Balancing Authority of Northern California

Regular Meeting of the Commissioners of BANC

2:00 P.M.
Wednesday, October 28, 2026
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 **October 28, 2026** 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:** 853 6692 8276 **Passcode:** 005914

Meeting Link: https://us06web.zoom.us/j/85366928276?pwd=aRLRUeVHVb15v9Qi1IyvOtEwNkkXCY.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. Public comment received by email will be read within the allotted public comment period.

Public Meeting Location(s):

Any member of the public may observe the meeting and offer public comment at the following addresses where Commissioners may also join the meeting:

City of Shasta Lake
3570 Iron Court
Shasta Lake, CA 96019

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 and Strategic Planning Session held on September 30, 2026.

B. BANC Operator Report (September).

C. Compliance Officer Report (October).

D. PC Committee Chair Report (October).

E. General Manager's Report and Strategic Initiatives Update.

5 Regular Agenda Items – Discussion and Possible Action.

A. General Manager Updates.

i. Operations Update.

ii. Market Updates – EIM, EDAM, Resource Adequacy, Pathways, Markets+, WPP.

iii. Strategic Plan Updates.

B. Consider and Possibly Approve Resolution 26-10-01 *Acknowledgement and Acceptance of BANC Planning Coordinator Area 2026 Transmission Planning Assessment*.

C. Consider and Possibly Approve Resolution 26-10-02 *Approval of 2027 Annual Budget for BANC.*

D. Consider and Possibly Approve Resolution 26-10-03 *Resolution Setting the Regular Meeting Dates for 2027*.

E. 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.

Balancing Authority of Northern California

Consent Agenda Items

A. **Minutes of the September 30, 2026 BANC Regular Meeting and Strategic Planning Session.**

B. **BANC Operator Report (September).**

C. **Compliance Officer Report (October).**

D. **PC Committee Chair Report (October).**

E. **General Manager's Report and Strategic Initiatives Update.**

MINUTES OF THE REGULAR MEETING AND STRATEGIC PLANNING SESSION
OF THE COMMISSIONERS OF
THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA (BANC)

September 30, 2026

On this date, a Regular Meeting of the Commissioners of the Balancing Authority of Northern California and Strategic Planning Session was held at 555 Capitol Mall, Suite 100, Sacramento, CA 95814.

Representatives:

Member Agency	**Commissioner**
Modesto Irrigation District (MID)	Martin Caballero
City of Redding	Nick Zettel
City of Roseville	Dan Beans Shawn Matchim, BANC Chair
Sacramento Municipal Utility District (SMUD)	Lora Anguay
City of Shasta Lake	James Takehara
Trinity Public Utilities District (TPUD)	Sarah Sheetz

Other Participants:

Jim Shetler	General Manager
Tony Braun	BANC General Counsel
Justin Wynne	BANC General Counsel
Kris Kirkegaard	BANC General Counsel Support
David Wilke	BANC Operator
James Leigh-Kendall	BANC Compliance Officer
Wei Shao	BANC Planning Coordinator Committee Chair
Jon Olson	BANC Staff
Brock Costalupes	Alternate Commissioner, MID
Joe Bowers	Alternate Commissioner, City of Redding
Laura Lewis	Alternate Commissioner, SMUD
Bill Forsythe	Alternate Commissioner, City of Roseville
Michelle Williams	Western Area Power Administration
Alice Reynolds	Panelist
Mike Wilding	Panelist
Kathleen Staks	Panelist

1. Call to Order and Verification of Quorum: Mr. Shetler confirmed the quorum; attendance is noted above. Chair Matchim called the meeting to order at 1:00 p.m.

2. Matters Subsequent to Posting the Agenda: None.

3. Public Comment (any matter on the agenda): None.

4. Consent Agenda: Chair Matchim invited comments from the Commission and a motion on the Consent Agenda; no comments.

ACTION: M/S (Caballero/Sheetz) to **approve the Consent Agenda**. Motion carried by a unanimous vote.

5. BANC Strategic Planning Session.

A. "What's Next for the West" Panel Discussion.

Mr. Shetler introduced Alice Reynolds, a member of the CAISO Board of Governors & former CPUC President; Kathleen Staks, Western Freedom Executive Director and ROWE Formation Board President; and Mike Wilding, Pacificorp Vice President of Energy Supply Management and they answered a series of questions related to the changing resource mix, increasing load growth, severe weather and wildfire-related resiliency challenges, changing energy policy, and rapidly development markets in the West. They also took questions from meeting participants. There were no action items associated with this agenda item.

B. Discussion on Western Interconnection Infrastructure Development.

Mr. Shetler introduced Tony Braun, BANC General Counsel, who shared information related to the infrastructure needs reshaping the electric utility industry and the Western Interconnection. Mr. Braun teed up questions for Commission consideration and discussion, but no action was requested or taken.

C. Review of BANC Strategic Initiatives & Discussion on New Initiatives.

Mr. Shetler reviewed current BANC focus areas for discussion and input: Reliable Grid Operations, EDAM and Market Development and Supporting Services for Initiatives, Day-Ahead Market Expansion, Resource Adequacy Development, and Resource Development. He noted transition planning as a possible future BANC focus area, requesting input from participants on current and possible future initiatives.

D. Review Action Items.

Mr. Shetler summarized the action items around each of these areas and committed to translating them into an updated set of strategic initiatives for 2026-27 to be presented at an upcoming Commission meeting.

6. Regular Agenda Items – Discussion and Possible Action.

A. Consider and Possibly Approve Resolution 26-09-01 *Resolution Commending and Thanking Paul Lau for His Service to the Balancing Authority of Northern California.*

Mr. Shetler introduced this resolution, noting Paul's contributions and expressing gratitude for his service.

ACTION: M/S (Zettel/Matchim) to **approve Resolution 26-09-01 *Resolution Commending and Thanking Paul Lau for His Service to the Balancing Authority of Northern California*.** Motion carried by a unanimous vote.

B. Discussion on Draft 2027 BANC Annual Budget.

Mr. Shetler overviewed the proposed budget, noting that he would likely return with any updates at October's meeting. No Commission approval was requested at this time, but questions were taken from the Commission.

The Commission adjourned at 4:00 p.m.

Minutes approved on October 28, 2026.

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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 September 2026

Operations:

- BA Operations: Normal
- Significant BA Issues: None
- Declared BA Energy Emergency Alert Level (EEA): N/A
- RSG Activations
  - 1 Qualifying Events
  - 0 MW Qualifying Event request
  - 210 MW average generation lost
  - 210 MW maximum generation lost
  - Generating unit(s) and date(s) affected:
    9/14/26 – Cosumnes Power Plant tripped offline
  - All recoveries within 7 minutes
- USF
  - 0 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: 4 Minutes
  - Number of BAAL exceedance >10 minutes: None
  - BAAL violation (BAAL exceedance >30 minutes): None
- Frequency Response (FR) Performance – Quarterly Metric:
  - 2026 Frequency Response Obligation (FRO): -19.1 MW/0.1Hz

Monthly Notes:

- None

Compliance Officer Report
BANC Commission Meeting
October 2026

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 have been submitted to WECC.

BANC MCRC:

The next BANC MCRC meeting is scheduled to be held at 10:00 AM on Monday, November 2nd via teleconference.

PC Committee Chair Report
BANC Commission Meeting
October 2026

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. Staff completed fulfilling RSAW Narratives for the annual BANC PC Self Certification.

- FAC-002-4 – Facility Interconnection Studies – Staff reviewed responses to the annual data request to BANC PC Participants requesting information regarding any potential new interconnection projects or qualified changes for years 2026 through 2036. Staff also evaluated additional responses to qualified changes that would need to be studied in the near future that are not part of the TPL assessment as a separate FAC-002-4 study. An assessment is underway to study different transmission line configurations for RDNG.

- FAC-014-3 - Establish and Communicate SOLs – Staff has completed evaluating SOLs for year 2026, in conjunction with the development of the TPL-001-5 study base cases, and using the latest set of SOLs for BANC PC provided by the CAISO. The dynamics files have been updated with new models and SOLs evaluation is complete. Communication will be made regarding any differences in SOLs being used by the BANC PC.

- MOD-031-3 – Demand and Energy Data – Staff submitted an additional gas pipeline narrative data request to WECC on July 10th. Staff worked with BANC members and SMUD staff to collaborate on a PC-wide response. This year's L&R process is complete, and next year's process will begin in December. WECC is starting the process early this year by holding webinars in which the BANC PC is participating.

- MOD-032-1 - Data for Power System Modeling and Analysis – Staff updated the BANC PC R1 Data Reporting and requirements documents ahead of the compliance deadline. This was done to ensure recently classified Category 2 IBRs who will be required to comply in May have the most up to date requirements to submit their model data under. The request has been sent out and BANC is awaiting responses. Some data was received which is being reviewed.

- MOD-033-2 – Model Validation – 2025 validation was completed in December. Next validation to be performed in Fall 2026.

- PRC-006-5 – Automatic Underfrequency Load Shedding – Staff is participating in the ongoing WECC-level PRC-006-5 process to determine the effectiveness of the existing UFLS for the Southern Island in the SILTP and in Underfrequency Load Shedding Working Group (UFLSWG) meetings, and the review amongst the UFLSWG has been completed. The report has been finalized and posted on WECC's website. There are no violations for the Southern Island that BANC PC is part of. The annual 2026 UFLS data request was completed on June 1st. Staff is working with the UFLSWG to determine what changes are required to the SILTP guideline document from 2010 and is engaged in discussions with other stakeholders for an update to that guideline.

- PRC-012 – Remedial Action Schemes Assessment – Staff performed a comprehensive "once in every 60 calendar months" Remedial Action Scheme (RAS) assessment to demonstrate whether the BANC PC portion of the Bulk Electric System (BES) met all performance and other requirements specified in the NERC Reliability Standard PRC-012-2 R4. The final study report was completed and sent out prior to the end of 2025. This is next due in 2030.

- PRC-023-6 – Transmission Relay Loadability –The study plan has been completed, and staff is performing powerflow studies and reviewing results. A draft report will be sent to BANC PC Participants for review and comment soon.

- PRC-026-2 – Relay Performance During Stable Power Swings –The study plan has been completed, and staff is performing the transient stability studies.

- TPL-001-5.1 – Transmission System Planning Performance – The draft assessment report is out for review with comments due by October 16th. It will be finalized upon reviewing the comments received.

- TPL-007-4 – Transmission System Planned Performance for Geomagnetic Disturbance Events – Staff completed the GMD voltage portion of the study to assess the impact of GMD events 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 performing the additional voltage study for compliance. The GMD voltage study report was sent out to BANC PC Participants for review on March 12, 2025. The GMD Vulnerability Assessment Responsibilities for BANC PC Area report was updated on November 16, 2025. No new responsibilities were added for BANC PC members; the updates were strictly for improved readability and organization. We did, however, add more description to Section 3.5 - Requirement 5 to ensure the required GMD data is sent to the appropriate parties. The GMD Vulnerability Assessment Responsibilities for BANC PC Area report was updated on January 7, 2026 after noting that certain responsibilities shifted between revisions. The updated report has been sent to BANC PC Participants for comments.

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

	PC Standard	Estimated % Complete	Notes
1	FAC-002-4 Interconnection Studies	70%	Staff reviewed responses to the annual data request to BANC PC Participants requesting information regarding any potential new interconnection projects, or qualified changes for years 2026 through 2036. Staff also evaluated additional responses to qualified changes that would need to be studied in the near future that is not part of the TPL assessment as a separate FAC-002-4 study. An assessment is underway to study different transmission line configurations for RDNG.
2	FAC-014-3 Establish and Communicate SOLs	85%	Staff has completed evaluating SOLs for year 2026, in conjunction with the development of the TPL-001-5 study base cases, using the latest set of SOLs for BANC PC as provided by the CAISO. The dynamics files have been updated with new models and SOLs evaluation is complete. Communication will be made regarding any differences in SOLs being used by BANC PC.
3	IRO-017-1 Outage Coordination	100%	Assessment report(s) were sent to the RC on 12/31/25.
4	MOD-031-3 Demand and Energy Data	100%	Staff submitted an additional gas pipeline narrative data request to WECC on 7/10/26. Staff worked with BANC members and SMUD staff to collaborate on a PC-wide response. This year's L&R process is complete, and next year's process will begin in December.
5	MOD-032-1 Data for Power System Modeling & Analysis	50%	Data request was sent. Awaiting response from developers. Some data has been received and is being reviewed.
6	MOD-033-2 System Model Validation	0%	Will be started in the fall.

	PC Standard	Estimated % Complete	Notes
7	PRC-006-5 Underfrequency Load Shedding	100%	Staff is participating in ongoing WECC level PRC-006-5 studies to determine the effectiveness of the existing UFLS for the Southern Island. Staff continues to participate in the SILTP and Underfrequency Load Shedding Working Group (UFLSWG) meetings to coordinate on studies and completed the review amongst the UFLSWG. The report has been finalized and posted on WECC's website. There are no violations for the Southern Island that BANC PC is part of.
8	PRC-010-2 Undervoltage Load Shedding	100%	Staff completed performing the UVLS assessment studies. The final Report was issued on 12/24/24.
9	PRC-012-2 Remedial Action Schemes	100%	The final study report was completed and sent out on 12/22/25. Next due in 2030.
10	PRC-023-6 Transmission Relay Loadability	70%	The study plan has been completed and staff is performing powerflow studies and reviewing results. A draft study report is being compiled for BANC PC review and comment.
11	PRC-026-2 Relay Performance During Stable Power Swings	60%	The study plan has been completed, and staff is performing the transient stability studies.
12	TPL-001-5 Transmission System Planning Performance	90%	Draft assessment report is out for review

	PC Standard	Estimated % Complete	Notes
13	TPL-007-4 Transmission System Planned Performance for Geomagnetic Disturbance Events	100%	TPL-007-4 Transmission System Planned Performance for Geomagnetic Disturbance Events - 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. The GMD Vulnerability Assessment Responsibilities for BANC PC Area report was updated on 11/16/2025. No new responsibilities were added for BANC PC members. The updates were strictly for improved readability and organization. We did, however, add more description to Section 3.5 - Requirement 5, to ensure the required GMD data is sent to the appropriate parties. The GMD Vulnerability Assessment Responsibilities for BANC PC Area report was updated on 1/7/2026 after noting that certain responsibilities shifted between revisions. The updated report has been sent to BANC PC members for comments.

GM Report
BANC Commission Meeting
October 28, 2026

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:

Market Initiatives:

EIM Participation

Staff continues monitoring EIM participation. CAISO quarterly benefit reports show that BANC is seeing benefits from EIM participation, with the 2nd Quarter 2026 report showing gross benefits of $40.67 million for BANC, with a total of $1,009.00 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 Committee.

EDAM Participation

The BANC EDAM Implementation project is moving forward. The EDAM Implementation Agreement has been executed with the CAISO and was approved by FERC. Based upon the CAISO decision to move EDAM go-live for the 2027 entities to the fall, BANC revised the schedule and budget for the project and obtained Commission concurrence at its July 2025 meeting. Staff is now moving forward with ramping up the project efforts, which includes monitoring the implementation efforts of Pacificorp and PGE for their 2026 go-lives. Pacificorp successfully went live on May 1, 2026, with no major issues. PGE successfully went live on October 1, 2026, with a very smooth implementation.

BANC is an active participant in the West-wide Governance Pathways Initiative (WWGPI), which includes participation on the Formation Committee for the new organization. Pathways selected a Formation Board (FB) for the new Regional Organization for Western Energy (ROWE), and the BANC General Manager has

agreed to serve as one of these board members. The FB has limited authority focused on creation of the new organization and selecting the initial independent board. The Board nominating process has been completed with the Nominating Committee selecting a slate of five candidates, which were approved by the Formation Board on September 30th and seated on October 16th. The Formation Board has also initiated the selection process for the new CEO for the ROWE, who will be selected by the newly seated ROWE Board. The goal is to have key staff selected in late-2026 to early-2027, negotiate the necessary tariff amendments and service agreement with the CAISO for filing at FERC in mid-late 2027, with the new organization operable by early 2028.

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 January16, 2025. SPP has indicated that "go-live" for the initial participants in Markets+ is currently forecasted for Fall 2027. SPP announced that it has secured sufficient funding commitments to move forward with the next phase of Markets+ development. SPP is also moving forward with expansion of their RTO into the eastern part of the Western Interconnection with a successful go-live on April 1, 2026. Seams between the two markets has become a major topic. As a result, a group of the EDAM BAA's and Markets+ BAA's have initiated discussions on seams and other market transition issues with meetings on May 11, 2026, July 31, 2026, and September 16, 2026. The new BPA administrator has indicated his intent to revisit the decision to join Markets+, and has issued a letter outlining the issues that he believes need to be addressed for EDAM participation. BPA is following this up with several workshops on next steps in evaluating the options.

WAPA:

Market Engagement

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

BANC is working with WAPA-SNR to facilitate their EDAM implementation efforts including assisting with OATT development in parallel with BANC development of the EDAM business practices.

WECC:

WECC Board Meetings

The last set of Board and committee meetings were held on September 15-16, 2026, in Salt Lake City, UT, though these were not public meetings but rather reserved for Board strategic discussions. The next set of meetings will be December 8-9, 2026, in

Salt Lake City, UT. The WECC CEO has indicated the desire to periodically hold Board meetings outside of Salt Lake City with their March meeting tentatively scheduled for Sacramento.

Western Power Pool (WPP):

Western Resource Adequacy Program (WRAP)

BANC continues to monitor development of the WRAP. NVE has filed an IRP update with the Nevada Commission stating that they will not be moving forward with binding participation in WRAP. In addition, Pacificorp, PGE, and PNM have also stated that they will not be going binding in the WRAP. Idaho Power and Seattle City Light have agreed to go binding in WRAP. At this stage, WPP has stated that they will be moving forward with the initial WRAP binding period for winter 2027 with sixteen entities participating. However, Seattle City Light has announced that they will be withdrawing from WRAP after the initial winter binding period in 2027.

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 envisioning a 2.5-year process with an initial 10-year plan to be issued in 2025 and a 20-year plan in 2026. The draft 10-year plan is final and was published on February 4, 2026. The 10-year plan has identified $~56 billions of transmission enhancements adding or upgrading 12,200 miles of facilities. It is expected that the 20-year plan will be issued in late 2026 to early 2027.

CDWR Delta Pumping Load:

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 discussions, the POU BAAs 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 the current report. The POU BAs met with the CEC on January 26, 2026, to discuss the status of the SB101 report. The CEC hosted a workshop on the 2025 SB100 Joint Agency Report on February 19, 2026. Jon Olson from SMUD represented POU entities on one of the panels.

Western Electricity Industry Leaders (WEIL) Group:

The WEIL CEOs last met on October 14, 2026, in Portland, OR. The next meeting of the WEIL group is planned for February 2027, in San Diego, CA.

Strategic Initiatives:

The 2025/2026 Strategic Initiatives are attached to this report.

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	Proposing update to plan in 2027
3 Medium		Develop appropriate policies, procedures, & action tracking	Jim Shetler/BB&W	4th Qtr. 2026	
4 Medium	OUTREACH	Engage in industry forums (WECC, RC West, NWPPA, etc.)	Jim Shetler	Ongoing	Attend RC West, WECC Board, WEIL, & WPP mtgs. Attended CMUA Annual Mtg.
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	
7 Medium		Engage TID on BA/EIM/EDAM	Jim Shetler/BB&W	Ongoing	
8 High		Develop prioritized risk matrix on key regulatory issues	BB&W/Jim Shetler	Mid-2026	Memo sent to Commission as part of Strategic Planning: 9/2026
9 Medium	ASSETS	Monitor RA development in WI including EDAM RA program	Jim S./BB&W/Res. Com.	4th Qtr. 2026	EDAM RA program discussion initiated - Initial draft Q4 2026
10 Medium		Finalize BANC-wide IRP Report	Jim S./Res. Comm	3rd Qtr. 2026	Forecast by 4th Qtr. 2026
11 High		Upgrade BANC RA Program	Jim S./Res. Comm.	3rd Qtr. 2026	Brattle Contract executed. Delaying effort to monitor EDAM RA program
12 Low	MEMBER SERVICES	Coordinate with BANC Operator to identify education areas for grid operations and outreach to members	Jim Shetler/Chris Hofmann	4th Qtr. 2026	Initiated weekly ops calls. Developing gas curtailment procedure.
13 Low		Develop general education on BANC functions & support	Jim Shetler/BB&W	4t Qtr. 2026	On hold waiting for new SMUD Director

No./Priority	Focus Area	Initiative	Responsibility	Target Due Date	Status
14 High	INDEPENDENCE	Manage EIM Phase 2 Going Forward	Jim Shetler/SMUD	Ongoing	Manage Phase 2 operations including Markets, Tech. & Settlements committees
15 High		EDAM implementation effort ~ Manage BANC EDAM Imp. ~ Coordinate seams discussion	Jim Shetler/BB&W/ Utilicast	Oct-27	Ramping up project. Next workshop - 10/22
16 Medium	OUTREACH	Evaluate opportunities to engage other entities in market development	Jim Shetler	Ongoing	Coordinating with SCL, SRP, LADWP, TID, Tacoma, Idaho, PAC, & PGE
17 Medium		Regional Policy Issues: Monitor/ weigh-in where appropriate	Jim Shetler/Commission	Ongoing	Filed comments on EDAM RA program
18 High		Market Regionalization: ~Monitor ongoing discussions at WEIL, Pathways, & etc.	Jim Shetler/BB&W	Ongoing	ROWE Board seated 10/16 Board Briefing Book finalized
19 High		Coordinate with CA BAs on SB100 effort	Jim Shetler/BB&W	Ongoing	CEC Workshop on 2/19/26
20 High	ASSETS	~ Develop agreements for Sutter CS Project	Jim S./BB&W/Res. Com.	3rd Qtr. 2026	Waiting on Calpine due diligence completion
21 High		~ Develop/issue BANC resource solicitation/Educate developers	Jim S./BB&W/Res. Com.	Mid-2026	Draft PPA discussions with Millville
22 Medium	MEMBER SERVICES	Evaluate possible support to participants for EIM/EDAM operations	Jim S.	Ongoing	

Balancing Authority of Northern California

Agenda Item 5Aiii

1. **General Manager's 2026-27 Strategic Initiatives Update.**

#/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 GM	Jim Shetler/ Commission	2nd Qtr. 2027	Develop PD & Transition Plan for 2028 Transition
3 Medium		Develop appropriate policies, procedures, & action tracking	Jim Shetler/BB&W	4th Qtr. 2026	
4 Medium	OUTREACH	Engage in industry forums (WECC, RC West, NWPPA, etc.)	Jim Shetler	Ongoing	Attend RC West, WECC Board, WEIL, & ROWE mtgs. Attend CMUA Annual Mtg.
5 Medium		Coordinate with other POU BAs (CA and regionally)	Jim Shetler	Ongoing	Coordinating with SCL/SRP/LADWP/TP/TID on EIM/EDAM & SB100
6 Medium		Outreach to regulatory and legislative bodies on key issues	Jim Shetler/BB&W	Ongoing as necessary	
7 Medium		Engage TID on BA/EIM/EDAM	Jim Shetler/BB&W	Ongoing	
8 High		Maintain prioritized risk matrix on key regulatory issues	BB&W/Jim Shetler	Ongoing	
9 Medium	ASSETS	Monitor RA development in WI including EDAM RA program	Jim S./BB&W/ Res. Com.	2nd Qtr. 2027	
10 Medium		Issue annual BANC-wide IRP Report	Jim S./ Res. Comm	Ongoing	
11 High		Decide approach for BANC RA Program	Jim S./ Res. Comm.	2nd Qtr. 2027	
12 Low	MEMBER SERVICES	Coordinate with BANC Operator to identify education areas for grid operations and outreach to members	Jim Shetler/ David Wilke	Ongoing	
13 Low		Develop general education on BANC functions & support	Jim Shetler/ BB&W	4t Qtr. 2027	On hold waiting for new SMUD Director

#/Priority	Focus Area	Initiative	Responsibility	Target Due Date	Status
14 High	INDEPENDENCE	Manage EIM Phase 2 Going Forward	Jim Shetler/SMUD	Ongoing Thru Sept 27	Manage Phase 2 operations including Markets, Tech. & Settlements Committees
15 High		EDAM implementation effort ~ Manage BANC EDAM Imp. ~ Coordinate seams discussion	Jim Shetler/BB&W/ Utilicast	Oct-27	
15 High		Manage EDAM Going Forward	Jim Shetler/SMUD	Ongoing from Oct-26	Manage EDAM operations including markets, Tech. & Settlements Committees
16 Medium	OUTREACH	Evaluate opportunities to engage other entities in market development	Jim Shetler	Ongoing	Coordinating with SCL, PNM,LADWP, TID, Idaho, IID, PAC, & PG&E
17 Medium		Regional Policy Issues: Monitor/weigh-in where appropriate	Jim Shetler/ Commission	Ongoing	
18 High		Market Regionalization: ~Monitor ongoing discussions at WEIL, ROWE, & etc.	Jim Shetler/BB&W	Ongoing	Consider
19 High		Engagement on State Evaluation of SB100	Jim Shetler/BB&W	Ongoing	Restart education on POU planning, collaboration with state, technical examination of SB 100 report
20 High	ASSETS	Develop agreements for Sutter CS/Millville Projects	Jim S./BB&W/ Res. Com.	2nd Qtr. 2027	Coordination of Member Assessments and Commercial Activities to support possible procurement
21 High		Coordinate with TANC to evaluate potential transmission projects for consideration		2nd Qtr. 2027	
22 High		Develop/issue BANC resource solicitation/Educate developers	Jim S./BB&W/ Res. Com.	3rd Qtr. 2027	
23 Medium	MEMBER SERVICES	Evaluate possible support to participants for EIM/EDAM operations	Jim Shetler	Ongoing	

Balancing Authority of Northern California

Agenda Item 5B

1. **BANC PC Area 2026 Transmission Planning Assessment Summary Report.**
2. **Resolution 26-10-01 *Acknowledgment and Acceptance of BANC PC Area 2026 Transmission Planning Assessment*.**

BALANCING AUTHORITY OF NORTHERN CALIFORNIA

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

10/21/26

To: **BANC Commission**

From: **BANC General Manager**

RE: **Acknowledgement and Acceptance of BANC PC Area 2026 Transmission Planning Assessment**

Included in the Commission packet for the October 28, 2026 BANC Commission meeting is the BANC Planning Coordinator (PC) Area 2026 Transmission Planning Assessment.[1] This document was produced by the Sacramento Municipal Utility District (SMUD), which serves as the BANC PC Services Provider. Concurrence from each member of the BANC Planning Committee was received on or before October 16, 2025. The performance of the BANC PC Area's portion of the Bulk Electric System (BES) was assessed in order to demonstrate that all of the performance requirements specified in the North American Electric Reliability Corporation (NERC) Reliability Standard TPL-001-5.1 (Transmission System Planning Performance) were met for years 2027 through 2036 (planning years one through ten).

A number of studies were performed to assess BES performance under various scenarios. The Assessment did not identify any new system deficiencies or criteria violations for the MID Roseville Electric, and RDNG portions of the BES. SMUD has previously identified performance deficiencies that have either documented operator actions or existing automatic RAS actions that address the issues. This year's analysis identified a new performance issue in the SMUD system where a single extreme contingency could have the potential to cause voltage collapse. As this was the result of an extreme contingency, a Corrective Action Plan was not needed. However, an evaluation of possible actions designed to reduce the likelihood or mitigate the consequence of the extreme contingency was conducted and an office memorandum was developed and distributed as an interim solution until SMUD's Transmission Planning group studies and implements a more permanent solution. The attached report provides additional information. No new corrective action plans were developed for this assessment.

This assessment demonstrates BANC's compliance with the NERC TPL-001-5.1 Reliability Standard, the WECC TPL-001-WECC-CRT-4 Transmission System Performance Criterion, and the BANC PC Participants' respective voltage criteria. Compliance with NERC Reliability Standard TPL-001-5.1 is one of several that must be met by the BANC PC, and the Commission is requested to acknowledge receipt and accept the BANC PC Area 2026 Transmission Planning Assessment by resolution.[2]

[1] Entities included in the BANC PC Area include: the Modesto Irrigation District (MID), Redding Electric Utility (RDNG), Roseville Electric and SMUD. The City of Shasta Lake and the Trinity Public Utilities District are part of the Western Area Power Administration – Sierra Nevada Region PC Area.

[2] Refer to BANC PC Committee Chair Report for November 2026 for more information regarding the status of all PC-related NERC reliability standards.



Balancing Authority of Northern California

BANC Planning Coordinator Area 2026 TPL-001-5.1 Assessment Summary Report

October 20th, 2026

Executive Summary

This assessment was performed to demonstrate that the Balancing Authority of Northern California (BANC) Planning Coordinator (PC) portion of the Bulk Electric System (BES) meets the performance requirements specified in the TPL-001-5.1 NERC Reliability Standard for the near-term and long-term planning horizons.

Analyses were performed for steady state and transient stability to assess the BES performance following various NERC Category P0-P7 contingencies and extreme events as well as sensitivity studies. A spare equipment unavailability analysis was conducted with NERC Categories P0, P1 and P2 contingencies. A known outage study was performed as well with the facilities planned to be out of service modeled offline. The short circuit analysis of interrupting capability was supported by current and qualified past studies from each BANC PC Participant, whereas the steady state and stability analyses were supported by current studies.

For all analyses performed, there were no system deficiencies or criteria violations identified for the MID, RDNG, or RE portions of the BES. SMUD has previously identified some performance deficiencies that have either documented operator actions or existing automatic RAS actions that address the issues.

In addition, this year's analysis identified a new performance issue in the SMUD system where a single extreme contingency could have the potential to cause voltage collapse. As this was the result of an extreme contingency, a Corrective Action Plan was not needed. However, an evaluation of possible actions designed to reduce the likelihood or mitigate the consequence of the extreme contingency was conducted and an office memorandum was sent to SMUD Transmission Operations groups to describe the operating conditions that could potentially lead to voltage collapse and the suggested actions to mitigate the consequence of the extreme contingency. The memo serves as an interim solution until SMUD's TP group studies and implements a more permanent solution.

The assessment demonstrates BANC PC's compliance with the NERC TPL-001-5.1 Reliability Standard, the WECC TPL-001-WECC-CRT-4 Transmission System Performance Criterion, and the BANC PC participant's respective voltage criteria.

The full 2026 BANC PC TPL-001-5.1 Assessment Report has been developed and reviewed by all BANC PC Participants and will be distributed to adjacent Planning Coordinators once it is approved by BANC Commission. The full report will be also available to any NERC functional entity that has a reliability related need and submits a written request for the information.

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Appendix A. TPL-001-5.1 Requirement Matrix A1

Appendix B. References A3

Terms

BA	Balancing Authority
BANC	Balancing Authority of Northern California
MID	Modesto Irrigation District
NERC	North American Electric Reliability Corporation
PC	Planning Coordinator
PC Participants	SMUD, MID, RE, and RDNG
RDNG	Redding Electric Utility
RE	Roseville Electric
SMUD	Sacramento Municipal Utility District
TP	Transmission Planner
WECC	Western Electricity Coordinating Council

1 Introduction

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), Roseville Electric (RE), Redding Electric Utility (RDNG), Trinity Public Utilities District, and the City of Shasta Lake Utilities. BANC assumed the Balancing Authority (BA) responsibilities on May 1, 2011, with SMUD providing the BA operator services on a contract basis.

On January 1, 2017, BANC registered as the NERC Planning Coordinator (PC) for four of its members with a goal of fully complying with all PC-related reliability standards by January 1, 2018. The four BANC members that are in the BANC PC area are SMUD, MID, RE, and RDNG (individually "PC Participant" and collectively "PC Participants"). The City of Shasta Lake and Trinity Public Utility District are BANC members but are not PC Participants[1]. BANC and SMUD entered into an agreement wherein SMUD provides PC services to BANC on a contractual basis.

An assessment was performed for the BANC PC[2] portion of the Bulk Electric System (BES) in 2026 to demonstrate that it meets all performance and other requirements specified in the TPL-001-5.1 NERC Reliability Standard[i] for the near- and long-term planning horizons.

2 Study Scope

The BANC PC annual assessment measured the BES performance at the BANC PC Participant area for the near- and long-term planning horizons with the specific goal of demonstrating compliance with the TPL-001-5.1 NERC Reliability Standard. As such, the assessment was comprised of the following analyses:

- Steady state analysis
- Stability analysis
- Sensitivity analysis
- Spare equipment unavailability analysis
- Short circuit analysis
- Known outage analysis

2.1 Steady State Analysis

A steady state analysis shall assess the system performance at peak load in the near-term and long-term transmission planning horizons. The steady-state performance shall be assessed in the

[1] The Western Area Power Administration – Sierra Nevada Region (WAPA-SNR) is also inside the BANC BA, but it is not a member of the BANC JPA. However, WAPA-SNR is an active participant in BANC activities. Additionally, WAPA-SNR is a registered PC and will serve as the PC for the Trinity Public Utilities District and the City of Shasta Lake. Thus, all BANC members are covered under either the BANC or WAPA-SNR PC registrations.

[2] BANC PC annual assessment includes performing an assessment for SMUD's non-BES 115 kV elements. The results of these studies are available to BANC members and upon request to entities with an NDA.

near-term horizon using peak load cases that model year two (2028) and year five (2031). The long-term horizon shall be assessed using a peak load case for year ten (2036) as it represents the furthest out year of the long-term planning horizon, helping to identify potential future issues that may require significant lead time to adequately address and resolve. In addition, the system performance at off-peak shall be assessed for one of the five years. Year two (2028) was selected for the off-peak load study scenario.

2.2 Stability Analysis

A stability analysis shall be performed to assess the system performance in the near-term planning and long-term planning horizon. The peak and off-peak cases for year two (2028) and peak case for year five (2031) shall be used in the assessment for the near-term analysis and the peak case for year ten (2036) shall be used for the long-term analysis.

2.3 Sensitivity Study Scenarios

Sensitivity cases shall be used to assess the impact of changes to the basic assumptions used in the model. The sensitivity analysis shall vary one or more of the following conditions by a sufficient amount to stress the system within a range of credible conditions that demonstrate a measurable change in System response:

- Real and reactive forecasted Load.
- Expected transfers.
- Expected in service dates of new or modified transmission facilities.
- Reactive resource capability.
- Generation additions, retirements, or other dispatch scenarios.
- Controllable loads and demand side management.
- Duration or timing of known transmission outages.

A 1-in-10 year load forecast for the BANC PC area increased by 5% shall be used as the sensitivity study scenario to assess the near-term transmission planning horizon for the summer peak year 2 (2028). For the off-peak sensitivity case for year 2 (2028) additional thermal units will be turned on to stress exports and congestion during high solar and renewable generating times of the day. For the year 5 (2031) summer peak sensitivity, the generation dispatch will be altered to simulate a low hydro/drought year.

2.4 Spare Equipment Unavailability Study Scenarios

An entity's spare equipment strategy could result in the unavailability of major transmission equipment that has a lead time of one year or more. The impact of possible equipment unavailability on system performance was studied for P0, P1, and P2 categories. BANC PC performed the spare equipment unavailability analysis based on the BANC PC participants' spare equipment strategies for major transmission equipment that has a potential lead time of one year or more. The spare equipment strategy from RDNG[ii] showed that RDNG's Airport 230/115 kV transformer and 115/13.8 kV GSU transformer could be out of service for one year or more. Studies were performed with these facilities out of service to assess the impact on system performance for possible unavailability. The spare equipment strategies from MID[iii], RE[iv], and SMUD[v] found no major transmission equipment with a lead time of one year or more.

2.5 Short Circuit Analysis

A short circuit analysis shall be used to assess the near-term transmission planning horizon using peak generation and determine whether circuit breakers have the interrupting capability for faults that they will be expected to interrupt. The short circuit analysis uses the system short circuit model with any planned generation and transmission facilities in service which could impact the study area. Each PC Participant is responsible for conducting their own short circuit study and providing the results of said study to be included in this assessment.

2.6 Known Outage Analysis

A known outage analysis will be performed in accordance with the "*BANC PC Known Outage Analysis Procedure*"[vi] to determine if any planned facility outages will cause criteria violations in the near-term horizon. Each PC participant is responsible for informing BANC PC of any known outages that will take place during the assessment study years. There are no known outages in the near-term horizon in the BANC system that will require additional analysis.

2.7 Summary of Study Years and Scenarios

Table 2.7 below summarizes the various types of analyses and study scenarios which were performed as part of the transmission system planning assessment, and the study years that were selected for each analysis.

Table 2.7 – Study scenarios and years performed in this assessment

		Near-term horizon year					Long-term horizon year				
		1	2	3	4	5	6	7	8	9	10
Analysis	Scenario	'27	'28	'29	'30	'31	'32	'33	'34	'35	'36
Steady state	Peak	-	X	-	-	X	-	-	-	-	X
	Off-peak	-	X	-	-	-	-	-	-	-	-
Stability	Peak	-	X	-	-	X*	-	-	-	-	X
	Off-peak	-	X	-	-	-	-	-	-	-	-
Spare equipment unavailability	Peak	-	X	-	-	-	-	-	-	-	-
	Off-peak	-	-	-	-	-	-	-	-	-	-
Steady state sensitivity	Peak	-	X	-	-	X	-	-	-	-	-
	Off-peak	-	X	-	-	-	-	-	-	-	-
Stability sensitivity	Peak	-	X	-	-	-	-	-	-	-	-
	Off-peak	-	X	-	-	-	-	-	-	-	-
Short circuit[3]	Peak	Years vary depending upon each PC Participant.									

*Not required by TPL-001-5 but is still performed for informational purposes.

[3] The short circuit analysis performed for different years within the Near-Term Planning Horizon was dependent upon the data submitted by the BANC PC Participants.

3 Study Assumptions

3.1 System Model Representations

This assessment utilized system models maintained by the PC for the BES portion and non-BES portion of the BANC PC area. These system models were developed in accordance with NERC Reliability Standard MOD-032 and were submitted to the WECC for use in the compilation of base cases for various study years and scenarios.

BANC, when selecting the cases to be utilized in its annual planning assessment, considers Spring, Summer, Fall, and Winter seasons as well as peak and off-peak scenarios for those seasonal cases. The BANC PC participants are summer peaking utilities, and thus BANC determined it apt to study Heavy Summer as its peak scenario for the assessment to ensure there is adequate transmission capacity to handle the high load that is expected to occur and that there are adequate generation resources and imports to serve the forecasted peak load. For the off-peak scenario, BANC chose a Heavy Spring case with a load level that is approximately 60% of its summer peak load. This case is chosen as it has a different generation dispatch than the summer peak season as well as a peak load that occurs later in the day where solar is not as readily available. With California's aggressive renewable strategy, the Heavy Spring scenario offers an opportunity to study BANC's ability to serve its load in the absence of a majority of its renewable fleet as well as whether it has enough import capability to support its load.

All study cases are developed from either WECC approved base cases or CAISO assessment cases and are listed in Table 3.1 below. Each study case was updated to reflect the most recent system operating conditions and topologies, including the load forecasts and generation dispatch levels, provided by each BANC PC Participant for the year and scenario studied.

Table 3.1 - WECC base cases that were used in the assessment

Study Year	Scenario	Base Case	DYD file
2028	Summer Peak	CVLY-2027-SP (CAISO/PG&E)	2027SPOP
2028	Heavy Spring	26HSP1a1_v1 (WECC)	26HSP11
2031	Summer Peak	CVLY-2030-SP (CAISO/PG&E)	2030SP
2036	Summer Peak	CVLY-2035-SP (CAISO/PG&E)	2035SPOP

Assumptions and modifications for the cases are further described in the subsections below. These models use data consistent with that provided in accordance with all relevant modeling data reliability standards and are supplemented with data from other sources as necessary. Prior to the start of the TPL assessment, the WECC base cases to be used are sent to the PC Participants to review and the most accurate system data is provided as updates to these cases, if necessary. These are then utilized for the assessment.

3.1.1 Existing Facilities

The system models used in this assessment represented all existing facilities.

3.1.2 New Planned Facilities and Changes to Existing Facilities

This assessment included all approved new planned facilities and changes to existing facilities.

3.1.3 Real and Reactive Load Forecasts

The system models used in this assessment represented the most recent real power load forecasts and power factor from each BANC PC Participant. A 1-in-10 peak load forecast was used in the assessment for the summer peak study scenarios and typical off-peak load levels at 60% of the seasonal peak load were used for the spring off-peak scenario.

SMUD has demand side management programs that incentivize customers to reduce their energy usage during high load hours, thus reducing the overall demand on the system. The impact of SMUD's DSM programs is included in SMUD's load forecast. MID has two DSM programs as well, but the purpose of MID's DSM programs is to ensure MID has the necessary resources to meet its 15% planning reserve *above* the 1-in-10 load forecast, and thus the program is not modeled *in* their load forecast. RE and RDNG do not have DSM programs in their system.

A 1-in-10 peak load forecast increased by an additional 5% was used for the sensitivity analysis. The off-peak sensitivity was performed using a reduced generation dispatch with the largest generation plant in each BANC PC participants' area turned off to stress imports. Tables 3.1.3A and 3.1.3B below summarizes the load forecast data for all BANC PC Participants for the main study scenarios and the sensitivity study scenarios.

Table 3.1.3A – Load Demand Forecasts

		Real Power (MW)			
PC Participant	Scenario	2028	2031	2036	Power Factor
SMUD	1-in-10 Summer Peak	3,453	3,505	3,614	0.983 lag
	Spring Off-Peak	1,350	-	-	0.99 lag
MID	1-in-10 Summer Peak	760	780	814	0.998 lag
	Spring Off-Peak	456	-	-	0.998 lag
RDNG	1-in-10 Summer Peak	239.53	242.67	251.17	0.977 lag
	Spring Off-Peak	180.5	-	-	
RE	1-in-10 Summer Peak	421	444	465	0.985 lag
	Spring Off-Peak	233	-	-	

Table 3.1.3B – Sensitivity Scenario Load Demand Forecasts

		Real Power (MW)		
PC Participant	Scenario	2028	2031	Power Factor
SMUD	1-in-10 Summer Peak	3,625	3,505	0.983 lag
	Spring Off-Peak	1,350	-	0.99 lag
MID	1-in-10 Summer Peak	798	780	0.998 lag
	Spring Off-Peak	456	-	0.998 lag
RDNG	1-in-10 Summer Peak	251	241.4	0.977 lag
	Spring Off-Peak	180.9	-	
RE	1-in-10 Summer Peak	442	444	0.985 lag
	Spring Off-Peak	233	-	

3.1.4 Firm Transmission Service and Interchange

Firm transmission service was not modeled in this assessment since BANC PC members have no commitments to provide firm transmission service.

3.1.5 Resources Required for Load

The system models used in this assessment represented the supply side resources and their projected dispatches for the peak and off-peak load conditions.

Demand side resources were modeled in the SMUD system in the form of distributed generation that is netted out of the load. This assessment also represented demand side load response utilizing the WECC approved composite load model.

4 Analyses

This assessment included steady state, transient stability and short circuit analyses, which are described in the sections that follow. All simulations performed for the steady state and transient stability portion of this assessment were performed using the General Electric Positive Sequence Load Flow (PSLF) program. Short circuit studies were performed using Aspen One Liner, CAPE and GE PSLF. These software programs are widely used throughout the WECC.

4.1 Steady State Analysis

A steady state analysis was performed as part of this assessment to determine whether the BANC PC portion of the BES meets the performance requirements specified in the TPL-001-5.1 NERC Reliability Standard for the near- and long-term planning horizons. The analysis was also performed to assess the impact of extreme events identified in TPL-001-5.1 table 1. This analysis was supported by current studies.

4.1.1 Peak Load Years

This assessment included a steady state analysis of peak loads for planning years two, five, and ten (2028, 2031, and 2036) to span the near-term and long-term planning horizons. Years two (2028) and five (2031) were selected for inclusion in this assessment since they bookend the near-term planning horizon. Year one was not selected since the summer peak load for year one will be less than one year away when this report is finalized. Year ten (2036) was selected for inclusion because it encompasses all approved projects for the long-term planning horizon.

4.1.2 Off-peak Load Years

This assessment included a steady state analysis of off-peak loads for planning year two (2028). Off-peak load is generally defined by BANC PC as spring with a light system load of about 60% of peak, or as uniquely defined by an individual BANC PC participant for their own system, with voltages higher than normal, and generation at a minimum. The off-peak load used in this assessment was determined using engineering judgment and/or historical off-peak spring load data as provided by each BANC PC Participant.

4.1.3 Sensitivity Analysis

This assessment included sensitivity analyses to demonstrate the impact of changes to basic assumptions used in the system models to the steady state reliability. Sensitivity cases for the peak and off-peak load cases were developed by varying the certain conditions in such a way as to stress the system within a range of credible conditions that demonstrated a measurable change in system response.

A sensitivity analysis was performed on the 2028 peak load year by using the 1-in-10 year load forecast for the BANC PC area increased by 5% to assess the near-term horizon portion of the steady state analysis. For the off-peak sensitivity case for year 2 (2028) additional thermal units will be turned on to stress exports and congestion during high solar and renewable generating times of the day. For the year 5 (2031) summer peak sensitivity, the generation dispatch was altered to simulate a low hydro/drought year. The load power factors in the sensitivity cases were assumed to remain the same. Table 4.1.3.1 lists the scenarios for each BANC PC Participant in the sensitivity study base cases.

4.1.4 Known Outages

This assessment included a steady state analysis to assess the impact of known outages of generation or Transmission Facilities planned in the near-term horizon in accordance with the "*BANC PC Known Outage Analysis Procedure*". There were two facilities with known outages in the near-term horizon in the MID portion of the BANC system:

1. Claus – McClure 115 kV Line
2. Westley – Rosemore 230 kV Line #2

A steady state analysis was performed for the 2028 peak load case to assess the impact of the outages of the facilities above. The steady state analysis included the evaluation of the P0 and P1 category contingencies identified in Table 1 of TPL-001-5.1.

4.1.5 Spare Equipment Unavailability Analysis

The respective spare equipment strategies of the BANC PC Participants could result in the unavailability of the following major transmission equipment for one year or more:

- Airport 230/115 kV transformer (RDNG)
- Redding Power Plant 115/13.8 kV GSU (RDNG)

The spare equipment strategies for MID, RE, and SMUD found no major transmission equipment that could result in unavailability for one year or more, due to long lead times.

A steady state analysis was performed for the 2028 peak load case to assess the impact of the possible unavailability of the long lead time equipment listed above. The steady state analysis included the evaluation of the P0, P1, and P2 category contingencies identified in Table 1 of TPL-001-5.1.

4.1.6 Contingencies Studied

The steady state analysis was performed using a comprehensive list of contingencies based on Table 1 of TPL-001-5.1. All possible contingencies for categories P0-P7 were studied for the

steady state analyses. P3 and P6 category contingencies were automatically generated by a computer script to cover all possible combinations. In addition, extreme events in Table 1 of TPL-001-5.1 were identified and included in analysis based on a rationale provided by each individual BANC PC participant. A summary of the types of contingencies included in the steady state analysis is shown in Table 4.1.6 below.

All contingencies simulated the removal of all elements that the protection system and other automatic controls are expected to disconnect without operator intervention. Generators with post-contingency steady state bus voltages outside the specified ranges provided by each BANC PC Participant were investigated to determine if the generators should be manually tripped to reflect actual protection equipment settings and generator limits (See Table 4.1.7 for the bus voltage criteria). Transmission elements that were overloaded above 150% of their highest seasonal rating (per NERC standard PRC-023-6[vii]), were also investigated in accordance with BANC's cascading analysis.

Devices designed to provide steady state control of electrical system quantities, such as phase-shifting transformers, load tap changing transformers, switched capacitors and inductors, were assumed to respond to any contingency after the post-transient contingency analysis time frames of one to three minutes. Therefore, the post-transient solution methodology was utilized, which disabled the adjustment of transmission devices such as phase-shifting transformers, load tap changing transformers, switched capacitors and inductors.

To comply with the TPL-001-5.1, R3.4, contingencies used in this analysis were coordinated with all adjacent PCs and TPs to ensure that contingencies on adjacent systems that may impact the BANC PC portion of the BES were included in this assessment.

Table 4.1.6 – Contingencies Studied in this Assessment (where applicable)

Contingencies	Description
P0 (No contingency)	All Elements in Service
P1 (Single Contingency)	• Loss of one generator (P1.1) • Loss of one transmission circuit (P1.2) • Loss of one transformer (P1.3) • Loss of one shunt or SVC/STATCOM device (P1.4) • Loss of a single pole of DC lines (P1.5)
P2 (Single Contingency)	• Loss of one transmission circuit without a fault (P2.1) • Loss of one bus section (P2.2) • Loss of one breaker (internal fault) (non-bus-tie-breaker) (P2.3) • Loss of one breaker (internal fault) (bus-tie-breaker) (P2.4)
P3 (Multiple Contingency)	Loss of a generator unit followed by system adjustments and the loss of the following: • Loss of one transmission circuit (P1.2) • Loss of one transformer (P1.3) • Loss of one shunt or SVC/STATCOM device (P1.4)

Contingencies	Description
P4 (Multiple Contingency)	Loss of multiple elements caused by a stuck breaker attempting to clear a fault on one of the following: • Loss of one generator (P4.1) • Loss of one transmission circuit (P4.2) • Loss of one transformer (P4.3) • Loss of one shunt device (P4.4) • Loss of one bus section (P4.5) • Loss of a bus-tie-breaker (P4.6)
P5 (Multiple Contingency)	Contingencies with delayed fault clearing due to the failure of a non-redundant component of the protection system protecting the faulted element to operate as designed for one of the following: • Loss of one generator (P5.1) • Loss of one transmission circuit (P5.2) • Loss of one transformer (P5.3) • Loss of one shunt device (P5.4) • Loss of one bus section (P5.5)
P6 (Multiple Contingency)	Loss of two or more (non-generator unit) elements with system adjustment between them, which produce the more severe system results
P7 (Multiple Contingency)	Loss of a common structure as follows: • Any two adjacent circuits on common structure (P7.1) • Loss of a bipolar DC line (P7.2)
Extreme	Local area or wide area events affecting the Transmission System • Loss of all Transmission lines on a common Right-of-Way • Loss of a substation • Loss of major gas pipeline • Loss of all generating units at a generating station • 3 phase fault with delayed clearing for two adjacent circuits

4.1.7 Performance Requirements

The steady state analysis results for category P0 through P7 contingencies were evaluated against the performance requirements in Table 1 of TPL-001-5.1.

These performance requirements can be summarized as:

- The system shall remain stable.
- Cascading and uncontrolled islanding shall not occur.
- Applicable facility ratings shall not be exceeded. For P0 contingencies these shall be the applicable season's normal ratings, and for all other contingency categories these shall be the applicable season's emergency ratings.
- Steady state voltages and post-contingency voltage deviations shall be within acceptable limits as established by BANC PC Participants.

- Non-consequential load loss is not allowed for category P1, P2.1, and P3 contingencies.

For the steady state analysis, each BANC PC Participant defined the acceptable limits for steady state voltages and voltage deviations as listed in Table 4.1.7 below.

Table 1.1.7 – Steady State Voltage Criteria

System	Nominal Voltage	Normal Conditions		Contingency Conditions		Voltage Deviation
		Vmin (pu)	Vmax (pu)	Vmin (pu)	Vmax (pu)	P1
SMUD	230 kV	0.948	1.052	0.90[4]	1.052	≤ 8%
MID	230 kV	0.95	1.05	0.90	1.052	≤ 8%
	115 kV	0.95	1.05	0.90	1.052	≤ 8%
RE	230 kV	1.00	1.057	0.948	1.10	≤ 8%
RDNG	115 kV	0.974	1.076	0.923	1.10	≤ 8%

SMUD uses the criteria for its pre- and post- contingency voltage limits found in SMUD's OP-204[viii] operating procedure which differ from the default WECC criteria. For the pre-contingency limits, SMUD uses 0.948 and 1.052 pu for its low and high voltage limits which are just outside the WECC default range of 0.95 and 1.05. SMUD does this because when these per unit values are translated to actual voltage values, they are whole number integers of 218 and 242 which are easier for real time operators to monitor. The high voltage limit for post-contingency in OP-204 is 1.052 pu, which is more stringent than the 1.10 pu default WECC criteria. It also has a more stringent low voltage limit of 0.948 pu for certain buses in order to prevent activation of its UVDLS scheme. The high voltage limit value stems from SMUD's facility ratings methodology which is based on the ANSI/NEMA C84.1 standard. The stricter post-contingency high voltage limit is in place for the protection of SMUD's equipment and facilities and will not result in violations of equipment ratings, instability, uncontrolled islanding, or cascading on its own or adjacent systems.

MID also uses voltage limits more stringent than the default planning criteria in accordance with its Operating Bulletin 48. These stricter upper voltage limits are in place for the protection of MID's facilities and will not result in violations of equipment ratings, instability, uncontrolled islanding, or Cascading on its own and adjacent systems.

RDNG's voltage limits can be found in its Standard Operating Procedure SOP-07 115 kV Transmission System Normal Operations[ix]. RDNG's voltage criteria is more limiting than the WECC Reliability Criterion from WECC-CRT-4 WR1 because RDNG typically sees a median operating voltage of 117.875 kV, which differs from the nominal transmission voltage of 115 kV by +2.5%. To accommodate this shift, all substation power transformers have their primary taps set at 117.875. In addition, the established voltage limits are shifted to accommodate the system voltage offset by increasing the per-unit normal condition, the minimum and maximum voltages, and the contingency minimum voltage. However, the WECC contingency high voltage limit is

[4] SMUD 230 kV buses that have a UVLS scheme associated with it are limited to Vmin of 0.948 PU. These buses include Carmichael, Elk Grove, Elverta, Foothill, Hurley, Orangevale, and Pocket.

not shifted to eliminate the possibility of exceeding the operating limits of equipment at the point of interconnection.

Roseville uses WASN's voltage criteria as defined in WASN Operating Procedure OP-050, as WASN is the transmission operator for Roseville.

The criteria used to identify system instability are as follows:

- Cascading – The uncontrolled successive loss of system elements triggered by an incident at any location, and which results in widespread electric service interruption that cannot be restrained from sequentially spreading beyond an area predetermined by studies.
    - When a post contingency analysis results in steady-state facility loading that exceeds 125% of the highest seasonal facility rating for the facility studied for P1 and P7 contingencies.
    - When a post contingency analysis results in steady-state facility loading that is more than a known BES facility trip setting (in accordance with TPL-001-WECC-CRT-4 Transmission System Planning Performance WR2) for P2-P6 and extreme contingencies.
    - When either unrestrained successive load loss occurs, or unrestrained successive generation loss occurs.
- Uncontrolled islanding – The unplanned and uncontrolled splitting of the power system into two or more islands. Severe disturbances may cause uncontrolled separation by causing a group of generators in one area to swing against a group of generators in a different area of the power system.
- Voltage instability – The violation of any of the following WECC voltage criteria.
    - For transfer paths, all P0-P1 events shall demonstrate a positive reactive power margin at a minimum of 105 percent of transfer path flow.
    - For transfer paths, all P2-P7 events shall demonstrate a positive reactive power margin at a minimum of 102.5 percent of transfer path flow.
    - For load areas, all P0-P1 events shall demonstrate a positive reactive power margin at a minimum of 105 percent of forecasted peak load.
    - For load areas, all P2-P7 events shall demonstrate a positive reactive power margin at a minimum of 102.5 percent of forecasted peak load.

Simulations that resulted in cascading, voltage instability, or uncontrolled islanding were deemed unstable.

The results for the extreme contingencies were assessed for their impact to the system. If the results showed cascading caused by the occurrence of an extreme event, an evaluation of possible actions designed to reduce the likelihood or mitigate the consequences and adverse impacts of the events was conducted.

4.2 Short Circuit Analysis

A short circuit analysis addressing the near-term transmission planning horizon was included in this assessment to determine whether circuit breakers have adequate interrupting capability for faults that they will be expected to interrupt.

This analysis was supported by past studies performed by MID, SMUD, and RDNG. The past studies are qualified since they met the following criteria:

- The past studies are less than five calendar years old.
- No material changes have occurred since past studies were performed.

The years studied are listed in Table 4.2.

Table 4.2 - Years Studied for Short Circuit Analysis

System	Year Performed	Year(s) Studied
SMUD[x]	2024	2025, 2029
MID[xi]	2024	2028, 2030
RDNG[xii]	2021	2021, 2026
RE[xiii]	2025	2025

4.2.1 Simulation Software

The short circuit studies provided by SMUD, RDNG and RE were performed with the ASPEN One Liner and CAPE software programs. MID utilized the GE PSLF software program.

These software programs are widely used throughout the WECC.

4.2.2 Short Circuit Modeling

The short circuit models in the ASPEN program are consistent with the system topology studied in the steady state base cases which reflect the planned projects.

4.2.3 Rating Criteria

The criteria used in the short circuit analysis are based on industry standards developed and approved by the Institute of Electrical and Electronics Engineers[xivxv].

4.3 Stability Analysis

A stability analysis was performed as part of this assessment to assess the transient stability performance of the BANC PC area in the near-term planning horizon. This analysis was supported by current studies.

Although there are no planned material generation additions or changes in the long-term horizon for the BANC PC, the year ten (2036) case was studied to assess potential impacts from neighboring systems.

4.3.1 Peak Load Years

This assessment included a stability analysis of the 2028 peak load year in the near-term planning horizon and year 2036 peak load year in the long-term planning horizon.

The rationale for selecting year two (2028) and year ten (2036) is the same rationale described in Section 4.1.1. Previous study experience has shown that the heavy summer scenario is generally the most critical scenario for transient stability studies. The WECC composite load models, which better represent the dynamic behavior of system loads, were used in this assessment.

4.3.2 Off-peak Load Years

This assessment included a stability analysis of the 2028 off-peak load condition in the near-term planning horizon.

4.3.3 Sensitivity Analysis

Like the steady state sensitivity analysis, two stability sensitivity analyses were performed to demonstrate the impact of changes to basic assumptions used in the system models to the stability of the system.

A sensitivity analysis was performed on the 2028 peak load year by using the 1-in-10 year load forecast for the BANC PC area increased by 5% to assess the near-term transmission planning horizon portion of the stability analysis. For the off-peak sensitivity case for year 2028 a reduced generation dispatch with the largest generation plant in each BANC PC participants' area turned off (to stress imports) was chosen. The load power factors in the sensitivity cases were assumed to remain the same.

4.3.4 Known Outages

This assessment included a stability analysis to assess the impact of known outages of generation or Transmission Facilities planned in the near-term horizon in accordance with the "*BANC PC Known Outage Analysis Procedure*". There were two facilities with known outages in the near-term horizon in the MID portion of the BANC system:

1. Claus – McClure 115 kV Line
2. Westley – Rosemore 230 kV Line #2

A stability analysis was performed for the 2028 peak load case to assess the impact of the outages of the facilities above. The stability analysis included the evaluation of the P1 category contingencies identified in Table 1 of TPL-001-5.1 (simulated as equivalent P3 and P6 contingencies).

4.3.5 Spare Equipment Unavailability Analysis

The respective spare equipment strategies of the BANC PC Participants could result in the unavailability of the following major transmission equipment for one year or more:

- Airport 230/115 kV transformer (RDNG)
- Redding Power Plant 115/13.8 kV GSU (RDNG)

The spare equipment strategies for MID, RE, and SMUD found no major transmission equipment that could result in unavailability for one year or more, due to long lead times.

A steady state analysis was performed for the 2028 peak load case to assess the impact of the possible unavailability of the long lead time equipment listed above. The steady state analysis included the evaluation of the P0, P1, and P2 category contingencies identified in Table 1 of TPL-001-5.1.

4.3.6 Long-Term Planning Horizon

The 2036 heavy summer case was studied for potential impacts from any future facility additions external to the BANC PC area which could have a potential impact on the reliability of the

BANC PC area. It was also chosen to encompass any long-term transmission projects planned in the BANC PC area. The 10-year planning case is chosen to encompass any and all projects from neighboring systems that would be submitted to the WECC base case compilation.

4.3.7 Contingencies Studied

A stability analysis was performed based on the contingencies listed in Table 1 of TPL-001-5.1. All P0-P7 contingencies were run for the stability analyses for MID, RDNG, and RE. In accordance with requirement R4.4, SMUD has a technical rationale for the selection of stability contingencies[xvi] to be used for assessment. This rationale was followed when selecting contingencies to be performed on SMUD's portion of the BANC system for this assessment. In addition, extreme events in Table 1 of TPL-001-5.1 were identified and included in analysis based on each individual PC participants extreme contingency rationale. A summary of the types of stability contingencies evaluated in the stability analysis are shown in Table 4.1.6.

All contingencies simulated the removal of all elements that the protection system and other automatic controls are expected to disconnect without operator intervention. Generators were tripped with the generator under-voltage tripping indicated by the generator protection models, which are included in the WECC approved dynamic models if simulations showed generator bus voltages or high side of the generator step-up voltages outside the ride-through voltage ranges specified in the PRC-024[xvii] NERC Reliability Standard. Transmission lines and transformers were tripped using the WECC approved generic relay models when transient swings showed the potential to cause protection system operation as defined under PRC-026[5]. Successful and unsuccessful high-speed reclosing was modeled and simulated for the MID and RDNG systems.

All existing devices that are designed to provide dynamic control of electrical system quantities were simulated. These devices include generator exciter control, power system stabilizers, static VAR compensators, power flow controllers, and DC Transmission controllers. The dynamic data used in the stability simulations included (but were not limited to) the modeling of generator governors, exciters, power system stabilizers, and other automatic control equipment.

The contingencies used in the transient stability analysis were coordinated with all adjacent PCs and TPs to ensure that contingencies on adjacent systems which may impact the BANC PC area were included in this assessment.

4.3.8 Performance requirements

The stability analysis results for category P0 through P7 contingencies included in this analysis were evaluated against the performance requirements in Table 1 of TPL-001-5.1. These performance requirements can be summarized as:

- The system shall remain stable.
- Cascading and uncontrolled islanding shall not occur.
- Transient voltage response shall be within acceptable limits as established by the PC and the TP.

[5] Models used to ensure relay performance during stable power swings were GE PSLF models: zonedef (zone definition for WECC distance relay model), distrel (WECC distance relay), zmetra (apparent impedance recorder), lnrelscan (line relay scanning model), lofscan (loss-of-field scanning model), and oosscan (out-of-step scanning model).

- Non-consequential load loss is not allowed for category P1, P2.1, and P3 contingencies on the BANC PC portion of BES.
- For P1 events, no generating unit shall pull out of synchronism.
- For P2 through P7 events, generators that pull out of synchronism shall not cause apparent impedance swings that trip transmission system elements other than the generator unit and its directly connected facilities.
- For P1 through P7 events, power oscillations shall exhibit acceptable damping as established by the PC and the TP.

The results for the extreme contingencies were assessed for their impact to the system based on the above criteria. If the results showed cascading caused by the occurrence of an extreme event, an evaluation of possible actions designed to reduce the likelihood or mitigate the consequences and adverse impacts of the events was conducted.

In accordance with PRC-024, generators are not to trip while their bus voltages remain within the No-Trip zone defined within PRC-024.

The criteria in WR1 of *WECC Criterion TPL-001-WECC-CRT-4 Transmission System Planning Performance* were used to assess the transient stability performance of the system. These criteria are as follows:

- For all P1 through P7 events, voltages shall recover to 80 percent voltage of the pre-contingency voltage within 20 seconds of the initiating event for each applicable BES bus serving load.
- For all P1 through P7 events, following fault clearing and voltage recovery above 80 percent, voltage at each applicable BES bus serving load shall neither dip below 70 percent of pre-contingency voltage for more than 30 cycles nor remain below 80 percent of pre-contingency voltage for more than two seconds.
- For Contingencies without a fault (P2.1 category event), voltage dips at each applicable BES bus serving load shall neither dip below 70 percent of pre-contingency voltage for more than 30 cycles nor remain below 80 percent of pre-contingency voltage for more than two seconds.

The criterion for acceptable damping for power oscillations, which was adopted from WR1.6 in *WECC Criterion TPL-001-WECC-CRT-4 Transmission System Planning Performance,* was that all oscillations must show positive damping within 30 seconds after the start of the event. Oscillations that did not meet this criterion were deemed unstable.

5 Study Results

The results of the steady state, short circuit, and stability analyses are described in the sections that follow for the BANC PC[6] area.

[6] BANC PC annual assessment includes performing an assessment for SMUD's non-BES 115 kV elements to insure reliable operation across the BANC PC area. The results of these studies are available to BANC members and upon request to entities with an NDA.

5.1 Steady State

The steady state analysis identified performance deficiencies for the SMUD system for extreme contingencies. Only one of these events identified potential cascading or voltage collapse. The event that showed potential cascading is described in the following section. There were also previously identified performance deficiencies identified in the SMUD system that have already established remedial action schemes or documented operator actions associated with the overloaded facilities. Upon modeling the RAS action or operator actions, the overloads were mitigated. Descriptions of the RAS actions themselves are housed in SMUD's OP-207[xviii] document. There were no performance deficiencies identified for the MID, RDNG, and RE systems.

5.1.1 Impact of Extreme Contingencies

The steady state analysis identified thermal overloads and voltage criteria violations for certain extreme contingencies in the SMUD system. For one extreme contingency, potential cascading/voltage collapse was identified. An internal office memorandum was sent from SMUD's Transmission Planning group to SMUD's Transmission Operations groups to document the operating conditions that may lead to a potential voltage collapse and the recommended actions to mitigate the consequence of the event. The memo serves as an interim solution until SMUD's TP group studies and implements a more permanent solution.

5.1.2 Sensitivity Analysis

The peak load and off-peak load steady state sensitivity analyses did not identify any performance deficiencies not already identified in the standard study scenarios. As such, no additional actions to resolve performance deficiencies are required.

5.1.3 Spare Equipment Unavailability Analysis

The spare equipment unavailability analysis did not identify any performance deficiencies associated with the identified long lead time equipment. As such, there are no recommendations for the spare equipment strategy and no actions to resolve performance deficiencies are required.

5.1.4 Known Outage Analysis

The known outage analysis did not identify any overloads with known or planned outages in the near-term horizon. As such, no actions to resolve performance deficiencies are required.

5.1.5 Corrective Action Plans

There were no new Corrective Action Plans created as a result of this assessment.

Below is a list of existing CAPs (if any) as well as the year they were first identified and the planned implementation year:

Table 5.1.5: Currently Active Corrective Action Plans

PC Participant	Project Name	Project Need	Date First Identified	Implementation Status	In service date
-	-	-	-	-	-

5.2 Short Circuit

The short circuit analysis showed that all circuit breakers in the BANC PC area have adequate short circuit current interrupting capabilities, and no corrective action plans are necessary to meet the performance requirements. The interrupting capabilities are listed in the individual PC Participants short circuit study reports.

5.3 Stability

The stability analysis for the peak and off-peak cases did not identify any system deficiencies for the Category P1 to P7 contingencies that were simulated. All stability performance criteria were met, and no corrective action plans are necessary to meet the performance requirements.

5.3.1 Impact of Extreme Contingencies

The stability analysis concluded that no cascading was identified following extreme contingencies.

5.3.2 Sensitivity Analysis

The peak load and off-peak load stability sensitivity analyses did not identify any performance deficiencies not already identified in the standard study scenarios. As such, no additional actions to resolve performance deficiencies are required.

5.3.3 Spare Equipment Unavailability Analysis

The results of RDNG's Airport 230/115 kV transformer and 115/13.8 kV GSU transformer spare equipment unavailability analyses showed no performance deficiencies. As such, there are no recommendations for the spare equipment strategy.

5.3.4 Known Outage Analysis

The known outage analysis did not identify any overloads with known or planned outages in the near-term horizon. As such, no actions to resolve performance deficiencies are required.

6 Roles and Responsibilities

The PC and Transmission Planners' individual and joint role and responsibilities for performing the required studies for the Planning Assessment are listed in the subsections that follow.

6.1 Joint Roles and Responsibilities

All entities shall be jointly responsible for the following:

- Ensuring the base cases used in the study are accurate. The Planning Coordinator and all Transmission Planners/PC Participants shall endeavor to ensure the models are updated with the latest information for their respective systems.
- Responding to phone and email communications within a reasonable time.
- Working together to resolve differences with respect to study assumptions, modeling, results, or any other issue that may arise during the study.
- Working together to develop Corrective Action Plans when performance criteria violations are deemed valid.

6.2 Individual Roles and Responsibilities

The Planning Coordinator shall be individually responsible for the following:

- Performing all analyses required by NERC TPL-001-5.1, PRC-023, PRC-026, IRO-17 and documenting such analyses.
- Fulfilling other responsibilities that are jointly agreed upon by the Planning Coordinator and Transmission Planners and other PC Participants.

The Transmission Planners and other PC Participants shall be individually responsible for the following:

- Providing all information requested to perform the required studies for the Planning Assessment.
- Performing and providing the results of the short circuit studies.
- Providing a spare equipment unavailability strategy.
- Providing an extreme contingency rationale.
- Providing BANC PC with known outages occurring during the near-term horizon.

Appendix A. TPL-001-5.1 Requirement Matrix

The table below lists the TPL-001-5.1 requirements and the associated sections in this assessment that demonstrated compliance.

Table A.1 – Compliance requirements and their corresponding sections and pages

Requirement	Section
R1	3.1
R1.1	-
R1.1.1	3.1.1
R1.1.2	3.1.2
R1.1.3	3.1.3
R1.1.4	3.1.4
R1.1.5	3.1.5
R2	-
R2.1	4.1
R2.1.1	4.1.1
R2.1.2	4.1.2
R2.1.3	4.1.3
R2.1.4	4.1.4
R2.1.5	4.1.5
R2.2	4.1.1
R2.2.1	4.1.1
R2.3	4.2, 5.2
R2.4	4.3
R2.4.1	4.3.1
R2.4.2	4.3.2
R2.4.3	4.3.3
R2.4.4	4.3.4
R2.4.5	4.3.5
R2.5	4.3.6
R2.6	4.2
R2.6.1	4.2
R2.6.2	4.2
R2.7	5
R2.7.1	5
R2.7.2	5
R2.7.3	5
R2.7.4	5
R2.8	5.2
R2.8.1	5.2
R2.8.2	5.2

Table A.1 continued

Requirement	Section
R3	4.1
R3.1	4.1.6
R3.2	4.1.6
R3.3	4.1.6
R3.3.1	4.1.6
R3.3.1.1	4.1.6
R3.3.1.2	5.1.1
R3.3.2	4.1.6
R3.4	4.1.6
R3.4.1	4.1.6
R3.5	4.1.6
R4	4.3.5
R4.1	4.3.5
R4.1.1	4.3.6
R4.1.2	4.3.6
R4.1.3	4.3.6
R4.2	4.3.6
R4.3	4.3.6
R4.3.1	4.3.6
R4.3.1.1	4.3.5
R4.3.1.2	4.3.5
R4.3.1.3	4.3.5
R4.3.2	4.3.6
R4.4	4.3.6
R4.4.1	4.3.6
R4.5	4.3.6
R5	4.3.6
R6	4.3.6
R7	6
R8	-
R8.1	-

Appendix B. References

[i] *Transmission System Planning Performance Requirements*. NERC Reliability Standard TPL-001-5.1. July 29th, 2020.

[ii] *REU Spare Equipment Strategy Report 2025.* Redding Electric Utility. February 21st, 2025.

[iii] *MID BES Spare Equipment Strategy 3-12-2024.* Modesto Irrigation District. March 12th, 2024.

[iv] *RSVL - Spare Equipment Strategy.* Roseville Electric. April 15th, 2022.

[v] *SMUD Spare Equipment Strategy 9-28-2026.* Sacramento Municipal Utility District. September 28th, 2026.

[vi] *BANC Known Outage Procedure 10-6-2026*. Balancing Authority of Northern California. October 6th, 2026.

[vii] *Standard PRC-023-6 – Transmission Relay Loadability*. North American Electric Reliability Corporation. February 2nd, 2024

[viii] *Voltage and Reactive Control.* Sacramento Municipal Utility District. June 1st, 2024.

[ix] *Standard Operating Procedure SOP-07 115 kV Transmission System Normal Operations*. Redding Electric.

[x] *2024 Breaker Interrupting Study Results With Appendix.* Sacramento Municipal Utility District. December 5th, 2024.

[xi] *MID Short Circuit Study 2024_Final.* Modesto Irrigation District. August 5th, 2024.

[xii] *2021 RDNG Short Circuit Analysis of 115 kV System Results TPL-001.* Redding Electric Utility. February 25th, 2025.

[xiii] *RSVL – Breaker Rating Analysis 2025.* Roseville Electric. August 21st, 2025.

[xiv] *IEEE Application Guide for AC High-Voltage Circuit Breakers Rating on a Symmetrical Current Basis*. IEEE Std. C37.010-1999 (R2005).

[xv] *IEEE Standard Rating Structure for AC High-Voltage Circuit Breakers*. IEEE Std. C37.04-1999.

[xvi] *TPL-001-5 Assessment – Technical Rationale for Selection of Stability Events for Evaluation*. Sacramento Municipal Utility District. June 17th, 2025.

[xvii] *Standard PRC-024-3 – Frequency and Voltage Protection Settings for Generating Resources*. North American Electric Reliability Corporation. July 9th, 2020.

[xviii] *SMUD Operating Procedure OP-207 Sacramento Area DLT, RAS, and Nomogram Operations.* Sacramento Municipal Utility District. October 7th, 2026.

Balancing Authority of Northern California
Resolution 26-10-01

ACKNOWLEDGEMENT AND ACCEPTANCE OF BANC PLANNING COORDINATOR AREA 2026 TRANSMISSION PLANNING ASSESSMENT

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, BANC is the NERC Planning Coordinator ("PC") for four of its members, including the Sacramento Municipal Utility District ("SMUD"), Modesto Irrigation District ("MID"), Redding Electric Utility ("REU"), and Roseville Electric; and

WHEREAS, BANC must demonstrate compliance with certain PC-related NERC reliability standards, including TPL-001-5.1; and

WHEREAS, in order to meet this standard, SMUD, as the PC Services Provider, produced the BANC PC Area 2026 Transmission Planning Assessment ("Assessment"), in which the performance of the BANC PC area was assessed in order to demonstrate that its portion of the Bulk Electric System meets all of the performance requirements specified in the above-mentioned standard for the years 2027 through 2036; and

WHEREAS, the Assessment concludes that no new system deficiencies or criteria violations were identified for the MID, REU, and Roseville Electric portions of the BES; and

WHEREAS, while the SMUD portion of the BES had performance deficiencies following extreme events, SMUD has previously identified performance deficiencies that either have documented operator actions or existing automatic RAS actions that address the issues, and for the new performance issue identified, an interim solution has been implemented while a more permanent solution is being developed by SMUD's Transmission Planning group; and

WHEREAS, no new corrective active plans were developed per this assessment; and

WHEREAS, each PC Committee Participant concurred with the Assessment on or before October 16th.

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

Balancing Authority of Northern California
Resolution 26-10-01

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28th day of October, 2026, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Bill Forsythe				
City of Shasta Lake	James Takehara				
SMUD	Jon Olson				
TPUD	Sarah Sheetz				

_____
Martin Caballero
Acting Chair

_____
Attest by: C. Anthony Braun
Secretary

Balancing Authority of Northern California

Agenda Item 5C

1. **Resolution 26-10-02** ***Approval of 2027 Annual Budget for BANC.***
2. **Attachment A to Resolution 26-10-02:** ***BANC 2027 Budget – October 2026 Draft.***

Balancing Authority of Northern California
Resolution 26-10-02

APPROVAL OF 2027 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, the General Manager worked together with vendors and counsel to develop a draft budget that has been presented to the Commission for information and review during prior Commission meetings; and

WHEREAS, based on input and direction from the Commission, the General Manager has prepared a final version 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 2027 Annual Budget for BANC in the form attached hereto as Attachment A.
2. Directs the BANC Treasurer to assess each BANC Member and EIM Participant in accordance with Resolution 12-02-03.
3. Directs the General Manager to execute a funding agreement with WAPA-SNR for its share of participation costs.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28th day of October, 2026, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Bill Forsythe				
City of Shasta Lake	James Takehara				
SMUD	Jon Olson				
TPUD	Sarah Sheetz				

_____
Martin Caballero
Acting Chair

_____
Attest by: C. Anthony Braun
Secretary

BANC 2027 Budget
October 2026 – Approval Draft

1. Base Budget
    a. General Manager Expenses = **$496,500**
        i. Scope: General Manager retainer (@$39,375/mo.) and expenses (@$2,000/mo.) = $496,500
        ii. Assumptions: Proposed 5% increase in retainer and no change in monthly expenses (NOTE: Retainer last increased in 2024)
    b. Legal Services = **$644,700**
        i. Assumptions: Proposed 5% increase in legal retainer from $49,737.91/mo. to $52,225. 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 = $626,700
        iv. Expenses = $18,000

    c. WPP Membership Payments = **$138,000**
        i. Scope: Covers NWPP charges to BANC as an NWPP member, including RSG, FRSG, and Executive Forum. Increase reflects charges experienced in 2026 at an average of 11,500/mo.
    d. Resource Committee Support = **$485,000**
        i. Scope: Consultant support for:

APPROVAL DRAFT

1. SMUD developing IRP summary for BANC footprint = $45,000
2. Brattle Resource Adequacy policy development = $290,000
3. EDAM RA Support Funding = $100,000
4. Miscellaneous support = $50,000

e. Asset Valuation = **$1,630,765**

i. Energy Management System
1. Assumptions:
a. Amortized capital cost, excluding EIM module (BANC share) = $834,466
b. Annual Siemens support cost (BANC share) = $197,800
c. Annual HP server support (BANC share) = $75,018
d. Revised to reflect latest capitalization amount for Siemens EMS upgrade ($9,000,000) and annual support services ($460,000) both excluding EIM module. HP annual server support of $174,460. Assumes capital investment is amortized over 5 years @ 3%/year. BANC share of EMS capital and support services costs is 43%.
2. Total = $1,107,284

ii. Energy Management Center/Backup Control Center
1. Assumptions:
a. Total estimated amount for EMC+BCC= $~1,721,976/year
b. TOP/BA share is 76% = $1,308,702
2. BANC share of TOP/BA= 40% = $523,481

f. Administrative Expenses = **$254,300**

i. Accounting/Treasury Support = $124,300
ii. Annual Audit Fees = $18,000
iii. CMUA Membership = $25,000
iv. Bank Charges = $2,000
v. Website Development/Kiteworks Migration - $85,000

g. Sub-total = **$3,649,265**

h. Contingency: **$365,000**

Total = **$4,014,265**

APPROVAL DRAFT

Member Breakdown Comparison of 2027 vs. 2026 Base Budgets (based on 2025 NEL for 2027):

MEMBER ALLOCATION (2027 %s)	2027	2026
SMUD (69.44%)	$ 2,787,505.62	$ 2,382,828.87
MID (16.28%)	$ 653,522.34	$ 564,488.52
ROSEVILLE (7.46%)	$ 299,464.17	$ 249,749.59
REDDING (4.77%)	$ 191,480.44	$ 164,004.50
SHASTA LAKE (1.26%)	$ 50,579.74	$ 41,511.51
TPUD (0.79%)	$ 31,712.69	$ -
Subtotal	**$ 4,014,265.00**	**$ 3,402,583.00**
TPUD (fixed)	$ -	$ 25,000.00
TOTAL	**$ 4,014,265.00**	**$ 3,427,583.00**

APPROVAL DRAFT

2. Participation Agreement #1 (PA-1) – PC Services
    a. Assumptions:
        i. SMUD to provide contract PC services to BANC
        ii. Total Cost to BANC = $348,772
            1. Main PC evaluation labor = $305,939
            2. $42,833 for labor to perform an overview assessment of full BANC footprint
            3. Includes a 3.0% labor rate adjustment for 2027
        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%)	$ 174,386.00
MID (30%)	$ 104,631.60
ROSEVILLE (10.5%)	$ 36,621.06
REDDING (9.5%)	$ 33,133.34
TOTAL	**$ 348,772.00**

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

    a. Assumptions
        i. TPUD and Shasta Lake are embedded within WAPA-SNR, which becomes a TOP Funding Party under CAISO RC West tariff.
        ii. MID, Redding, and SMUD become TOP Funding Parties under CAISO tariff.
        iii. BANC pays the remaining amount allocated to the BA footprint per CAISO tariff for Roseville.
        iv. Assumed RC West 2027 charge-out rates = $0.035/MWH
        v. 2025 NEL for remaining BANC footprint:
            1. Roseville = 1,203,063 MWH

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

MEMBER	2025 NEL - MWH	2027 ASSESSMENT
ROSEVILLE	1,203,063	$ 42,107.21
TOTAL	**1,203,063**	**$ 42,107.21**

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

APPROVAL DRAFT

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. The total monthly legal services retainer is increased by 3% from $12,000 to $12,360.

      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 2027 3-year rolling average NEL as follows:
         1. SMUD – 63.8%
         2. MID – 15.3%
         3. WAPA-SNR – 8.5%
         4. Roseville – 6.8%
         5. Redding – 5.6%

   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. Consultant support will be limited to 50% of the contract support from CES at $4,400/month x 0.5 = $2,200/month.

CATEGORY	COST ESTIMATE	SMUD	MID	WAPA-SNR	ROSEVILLE	REDDING
Legal Support	$ 148,320.00	$ 94,628.16	$ 22,692.96	$ 12,607.20	$ 10,085.76	$ 8,305.92
CES Market Dvlpmt Support	$ 26,400.00	$ 16,843.20	$ 4,039.20	$ 2,244.00	$ 1,795.20	$ 1,478.40
Total Estimate	**$ 174,720.00**	**$ 111,471.36**	**$ 26,732.16**	**$ 14,851.20**	**$ 11,880.96**	**$ 9,784.32**
Contingency (~5%)	$ 8,736.00	$ 5,573.57	$ 1,336.61	$ 742.56	$ 594.05	$ 489.22
TOTAL	**$ 183,456.00**	**$ 117,044.93**	**$ 28,068.77**	**$ 15,593.76**	**$ 12,475.01**	**$ 10,273.54**

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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 9 months until transitioning to EDAM on 10/1/27. At that time PA-5 will be closed and a new Markets Participation Agreement (PA-10) will be opened to cover WEIM and EDAM participation.
        iii. Costs allocated in accordance with 2027 3-year rolling average NEL for all five participants as follows:
            1. SMUD – 63.8%
            2. MID – 15.3%
            3. WAPA-SNR – 8.5%
            4. Roseville – 6.8%
            5. Redding – 5.6%
    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 2027.
    e. Legal services for regulatory support assumed at $104,288 (25-30 hours/month for 9 months), which includes a 3% adjustment for 2027. 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.

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

		Participant Cost Allocations					
CATEGORY	**ESTIMATE**	**SMUD**	**MID**	**WAPA-SNR**	**ROSEVILLE**	**REDDING**	**TOTAL**
Personnel - EIM Desk (5)	$ 1,608,640.00						
Personnel - Settlements (1.5)	$ 549,889.00						
Personnel - Outage Mgmt (0.4)	$ 127,963.00						
Personnel - Netwk Model (1)	$ 253,851.00						
Personnel - Meter Data Mgmt (0.5)	$ 106,572.00						
Personnel - SME/Oversight (0.4)	$ 159,819.00						
Personnel - IT Support (0.25)	$ 52,986.00						
Personnel Total (9.05)	***$ 2,859,720.00***						
EIM Software Support							
- WebEDAM	$ -						
- YES Energy (Power Settlements)	$ 413,031.79		$ 46,532.75			$ 46,532.75	$ 506,097.29
- ITOA	$ 22,511.00						
- Allowance for SW Upgrades	$ 37,500.00						
- WebEIM	$ 177,597.00						
EIM Software Support Total	***$ 650,639.79***						
EMS EIM Module							
- Amortized Capital	$ 39,734.00						
- O&M Support	$ 7,500.00						
EMS EIM Module Total	***$ 47,234.00***						
EIM OPERATOR TOTAL	**$ 3,557,593.79**	**$2,269,744.84**	**$ 590,844.60**	**$ 302,395.47**	**$ 241,916.38**	**$ 245,758.00**	**$3,650,659.29**
Miscellaneous Support							
- Legal Support	$ 104,288.00						
- EIM Stakeholder Support (CES)	$ 19,700.00						
Miscellaneous Support Total	**$ 123,988.00**						
TOTAL EIM Operations	**$ 3,681,581.79**	**$2,348,849.18**	**$ 609,814.76**	**$ 312,934.45**	**$ 250,347.56**	**$ 252,701.33**	**$3,774,647.29**
TPUD Load Charges	$ 25,000.00	$ 17,425.00	$ 4,175.00	$ -	$ 1,875.00	$ 1,525.00	$ 25,000.00
TOTAL EIM	**$ 3,706,581.79**	**$2,366,274.18**	**$ 613,989.76**	**$ 312,934.45**	**$ 252,222.56**	**$ 254,226.33**	**$3,799,647.29**

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

    a. Assumptions
        i. BANC serves as EDAM Entity
        ii. SMUD/MID/Roseville/Redding/WAPA-SNR intend to participate in EDAM
        iii. Target is for 10/1/27 go-live date for EDAM participation based upon latest decision by CAISO on 2027 EDAM go-live implementation
        iv. Costs allocated in accordance with 2027 3-year rolling average NEL for all five participants as follows:
            1. 1. SMUD – 63.8%
            2. 2. MID – 15.3%
            3. 3. WAPA-SNR – 8.5%
            4. 4. Roseville – 6.8%
            5. 5. Redding – 5.6%

    b. Cost estimates based upon Utilicast EDAM "Gap Analysis"; Utilicast EDAM Effort proposal; discussions with SMUD and BB&W; and the EDAM implementation options developed by BANC staff. Based upon a Fall 2027 go-live, activity levels are as follows:
        i. Advisory support from 1/24 – 12/25
        ii. Pre-implementation support from 1/26 – 9/26
        iii. Implementation support from 10/26 – 9/27
        iv. Go-live – October 2027
        v. Post go-live support from 10/27 – 11/27

    c. Based upon discussions with the CAISO, the initial installment ($300,000) of the CAISO EDAM Implementation fee was paid upon execution of the EDAM Implementation Agreement in Fall 2024. CAISO is estimating the total EDAM Implementation Fee will be ~$2.1 million, and the budget reflects additional periodic payments for through 2027.

    d. Additional 0.5 FTE for Settlements included in SMUD Support for 9 months in 2027 for startup and then continuing into market operations.

    e. 9 months of Implementation support, 1 month of Go-Live Support, and 1 month of Post go-live support in 2027.

    f. Legal services estimated 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 EDAM Entities on Implementation Issues

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Participation Agreement #8 (PA-8) – EDAM Implementation (cont.)

CATEGORY	Fall 2027 Go-Live	SMUD	MID	WAPA-SNR	ROSEVILLE	REDDING
Implementation Effort (9 mo)	**$4,051,236.00**	**$ 2,584,688.57**	**$ 653,589.11**	**$ 344,355.06**	**$ 275,484.05**	**$ 260,619.22**
~Utilicast Support	$ 360,000.00					
~Legal Support	$ 189,500.00					
~SMUD Ops/Settle/PM Support	$ 763,486.00					
~Software Upgrades	$1,238,250.00					
~YES Energy (Pwr Settlements)	*$ 669,500.00*		$ 33,750.00			$ 33,750.00
~ CAISO DACA Tool	*$ 400,000.00*					
~OATI (WebEDAM)	*$ 168,750.00*					
~CAISO Implementation Fee	$1,500,000.00					
Go-Live (1 mo)	**$ 85,000.00**	**$ 54,230.00**	**$ 13,005.00**	**$ 7,225.00**	**$ 5,780.00**	**$ 4,760.00**
~Utilicast Support	$ 60,000.00					
~Legal Support	$ 25,000.00					
Post Go-Live (1 mo)	**$ 55,000.00**	**$ 35,090.00**	**$ 8,415.00**	**$ 4,675.00**	**$ 3,740.00**	**$ 3,080.00**
~Utilicast Support	$ 30,000.00					
~Legal Support	$ 25,000.00					
Total Estimate	**$4,258,736.00**	**$ 2,674,008.57**	**$ 675,009.11**	**$ 356,255.06**	**$ 285,004.05**	**$ 268,459.22**
Contingency @~10%	$ 425,873.60	$ 267,400.86	$ 67,500.91	$ 35,625.51	$ 28,500.40	$ 26,845.92
TOTAL	**$4,684,609.60**	**$ 2,941,409.42**	**$ 742,510.02**	**$ 391,880.57**	**$ 313,504.45**	**$ 295,305.14**

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

    a. BANC will develop appropriate project agreements for the following projects in 2027:
        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 finalized by late-2026 to mid-2027.
        ii. Finalize PPA with Millville Solar/BESS Project.
        iii. Evaluation of additional solicitation for BANC procured resources to meet member RA needs based upon BANC RA Program development.

    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. Conclusion of Calpine and Millville negotiations and member agreements
        ii. Additional Resource Solicitation finalized and issued mid-2027 and proposals received for evaluation during 2nd half of 2027

    c. There is a placeholder for additional consultant support as the project negotiations develop.

    d. Assume participation as follows:
        i. Sutter CCS Project
            1. SMUD – 76.4%
            2. MID – 11.8%
            3. Roseville – 4.7%
            4. Outside Party – 7.1%
            5. Total – 100%
        ii. Millville Solar/BESS Project (Averaged between solar and BESS)
            1. SMUD – 18.4%
            2. MID – 26.6%
            3. Roseville – 18.4%
            4. Redding – 36.6%
            5. Total – 100%
        iii. General Resource Solicitation
            1. SMUD – 70.0%
            2. MID – 16.41%
            3. Roseville – 7.52%
            4. Redding – 4.81%
            5. Shasta Lake – 1.26%
            6. Total – 100%

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Participation Agreement # 9 (PA-9) – Resource Projects Development (cont.)

CATEGORY	COST ESTIMATE	SMUD	MID	ROSEVILLE	REDDING	SHASTA LAKE	OUTSIDE PARTY
Sutter CCS Project							
~ Legal Support	$ 50,000.00						
~ Project Total	***$ 50,000.00***	***$ 38,200.00***	***$ 5,900.00***	***$ 2,350.00***	***$ -***	***$ -***	***$ 3,550.00***
Millville Solar/BESS Project							
~ Legal Support	$ 50,000.00						
~ Project Total	***$ 50,000.00***	***$ 9,200.00***	***$ 13,300.00***	***$ 9,200.00***	***$ 18,300.00***	***$ -***	***$ -***
General Resource Solicitation							
~ Legal Support	$ 50,000.00						
~ Consultant Support Total	$ 50,000.00						
~ Solicitation Total	***$ 100,000.00***	***$ 70,000.00***	***$ 16,410.00***	***$ 7,520.00***	***$ 4,810.00***	***$ 1,260.00***	***$ -***
Total Estimate	**$ 200,000.00**	**$ 117,400.00**	**$ 35,610.00**	**$ 19,070.00**	**$ 23,110.00**	**$ 1,260.00**	**$ 3,550.00**
Contingency (~5%)	$ 10,000.00	$ 5,870.00	$ 1,780.50	$ 953.50	$ 1,155.50	$ 63.00	$ 177.50
TOTAL	**$ 210,000.00**	**$ 123,270.00**	**$ 37,390.50**	**$ 20,023.50**	**$ 24,265.50**	**$ 1,323.00**	**$ 3,727.50**

APPROVAL D

11. Participation Agreement #10 (PA-10) – Markets Participation
    a. Assumptions:
        i. BANC serves as the EDAM/EIM Entity
        ii. SMUD/MID/Roseville/Redding/WAPA-SNR participate as PRSCs for 3 months based upon the EDAM Go-Live scheduled for 10/1/27
        iii. Costs allocated in accordance with 2027 3-year rolling average NEL for all five participants as follows:
            1. SMUD – 63.8%
            2. MID – 15.3%
            3. WAPA-SNR – 8.5%
            4. Roseville – 6.8%
            5. Redding – 5.6%
    b. Cost estimates based upon latest estimates from Utilicast, SMUD, and BB&W.
    c. Allocation of TPUD load settlement charges assigned to SMUD/MID/Redding/Roseville per agreement. Load based settlement charges assumed at $12.5k for EDAM/EIM operations in 2027.
    d. Legal services for regulatory support assumed at $34,763 (25-30 hours/month for 3 months), which includes a 3% adjustment. Scope of services to include:
        i. Assess High-Priority Issues in the CAISO stakeholder process that affect BANC and its members. 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, 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.

APPROVAL DRAFT

Participation Agreement #10 (PA-10) – Markets Participation (cont.)

		Participant Cost Allocations					
CATEGORY	**ESTIMATE**	**SMUD**	**MID**	**WAPA-SNR**	**ROSEVILLE**	**REDDING**	**TOTAL**
Personnel - EIM/EDAM Desk (5)	$ 536,213.00						
Personnel - Settlements (2.0)	$ 244,395.00						
Personnel - Outage Mgmt (0.4)	$ 42,345.00						
Personnel - Netwk Model (1)	$ 84,951.00						
Personnel - Meter Data Mgmt (0.5)	$ 35,524.00						
Personnel - SME/Oversight (0.4)	$ 53,273.00						
Personnel - IT Support (0.25)	$ 17,662.00						
Personnel Total (9.05)	***$ 1,014,363.00***						
Software Support							
- WebEDAM	$ 34,200.00						
- YES Energy (Power Settlements)	$ 185,177.26		$ 26,271.00			$ 27,271.00	$ 238,719.26
- ITOA	$ 22,511.00						
- Allowance for SW Upgrades	$ 50,000.00						
- WebEIM	$ 591,999.00						
Software Support Total	***$ 883,887.26***						
EMS Module							
- Amortized Capital	$ 13,245.00						
- O&M Support	$ 2,500.00						
EMS Module Total	***$ 15,745.00***						
OPERATOR TOTAL	**$ 1,913,995.26**	**$1,221,128.98**	**$319,112.27**	**$162,689.60**	**$130,151.68**	**$134,454.73**	**$ 1,967,537.26**
Miscellaneous Support							
- Legal Support	$ 34,763.00						
- Stakeholder Support (CES)	$ 6,600.00						
Miscellaneous Support Total	**$ 41,363.00**						
SUBTOTAL	**$ 1,955,358.26**	**$1,247,518.57**	**$325,440.81**	**$166,205.45**	**$132,964.36**	**$136,771.06**	$ 2,008,900.26
TPUD Load Charges	$ 12,500.00	$ 8,712.50	$ 2,087.50	$ -	$ 937.50	$ 762.50	**$ 12,500.00**
TOTAL	**$ 1,967,858.26**	**$1,256,231.07**	**$327,528.31**	**$166,205.45**	**$133,901.86**	**$137,533.56**	**$ 2,021,400.26**

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12. BANC Member Assessments

MEMBER	BASE BUDGET	PA-1: PA/PC	PA-2: RC West	PA-4: MKT MONITORING	PA-5: EIM Part.	PA-8: EDAM Imp.	PA-9: Resource Projects Dvlpmt	PA-10: Markets	Proposed 2027 TOTAL	2026 Total
SMUD	$2,787,505.62	$ 174,386.00	$ -	$ 117,044.93	$2,366,274.18	$2,941,409.42	$ 123,270.00	$1,256,231.07	$ 9,766,121.22	$8,122,186.78
MID	$ 653,522.34	$ 104,631.60	$ -	$ 28,068.77	$ 613,989.76	$ 742,510.02	$ 37,390.50	$ 327,528.31	$ 2,507,641.31	$2,109,143.84
ROSEVILLE	$ 299,464.17	$ 36,621.06	$ 42,107.21	$ 12,475.01	$ 252,222.56	$ 313,504.45	$ 20,023.50	$ 133,901.86	$ 1,110,319.82	$ 922,640.61
REDDING	$ 191,480.44	$ 33,133.34	$ -	$ 10,273.54	$ 254,226.33	$ 295,305.14	$ 24,265.50	$ 137,533.56	$ 946,217.85	$ 794,046.96
SHASTA LAKE	$ 50,579.74	$ -	$ -	$ -	$ -	$ -	$ 1,323.00	$ -	$ 51,902.74	$ 43,905.51
TPUD	$ 31,712.69	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 31,712.69	$ 25,000.00
BANC TOTAL	**$4,014,265.00**	**$ 348,772.00**	**$ 42,107.21**	**$ 167,862.24**	**$3,486,712.84**	**$4,292,729.03**	**$ 206,272.50**	**$1,855,194.81**	**$ 14,413,915.62**	**$12,016,923.71**
OUTSIDE PARTY	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,727.50	$ -	$ 3,727.50	$ 5,885.25
WAPA-SNR	$ -	$ -	$ -	$ 15,593.76	$ 312,934.45	$ 391,880.57	$ -	$ 166,205.45	$ 886,614.23	$ 757,478.12
GRAND TOTAL	**$4,014,265.00**	**$ 348,772.00**	**$ 42,107.21**	**$ 183,456.00**	**$3,799,647.29**	**$4,684,609.60**	**$ 210,000.00**	**$2,021,400.26**	**$ 15,304,257.36**	**$12,780,287.09**

APPROVAL

Balancing Authority of Northern California

Agenda Item 5D

1. **Resolution 26-10-03** ***Resolution Setting the Regular Meeting Dates for 2027*****.**
2. **Attachment A to Resolution 26-10-03:** ***Time and Place of Regular Meetings for 2027*****.**

Balancing Authority of Northern California
Resolution 26-10-03

RESOLUTION SETTING THE REGULAR MEETING DATES FOR 2027

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, JPA Section 11.2 provides that the BANC Commission may provide for the holding of regular meetings at intervals more frequently than annually; and

WHEREAS, JPA Section 11.2 requires that the date, hour, and place of each regular meeting shall be fixed by resolution of the Commission.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of the Balancing Authority of Northern California hereby approve the 2027 Regular Meeting Schedule, attached hereto as Attachment A.

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 28th day of October, 2026, by the following vote:

		Aye	No	Abstain	Absent
Modesto ID	Martin Caballero				
City of Redding	Nick Zettel				
City of Roseville	Bill Forsythe				
City of Shasta Lake	James Takehara				
SMUD	Jon Olson				
TPUD	Sarah Sheetz				

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Martin Caballero
Acting Chair

_____
Attest by: C. Anthony Braun
Secretary

Time and Place of Regular Meetings for 2027

Unless shown otherwise, the Regular Commission meetings shall occur on the fourth Wednesday of each month, at 2:00 p.m.

As shall be specified in a notice issued pursuant to the Ralph M. Brown Act of the California Government Code, the meetings listed below will be held in Sacramento, California at 2600 Capitol Avenue. Room location to be provided on posted agenda.

1. **January 27**
2. **February 24**
3. **March 17**
4. **April 28**
5. **May 26**
6. **June 16**
7. **July 28**
8. **August 25**
9. **September 29**
10. **October 27**
11. **December 22**

The meetings on the dates listed below will be held in Gold River, California at 2377 Gold Meadow Way. Room location to be provided on posted agenda.

1. **November 17**

The Commission Secretary shall have discretion to adjourn and to modify time and location of Commission meetings consistent with posting requirements of the Ralph M. Brown Act of the California Government Code.