Western Area Power Administration
Sierra Nevada Region

Starting Forecast Month: **December 2021**

Twelve-Month Forecast of CVP Generation and Base Resource

December 2021 Through November 2022

Values at Load Center (Tracy Substation)

Exceedance 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)	Ancillary 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-2021	1075	110	115	100	23.8	17.7	182.0	0.0	0.0	7.7			0.0	754.2	0.0	0.0
Jan-2022	885	110	175	145	21.1	15.7	182.0	0.0	0.0	50.7			0.0	506.9	0.0	0.0
Feb-2022	990	100	45	25	21.2	14.2	182.0	0.0	0.0	0.0			0.0	741.8	60.8	12.2
Mar-2022	1250	120	80	85	25.8	19.2	182.0	0.0	0.0	0.0			0.0	962.2	15.8	2.2
Apr-2022	1245	220	55	25	27.8	20.0	182.0	0.0	0.0	0.0			0.0	980.2	175.0	24.8
May-2022	1445	260	65	30	27.4	20.4	182.0	0.0	0.0	0.0			0.0	1,170.6	209.6	24.1
Jun-2022	1320	360	40	20	28.0	20.2	182.0	0.0	0.0	0.0			0.0	1,070.0	319.8	41.5
Jul-2022	1365	410	75	40	26.1	19.4	182.0	0.0	0.0	0.0			0.0	1,081.9	350.6	43.6
Aug-2022	1200	340	65	45	23.3	17.3	182.0	0.0	0.0	0.0			0.0	929.7	277.7	40.1
Sep-2022	1010	240	120	100	22.0	15.8	182.0	0.0	0.0	0.0			0.0	686.0	124.2	25.1
Oct-2022	1050	230	145	125	23.8	17.7	182.0	0.0	0.0	0.0			0.0	699.2	87.3	16.8
Nov-2022	1015	210	135	110	26.0	18.7	182.0	0.0	0.0	0.0			0.0	672.0	81.3	16.8
Total	13,850.0	2,710.0	1,115.0	850.0	296.3	216.5		0.0		58.4					1,701.9	

Exceedance 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)	Ancillary 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-2021	1090	100.0	140.0	125.0	23.8	17.7	182.0	0.0	0.0	42.7			0.0	744.2	0.0	0.0
Jan-2022	940	100.0	125.0	145.0	21.1	15.7	182.0	0.0	0.0	60.7			0.0	611.9	0.0	0.0
Feb-2022	1110	170.0	150.0	140.0	21.2	14.2	182.0	0.0	0.0	0.0			0.0	756.8	15.8	3.1
Mar-2022	1390	150.0	130.0	155.0	25.8	19.2	182.0	0.0	0.0	24.2			0.0	1,052.2	0.0	0.0
Apr-2022	1560	280.0	45.0	30.0	27.8	20.0	182.0	0.0	0.0	0.0			0.0	1,305.2	230.0	24.5
May-2022	1675	430.0	70.0	45.0	27.4	20.4	182.0	0.0	0.0	0.0			0.0	1,395.6	364.6	35.1
Jun-2022	1560	460.0	180.0	120.0	28.0	20.2	182.0	0.0	0.0	0.0			0.0	1,170.0	319.8	38.0
Jul-2022	1635	520.0	205.0	140.0	26.1	19.4	182.0	0.0	0.0	0.0			0.0	1,221.9	360.6	39.7
Aug-2022	1445	430.0	175.0	125.0	23.3	17.3	182.0	0.0	0.0	0.0			0.0	1,064.7	287.7	36.3
Sep-2022	1335	280.0	125.0	80.0	22.0	15.8	182.0	0.0	0.0	0.0			0.0	1,006.0	184.2	25.4
Oct-2022	1345	260.0	150.0	130.0	23.8	17.7	182.0	0.0	0.0	0.0			0.0	989.2	112.3	15.3
Nov-2022	1265	250.0	145.0	145.0	26.0	18.7	182.0	0.0	0.0	0.0			0.0	912.0	86.3	13.1
Total	16,350.0	3,430.0	1,640.0	1,380.0	296.3	216.5		0.0		127.6					1,961.1	

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. Delta and San Luis pumping will continue to fall as storm runoff dissipates. Delta pumping at two units with potential to drop to a single unit very late this week or early next week.
Small amounts of Base Resource may be available this week and next as pumping variability can be deployed at San Luis. All rivers at base flow. TRD diversions are minimized.
Folsom cold-water bypass is likely to taper to zero this week depending on weather.

3. Please use 90% study for all your analysis.