

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation with Uncertainty Bounds Bracketing a Randomly Distributed Population
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Losses are Estimated per WAPA Contractual Provisions
Uncertainty Bounded Energy Generation (All values in GWh)

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	At Plant Total	Total Losses	Total Energy at Tracy			
													Expected Proj Use	Exp Est Net CVP	Low Est Net CVP	High Est Net CVP
DEC	6	4	6	59	15	18	3	7	0	0	118	2	100	20	0	30
JAN	5	0	5	64	15	92	11	6	0	0	198	4	150	40	0	80
FEB	5	1	17	53	14	87	9	10	0	0	196	4	140	50	0	100
MAR	6	0	13	68	15	81	10	19	0	0	212	4	150	60	0	110
APR	18	15	5	74	15	69	8	53	15	0	272	5	35	230	130	300
MAY	0	6	5	160	30	107	11	62	36	3	420	7	50	360	240	440
JUN	34	18	15	181	35	70	8	52	22	0	435	8	120	310	220	360
JUL	39	35	31	172	36	77	9	49	33	0	481	8	140	330	240	390
AUG	33	36	31	162	35	53	7	42	11	0	410	7	130	270	190	320
SEP	30	35	31	113	27	41	5	29	1	0	312	6	80	230	160	260
OCT	14	19	30	104	25	39	5	26	0	0	262	5	120	140	60	180
NOV	9	10	7	67	15	24	3	7	0	0	142	3	100	40	0	70
Total	199	179	196	1277	277	758	89	362	118	3	3458	63	1315	2080	1240	2640

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Losses are Estimated per WAPA Contractual Provisions
Expected Capacity Based on Estimated Gross Head (All values in MW)

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	At Plant Total	Total Losses	Total Capacity at Tracy			
													Expected CVP	Schd. Out	Expected Proj Use	Expected Net CVP
DEC	45	154	182	375	21	104	4	241	0	0	1126	20	1105	70	105	1000
JAN	47	154	91	428	21	110	14	124	0	0	989	18	970	290	200	770
FEB	50	77	91	479	22	168	14	127	0	0	1029	18	1010	245	165	845
MAR	54	77	182	646	21	177	14	263	0	0	1435	25	1410	120	150	1260
APR	0	75	182	684	14	192	12	267	134	0	1560	26	1535	125	70	1465
MAY	0	147	182	698	27	202	14	267	121	4	1662	28	1635	125	95	1540
JUN	0	147	91	689	17	206	12	267	103	0	1532	26	1505	90	180	1325
JUL	107	147	91	668	33	200	12	261	80	0	1601	28	1575	100	210	1365
AUG	101	147	91	516	48	189	9	250	50	0	1402	24	1375	100	190	1185
SEP	94	147	91	502	37	122	7	242	29	0	1273	22	1250	270	125	1125
OCT	88	150	91	621	23	118	7	237	0	0	1334	23	1310	150	150	1160
NOV	86	154	91	499	22	116	5	236	0	0	1209	21	1190	255	105	1085

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Project Use Pumping
Expected Project Energy Use at Tracy Load Center (All values in GWh)

Month	Tracy	Federal Banks	Contra Costa	O'Neill	Federal San Luis	San Felipe	Dos Amigos	Other Uses	Total at Tracy		
									Exp CVP PU	Expected On Peak	Expected Off Peak
DEC	45	0	3	10	34	2	0	6	100	35	65
JAN	61	0	2	15	59	1	0	11	150	70	80
FEB	56	0	2	12	54	1	0	16	140	50	90
MAR	61	0	2	12	51	2	4	17	150	55	90
APR	14	0	2	0	0	2	6	10	35	20	15
MAY	15	0	2	0	0	3	9	23	50	30	25
JUN	59	0	2	2	0	4	21	31	120	70	50
JUL	61	0	2	1	0	5	30	43	140	75	65
AUG	61	0	2	4	0	6	20	36	130	75	55
SEP	52	0	2	3	0	4	7	12	80	45	35
OCT	61	0	3	9	28	3	0	17	120	50	70
NOV	45	0	3	10	32	2	0	9	100	40	65
Total	592	0	28	78	257	37	97	230	1315	615	705

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Project Use Pumping
Expected Project Capacity Use at Tracy Load Center (All values in MW)

Month	Tracy		Federal Banks		Contra Costa		O'Neill		Federal San Luis		San Felipe		Dos Amigos		Other On/Off
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
DEC	66	66	0	0	4	4	16	16	0	120	3	3	6	6	8
JAN	96	96	0	0	3	3	24	24	56	112	2	2	6	6	15
FEB	96	96	0	0	3	3	20	20	23	182	2	2	0	0	23
MAR	96	96	0	0	3	3	20	20	0	178	2	2	6	6	23
APR	36	36	0	0	3	3	0	0	0	0	3	3	12	12	14
MAY	36	36	0	0	3	3	0	0	0	0	4	4	18	18	32
JUN	96	96	0	0	2	2	4	4	0	0	6	6	30	30	43
JUL	96	96	0	0	2	2	4	4	0	0	7	7	42	42	58
AUG	96	96	0	0	3	3	8	8	0	0	8	8	30	30	48
SEP	81	81	0	0	3	3	8	8	0	0	6	6	12	12	17
OCT	96	96	0	0	4	4	16	16	0	104	4	4	6	6	22
NOV	66	66	0	0	4	4	16	16	0	103	3	3	6	6	12

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Losses are Estimated per WAPA Contractual Provisions
Energy Generation (All values in GWh)

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	Total Losses	Total at Tracy		
												CVP	Proj Use	Net CVP
DEC	6	4	6	59	15	18	3	7	0	0	2	120	100	20
JAN	5	0	5	64	15	92	11	6	0	0	4	190	150	40
FEB	5	1	17	53	14	87	9	10	0	0	4	190	140	50
MAR	6	0	13	68	15	81	10	19	0	0	4	210	150	60
APR	18	15	5	74	15	69	8	53	15	0	5	270	35	235
MAY	0	6	5	160	30	107	11	62	36	3	7	410	50	360
JUN	34	18	15	181	35	70	8	52	22	0	8	430	120	310
JUL	39	35	31	172	36	77	9	49	33	0	8	470	140	330
AUG	33	36	31	162	35	53	7	42	11	0	7	400	130	270
SEP	30	35	31	113	27	41	5	29	1	0	6	300	80	220
OCT	14	19	30	104	25	39	5	26	0	0	5	260	120	140
NOV	9	10	7	67	15	24	3	7	0	0	3	140	100	40
Total	198	181	196	1278	277	757	89	361	118	3	60	3390	1315	2075

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Losses are Estimated per WAPA Contractual Provisions
Capacity Based on Estimated Gross Head (All values in MW)

Month	Trinity	JF Carr	Spring Creek	Shasta	Keswick	Folsom	Nimbus	New Melones	Federal San Luis	O'Neill	Tot. Cap. at Plant	Total Losses	Total Capacity at Tracy			
													CVP	Sch. Out	PU	Net CVP
DEC	45	154	182	375	21	104	4	241	0	0	1126	20	1105	70	105	1000
JAN	47	154	91	428	21	110	14	124	0	0	989	18	970	290	200	770
FEB	50	77	91	479	22	168	14	127	0	0	1029	18	1010	245	165	845
MAR	54	77	182	646	21	177	14	263	0	0	1435	25	1410	120	150	1260
APR	0	75	182	684	14	192	12	267	134	0	1560	26	1535	125	70	1465
MAY	0	147	182	698	27	202	14	267	121	4	1662	28	1635	125	95	1540
JUN	0	147	91	689	17	206	12	267	103	0	1532	26	1505	90	180	1325
JUL	107	147	91	668	33	200	12	261	80	0	1601	28	1575	100	210	1365
AUG	101	147	91	516	48	189	9	250	50	0	1402	24	1375	100	190	1185
SEP	94	147	91	502	37	122	7	242	29	0	1273	22	1250	270	125	1125
OCT	88	150	91	621	23	118	7	237	0	0	1334	23	1310	150	150	1160
NOV	86	154	91	499	22	116	5	236	0	0	1209	21	1190	255	105	1085

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Project Use Pumping
Project Energy Use at Tracy Load Center (All values in GWh)

Month	Tracy	Federal Banks	Contra Costa	O'Neill	Federal San Luis	San Felipe	Dos Amigos	Other Uses	Total at Tracy		
									CVP	On Peak	Off Peak
DEC	45	0	3	10	34	2	0	6	100	35	65
JAN	61	0	2	15	59	1	0	11	150	70	80
FEB	56	0	2	12	54	1	0	16	140	50	90
MAR	61	0	2	12	51	2	4	17	150	55	90
APR	14	0	2	0	0	2	6	10	35	20	15
MAY	15	0	2	0	0	3	9	23	50	30	25
JUN	59	0	2	2	0	4	21	31	120	70	50
JUL	61	0	2	1	0	5	30	43	140	75	65
AUG	61	0	2	4	0	6	20	36	130	75	55
SEP	52	0	2	3	0	4	7	12	80	45	35
OCT	61	0	3	9	28	3	0	17	120	50	70
NOV	45	0	3	10	32	2	0	9	100	40	65
Total	592	0	28	78	257	37	97	230	1315	615	705

United States Bureau of Reclamation - Mid Pacific Region, Central Valley Operations Office
Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 12/20/2021
Project Use Pumping
Project Capacity Use at Tracy Load Center (All values in MW)

Month	Tracy		Federal Banks		Contra Costa		O'Neill		Federal San Luis		San Felipe		Dos Amigos		Other On/Off
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
DEC	66	66	0	0	4	4	16	16	0	120	3	3	6	6	8
JAN	96	96	0	0	3	3	24	24	56	112	2	2	6	6	15
FEB	96	96	0	0	3	3	20	20	23	182	2	2	0	0	23
MAR	96	96	0	0	3	3	20	20	0	178	2	2	6	6	23
APR	36	36	0	0	3	3	0	0	0	0	3	3	12	12	14
MAY	36	36	0	0	3	3	0	0	0	0	4	4	18	18	32
JUN	96	96	0	0	2	2	4	4	0	0	6	6	30	30	43
JUL	96	96	0	0	2	2	4	4	0	0	7	7	42	42	58
AUG	96	96	0	0	3	3	8	8	0	0	8	8	30	30	48
SEP	81	81	0	0	3	3	8	8	0	0	6	6	12	12	17
OCT	96	96	0	0	4	4	16	16	0	104	4	4	6	6	22
NOV	66	66	0	0	4	4	16	16	0	103	3	3	6	6	12