

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 4/26/2021
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
APR	28	28	18	120	27	28	4	50	0	0	303	5	30	270	210	300
MAY	39	47	46	93	25	19	3	60	4	0	336	6	60	270	200	310
JUN	36	49	46	143	35	17	2	54	18	3	403	7	25	370	330	390
JUL	35	50	46	188	45	38	5	50	0	0	457	8	90	360	310	390
AUG	37	51	46	148	38	28	4	42	0	0	394	7	115	270	190	320
SEP	28	50	46	79	25	24	3	29	0	0	284	5	90	190	130	220
OCT	10	12	23	97	25	12	2	27	0	0	208	4	130	70	30	100
NOV	9	11	7	85	21	11	2	7	0	0	153	3	135	20	0	50
DEC	7	6	6	67	16	11	2	6	0	0	121	2	135	-20	0	10
JAN	8	8	5	65	15	12	2	6	0	0	121	2	130	-10	0	20
FEB	8	8	17	52	14	11	2	10	0	0	122	2	85	40	0	60
MAR	7	6	13	65	15	13	2	19	0	0	140	2	125	10	0	50
Total	252	326	319	1202	301	224	33	360	22	3	3042	53	1150	1840	1400	2220

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Forecast of CVP Generation
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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
APR	0	150	91	494	37	151	6	336	94	0	1359	23	1335	135	65	1270
MAY	58	147	182	495	23	158	4	326	84	0	1478	25	1455	80	85	1370
JUN	56	147	182	492	33	165	3	314	69	4	1465	25	1440	130	40	1400
JUL	54	147	182	472	42	162	7	301	0	0	1366	24	1345	110	140	1205
AUG	50	147	182	441	35	153	5	144	0	0	1159	21	1140	80	145	995
SEP	46	147	91	526	35	98	5	140	0	0	1088	19	1070	300	120	950
OCT	42	150	91	515	34	48	2	137	0	0	1020	18	1000	320	145	855
NOV	41	77	91	508	29	143	2	136	0	0	1028	18	1010	155	160	850
DEC	82	77	91	516	23	143	2	274	0	0	1209	21	1190	165	120	1070
JAN	83	77	91	540	21	98	2	277	0	0	1190	21	1170	205	105	1065
FEB	87	77	91	580	22	106	2	279	0	0	1244	22	1220	185	85	1135
MAR	46	154	182	618	21	116	2	282	0	0	1422	25	1395	100	105	1290

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Forecast of CVP Generation
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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
APR	14	0	2	1	0	3	2	8	30	15	10
MAY	25	0	2	0	0	3	2	26	60	30	25
JUN	11	0	2	0	0	3	4	7	25	15	10
JUL	50	0	2	3	1	4	5	28	90	50	40
AUG	56	0	2	6	13	3	4	32	115	55	60
SEP	50	0	2	6	15	3	2	14	90	40	50
OCT	62	0	2	11	34	2	1	18	130	55	75
NOV	61	0	2	13	47	1	1	12	135	55	80
DEC	56	0	2	13	57	1	1	8	135	45	90
JAN	46	0	2	11	59	1	1	10	130	40	90
FEB	31	0	2	6	34	1	1	9	85	30	55
MAR	43	0	2	9	56	1	1	14	125	40	85
Total	505	0	20	78	316	26	23	185	1150	470	670

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Forecast of CVP Generation
Based on USBR 50 Pct Forecast -B2, Dated 4/26/2021
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	
APR	36	36	0	0	2	2	4	4	0	0	4	4	6	6	11
MAY	36	36	0	0	2	2	0	0	0	0	4	4	6	6	35
JUN	18	18	0	0	2	2	0	0	0	0	4	4	6	6	10
JUL	81	81	0	0	2	2	4	4	0	21	5	5	12	12	37
AUG	81	81	0	0	2	2	8	8	0	42	5	5	6	6	43
SEP	81	81	0	0	2	2	8	8	0	63	4	4	6	6	19
OCT	96	96	0	0	2	2	16	16	0	124	3	3	6	6	24
NOV	96	96	0	0	2	2	20	20	16	130	2	2	6	6	16
DEC	81	81	0	0	2	2	20	20	0	183	2	2	6	6	10
JAN	66	66	0	0	2	2	16	16	0	176	1	1	6	6	13
FEB	51	51	0	0	2	2	12	12	0	127	1	1	6	6	14
MAR	66	66	0	0	2	2	12	12	0	197	1	1	6	6	19

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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
APR	28	28	18	120	27	28	4	50	0	0	5	300	30	270
MAY	39	47	46	93	25	19	3	60	4	0	6	330	60	270
JUN	36	49	46	143	35	17	2	54	18	3	7	400	25	375
JUL	35	50	46	188	45	38	5	50	0	0	8	450	90	360
AUG	37	51	46	148	38	28	4	42	0	0	7	390	115	275
SEP	28	50	46	79	25	24	3	29	0	0	5	280	90	190
OCT	10	12	23	97	25	12	2	27	0	0	4	200	130	70
NOV	9	11	7	85	21	11	2	7	0	0	3	150	135	15
DEC	7	6	6	67	16	11	2	6	0	0	2	120	135	-15
JAN	8	8	5	65	15	12	2	6	0	0	2	120	130	-10
FEB	8	8	17	52	14	11	2	10	0	0	2	120	85	35
MAR	7	6	13	65	15	13	2	19	0	0	2	140	125	15
Total	251	325	320	1202	301	223	31	362	23	3	54	3000	1150	1850

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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
APR	0	150	91	494	37	151	6	336	94	0	1359	23	1335	135	65	1270
MAY	58	147	182	495	23	158	4	326	84	0	1478	25	1455	80	85	1370
JUN	56	147	182	492	33	165	3	314	69	4	1465	25	1440	130	40	1400
JUL	54	147	182	472	42	162	7	301	0	0	1366	24	1345	110	140	1205
AUG	50	147	182	441	35	153	5	144	0	0	1159	21	1140	80	145	995
SEP	46	147	91	526	35	98	5	140	0	0	1088	19	1070	300	120	950
OCT	42	150	91	515	34	48	2	137	0	0	1020	18	1000	320	145	855
NOV	41	77	91	508	29	143	2	136	0	0	1028	18	1010	155	160	850
DEC	82	77	91	516	23	143	2	274	0	0	1209	21	1190	165	120	1070
JAN	83	77	91	540	21	98	2	277	0	0	1190	21	1170	205	105	1065
FEB	87	77	91	580	22	106	2	279	0	0	1244	22	1220	185	85	1135
MAR	46	154	182	618	21	116	2	282	0	0	1422	25	1395	100	105	1290

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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
APR	14	0	2	1	0	3	2	8	30	15	10
MAY	25	0	2	0	0	3	2	26	60	30	25
JUN	11	0	2	0	0	3	4	7	25	15	10
JUL	50	0	2	3	1	4	5	28	90	50	40
AUG	56	0	2	6	13	3	4	32	115	55	60
SEP	50	0	2	6	15	3	2	14	90	40	50
OCT	62	0	2	11	34	2	1	18	130	55	75
NOV	61	0	2	13	47	1	1	12	135	55	80
DEC	56	0	2	13	57	1	1	8	135	45	90
JAN	46	0	2	11	59	1	1	10	130	40	90
FEB	31	0	2	6	34	1	1	9	85	30	55
MAR	43	0	2	9	56	1	1	14	125	40	85
Total	505	0	20	78	316	26	23	185	1150	470	670

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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	
APR	36	36	0	0	2	2	4	4	0	0	4	4	6	6	11
MAY	36	36	0	0	2	2	0	0	0	0	4	4	6	6	35
JUN	18	18	0	0	2	2	0	0	0	0	4	4	6	6	10
JUL	81	81	0	0	2	2	4	4	0	21	5	5	12	12	37
AUG	81	81	0	0	2	2	8	8	0	42	5	5	6	6	43
SEP	81	81	0	0	2	2	8	8	0	63	4	4	6	6	19
OCT	96	96	0	0	2	2	16	16	0	124	3	3	6	6	24
NOV	96	96	0	0	2	2	20	20	16	130	2	2	6	6	16
DEC	81	81	0	0	2	2	20	20	0	183	2	2	6	6	10
JAN	66	66	0	0	2	2	16	16	0	176	1	1	6	6	13
FEB	51	51	0	0	2	2	12	12	0	127	1	1	6	6	14
MAR	66	66	0	0	2	2	12	12	0	197	1	1	6	6	19