  5. Redding – 5.8%

- b. Cost estimates based on EIM Services Agreement, and latest estimates, including software charges per contracts. Includes 3% adjustment for SMUD labor and 3% adjustment for software contracts. SMUD labor for EIM Desk, SME/Oversight, and Settlements will be charged out based upon actual hours expended. Charges for all other SMUD labor will be allocated based upon the estimate provided.
- c. CAISO charges have been eliminated from the PA-5 budget as these are handled through the settlements process.
- d. Allocation of TPUD load settlement charges assigned to SMUD/MID/Redding/Roseville per original agreement. Load based settlement charges assumed at \$25,000 for EIM operation in 2025.
- e. Legal services for regulatory support assumed at \$135,000 (25-30 hours/month). Scope of services to include:
  - i. Assess High Priority Issues in the CAISO stakeholder process that affect members and BANC. Tentatively this would include matters that are directly relevant to the market that we will be participating in, such as Resource Sufficiency Evaluation, Greenhouse Gas/market interface, Day Ahead and Real Time market Rules. In this phased in period, we would not propose to cover Interconnection Queue issues, Transmission Planning. Resource Adequacy issues, while not directly applicable to us, are a closer call to be discussed.
  - ii. Summarize and brief members on issues. Lead committee discussions.
  - iii. Work with member staff and any outside consultants to develop positions.
  - iv. Draft Comments and interface with CAISO Staff and other stakeholders.
  - v. Further issue coverage could be assessed as the program evolves and EDAM gets closer to go-live.

# Participation Agreement #5 (PA-5) – EIM Participation (cont.)

		Participant		Cost	Allocations		
IMPLEMENTATION CATEGORY	ESTIMATE	SMUD	MID	WAPA-SNR	ROSEVILLE	REDDING	TOTAL
Personnel - EIM Desk (5)	\$ 1,946,015.00		\$ 56,275.00				
Personnel - Settlements (1.5)	\$ 691,097.00						
Personnel - Outage Mgmt (0.4)	\$ 148,628.00						
Personnel - Netwk Model (1)	\$ 313,526.00						
Personnel - Meter Data Mgmt (0.5)	\$ 46,405.00						
Personnel - SME/Oversight (0.4)	\$ 200,375.00						
Personnel - IT Support (0.25)	\$ 65,379.00						
<b>Personnel Total (9.05)</b>	<b>\$ 3,411,425.00</b>						
EIM Software Support							
- OATI	\$ 101,294.00						
- Power Settlements	\$ 498,488.00						
- ITOA	\$ 21,855.00						
- Allowance for SW Upgrades	\$ 50,000.00						
- WebEIM	\$ 43,709.00						
<b>EIM Software Support Total</b>	<b>\$ 715,346.00</b>						
EMS EIM Module							
- Amortized Capital	\$ 52,978.00						
- O&M Support	\$ 10,000.00						
<b>EMS EIM Module Total</b>	<b>\$ 62,978.00</b>						
<b>EIM OPERATOR TOTAL</b>	<b>\$ 4,189,749.00</b>	<b>\$2,698,198.36</b>	<b>\$ 709,875.84</b>	<b>\$ 305,851.68</b>	<b>\$ 289,092.68</b>	<b>\$ 299,280.44</b>	<b>\$4,302,299.00</b>
Miscellaneous Support							
- Legal Support	\$ 135,000.00						
- EIM Stakeholder Support (CES)	\$ 24,000.00						
- Utilicast Support	\$ -						
<b>Miscellaneous Support Total</b>	<b>\$ 159,000.00</b>						
CAISO Charges							
<b>TOTAL EIM Operations</b>	<b>\$ 4,348,749.00</b>	<b>\$2,800,594.36</b>	<b>\$ 734,679.84</b>	<b>\$ 317,458.68</b>	<b>\$ 300,063.68</b>	<b>\$ 308,502.44</b>	<b>\$4,461,299.00</b>
TPUD Load Charges	\$ 25,000.00	\$ 17,400.00	\$ 4,200.00	\$ -	\$ 1,850.00	\$ 1,550.00	\$ 25,000.00
<b>TOTAL</b>	<b>\$ 4,373,749.00</b>	<b>\$2,817,994.36</b>	<b>\$ 738,879.84</b>	<b>\$ 317,458.68</b>	<b>\$ 301,913.68</b>	<b>\$ 310,052.44</b>	<b>\$4,486,299.00</b>

7. Participation Agreement #6 (PA-6) – EIM Phase 2 Preparation (Revision 1 – 5/15/19)  
– CLOSED

8. Participation Agreement # 7 (PA-7) – EIM Phase 2 Implementation – CLOSED

9. Participation Agreement # 8 (PA-8) – EDAM Implementation (*Amended May 2025*)

- a. Assumptions
  - i. BANC serves as EDAM Entity
  - ii. SMUD/MID/Roseville/Redding/WAPA-SNR intend to participate in EDAM
  - iii. Target is for 4/1/27 go-live date for EDAM participation
  - iv. Costs allocated in accordance with 2025 3-year rolling average NEL for all five participants as follows:
    - 1. 1. SMUD – 64.4%
    - 2. 2. MID – 15.6%
    - 3. 3. WAPA-SNR – 7.3%
    - 4. 4. Roseville – 6.9%
    - 5. 5. Redding – 5.8%
- b. Cost estimates based upon Utilicast EDAM “Gap Analysis”; Utilicast EDAM Effort proposal; discussions with SMUD, BB&W, and WEL; and the EDAM implementation options developed by BANC staff. Based upon a Spring 2027 go-live, activity levels are as follows:
  - i. Advisory support from 1/24 – 8/25
  - ii. Pre-implementation support from 9/25 – 3/26
  - iii. Implementation support from 4/26 – 3/27
  - iv. Go-live – April 2027
  - v. Post go-live support from 4/27 – 5/27
- c. SMUD has requested compensation for operations and settlements staff time to support EDAM implementation. This is estimated at \$1,169,556 over the life of the project. SMUD has also agreed to provide some minor project management support over the life of the project at an estimate of \$100,000. This will result in an increase to the 2025 budget estimate of \$239,185. This will be offset in part by not renewing the consultant project management contract which will reduce overall project expenditures by ~\$1,000,000 and 2025 expenditures by ~\$197,800.
- d. Based upon discussions with the CAISO, the initial installment (\$300,000) of the CAISO EDAM Implementation fee will be due upon execution of the EDAM Implementation Agreement, which is forecasted to be Fall 2024. In addition, CAISO is now estimating the EDAM Implementation Fee will be \$~1.4-1.8 million as opposed to the initial estimate of \$1.2 million.
- e. Based upon contract with Power Settlements, agreement to move initial \$550,000 of charges from 2026/2027 to Pre-implementation support in 2025. No change in overall Power Settlements cost estimate or total EDAM Implementation cost estimate.
- f. 8 months of Advisory support and 4 months of Pre-implementation support in 2025.
- g. Legal services estimated at \$146,000 on Time & Materials basis. Scope of services to include:
  - i. TSP OATT support within BANC footprint

- ii. Supporting implementation and participation agreements with CAISO
- iii. Member participation agreements
- iv. Development of business practice manuals
- v. Any FERC-filed CAISO agreements
- vi. General tracking of implementation projects and coordination with
- vii. EDAM Entities on Implementation Issues

IMPLEMENTATION CATEGORY	Spring 2027 Go-Live	SMUD 64.4%	MID 15.6%	WAPA-SNR 7.3%	ROSEVILLE 6.9%	REDDING 5.8%
<b>Advisory Effort (8 mo)</b>	<b>\$ 656,565.00</b>	<b>\$ 432,827.86</b>	<b>\$102,424.14</b>	<b>\$ 97,929.25</b>	<b>\$ 45,302.99</b>	<b>\$ 38,080.77</b>
~Utilicast Support	\$ 128,000.00			\$ 50,000.00		
~Legal Support	\$ 84,500.00					
~SMUD Ops/Stlmt/PM Supp	\$ 134,065.00					
~Project Mgmt (Percipio)	\$ 20,000.00					
~BANC	\$ 10,000.00					
~SMUD	\$ -	\$ 10,000.00				
~CAISO Impl. Fee	\$ 300,000.00					
<b>Pre-Impl. Effort (4 mo)</b>	<b>\$1,191,970.00</b>	<b>\$ 767,628.68</b>	<b>\$185,947.32</b>	<b>\$ 87,013.81</b>	<b>\$ 82,245.93</b>	<b>\$ 69,134.26</b>
~Utilicast Support	\$ 174,850.00					
~Legal Support	\$ 62,000.00					
~SMUD Ops/Stlmt/PM Supp	\$ 105,120.00					
~Power Settlements SW Fee	\$ 550,000.00					
~CAISO Impl. Fee	\$ 300,000.00					
<b>Total Estimate</b>	<b>\$1,908,535.00</b>	<b>\$1,200,456.54</b>	<b>\$288,371.46</b>	<b>\$184,943.06</b>	<b>\$127,548.92</b>	<b>\$107,215.03</b>
Contingency (10%)	\$ 190,853.50	\$ 120,045.65	\$ 28,837.15	\$ 18,494.31	\$ 12,754.89	\$ 10,721.50
<b>TOTAL</b>	<b>\$2,099,388.50</b>	<b>\$1,320,502.19</b>	<b>\$317,208.61</b>	<b>\$203,437.36</b>	<b>\$140,303.81</b>	<b>\$117,936.53</b>

## 10. Participation Agreement # 9 (PA-9): Resource Projects Development

- a. BANC will develop appropriate project agreements for the following projects in 2025:
  - i. Finalize PPA and Participation Agreement with Calpine for taking energy and capacity from the Sutter Power Plant under its Carbon Sequestration Project, with exact form to be determined. This includes transfer or assignment of the current SMUD/Calpine MOA to BANC. Forecast agreements to be prepared by mid-2025.
  - ii. Consideration of solar/storage project with GSCE
  - iii. Development of additional solicitation for BANC procured resources to meet member RA needs.
- b. Support is currently envisioned to be required from BB&W for legal support in negotiating agreements. Estimated support is \$140,000 on a T&M basis. Scope of services include:
  - i. Roughly 6 months of conclusion of Calpine negotiations and member agreements
  - ii. Follow up on Sutter projects at reduce scope
  - iii. Initial Preparation and General Solicitation with Anticipate end of Q2 release
  - iv. Follow Up on evaluation and assessment
- c. There is a placeholder for additional consultant support as the project negotiations develop.
- d. Assume participation from SMUD, MID, Roseville, Redding, and Shasta Lake for these projects in the following percentages:
  - i. SMUD – 76.4%
  - ii. MID – 11.8%
  - iii. Roseville – 4.7%
  - iv. Redding – 5.9%
  - v. Shasta Lake – 1.2%

IMPLEMENTATION CATEGORY	COST ESTIMATE	SMUD	MID	ROSEVILLE	REDDING	SHASTA LAKE
Legal Support	\$ 140,000.00	\$ 106,960.00	\$ 16,520.00	\$ 6,580.00	\$ 8,260.00	\$ 1,680.00
Consultant Support	\$ 50,000.00	\$ 38,200.00	\$ 5,900.00	\$ 2,350.00	\$ 2,950.00	\$ 600.00
<b>Total Estimate</b>	<b>\$ 190,000.00</b>	<b>\$ 145,160.00</b>	<b>\$ 22,420.00</b>	<b>\$ 8,930.00</b>	<b>\$ 11,210.00</b>	<b>\$ 2,280.00</b>
Contingency (5%)	\$ 9,500.00	\$ 7,258.00	\$ 1,121.00	\$ 446.50	\$ 560.50	\$ 114.00
<b>TOTAL</b>	<b>\$ 199,500.00</b>	<b>\$ 152,418.00</b>	<b>\$ 23,541.00</b>	<b>\$ 9,376.50</b>	<b>\$ 11,140.50</b>	<b>\$ 2,394.00</b>

# 11. 2025 BANC Member Assessments *(Amended May 2025)*

MEMBER	BASE BUDGET <i>(Amended 5/2025)</i>	PA-1: PA/PC <i>(Amended 5/2025)</i>	PA-2: RC West	PA-4: MKT MONITORING	PA-5: EIM Part.	PA-8: EDAM Imp. <i>(Amended 5/2025)</i>	PA-9: Resource Projects Dvlpmnt	Proposed 2025 TOTAL <i>(Amended 5/2025)</i>	Amended 2024 TOTAL (9/24 Update)
SMUD	\$1,872,261.92	\$169,375.00	\$ -	\$113,601.60	\$2,817,994.36	\$1,320,502.19	\$152,418.00	\$6,446,153.07	\$5,772,373.59
MID	\$459,811.07	\$101,625.00	\$ -	\$27,518.40	\$738,879.84	\$317,208.61	\$23,541.00	\$1,668,583.92	\$1,481,895.46
ROSEVILLE	\$204,330.41	\$35,568.75	\$35,433.84	\$12,171.60	\$301,913.68	\$140,303.81	\$9,376.50	\$739,098.58	\$664,227.02
REDDING	\$131,799.88	\$32,181.25	\$ -	\$10,231.20	\$310,052.44	\$117,936.53	\$11,770.50	\$613,971.80	\$585,236.62
SHASTA LAKE	\$38,159.72	\$ -	\$ -	\$ -	\$ -	\$ -	\$2,394.00	\$40,553.72	\$33,172.76
TPUD	\$25,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$25,000.00	\$25,000.00
<b>BANC TOTAL</b>	<b>\$2,731,363.00</b>	<b>\$338,750.00</b>	<b>\$35,433.84</b>	<b>\$163,522.80</b>	<b>\$4,168,840.32</b>	<b>\$1,895,951.14</b>	<b>\$199,500.00</b>	<b>\$9,533,361.10</b>	<b>\$8,561,905.45</b>
WAPA-SNR	\$ -	\$ -	\$ -	\$12,877.20	\$317,458.68	\$203,437.36	\$ -	\$533,773.24	\$477,214.55
<b>GRAND TOTAL</b>	<b>\$2,731,363.00</b>	<b>\$338,750.00</b>	<b>\$35,433.84</b>	<b>\$176,400.00</b>	<b>\$4,486,299.00</b>	<b>\$2,099,388.50</b>	<b>\$199,500.00</b>	<b>\$10,067,134.34</b>	<b>\$9,039,120.00</b>

## Balancing Authority of Northern California

### Agenda Item 5E

1. **Resolution 25-05-04 *Approval of Revised Participant Percentages and Cost Allocation Methodology.***

# Braun Blaising & Wynne, P.C.

---

Attorneys at Law

05/22/25

**To: BANC Commission**

**From: BANC Counsel**

**RE: NEL vs. Retail Load for Calculation of Base Budget Allocations**

BANC Staff and members have discussed modifying the methodology to determine Participation Percentages that are used to allocate certain BANC costs. The current methodology depends on Energy Information Agency information which can cause lags and add administrative burdens.

As BANC Staff has discussed previously, all other BANC cost allocations are based upon the Western Electricity Coordinating Council Net Energy for Load (“NEL”), which is also commonly used to allocate costs for other services, for example for Reliability Coordinator services. Using NEL would simplify the development of the annual budget.

Based upon a review of the current Joint Powers Agreement (“JPA”), it is our opinion that this can be done without amendment to the JPA, but it is worth a discussion of how we have reached this conclusion.

In relevant part, Section 10.1 of the JPA states:

A Participation Percentage shall be calculated for each Member that is in the proportion that its annual retail load within the BANC System bears to the aggregated loads of all Members. Participation Percentages shall be updated annually based on the Member’s retail load in the previous year and shall readjust the next calendar year. The Participation Percentages shall be based upon loads reported to the federal Energy Information Agency, or another common report on energy use to another government agency, as approved by the Commission. The specific methodology for determining and updating each Member’s Participation Percentages shall be set forth in Appendix 1.

The JPA therefore specifically references the Energy Information Agency data. However, it does provide flexibility to the Commission to select a metric from a different governmental agency. While WECC is arguably quasi-governmental given its status as a Regional Entity, and using WECC for this purpose may be plausible, there are other options.

The JPA also provides an additional level of flexibility for the Commission. Section 10.2.1 states:

Unless otherwise determined by separate agreement between BANC and a Member, as authorized by unanimous vote of the Member Commissioners, each Member shall pay for the General and Administrative Costs associated with all operations of BANC in proportion to their Participation Percentage. General and Administrative Costs do not include any costs that relate solely to any specific Project or Project Agreement.

Thus, if members agree by contract, which must be passed unanimously by the Commission, Participation Percentages can be crafted outside of the provisions of Section 10.1.

The latter is our preferred approach, and it is recommended that BANC counsel work with the BANC GM and members to develop an agreement to incorporate the NEL calculation in lieu of using EIA data. BANC Staff will then bring that agreement back to the Commission for consideration and possible approval.

**Balancing Authority of Northern California  
Resolution 25-05-04**

**APPROVAL OF REVISED PARTICIPANT PERCENTAGES AND COST ALLOCATION METHODOLOGY**

WHEREAS, the Balancing Authority of Northern California ("BANC") Joint Powers Agreement ("JPA") Section 11.4 describes both the responsibilities and the non-delegable duties of the BANC Commission which include approving an annual budget and approving assessments to each Member; and

WHEREAS, JPA Section 12 provides that the BANC Commission may assess each Member for its respective Participation Percentage share of funds required to carry out BANC's purposes as specified in the annual budget; and

WHEREAS JPA Section 4.23 defines Participation Percentage; and

WHEREAS, JPA Appendix 1 sets forth a specific methodology for determining and updating each Member's Participation Percentages that are based on information from the Energy Information Agency ("EIA"); and

WHEREAS, JPA Section 10.2 provides that "Unless otherwise determined by separate agreement between BANC and a Member, as authorized by unanimous vote of the Member Commissioners, each Member shall pay for the General and Administrative Costs associated with all operations of BANC in proportion to their Participation Percentage"; and

WHEREAS, the General Manager has shared the challenges associated with obtaining timely updates to retail load to allow for annual adjustments to the BANC budget and also provided the Commission with information regarding the use of Net Energy for Load (NEL) published by the Western Electricity Coordinating Council, in lieu of using Participation Percentages derived from EIA data, and discussed this option during prior Commission meetings; and

WHEREAS, based on input and direction from the Commission, the General Manager is recommending that General and Administrative costs associated with all operations of BANC be determined based on Participation Percentages based derived using NEL; and

WHEREAS, this will require an agreement for cost allocation based on new Participation Percentages.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby adopt NEL to derive Participation Percentages to allocate General and Administrative costs and direct the General Manager to work with BANC Counsel and the members to develop an applicable agreement with concurrence from the members for consideration by the Commission as soon as practicable.

**Balancing Authority of Northern California  
Resolution 25-05-04**

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California  
this 28<sup>th</sup> day of May, 2025, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Dan Beans				
City of Shasta Lake	James Takehara				
SMUD	Paul Lau				
TPUD	Paul Hauser				

---

Paul Hauser  
Chair

---

Attest by: C. Anthony Braun  
Secretary