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# 1. Executive Summary

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



Figure 1-1: Geographical Map of BANC System

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

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This BANC summer load and resource assessment report provides an assessment of the load forecasts, resource supplies, and energy imports for the 2026 summer operating season – June 1<sup>st</sup>, 2026, through October 31<sup>st</sup>, 2026, for the BANC Balancing Authority Area (BAA).

The forecasted BANC 1-in-2 peak load for 2026 summer is 4,742 MW, which is 425 MW or 9.8% higher than BANC's actual peak load of 4,317 MW in 2025. The forecasted 1-in-2 peak loads for the SMUD and WAPA footprints are 3,154 MW and 1,588 MW, respectively.

The forecasted BANC 1-in-10 peak load for 2026 summer is 5,114 MW, which is 171 MW or 3.5% higher than BANC's all-time peak load of 4,943 MW recorded in 2022. The forecasted 1-in-10 peak loads for the SMUD and WAPA footprints are 3,406 MW and 1,708 MW, respectively.

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

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

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

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### Water Conditions as of April 1, 2026:

- United States Bureau of Reclamation's (USBR) Central Valley Project (CVP) reservoir storage levels were at approximately 119% of historical average.
- Northern Sierra snowpack was at 6% of its historical average.
- Northern California precipitation was at 95% of its historical average.
- Forecasted statewide snowmelt runoff is at about 87% of an average water year.
- SMUD's storage reservoirs were at 128% of historical average and the inflow to the storage reservoirs is projected to be 95% of median.
- With 95% precipitation, 6% snowpack, and 119% of reservoir storage level, the 2025-2026 water season is classified as "Below Normal" according to California Department of Water Resources' (CDWR's) Bulletin 120 released on April 1<sup>st</sup>, 2026.

### Resource Availability Forecasts as of April 1, 2026:

- A total of 2 MW new net-metered solar generation will come online during 2026 summer.
- Based on the current outage information, only the USBR's Spring Creek Unit #1 (95 MW) will be out for the entire summer. Therefore, the total hydro power peak or energy production is projected to be slightly lower than the normal.
- One-half of the Sutter Energy Center (SEC) or 275 MW will continue to be available to SMUD and the other half of the SEC or 275 MW is available to the CAISO BA.

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

- Although the California Oregon Intertie (COI) operating nomogram has been increased to 5,100 MW since 2025, it would be still limited by the transmission constraints in the Pacific Northwest area in the 2026 summer season.
- Wildfire threat continues to be a risk with the threat areas and fire-season period both expanding and increasing the risk of Public Safety Power Shutoff (PSPS) events or actual outages. According to the National Significant Wildland Fire Potential Outlook released by the Predictive Services National Interagency Fire Center on May 1, 2026, the wildfire risk for June, July, and August is "Above Normal" for Northern California and Northwest region.
- The CAISO has committed to support BANC if a PSPS event on the CAISO controlled portion of COI should create resource shortage conditions for BANC.

### The assessment results show that

- BANC's hourly gross peak load is forecasted to be at HE17, and BANC's hourly net peak load is forecasted to be at HE18.
- Although BANC's peak load could occur on any day between June 15 and September 15 based on historical data, the most stressed operating condition will be when BANC's peak load occurs in August as the available Hydro generation and Solar generation in August is forecasted to be less than June and July. BANC's peak load only occurred in September once, which was a very rare case.
- The base case assessment demonstrates that BANC has sufficient generation, transmission capacity, and import resources to meet the forecasted 1-in-2 and 1-in-10 loads for the 2026 summer season with sufficient operating margins when counting the non-dependable imports, as shown in Table 1-1 below. However, BANC's operating margins in the 2026 summer are estimated to be 2% lower than BANC's operating margins in 2025 due to the increased load forecasts and the scheduled generation outages.
- The Monte Carlo probability simulation results show that BANC has a risk of 6.85% (or 1 day in 14 years) to be in EEA 3 and a risk of 2.4% (or 1 day in 48 years) with unserved energy, which is lower than BANC's unserved energy risk of 4.2% in 2025 - well below the industry LOLP benchmark of 10% (or 1 day in 10 years).

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

- The analyses indicate that BANC would have sufficient operating margins for the special operating scenarios of wildfire smoke and the CAISO BA in EEA 3.
- However, BANC would have the risk of being in EEA 3 with SMUD facing risks of firm load shedding when there is a west-wide heatwave causing 1-in-20 load with no non-dependable import available or when the COI has a significant derate after losing two 500 kV lines due to wildfires under 1-in-10 load condition.

Table 1-1: 2026 Summer Base Case Load and Resource Outlook at Gross & Net Peak Hours

|                              | BANC BA |       | SMUD Footprint |       | WAPA Footprint |       |
|------------------------------|---------|-------|----------------|-------|----------------|-------|
|                              | HE17    | HE18  | HE17           | HE18  | HE17           | HE18  |
| 2025 Generation (MW)         | 5,491   |       | 2,677          |       | 2,814          |       |
| Generation Outage (MW)       | (95)    |       | (0)            |       | (95)           |       |
| Retired Generation (MW)      | 0       |       | 0              |       | 0              |       |
| New Generation (MW)          | 2       |       | 2              |       | 0              |       |
| 2026 Generation (MW)         | 5,398   |       | 2,679          |       | 2,719          |       |
| Peak Load Hour               | HE17    | HE18  | HE17           | HE18  | HE17           | HE18  |
| Equivalent ELCC              | 79.9%   | 78.9% | 81.9%          | 80.0% | 77.9%          | 77.8% |
| Total Generation NQC (MW)    | 4,311   | 4,258 | 2,193          | 2,142 | 2,118          | 2,116 |
| Forecasted Import (MW)       | 2,336   | 2,265 | 1,556          | 1,496 | 780            | 770   |
| Forecasted Export (MW)       | (730)   | (730) | 0              | 0     | (730)          | (730) |
| Demand Response (MW)         | 107     | 107   | 89             | 89    | 18             | 18    |
| Total Supply (MW)            | 6,024   | 5,900 | 3,838          | 3,727 | 2,185          | 2,173 |
| 1-in-2 Load + Reserves (MW)  | 5,058   | 5,010 | 3,331          | 3,276 | 1,728          | 1,734 |
| 1-in-2 OM * (MW)             | 965     | 890   | 508            | 451   | 458            | 439   |
| 1-in-2 OM * (%)              | 19.1%   | 17.8% | 15.2%          | 13.8% | 26.5%          | 25.3% |
| 1-in-10 Load + Reserves (MW) | 5,455   | 5,403 | 3,597          | 3,538 | 1,858          | 1,865 |
| 1-in-10 OM * (MW)            | 569     | 498   | 242            | 189   | 327            | 308   |
| 1-in-10 OM * (%)             | 10.4%   | 9.2%  | 6.7%           | 5.3%  | 17.6%          | 16.5% |

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

## 2. 2025 Summer Review

### 2.1 System Load

The 2025 summer was mild for Northern California area and the recorded BANC’s peak load for the 2025 summer was 4,317 MW at 16:59:34 on July 11, 2025, which was the lowest annual peak load since 2011 and was 460 MW (or 9.1%) lower than BANC’s peak load in 2024 and 626 MW (or 12.7%) lower than BANC’s all-time peak load of 4,943 MW recorded in 2022.

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

The WAPA footprint reached its non-simultaneous peak load of 1,492 MW at 16:59:44 on July 11, 2025, while the SMUD footprint reached its non-simultaneous peak load of 2,837 MW at 16:51:04 on July 11, 2025 – both on the same day when BANC reached its peak load. At the BANC peak load moment of 16:59:34 on July 11, 2025, the WAPA footprint’s simultaneous peak load was 1,488 MW and the SMUD footprint’s simultaneous peak load was 2,829 MW.

Table 2-1 below shows the comparison of 1-in-2 non-simultaneous peak loads and actual non-simultaneous peak loads, and the actual simultaneous peak loads for all BANC entities in 2025.

Table 2-1: 2025 Simultaneous and Non-simultaneous Peak Loads vs. 2025 Forecasts

| Entity                | 1-in-2 Non-simultaneous Peak Load Forecast (MW) | Actual Non-simultaneous Peak Load (MW) | Non-simultaneous Peak Load Forecast Error (MW) | Non-simultaneous Peak Load Forecast Error (%) | Actual Simultaneous Peak Load <sup>1</sup> (MW) |
|-----------------------|---|--|--|---|---|
| <b>BANC BA</b>        | 4,686   | 4,329                                  | 357  | 8.2%  | 4,317   |
| <b>SMUD</b>           | 3,060   | 2,837                                  | 223  | 7.9%  | 2,829   |
| <b>MID</b>            | 705   | 651                                    | 54   | 8.3%  | 621   |
| <b>RSC</b>            | 363   | 337                                    | 26   | 7.7%  | 332   |
| <b>REU</b>            | 235   | 230                                    | 5  | 2.2%  | 223   |
| <b>CSL</b>            | 34  | 36                                     | -2   | -5.6%   | 29  |
| <b>TPUD</b>           | 27  | 33                                     | -5   | -15.2%  | 23  |
| <b>WAPA Footprint</b> | 1,626   | 1,492                                  | 134  | 9.0%  | 1,488   |

### 2.2 System Generation

An additional 54 MW of new solar generation went online in the BANC footprint in 2025 summer so that BANC’s total installed generating capacity increased to 5,491 MW. Although the 2024-2025 water season was classified as “Above Normal”, BANC’s hydro generation produced less-than-average power due to some generation outages. Table 2 shows generation levels of BANC entities collected in PI at the 2025 BANC peak load moment (16:59:34 on 7/11/2025).

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

**2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT**

Table 2-2: BANC Entities Generation Levels at 2025 BANC Peak Load Moment

|                       | Actual Simultaneous Generation (MW) | Forecasted Generation (MW) | Simultaneous Peak Load (MW) | Generation Capacity (MW) | Generation Output % |
|-----------------------|-------------------------------------|----------------------------|-----------------------------|--------------------------|---------------------|
| <b>BANC BA</b>        | 3,102                               | 3,313                      | 4,317                       | 5,491                    | 56%                 |
| <b>SMUD</b>           | 1,706                               | 1,700                      | 2,829                       | 2,677                    | 64%                 |
| <b>MID</b>            | 174                                 | 263                        | 621                         | 469                      | 37%                 |
| <b>RSC</b>            | 109                                 | 202                        | 332                         | 239                      | 46%                 |
| <b>REU</b>            | 60                                  | 171                        | 223                         | 182                      | 33%                 |
| <b>CSL</b>            | 0                                   | 0                          | 29                          | 0                        | N/A                 |
| <b>TPUD</b>           | 0                                   | 0                          | 23                          | 0                        | N/A                 |
| <b>WAPA Footprint</b> | 1,396                               | 1,613                      | 1,488                       | 2,814                    | 50%                 |

**2.3 System Import**

The California-Oregon Intertie (COI) is the major transmission path for BANC entities to import power from Pacific Northwest area. For 2025 summer, the transfer capability of COI was reduced by approximately 450 MW due to the scheduled 500 kV transmission line outages. However, due to the lower-than-forecasted load, BANC imported lower-than-forecasted power in 2025 summer, especially during peak hours. Table 2-3 below shows BANC entities' simultaneous import levels at the 2025 peak load moment (16:59:34 on 7/11/2025).

Table 2-3: BANC Entities' Import Levels at 2025 Peak Load

|                       | Actual Simultaneous Import (MW) | Forecasted Import (MW) | Simultaneous Peak Load (MW) | Import/Load Ratio |
|-----------------------|---------------------------------|------------------------|-----------------------------|-------------------|
| <b>BANC BA</b>        | 1,215                           | 1,971                  | 4,317                       | 28%               |
| <b>SMUD</b>           | 1,123                           | 1,360                  | 2,829                       | 40%               |
| <b>MID</b>            | 447                             | 442                    | 621                         | 72%               |
| <b>RSC</b>            | 223                             | 161                    | 332                         | 67%               |
| <b>REU</b>            | 163                             | 64                     | 223                         | 73%               |
| <b>CSL</b>            | 29                              | 34                     | 29                          | 100%              |
| <b>TPUD</b>           | 23                              | 27                     | 23                          | 100%              |
| <b>WAPA Footprint</b> | 92                              | 13                     | 1,488                       | 6%                |

### 3. 2026 Summer Assessment

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

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

#### 3.1 Forecasted System Load

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

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

As shown in Table 3-1 below, the forecasted BANC 1-in-2 gross peak load for the 2026 summer is 4,742 MW, which is 425 MW higher than the actual 2025 BANC peak load of 4,317 MW. The forecasted BANC 1-in-10 gross peak load is 5,114 MW, which is 171 MW higher than BANC’s all-time peak load of 4,943 MW recorded in 2022. For 2026 summer, the hourly load profiles for the critical hours (HE16 through HE21) are developed for all BANC entities based on the historical hourly load data to assess both the gross peak load and the net peak load. The load profiles showed that BANC’s gross peak load is at HE17 and the net peak load is at HE18.

Table 3-1: 2026 Forecasted Gross and Net Peak Loads for BANC Entities

|                                      | Forecasted 1-in-2<br>Gross Peak Load<br>(MW) | Forecasted 1-in-2<br>Net Peak Load<br>(MW) | Forecasted 1-in-10<br>Gross Peak Load<br>(MW) | Forecasted 1-in-10<br>Net Peak Load<br>(MW) |
|--------------------------------------|--|--|---|---|
| <b>SMUD</b>                          | 3,154  | 2,885                                      | 3,406   | 3,133                                       |
| <b>WAPA Footprint</b>                | 1,588  | 1,575                                      | 1,708   | 1,695                                       |
| <b>MID</b>                           | 697  | 679  | 739   | 721   |
| <b>Roseville Electric</b>            | 344  | 344  | 385   | 385   |
| <b>REU</b>                           | 235  | 235  | 239   | 239   |
| <b>Shasta Lake</b>                   | 34   | 34   | 38  | 38  |
| <b>Trinity PUD</b>                   | 27   | 27   | 28  | 28  |
| <b>Forecasted BANC<br/>Peak Load</b> | 4,742  | 4,460                                      | 5,114   | 4,828                                       |

Figure 3-1 below shows a comparison of forecasted 2026 non-simultaneous 1-in-2 peak loads with the historical peak loads since 2006 for BANC, SMUD, and WAPA.

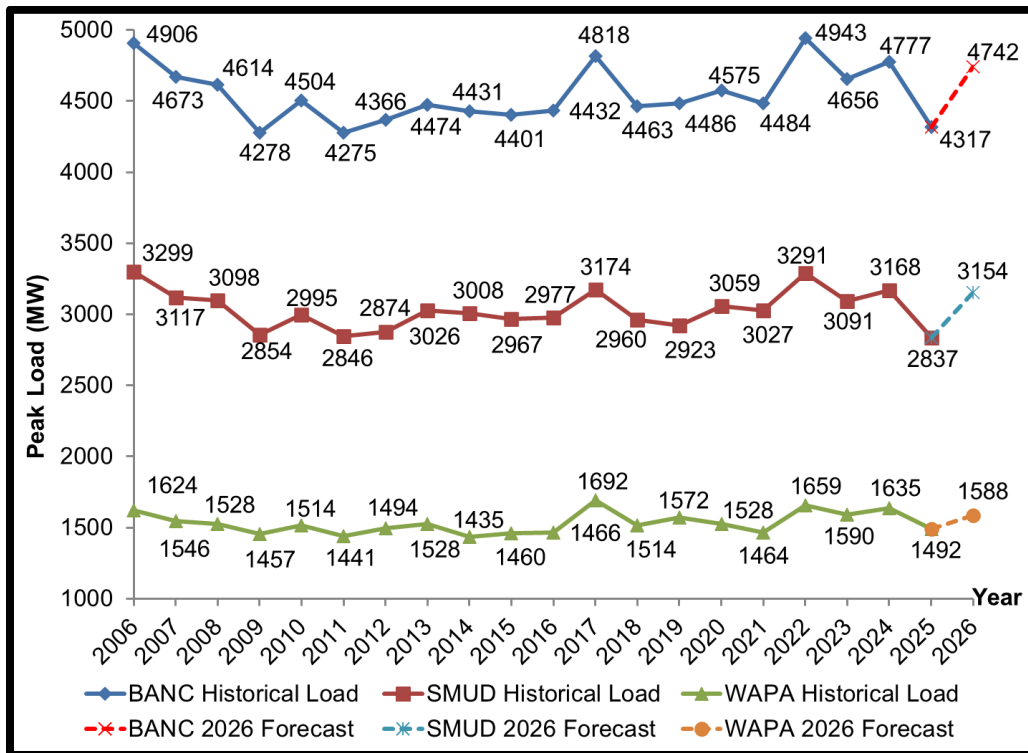


Figure 3-1: 2026 Forecasted Peak Load vs. Historical Peak Load

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

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

In 2022 summer, an extreme heat wave occurred in California from August 30<sup>th</sup> to September 9<sup>th</sup> such that the Sacramento area experienced 10 consecutive days above 100 degrees with a new highest temperature record of 116 degrees. BANC also set a new all-time peak load of 4,943 MW.

After five consecutive hotter-than-average summer, the Northern California area experienced the mildest summer in 2025 in the past 14 years such that BANC entities' peak load in 2025 were approximately 8% lower than what were forecasted.

The Figure 3-2 below shows the highest temperatures in Sacramento area in recent years. BANC's peak load occurred either on these days or the subsequent days due to the impact of holidays or weekends, except for 2017 and 2025. Although the data shows that there have been equal chances for the peak load day to be in July or August in recent years, this assessment assumes the 2026 BANC peak load day to be in August as it will represent a more severe operating condition when considering that the hydro generator capabilities and solar generation in August are lower than June and July.

| Max °F | Date              | Max °C |
|--------|-------------------|--------|
| 103    | August 22, 2025   | 39     |
| 113    | July 11, 2024     | 45     |
| 109    | July 16, 2023     | 43     |
| 116    | September 6, 2022 | 47     |
| 113    | July 10, 2021     | 45     |
| 112    | August 16, 2020   | 44     |
| 107    | August 15, 2019   | 42     |
| 109    | July 25, 2018     | 43     |
| 109    | August 28, 2017   | 43     |
| 108    | July 26, 2016     | 42     |
| 108    | July 29, 2015     | 42     |
| 107    | August 1, 2014    | 42     |
| 110    | July 4, 2013      | 43     |
| 107    | August 13, 2012   | 42     |
| 102    | July 5, 2011      | 39     |
| 108    | August 25, 2010   | 42     |

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

# 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

## 3.2 Forecasted Resource Supply

In 2025, 54 MW of new solar generation in SMUD footprint went online, and there will be 2 MW of new net-metered solar generation coming online in 2026 summer. One-half of SEC (275 MW) continues to be available as a part of SMUD’s generation. Thus, BANC’s total installed generation capacity will increase to 5,493 MW, of which, 2,704 MW (49.2%) is hydro generation, 2,323 MW (42.3%) is thermal generation, 16 MW (0.3%) is biogas generation, and 450 MW (8.2%) is solar generation. In total, 57.7% of the installed generation capacity within BANC is carbon-free.

As one half of BANC’s generation capacity is Hydro, it is critical to forecast hydro generation capabilities based on the Water Conditions, including reservoir levels, snowpack levels, precipitations, and snowmelt runoffs. According to the CDWR’s website, the 2026 Water Conditions as of April 1, 2026, are summarized as follows:

- USBR’s CVP reservoirs were at approximately 119% of historical average (Figure 3-3).
- Northern Sierra snowpack was at 6% of its historical average (Figure 3-4).
- Northern California precipitation was at 95% of its historical average (Figure 3-5).
- Forecasted snowmelt runoff is projected to be 87% of an average water year (Figure 3-6).
- SMUD’s storage reservoirs were at 128% of historical average and the inflow to the storage reservoirs is projected to be 95% of median.
- The 2025-2026 water season is classified as “Below Normal” according to CDWR’s Bulletin 120 released on April 1<sup>st</sup>, 2026.

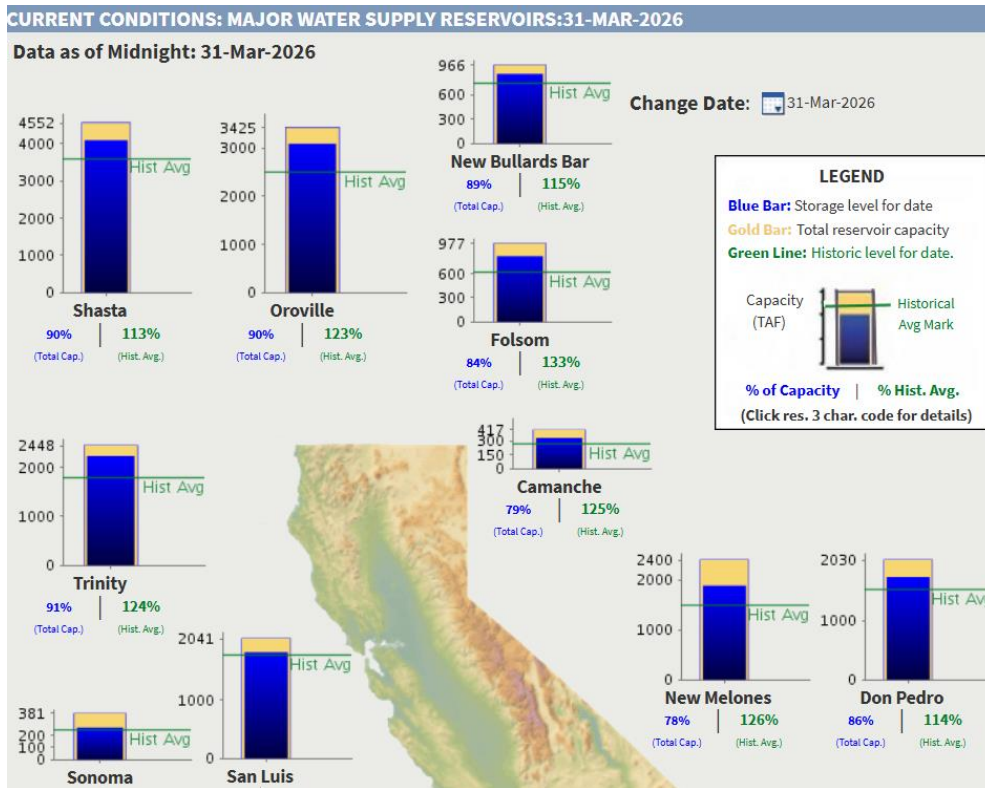


Figure 3-3: Northern California Major Reservoir Levels as of 4/1/2026

## 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

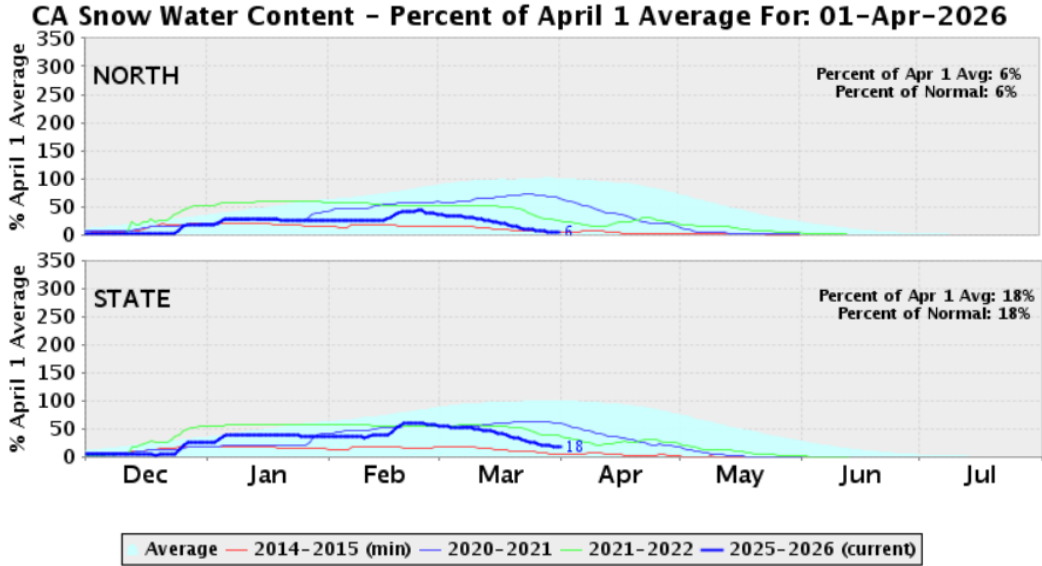


Figure 3-4: Northern CA Snowpack as of 4/1/2026 Compared with 3 Similar Historical Years

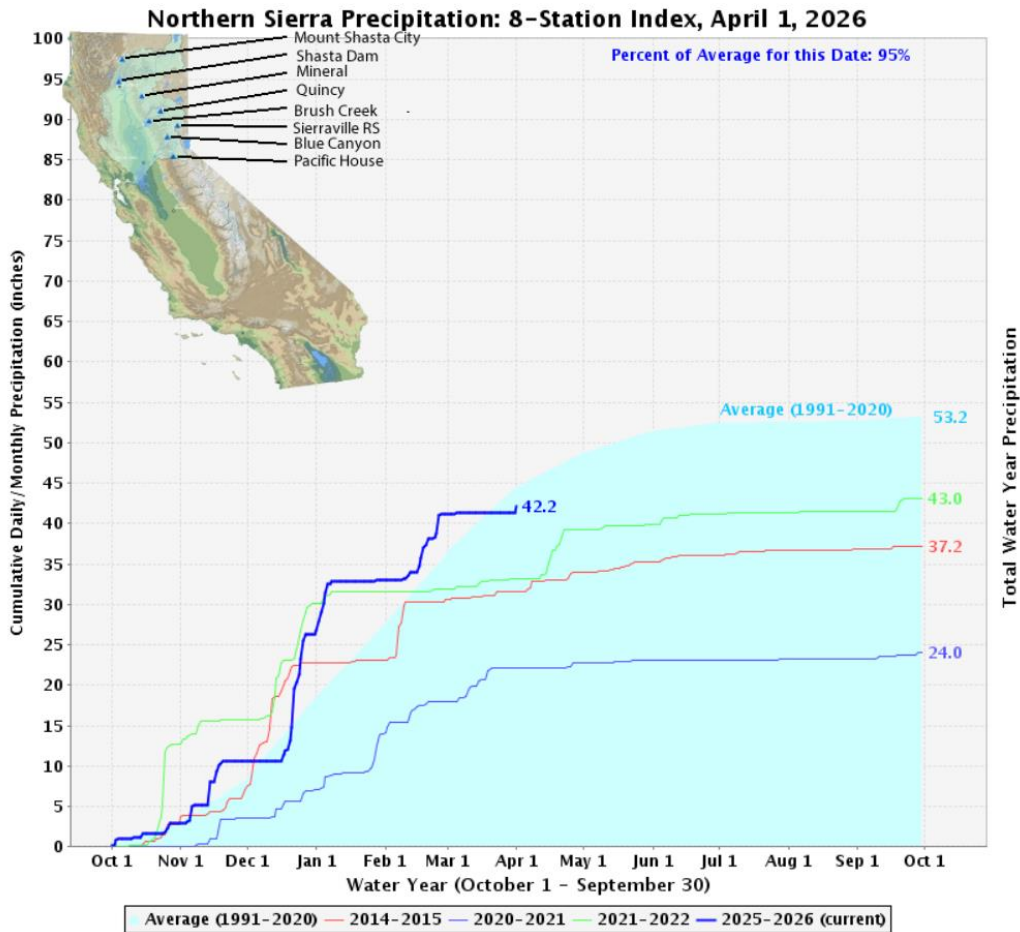


Figure 3-5: Northern CA Precipitation as of 4/1/2026 Compared with 3 Similar Historical Years

# 2026 BANC SUMMER LOAD & RESOURCE ASSESSMENT

## B-120 WATER SUPPLY FORECAST SUMMARY

UNIMPAIRED FLOW FOR - April 1, 2026

(Provisional data, subject to change)

Report generated: April 08, 2026 10:49

| WATER YEAR FORECAST SUMMARY AND MONTHLY DISTRIBUTION (IN THOUSANDS OF ACRE-FEET) |              |       |     |     |     |     |     |     |     |                  |                       |       |     |              |    |
|--|--------------|-------|-----|-----|-----|-----|-----|-----|-----|------------------|-----------------------|-------|-----|--------------|----|
| WATERSHED  | OCT THRU JAN | FEB   | MAR | APR | MAY | JUN | JUL | AUG | SEP | WATER YEAR TOTAL | 80% PROBABILITY RANGE |       |     | WY % AVERAGE |    |
|  |              |       |     |     |     |     |     |     |     |                  | 90%                   |       | 10% |              |    |
| Trinity, Lewiston  | 551          | 163   | 141 | 80  | 55  | 20  | 5   | 0   | 0   | 1,015            |                       | 925   |     | 1,245        | 77 |
| Inflow to Shasta   | 2,376        | 568   | 480 | 380 | 300 | 215 | 185 | 166 | 160 | 4,830            |                       | 4,540 |     | 5,505        | 87 |
| Sacramento, Bend   | 3,559        | 1,042 | 693 | 530 | 405 | 295 | 240 | 204 | 208 | 7,175            |                       | 6,800 |     | 8,265        | 87 |
| Feather, Oroville  | 2,107        | 616   | 601 | 340 | 245 | 120 | 85  | 68  | 58  | 4,240            |                       | 3,970 |     | 4,910        | 97 |
| Yuba, Smartsville  | 831          | 251   | 289 | 200 | 170 | 45  | 15  | 9   | 10  | 1,820            |                       | 1,610 |     | 2,225        | 81 |
| American, Folsom   | 865          | 336   | 391 | 290 | 160 | 45  | 15  | 2   | 1   | 2,105            |                       | 1,893 |     | 2,500        | 78 |

Figure 3-6: Forecasted Snowmelt Runoffs as of 4/1/2026

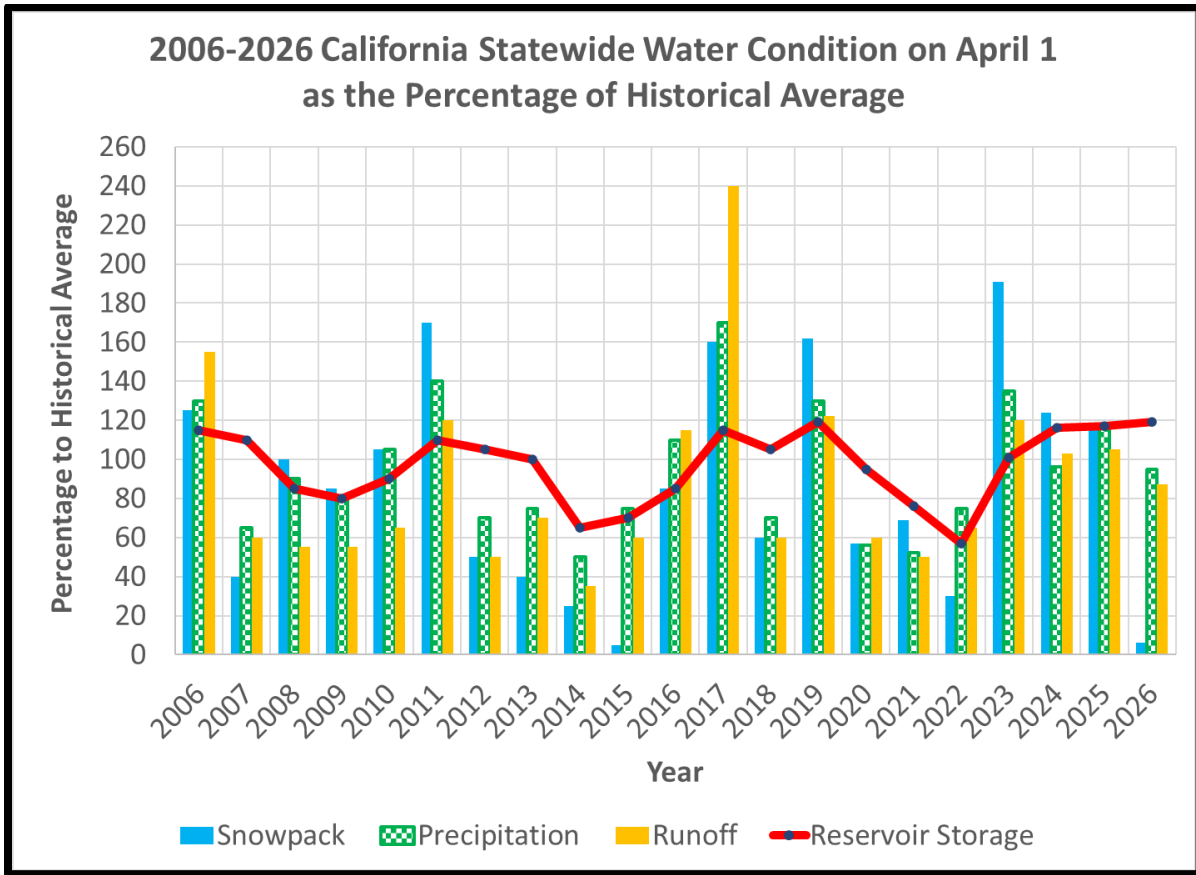


Figure 3-7: 2006-2026 California Statewide Water Condition on April 1

Based on the current outage information, 95 MW generation outage will go through the summer such that the total hydro power production is forecasted to be slightly lower than the historical average level.

Although BANC’s installed generation capacity will reach 5,493 MW, not all this MW capacity can be available to serve load. There are several factors that will limit generator’s capacities, especially during the critical hours (HE16~HE21) of the peak load day. For example, thermal

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generators will be derated due to high ambient temperature, hydro generators will be derated due to lower reservoir levels, and solar generators will reduce output when sun sets. To accurately assess BANC's ability to serve load, more detailed studies are performed to calculate BANC generators' Effective Load Carry Capability (ELCC) and Net Qualifying Capacity (NQC).

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

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

$$\text{NQC} = \text{ELCC} * \text{Pmax}$$

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

### 3.2.1 Hydro Generator ELCC and NQC

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

- Storage hydro generators' monthly ELCC and NQC are calculated as the average of the hourly historical operating capacity in each summer month of the past 3 similar water years.
- Run-of-river hydro generators' monthly ELCC and NQC are calculated as the average of the hourly actual output in each summer month of the past 3 similar water years.
- Based on the 2026 Water Conditions shown in Figure 3-3 through Figure 3-7, 2015, 2021, and 2022 are selected as similar water years.

### 3.2.2 Thermal Generator ELCC and NQC

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

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

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

$$\text{Thermal NQC} = \text{ELCC} * \text{Pmax at 112 °F}$$

### 3.2.3 Solar and Wind Generation ELCC and NQC

The hourly solar and wind generators' ELCC are calculated as the average solar outputs for each hour for the days with temperature higher than or equal to 100°F in the month of August of the past 3 years. The new solar generation will use the data of the nearby solar generation with similar solar panel technology.

### 3.3 Forecasted System Import

The California Oregon Intertie (COI) is the major path for BANC entities to import capacity and energy from Pacific Northwest (Washington and Oregon) sources. Although the COI transfer capacity has been increased to 5,100 MW since 2025, it will be still limited by the transmission constraints in the PNW area in the 2026 summer season.

According to National Oceanic and Atmospheric Administration (NOAA), the water supply of the Columbia River – the major river supporting hydroelectric power generation in Pacific Northwest (PNW), was forecasted to be 96% of the 30-year average at the Dalles Dam as of April 1, 2026, indicating a nearly normal hydro energy supply from PNW for this summer.

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

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

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

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

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

### 3.4 Forecasted System Export

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

### 3.5 Forecasted Demand Response

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Demand Response (DR) can reduce end-user loads in response to high prices, financial incentives, environmental conditions, or reliability issues. DR can play an important role to offset the need for more generation and provide grid operators with additional flexibility in operating the system during periods of limited supply. There are several DR programs, including California State’s Demand Side Grid Support (DSGS) program, available within BANC BAA with a maximum amount of 105 MW. However, these DR programs have different contracts to be available on different days and hours. Therefore, the hourly DR profiles are created for all BANC entities in this assessment.

### 3.6 Forecasted Operating Reserves

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

### 3.7 Scheduled Generation and Transmission Outages

According to the current available information, USBR’s Spring Creek Unit #1 (95 MW) will be out for entire summer and Shasta Unit #4 (142 MW) will be on maintenance through early July. Table 3-2 below lists the major transmission and generation outages within the BANC footprint and the surrounding areas for the 2026 summer.

Table 3-2: Scheduled Major Outages for 2026 Summer

| Start Time | End Time   | Outage Facility                     | Description       | Outage Area | Outage Impact            |
|------------|------------|-------------------------------------|-------------------|-------------|--------------------------|
| 12/02/2024 | 12/31/2026 | Spring Creek Unit #1                | Major Maintenance | WAPA        | 95 MW generation outage  |
| 05/01/2026 | 07/10/2026 | Shasta Unit #4                      | Maintenance       | WAPA        | 142 MW generation outage |
| 05/04/2026 | 06/26/2026 | Camino Unit #1                      | Maintenance       | SMUD        | 80 MW generation outage  |
| 06/14/2026 | 06/19/2026 | Malin-Round Mountain #1 500 kV Line | Maintenance       | CAISO       | 1400 MW COI N->S derate  |
| 07/06/2026 | 07/10/2026 | Loon Lake Unit #1                   | Maintenance       | SMUD        | 79 MW generation outage  |

### 3.8 Forecasted Base Case Supply & Demand Outlook

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

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

The Operating Margin calculated in this assessment is different than the Planning Reserve Margin (PRM) that is used in the Resource Adequacy analysis as reserves are counted as a part of the load obligation. Table 3-3 defines the operating conditions for the BANC BA per NERC Reliability

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Standard EOP-011-4. As SMUD and WAPA will provide emergency assistance to each other, they would be in EEA conditions only when the BANC BA is in EEA conditions.

Table 3-3: BANC Operating Condition Definitions

| Operating Condition        | BA Status          | Note                                 |
|----------------------------|--------------------|--------------------------------------|
| OM >= DR                   | Sufficient OM      | No need to utilize DR                |
| 0 <= OM < DR               | EEA 2              | BA relies on DR to maintain Reserves |
| OM < 0 & OM + Reserves >=0 | EEA 3              | BA unable to maintain Reserves       |
| OM + Reserves < 0          | Firm Load Shedding | BA unable to serve all load          |

The base case results show that BANC BA, SMUD footprint, and WAPA footprint all have sufficient resource supplies to meet the forecasted 1-in-2 and 1-in-10 load demands and reserve requirements for 2026 summer with sufficient Operating Margins (OMs) as shown in Table 3-4 below when counting the expected Non-Dependable Imports.

Table 3-4: 2026 Summer Base Case Load & Resource Outlook at Gross & Net Peak Hours

|                              | BANC BA |       | SMUD Footprint |       | WAPA Footprint |       |
|------------------------------|---------|-------|----------------|-------|----------------|-------|
|                              | HE17    | HE18  | HE17           | HE18  | HE17           | HE18  |
| 2025 Generation (MW)         | 5,491   |       | 2,677          |       | 2,814          |       |
| Generation Outage (MW)       | (95)    |       | (0)            |       | (95)           |       |
| Retired Generation (MW)      | 0       |       | 0              |       | 0              |       |
| New Generation (MW)          | 2       |       | 2              |       | 0              |       |
| 2026 Generation (MW)         | 5,398   |       | 2,679          |       | 2,719          |       |
| Peak Load Hour               | HE17    | HE18  | HE17           | HE18  | HE17           | HE18  |
| Equivalent ELCC              | 79.9%   | 78.9% | 81.9%          | 80.0% | 77.9%          | 77.8% |
| Total Generation NQC (MW)    | 4,311   | 4,258 | 2,193          | 2,142 | 2,118          | 2,116 |
| Forecasted Import (MW)       | 2,336   | 2,265 | 1,556          | 1,496 | 780            | 770   |
| Forecasted Export (MW)       | (730)   | (730) | 0              | 0     | (730)          | (730) |
| Demand Response (MW)         | 107     | 107   | 89             | 89    | 18             | 18    |
| Total Supply (MW)            | 6,024   | 5,900 | 3,838          | 3,727 | 2,185          | 2,173 |
| 1-in-2 Load + Reserves (MW)  | 5,058   | 5,010 | 3,331          | 3,276 | 1,728          | 1,734 |
| 1-in-2 OM * (MW)             | 965     | 890   | 508            | 451   | 458            | 439   |
| 1-in-2 OM * (%)              | 19.1%   | 17.8% | 15.2%          | 13.8% | 26.5%          | 25.3% |
| 1-in-10 Load + Reserves (MW) | 5,455   | 5,403 | 3,597          | 3,538 | 1,858          | 1,865 |
| 1-in-10 OM * (MW)            | 569     | 498   | 242            | 189   | 327            | 308   |
| 1-in-10 OM * (%)             | 10.4%   | 9.2%  | 6.7%           | 5.3%  | 17.6%          | 16.5% |

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

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

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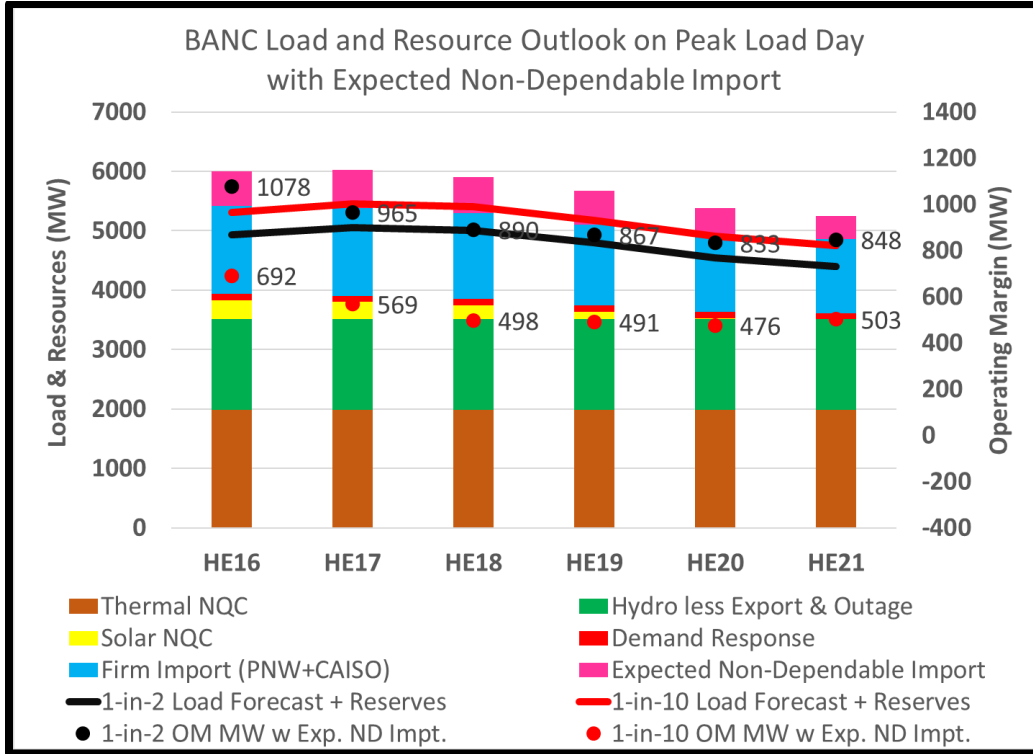


Figure 3-8: BANC Base Case Load and Resource Outlook on Peak Load Day

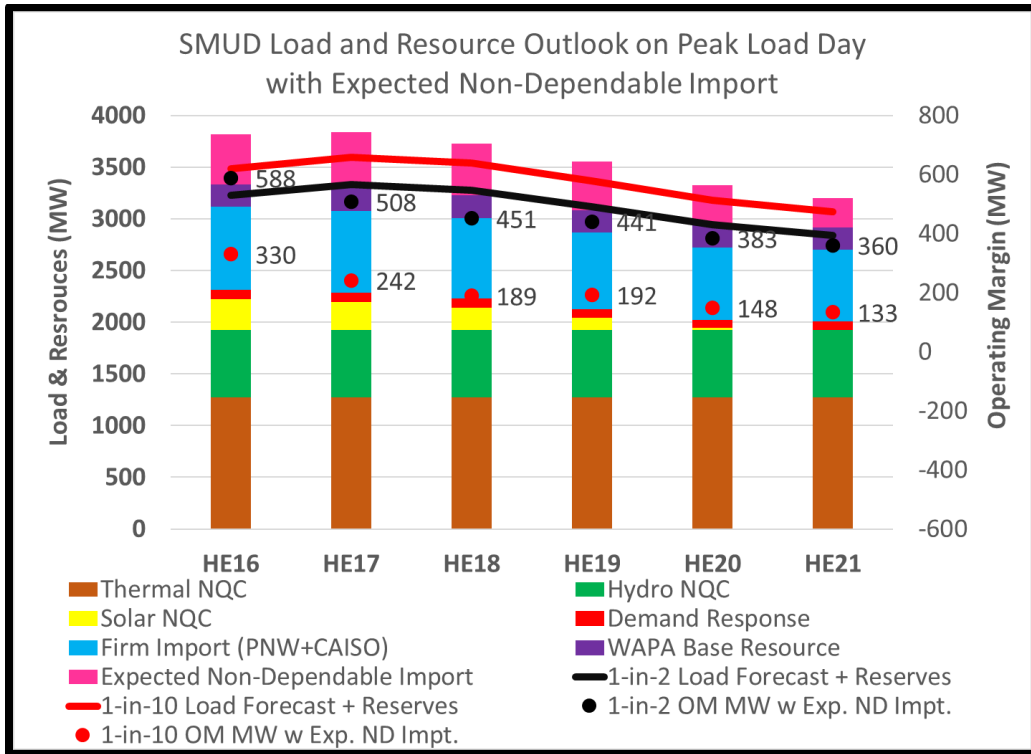


Figure 3-9: SMUD Base Case Load and Resource Outlook on Peak Load Day

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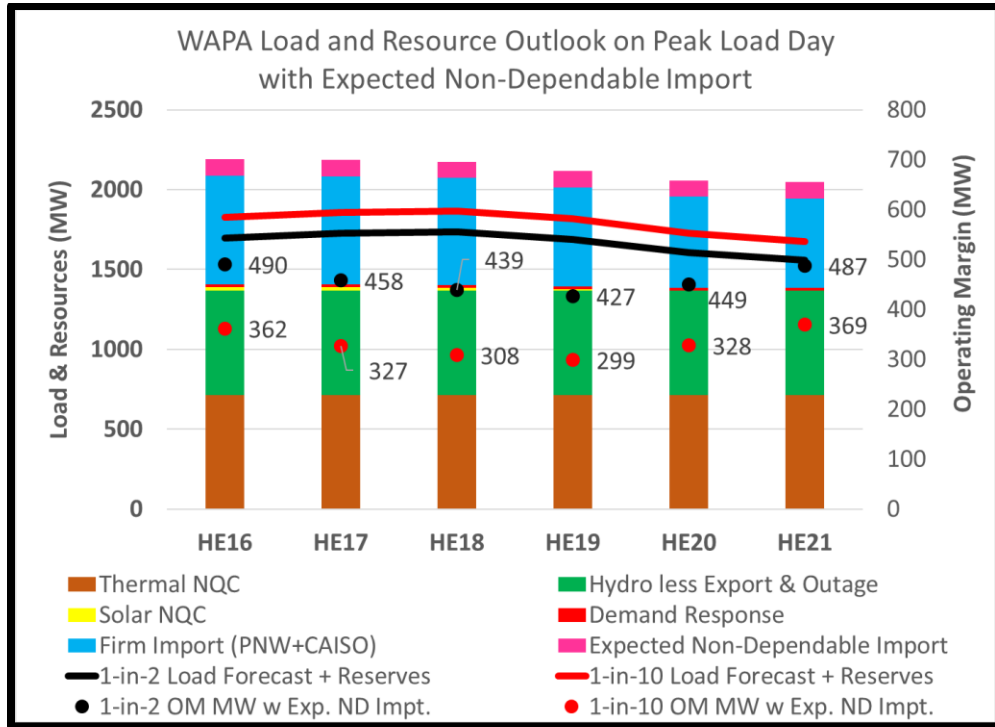


Figure 3-10: WAPA Base Case Load and Resource Outlook on Peak Load Day

Below is a summary of SMUD, WAPA, and BANC’s 2026 load and resource outlook:

- SMUD’s 2026 total resource supply is slightly lower than 2025 due to the lower-than-before estimated Imports. In addition, SMUD’s 2026 1-in-2 and 1-in-10 load forecasts are slightly higher than 2025. Therefore, SMUD’s 2026 operating margins are estimated to be approximately 100 MW (or 3%) lower than 2025.
- Although 2026 has a “Below Normal” water condition, WAPA’s 2026 CVP hydro capacity is estimated to be similar to 2025 due to the expected return to service of New Melones Unit #2 (191 MW). Therefore, WAPA’s 2026 operating margins are estimated to be approximately 25 MW (or 1.5%) higher than 2025.
- Overall, from BANC BA’s perspective, the estimated 2026 operating margins for both 1-in-2 and 1-in-10 peak loads are approximately 100 MW (or 2%) lower than 2025 when counting the expected non-dependable imports.

### 3.9 Monte Carlo Probability Simulation

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

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

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

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

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

- (1) BANC has a risk of 6.85% (or 1 day in 14 years) to be in EEA 3 and a risk of 2.40% (or 1 day in 41 years) with unserved energy. Due to the higher-than-before firm imports that BANC entities have procured and less generation outages, BANC's risk of having unserved energy (i.e., firm load shedding) is lower than 2025's risk of 4.2% (or 1 Day in 23 Years), well below the industry LOLP benchmark of 10% (or 1 day in 10 years).
- (2) WAPA maintains sufficient Operating Margins in all 2000 cases.
- (3) SMUD has a risk of 13.95% (or 1 day in 7 years) to initiate DR programs and a risk of 7.40% (or 1 Day in 13 Years) with unserved energy, which is similar to 2025's unserved energy risk of 7.0% (or 1 Day in 14 Years).

Table 3-5: BANC LOLP Study Results

| BA Status              | EEA 2             | EEA 3             | Unserved Energy   |
|------------------------|-------------------|-------------------|-------------------|
| <b>Number of Cases</b> | 158               | 137               | 48                |
| <b>Probability</b>     | 7.90%             | 6.85%             | 2.40%             |
| <b>Number of Years</b> | 1 Day in 12 Years | 1 Day in 14 Years | 1 Day in 41 Years |

Table 3-6: WAPA LOLP Study Results

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

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Table 3-7: SMUD LOLP Study Results

| SMUD Status            | OM < DR          | OM < 0           | Unservd Energy    |
|------------------------|------------------|------------------|-------------------|
| <b>Number of Cases</b> | 263              | 213              | 148               |
| <b>Probability</b>     | 13.95%           | 10.65%           | 7.40%             |
| <b>Number of Years</b> | 1 Day in 7 Years | 1 Day in 9 Years | 1 Day in 13 Years |

### 3.10 Wildfire Outlook

As California is becoming hotter and drier in recent years, climate changes expand California's wildfire threat area and lengthen the fire season, increasing the risk and the impacts of the wildfires. The wildfire threat has become the No.1 risk to California utility operations. Especially, the Carr Fire and the Camp Fire in 2018 caused devastating impacts to people's lives. With an "Below Normal" 2025-2026 water season, more vegetation will grow and turn into dry vegetation in summer, which may expand wildfire risk, potentially impacting the availability of transmission lines and generating units. Potential wildfires in or near the 500 kV line corridors pose a significant risk of derate to the COI (such as the Tucker Fire in July 2019, the Bootleg Fire in July 2021, and the Park Fire and the Pine Fire in 2024), and potential wildfires in the mountain areas could affect the availability of hydro generating units (such as the King Fire in 2014 and the Carr Fire in 2018). Public Safety Power Shutoff (PSPS) is instituted by California utilities as a measure to mitigate wildfire risks. Under a program to coordinate impacts of PSPS, the CAISO BA agrees to provide emergency support to BANC BA when a PSPS event that is initiated by PG&E impacts the COI and reduces the import capability of BANC entities to the point of threatening service to load.

According to the National Significant Wildland Fire Potential Outlook released by the Predictive Services National Interagency Fire Center on May 1, 2026, the wildfire risk for June, July, and August is "Above Normal" for Northern California and PNW area as shown in the Figure 3-11 below, meaning there will be above normal risk for wildfires to impact transmission and generation facilities.

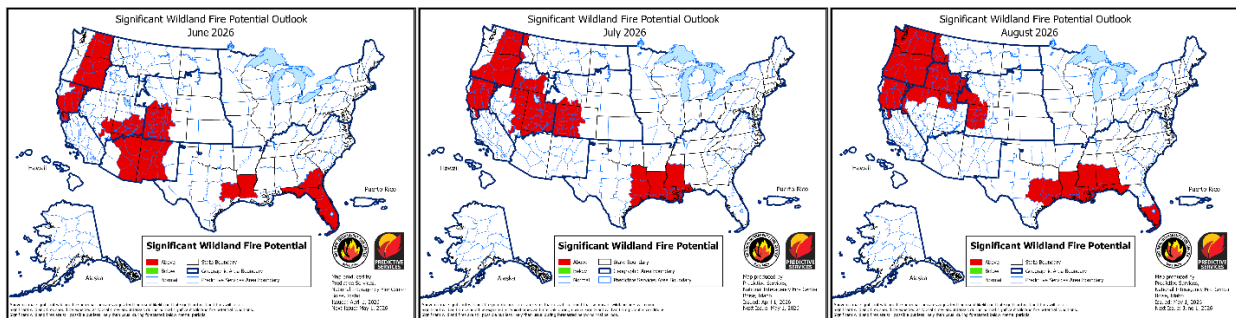


Figure 3-11: U.S. Significant Wildland Fire Potential Outlook for June, July, and August 2026

### 3.11 Special Operating Scenarios

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

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

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

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

- With the loss of two COI 500 kV lines, BANC would need to curtail more than 600 MW imports from PNW region which is more than 50% of the total imports from PNW.
- Under 1-in-2 load condition, BANC would have sufficient operating margin with SMUD area potentially initiating DR programs and requesting assistance from WAPA.
- Under 1-in-10 load condition, BANC could potentially be in EEA 3 with SMUD area potentially facing the risk of firm load shedding.
- The WAPA footprint would be able to maintain sufficient operating margins under both 1-in-2 and 1-in-10 load conditions.

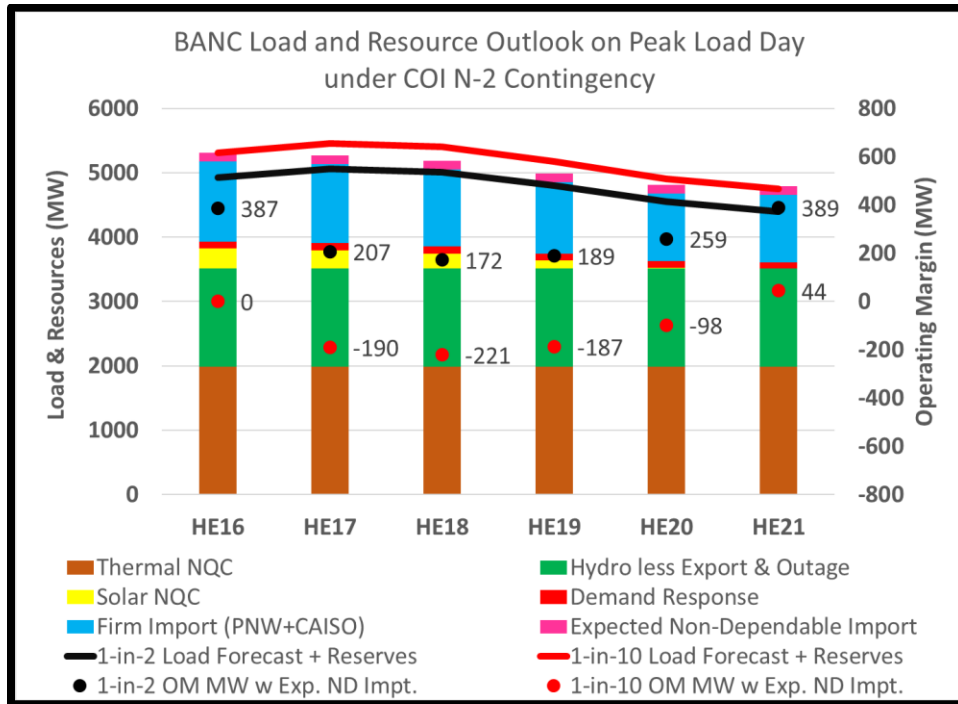


Figure 3-12: BANC Load & Resource Outlook under COI N-2 Contingency Due to Wildfires

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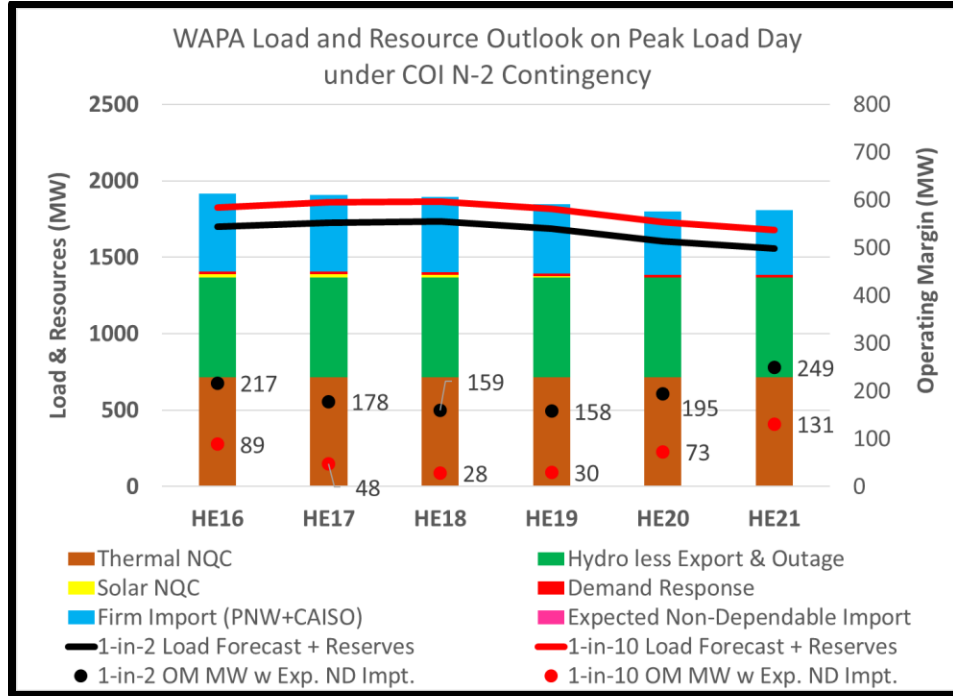


Figure 3-13: WAPA Load & Resource Outlook under COI N-2 Contingency Due to Wildfire

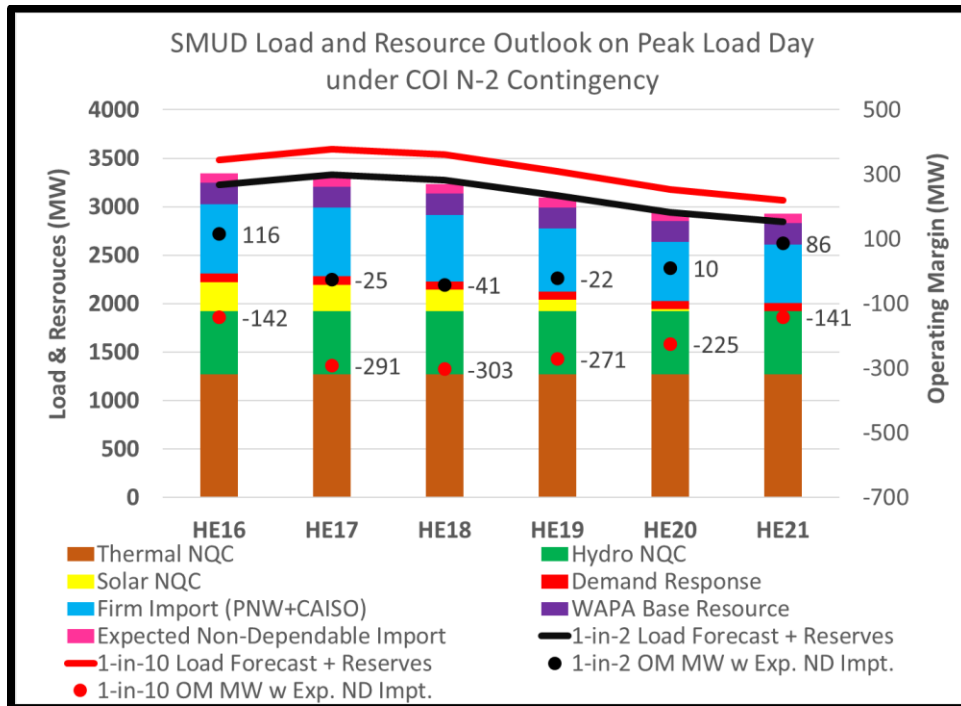


Figure 3-14: SMUD Load & Resource Outlook under COI N-2 Contingency Due to Wildfire

### 3.11.2 Extreme West-Wide Heatwave

The BANC entities rely upon the energy and capacity that can be procured in the week-ahead and day-ahead timeframes from PNW and/or CAISO areas to serve load. These energy and capacity are normally available for BANC entities to import. However, they are non-dependable

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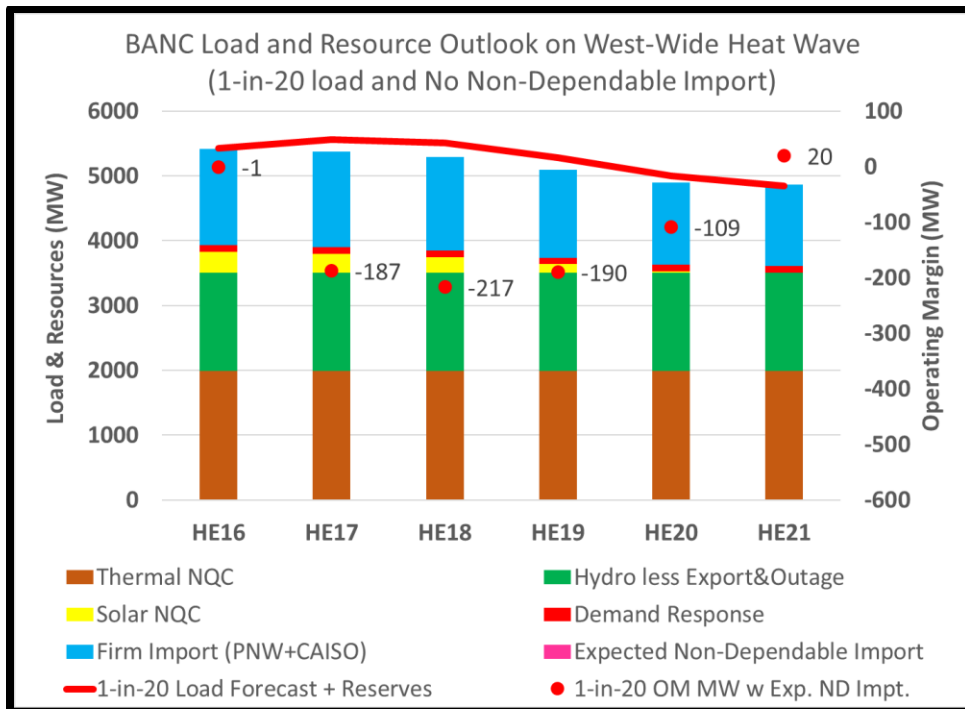
imports as they are not supported by long-term firm contracts. If an extreme west-wide heatwave causes high loads across the western U.S., those non-dependable energy and capacity may not be available to import.

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

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

|                           | Forecasted 1-in-2<br>Gross Peak Load (MW) | Forecasted 1-in-10<br>Gross Peak Load (MW) | Simulated 1-in-20<br>Gross Peak Load (MW) |
|---------------------------|---|--|---|
| <b>SMUD</b>               | 3,154                                     | 3,406                                      | 3,477                                     |
| <b>WAPA Footprint</b>     | 1,588                                     | 1,708                                      | 1,742                                     |
| <b>MID</b>                | 697                                       | 739  | 751                                       |
| <b>Roseville Electric</b> | 344                                       | 385  | 397                                       |
| <b>REU</b>                | 235                                       | 239  | 239                                       |
| <b>Shasta Lake</b>        | 34  | 38   | 39  |
| <b>Trinity PUD</b>        | 27  | 28   | 28  |
| <b>BANC Total</b>         | 4,742                                     | 5,114                                      | 5,219                                     |

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



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

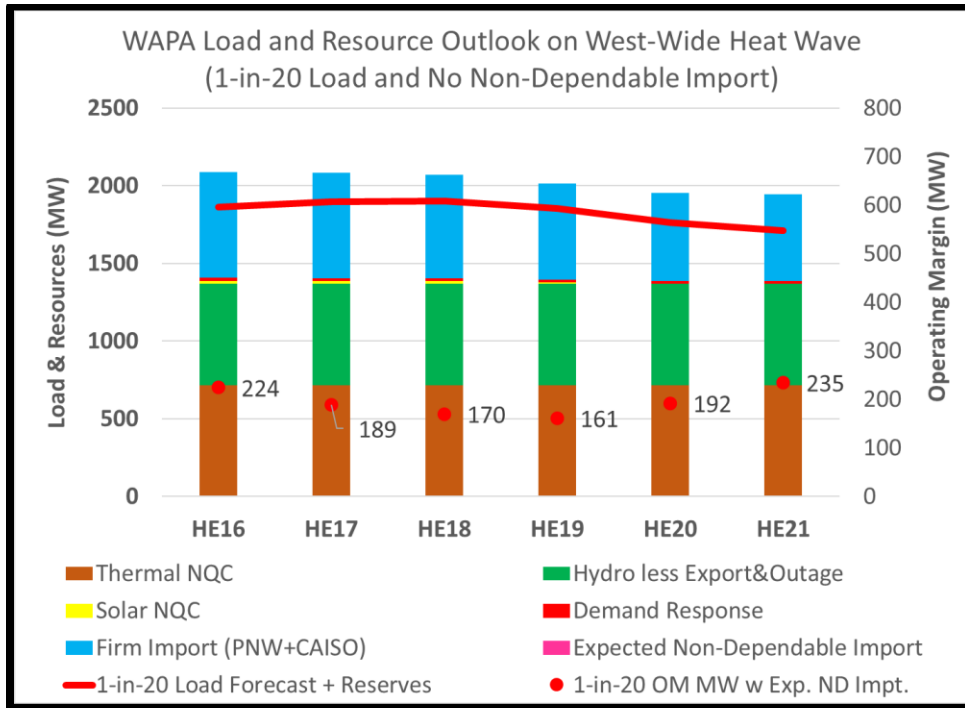


Figure 3-16: WAPA Load & Resources Outlook with 1-in-20 Load and No ND Import

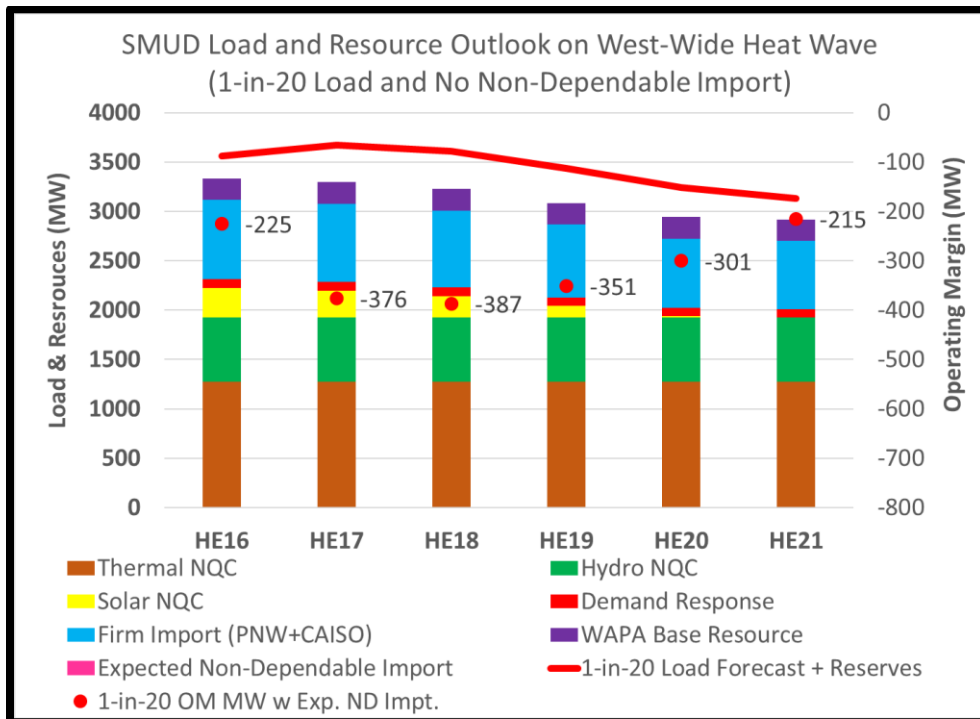


Figure 3-17: SMUD Load & Resources Outlook with 1-in-20 Load and No ND Import

Another special operating condition related to the heatwave is that BPA created a new process since 2023 summer to derate COI when the forecasted temperatures at BPA's load centers are

higher than 104°F for two or more consecutive days – under this heatwave operating conditions, COI could be derated to 3000~3200 MW depending on system conditions. The analysis showed that if COI is derated to 3000 MW when BANC BAA is experiencing 1-in-10 load, BANC could still maintain a positive operating margin although the Demand Response programs may need to be initiated within SMUD footprint.

### 3.11.3 CAISO in EEA 3

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

### 3.11.4 Smoke Impacts Due to Wildfires

During the Carr Fire and Camp Fire in 2018 and a series of wildfires in August 2020, the severe smoke and ashes covered the central valley area for many days, reducing the output of solar generation. The analysis estimated that the solar generation could be reduced by 30~50% due to smoke, which would be approximately 135~225 MW reduction during the peak load hours.

However, further analysis showed that the smoke could also reduce the temperature and therefore reduce the load. In the heatwave of August 2020, the original weather forecast was above 110 °F for several consecutive days such that the original peak load forecast was above 4,900 MW for BANC. However, due to the smoke cover and delta breeze, the original peak load forecast did not materialize. The estimated peak load reduction by wildfire smoke and ashes was approximately 3~5%, which was 150~250 MW.

Therefore, at the current solar generation level, the impacts of smoke on solar output reduction and load reduction are on the similar level for BANC. With more and more solar integration within BANC footprint, the impact of smoke on solar output could be more than the reduction on load, imposing significant reliability risk.

## 3.12 Engineering Studies

The BANC entities coordinated with the neighboring BAs, TOPs, and RC West and performed the following engineering studies for the 2026 summer:

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

The OSS study focuses on COI transfer capability and produces the COI operating nomogram, the SVSG study focuses on determining the Load Serving Capability (LSC) of Sacramento Valley area (SMUD and RSC) and developing associated operating nomograms, and the WTSG study

focuses on identifying the import and export limits for MID and TID and developing associated operating nomograms. All studies concluded that BANC will be able to serve the forecasted 2026 summer 1-in-2 and 1-in-10 load demands while meeting NERC/WECC Reliability Standards.

### 3.13 Conclusions

The 2026 forecasted 1-in-2 and 1-in-10 peak loads for BANC BA are 4,742 MW and 5,114 MW respectively. For Northern California, with 6% of snowpack, 95% of precipitation, and 119% of reservoir level, the 2025-2026 water season is classified as “Below Normal”. However, the BANC’s hydro energy might be slightly lower than normal due to the scheduled generation outages. This summer load and resource assessment and engineering studies show that BANC will be able to meet the forecasted 1-in-2 and 1-in-10 peak loads for the 2026 summer operating season with sufficient Operating Margins and low risks of energy or capacity shortage.

The BANC/SMUD Power System Operators and the System Operators and Dispatchers of WAPA, MID, RSC, & REU are being provided with Summer Readiness Training on the updated Operating Procedures to prepare for the 2026 summer operations. Additionally, BANC has coordinated with the State and local agencies, RC West, and neighboring BAs and TOPs to ensure reliable operations for the 2026 summer season under normal and emergency system conditions.

**Balancing Authority of Northern California  
Resolution 26-05-02**

**ACKNOWLEDGEMENT AND ACCEPTANCE OF THE 2026 SUMMER LOAD & RESOURCES  
ASSESSMENT OF THE BALANCING AUTHORITY OF NORTHERN CALIFORNIA**

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

WHEREAS, in consultation with the Operating Committee, the BANC Operator has coordinated and collaborated with members and produced the 2026 Summer Load & Resource Assessment (“Assessment”), which describes expected loads, resources, and operating conditions for the coming summer season, and the Operating Committee has concurred with the inputs, assessments, and conclusions contained therein.

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

PASSED AND ADOPTED by the Commissioners of the Balancing Authority of Northern California this 27<sup>th</sup> day of May 2026, by the following vote:

|                     |                  | Aye | No | Abstain | Absent |
|---------------------|------------------|-----|----|---------|--------|
| Modesto ID          | Martin Caballero |     |    |         |        |
| City of Redding     | Joe Bowers       |     |    |         |        |
| City of Roseville   | Shawn Matchim    |     |    |         |        |
| City of Shasta Lake | James Takehara   |     |    |         |        |
| SMUD                | Paul Lau         |     |    |         |        |
| TPUD                | Paul Hauser      |     |    |         |        |

\_\_\_\_\_  
Shawn Matchim  
Chair

\_\_\_\_\_  
Attest by: C. Anthony Braun  
Secretary