**Western Area Power Administration**
**Sierra Nevada Region**

**Starting Forecast Month:** **December 2020**

# Twelve-Month Forecast of CVP Generation and Base Resource

**December 2020 Through November 2021**

**Values at Load Center (Tracy Substation)**

**Exceedence Level:** **90% (Dry)**

| Month | CVP Generation | | Project Use | | First Preference | | Reg & Res | Purchases and Exchanges | | | | | | Base Resource | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CVP Maximum Capability (MW) | CVP Energy Generation (GWh) | Peak Project Use Demand (MW) | Project Use (PU) Load Energy (GWh) | First Pref. (FP) Peak Demand (MW) | First Pref. (FP) Load Energy (GWh) | Estimated Ancillary Services Capacity (MW) | PU Forward Purchase Off-Peak Energy (GWh) | PU & FP Capacity Purchase Reqmts. (MW) | Additional PU & FP Energy Purchase Reqmts. (GWh) | (This column for future use) (MW) | (This column for future use) (GWh) | Ancilliary Services Purchase Reqmt. (MW) | Project Capacity Available for BR (MW) | Energy Available for Base Resource (GWh) | Capacity Factor (%) |
| Column | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
| **Dec-2020** | 1190 | 140 | 80 | 90 | 26.0 | 19.3 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 902.0 | 30.7 | 4.6 |
| **Jan-2021** | 1230 | 130 | 150 | 145 | 26.4 | 19.6 | 182.0 | 0.0 | 0.0 | 34.6 | | | 0.0 | 871.6 | 0.0 | 0.0 |
| **Feb-2021** | 1505 | 140 | 30 | 15 | 26.9 | 18.1 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,266.1 | 106.9 | 12.6 |
| **Mar-2021** | 1435 | 160 | 30 | 20 | 25.2 | 18.7 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,197.8 | 121.3 | 13.6 |
| **Apr-2021** | 1555 | 320 | 40 | 25 | 21.6 | 15.6 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,311.4 | 279.4 | 29.6 |
| **May-2021** | 1555 | 400 | 55 | 35 | 21.4 | 15.9 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,296.6 | 349.1 | 36.2 |
| **Jun-2021** | 1560 | 500 | 50 | 30 | 24.0 | 17.3 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,304.0 | 452.7 | 48.2 |
| **Jul-2021** | 1465 | 480 | 145 | 80 | 25.9 | 19.2 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,112.1 | 380.8 | 46.0 |
| **Aug-2021** | 1430 | 410 | 140 | 85 | 26.7 | 19.8 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,081.3 | 305.2 | 37.9 |
| **Sep-2021** | 1225 | 310 | 165 | 115 | 23.7 | 17.1 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 854.3 | 177.9 | 28.9 |
| **Oct-2021** | 1185 | 190 | 145 | 120 | 22.0 | 16.4 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 836.0 | 53.6 | 8.6 |
| **Nov-2021** | 760 | 220 | 145 | 140 | 24.0 | 17.3 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 409.0 | 62.7 | 21.3 |
| Total | 16,095.0 | 3,400.0 | 1,175.0 | 900.0 | 293.7 | 214.3 | | 0.0 | | 34.6 | | | | | 2,320.3 | |

**Exceedence Level** **50% (Average)**

| Month | CVP Generation | | Project Use | | First Preference | | Reg & Res | Purchases and Exchanges | | | | | | Base Resource | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Maximum CVP Capacity (MW) | CVP Energy Generation (GWh) | Peak Project Use Demand (MW) | Project Use (PU) Load Energy (GWh) | First Pref. (FP) Peak Demand (MW) | First Pref. (FP) Load Energy (GWh) | Estimated Ancillary Services Capacity (MW) | PU Forward Purchase Off-Peak Energy (GWh) | PU & FP Capacity Purchase Reqmts. (MW) | Additional PU & FP Energy Purchase Reqmts. (GWh) | (This column for future use) | (This column for future use) | Ancilliary Services Purchase Reqmt. (MW) | Project Capacity Available for BR (MW) | Energy Available for Base Resource (GWh) | Capacity Factor (%) |
| Column | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
| **Dec-2020** | 1215 | 140.0 | 125.0 | 140.0 | 26.0 | 19.3 | 182.0 | 0.0 | 0.0 | 19.3 | | | 0.0 | 882.0 | 0.0 | 0.0 |
| **Jan-2021** | 1275 | 120.0 | 130.0 | 155.0 | 26.4 | 19.6 | 182.0 | 0.0 | 0.0 | 54.6 | | | 0.0 | 936.6 | 0.0 | 0.0 |
| **Feb-2021** | 1455 | 160.0 | 135.0 | 135.0 | 26.9 | 18.1 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,111.1 | 6.9 | 0.9 |
| **Mar-2021** | 1415 | 200.0 | 85.0 | 55.0 | 25.2 | 18.7 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,122.8 | 126.3 | 15.1 |
| **Apr-2021** | 1700 | 420.0 | 50.0 | 35.0 | 21.6 | 15.6 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,446.4 | 369.4 | 35.5 |
| **May-2021** | 1710 | 620.0 | 75.0 | 55.0 | 21.4 | 15.9 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,431.6 | 549.1 | 51.6 |
| **Jun-2021** | 1765 | 600.0 | 180.0 | 120.0 | 24.0 | 17.3 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,379.0 | 462.7 | 46.6 |
| **Jul-2021** | 1715 | 640.0 | 230.0 | 150.0 | 25.9 | 19.2 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,277.1 | 470.8 | 49.5 |
| **Aug-2021** | 1680 | 510.0 | 210.0 | 135.0 | 26.7 | 19.8 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,261.3 | 355.2 | 37.8 |
| **Sep-2021** | 1455 | 350.0 | 170.0 | 120.0 | 23.7 | 17.1 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,079.3 | 212.9 | 27.4 |
| **Oct-2021** | 1435 | 250.0 | 150.0 | 130.0 | 22.0 | 16.4 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 1,081.0 | 103.6 | 12.9 |
| **Nov-2021** | 950 | 310.0 | 170.0 | 160.0 | 24.0 | 17.3 | 182.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 574.0 | 132.7 | 32.1 |
| Total | 17,770.0 | 4,320.0 | 1,710.0 | 1,390.0 | 293.7 | 214.3 | | 0.0 | | 74.0 | | | | | 2,789.6 | |

Notes:
1. For the AS (Column G), it was assumed that Western's total operating reserve obligation to be equal to the sum of spinning reserve of 134 MW and regulation of 48 MW on average monthly long term basis.

2. Normal power system operations. Fall generating unit maintenance activities underway and peak capacity is reduced. River flows at Fall base levels.
Power bypass at Folsom for American River temperature control is being ramped to zero. Delta pumping expected to remain near minimum until precipitation runoff begins adding water to the system.