1985 Varmin Report

TABLE B-3: POWER COSTS AND CREDITS AND ANNUAL REPLACEMENT DEPOSITS FOR EACH AQUEDUCT PUMPING AND POWER RECOVERY PLANT[a]

(in dollars)

Calendar Year	NORTH BAY AQUEDUCT		SOUTH BAY AQUEDUCT	CALIFORNIA AQUEDUCT															
	Reach 1 Cache Slough Pumping Plant	Reach 3 Cordelia Pumping Plant (b	Reach 1 South Bay and Del Valle Pumping Plants (c	Reach 1 Harvey O. Banks Delta Pumping Plant	Reach 4 Dos Amigos Pumping Plant	Reach 14A Buena Vista Pumping Plant	Reach 15A Wheeler Ridge Pumping Plant	Reach 16A Wind Gap Pumping Plant	Reach 17E A.D. Edmonston Pumping Plant	Reach 18A Alamo Powerplant	Reach 22B Pear-blossom Pumping Plant	Reach 26A Devil Canyon Powerplant	Reach 29A Oso Pumping Plant	Reach 29G William E. Warne (Pyramid) Powerplant	Reach 29J Castaic Powerplant	Reach 31A Las Perillas and Badger Hill Pumping Plants	Reach 33A Devil's Den Sawtooth and Polonio PP's and San Luis Obispo Pwp.	GRAND TOTAL	Calendar Year
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
1962	0	0	38,130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,130	1962
1963	0	0	38,871	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38,871	1963
1964	0	0	75,239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75,239	1964
1965	0	0	146,297	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146,297	1965
1966	0	0	198,643	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198,643	1966
1967	0	0	229,629	26,982	0	0	0	0	0	0	0	0	0	0	0	6,517	0	263,128	1967
1968	0	7,128	342,761	1,324,777	239,505	0	0	0	0	0	0	0	0	0	0	120,278	0	2,034,449	1968
1969	0	8,557	279,751	855,304	143,403	0	0	0	0	0	0	0	0	0	0	79,620	0	1,366,635	1969
1970	0	13,666	448,383	368,508	217,820	2,940	0	0	0	0	0	0	0	0	0	137,449	0	1,188,766	1970
1971	0	10,626	422,057	597,946	229,306	156,540	23,021	18,577	29,067	0	64,807	0	1,696	0	0	171,389	0	1,725,032	1971
1972	0	14,430	623,564	1,110,833	575,291	348,668	187,825	385,935	1,263,087	0	103,584	-3,112	180,005	0	-385,696	240,651	0	4,645,065	1972
1973	0	14,453	485,534	918,234	493,776	511,904	514,487	883,725	3,139,997	0	615,309	-931,697	274,450	0	-1,193,216	128,730	0	5,854,986	1973
1974	0	17,508	510,873	997,269	560,461	554,968	595,585	1,048,196	3,700,573	0	595,646	-939,072	322,440	0	-1,823,397	129,345	0	6,272,395	1974
1975	0	14,801	382,106	1,353,916	561,089	650,781	707,038	1,394,918	4,853,538	0	616,327	-1,101,445	457,487	0	-2,835,302	101,109	0	7,156,363	1975
1976	0	20,867	589,007	916,728	596,426	701,061	687,677	1,414,902	4,917,776	0	914,440	-1,520,412	314,669	0	-2,512,021	151,211	0	7,192,331	1976
1977	0	22,640	541,803	653,304	191,906	170,689	173,496	337,890	1,130,422	0	318,880	-1,216,060	53,119	0	-1,233,043	85,538	0	1,230,584	1977
1978	0	21,701	569,046	4,138,817	839,257	1,094,676	1,056,850	1,993,335	7,061,284	0	1,783,155	-3,298,247	355,285	0	-3,828,774	197,521	0	11,983,906	1978
1979	0	16,249	621,602	3,421,367	1,019,385	849,644	832,056	1,669,651	5,751,042	0	1,807,731	-3,335,069	158,795	0	-2,642,118	208,639	0	10,378,974	1979
1980	0	19,961	523,756	2,433,229	1,170,549	1,026,306	1,017,111	2,067,697	6,864,121	0	1,846,133	-3,508,195	205,129	0	-3,211,549	183,228	0	10,637,476	1980
1981	0	21,711	607,892	2,331,253	1,305,953	1,269,103	1,264,814	2,547,394	8,980,956	0	2,022,070	-2,417,354	396,626	0	-4,065,927	178,894	0	14,463,385	1981
1982	0	12,150	989,274	3,575,221	1,870,031	1,952,829	1,900,777	3,920,107	14,180,944	0	3,167,794	-3,537,234	594,911	-973,609	-3,476,126	291,129	0	24,468,993	1982
1983	0	3,052	195,326	1,866,446	413,310	430,891	408,519	693,114	2,144,867	0	358,835	-5,726,438	216,858	-1,874,856	-2,790,485	25,222	0	-3,635,339	1983
1984	0	28,407	2,624,932	11,057,118	4,588,241	3,087,347	2,900,302	5,211,904	15,267,926	0	4,067,195	-6,738,125	103,727	-172,350	-1,426,500	720,811	0	41,320,935	1984
1985	0	26,030	2,390,694	12,085,092	6,244,994	6,480,914	6,675,454	13,438,670	44,725,742	-977,573	5,117,657	-10,011,087	3,857,240	-9,220,100	-15,892,190	847,149	0	65,788,666	1985
1986	0	28,017	2,139,952	15,163,251	6,683,840	7,385,877	7,924,243	16,204,650	54,224,295	-7,213,220	10,374,611	-24,640,450	2,892,671	-7,583,575	-13,524,700	760,513	0	70,819,975	1986
1987	45,654	37,005	2,167,012	15,135,160	7,126,999	7,955,663	8,544,217	17,516,393	58,681,302	-7,464,032	10,655,648	-25,005,625	3,373,662	-8,737,700	-15,409,950	769,433	0	75,390,841	1987
1988	49,887	39,135	2,315,472	15,613,464	7,135,450	7,689,745	8,277,909	17,051,151	57,476,690	-7,434,000	10,467,938	-24,817,825	3,266,852	-8,503,600	-14,973,275	770,337	0	74,425,420	1988
1989	54,087	43,339	2,372,295	16,728,359	7,254,124	7,972,713	8,523,093	17,431,912	57,566,453	-7,367,875	10,353,341	-24,823,800	3,325,975	-8,673,875	-15,142,900	695,122	0	76,312,530	1989
1990	72,921	81,082	2,668,544	19,231,021	8,916,140	10,193,287	11,182,124	23,062,011	76,758,449	-9,516,352	14,087,061	-33,096,075	3,379,134	-8,179,400	-14,155,175	763,487	0	107,648,259	1990
1991	80,534	88,576	2,788,235	20,138,589	9,363,117	10,547,972	11,598,335	23,947,481	79,879,877	-9,371,172	14,365,740	-33,603,700	3,664,984	-8,790,200	-15,127,650	1,151,762	0	112,722,480	1991
1992	90,806	96,049	2,900,256	20,947,312	9,423,876	10,530,436	11,566,387	23,876,448	79,719,283	-9,455,480	14,986,203	-34,125,675	3,552,394	-7,977,500	-13,692,150	1,162,579	0	115,381,226	1992
1993	102,927	104,413	2,848,538	21,108,759	9,842,260	11,110,819	12,264,616	25,360,615	85,100,196	-9,888,460	17,589,465	-35,436,100	3,801,587	-8,958,800	-15,346,200	1,170,567	0	120,775,402	1993
1994	115,679	113,235	2,947,305	21,847,209	10,043,748	11,301,137	12,484,598	25,856,828	86,873,668	-9,705,271	17,941,048	-35,636,075	3,853,489	-9,030,350	-15,432,900	1,180,175	0	124,755,523	1994
1995	149,257	123,970	3,053,177	22,407,972	10,440,096	11,782,708	13,043,912	27,067,456	91,045,361	-6,629,126	10,649,624	-19,835,950	7,671,084	-15,998,950	-29,347,575	1,209,127	0	126,832,143	1995
1996	169,319	133,022	3,109,478	23,288,492	10,612,308	12,001,472	13,287,415	27,533,476	92,668,882	-6,349,712	10,214,583	-19,353,075	8,052,772	-16,335,375	-30,543,350	1,218,033	0	129,707,830	1996
1997	180,048	143,773	3,202,358	23,572,280	11,057,607	12,369,379	13,694,300	28,447,037	95,394,282	-6,286,923	10,262,896	-19,122,425	8,363,381	-15,965,975	-31,097,500	1,240,937	0	135,455,804	1997
1998	185,435	151,411	3,189,476	23,542,997	11,335,088	12,600,227	13,937,411	29,122,894	97,297,241	-6,322,608	10,262,494	-19,502,625	8,640,724	-16,298,200	-32,051,350	1,235,944	0	137,346,559	1998
1999	198,777	165,070	3,304,193	24,788,496	11,985,415	13,246,646	14,680,500	30,760,935	102,325,833	-6,445,665	10,830,861	-19,088,900	9,108,486	-16,097,050	-32,394,450	1,280,398	0	148,649,545	1999
2000	206,250	174,604	3,303,296	24,783,456	12,125,905	13,371,950	14,836,132	31,218,201	103,139,169	-6,461,191	10,824,853	-19,310,775	9,230,218	-16,624,500	-32,754,200	1,280,051	0	149,343,419	2000
2001	220,586	190,091	3,438,789	26,024,956	12,681,769	14,010,814	15,529,333	32,637,134	107,769,807	-6,247,902	10,821,948	-19,125,300	9,831,339	-16,510,725	-33,546,675	1,332,556	0	159,058,520	2001
2002	231,740	205,240	3,578,727	27,246,212	13,536,145	15,142,630	16,841,292	35,413,511	116,754,926	-6,497,489	11,736,895	-19,213,675	10,643,390	-16,734,000	-34,948,075	1,386,782	0	173,324,251	2002
2003	235,973	215,194	3,598,767	27,375,168	13,430,039	15,000,103	16,850,628	34,844,053	114,773,462	-6,008,190	10,858,496	-17,643,325	10,758,572	-16,686,650	-35,037,925	1,240,937	0	173,758,913	2003
2004	243,391	228,325	3,671,315	27,939,673	13,630,906	15,289,057	16,964,509	35,352,997	116,406,248	-5,816,216	10,709,814	-17,098,600	11,113,656	-16,662,025	-35,263,650	1,422,661	0	178,132,061	2004
2005	249,495	238,957	3,699,797	28,052,785	13,778,274	15,561,662	17,276,440	35,867,489	118,064,059	-5,763,303	10,690,888	-16,869,275	11,442,988	-16,734,000	-35,770,950	1,433,698	0	181,219,004	2005
2006	258,654	249,924	3,766,917	28,563,444	14,080,361	16,023,440	17,805,691	36,867,816	121,322,569	-5,850,471	11,060,556	-16,842,650	11,692,254	-16,734,000	-36,045,850	1,459,707	0	187,678,362	2006
2007	266,893	264,755	3,842,005	29,720,501	14,498,441	16,533,378	18,399,399	38,277,504	126,134,260	-5,896,098	11,282,191	-17,177,450	12,183,965	-16,734,000	-36,963,100	1,488,804	0	196,121,448	2007
2008	281,348	285,136	4,008,260	31,031,318	15,149,098	17,374,195	19,357,742	40,293,016	132,947,842	-6,045,168	12,024,333	-17,237,950	12,713,174	-16,477,900	-37,138,275	1,553,229	0	210,119,398	2008
2009	278,539	286,787	3,908,412	30,289,190	14,758,007	16,868,663	18,781,510	39,073,179	128,728,328	-6,142,075	11,894,395	-17,994,300	12,215,711	-16,685,850	-36,530,300	1,514,537	0	201,244,733	2009
2010	291,983	306,477	4,056,524	31,746,775	15,430,152	17,769,522	19,819,289	41,273,560	136,182,725	-6,186,953	12,377,042	-17,945,325	12,954,030	-16,734,000	-37,440,200	1,571,931	0	215,453,532	2010
2011	299,223	318,538	4,076,464	31,836,876	15,499,460	17,855,897	19,916,904	41,479,828	136,859,661	-6,187,974	12,380,107	-17,512,600	13,014,993	-16,734,000	-37,478,875	1,579,659	0	217,204,161	2011
2012	315,402	342,002	4,254,107	36,107,483	16,428,732	19,141,092	21,410,032	44,650,997	147,637,293	-6,471,815	13,509,854	-18,503,050	13,903,110	-16,734,000	-38,520,375	1,648,497	0	239,119,361	2012
2013	315,595	345,162	4,160,095	32,965,441	15,982,761	18,535,890	20,710,665	43,166,503	142,501,302	-6,276,300	12,712,846	-17,889,700	13,542,252	-16,734,000	-38,351,200	1,612,067	0	227,299,379	2013
2014	337,024	373,292	4,363,640	33,340,493	16,919,246	19,798,757	22,167,466	46,257,759	152,971,443	-6,415,360	13,586,562	-18,203,625	14,466,588	-16,734,000	-39,295,975	1,690,942	0	245,624,252	2014
2015	367,078	411,255	4,668,253	37,561,686	18,185,360	21,435,741	24,041,370	50,230,672	166,465,648	-6,735,226	15,260,351	-18,907,525	15,420,746	-16,734,000	-39,461,275	1,808,982	0	273,799,116	2015
2016	383,387	434,385	4,798,244	38,370,989	18,536,984	21,869,866	24,520,373	51,240,063	169,865,947	-6,608,424	15,258,948	-18,930,100	15,793,529	-16,734,000	-39,450,850	1,859,354	0	281,208,695	2016
2017	399,759	457,742	4,927,303	38,654,475	18,966,955	22,643,945	25,412,155	53,133,182	176,314,280	-6,763,011	15,995,095	-19,052,775	16,260,317	-16,734,000	-39,654,425	1,909,365	0	292,870,362	2017
2018	414,271	479,518	5,029,933	41,093,670	19,368,669	23,424,088	26,320,958	55,066,796	182,905,245	-6,902,139	16,620,035	-19,415,700	16,806,748	-16,734,000	-40,194,800	1,949,135	0	306,232,427	2018
2019	420,419	493,891	5,053,730	42,481,009	19,274,808	23,499,597	26,403,762	55,148,871	183,498,879	-6,833,494	16,423,930	-18,984,550	16,925,013	-16,734,000	-40,298,000	1,958,356	0	308,731,921	2019
2020	428,911	505,001	5,045,117	41,561,713	19,183,772	23,515,305	26,426,110	55,103,346	183,551,302	-6,649,624	15,804,681	-18,351,400	17,185,831	-16,734,000	-40,930,650	1,955,019	0	307,600,434	2020
2021	431,146	508,726	5,061,386	40,751,230	19,380,056	23,873,759	26,883,910	56,217,427	187,577,453	-7,206,001	17,305,471	-20,237,925	17,054,754	-16,734,000	-40,536,250	1,961,323	0	312,292,465	2021
2022	427,692	504,650	5,020,834	39,952,122	18,700,651	23,337,215	26,283,712	54,797,509	183,744,034	-6,884,910	16,191,485	-18,910,100	17,029,129	-16,734,000	-40,748,100	1,945,609	0	304,657,532	2022
2023	429,316	506,567	5,039,905	41,869,814	18,619,860	23,698,067	26,715,150	55,334,651	186,611,473	-6,621,325	16,863,915	-19,357,850	17,121,025	-16,734,000	-40,823,550	1,952,999	0	315,226,017	2023
2024	425,064	501,549	4,989,982	41,389,158	17,941,606	23,127,527	26,040,483	53,531,348	181,573,446	-2,519,500	15,848,021	-18,760,725	16,871,073	-16,734,000	-40,604,550	1,933,654	0	305,554,136	2024
2025	427,940	504,943	5,023,744	40,377,876	18,325,396	23,752,333	26,787,206	54,726,197	186,981,197	-2,680,175	17,064,694	-19,936,975	17,036,310	-16,734,000	-40,744,700	1,946,737	0	312,858,723	2025
2026	426,725	503,510	5,009,485	41,890,965	18,051,185	23,287,510	26,227,754	53,306,087	182,838,224	-2,531,375	15,794,931	-18,396,450	16,983,034	-16,734,000	-40,722,350	1,941,211	0	307,876,446	2026
2027	429,419	506,689	5,041,114	41,883,421	18,398,794	23,851,509	26,901,198	54,463,000	187,757,836	-2,697,950	17,044,636	-19,943,750	17,056,270	-16,734,000	-40,672,450	1,953,468	0	315,239,204	2027
2028	425,331	501,865	4,993,119	40,187,228	18,067,901	23,255,359	26,307,406	53,222,021	183,431,691	-2,586,450	15,947,741	-18,644,725	16,568,755	-16,734,000	-40,688,850	1,934,869	0	306,189,261	2028
2029	427,974	504,983	5,024,147	40,394,482	18,371,058	23,645,357	26,756,015	54,427,114	187,654,629	-2,714,975	16,904,541	-19,754,475	16,324,361	-16,734,000	-40,709,400	1,946,893	0	312,468,714	2029
2030	427,975	504,985	5,024,159	41,685,491	18,038,853	23,258,624	26,269,449	53,679,250	184,774,114	-2,613,875	16,038,685	-18,673,500	16,185,323	-16,734,000	-40,628,950	1,946,898	0	309,183,481	2030
2031	431,430	509,061	5,064,713	41,491,134	18,250,193	23,700,559	26,858,762	55,186,305	189,608,653	-2,758,850	17,134,716	-19,780,800	16,251,678	-16,734,000	-40,737,675	1,962,613	0	316,438,492	2031
2032	425,865	502,495	4,999,393	40,697,959	17,628,033	22,846,247	25,852,082	53,402,585	183,091,530	-2,619,475	15,782,731	-18,654,225	15,844,959	-16,734,000	-40,620,125	1,937,301	0	304,383,355	2032
2033	432,128	509,884	5,072,907	42,118,693	18,058,772	23,324,726	26,416,851	54,939,455	187,734,372	-2,726,175	16,716,049	-19,520,825	15,944,549	-16,734,000	-40,705,025	1,965,788	0	313,548,149	2033
2034	418,465	493,763	4,912,518	36,073,708	17,355,380	22,211,153	25,131,418	52,549,081	179,242,487	-2,639,400	15,475,575	-18,877,775	15,109,874	-16,734,000	-40,647,925	1,903,636	0	291,977,958	2034
2035	441,422	520,852	5,182,023	47,163,664	18,601,346	23,779,336	26,947,888	56,749,214	193,599,934	-2,814,650	17,552,334	-19,925,350	15,667,832	-16,734,000	-40,818,525	2,008,071	0	327,921,391	2035

a) Includes: the costs of electric capacity and energy used by pumping plants, exclusive of associated power transmission and station service charges; the value of electric capacity and energy produced by power recovery plants (treated as negative costs); the payments to sinking fund reserves that will finance periodic replacement of electro-mechanical equipment; and the plant capacity and energy costs associated with surplus water service prior to May 1, 1973.

b) Power costs for the period 1968 through 1986 are for an interim facility.

c) The costs of Del Valle Pumping Plant are combined with those of South Bay Pumping Plant to simplify the cost allocations.

C-111331

State of California

1/15

The Resources Agency

Memorandum

Date : January 8, 1985

To : Lawrence E. Swenson
Room 804-4

From : Frank J. Hahn, Chief
Energy Division
Department of Water Resources

Subject : Resources and Costs for Bulletin 132-85

1-16-85 : Sent note to Zarghami, asking if this meets his needs LB

Attached is detailed information regarding power resources and transmission facilities necessary in the development of Bulletin 132-85. These data include monthly operating data (Section A) for all off-aqueduct resources included in the current resource base and requested cost data (Section B). These data do not include operating data for on-aqueduct resources or construction and operations and maintenance costs data for any resources except those specifically requested in your memorandum of December 6, 1984 on the subject.

Current power sources contained in the Energy Division's mix of resources include the existing supply base, generation currently under construction or contracted for, and executed power agreements.

Specifically, these resources include:

Existing Resources
Hyatt-Thermalito
Devil Canyon Phase I
San Luis Phase I
Castaic
William E. Warne Phase I (Units 1 and 2)
Metropolitan Water District Hydro Phase I
TERA Wind
Northwest Power
Southern California Edison Company Power Contract
Southern California Edison Company Capacity Exchange Agreement
Reid Gardner Unit No. 4
Pine Flat

Resources Under Construction
Alamo Phase I
Bottle Rock
South Geysers
TERA Wind Additional Units
Thermalito Diversion Dam
Mojave Siphon Powerplant Phase I

SURNAME				
DWR 155 (REV. 8/83)	1/8/85	S. Musgrove	1/8/85	1/8/85

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We anticipate that the current resources may not be sufficient to meet all the power requirements of the State Water Project during the entire 50-year Bulletin 132-85 study period. Therefore, we recommend that when you determine the deficit you contact us to identify the best resource to use to satisfy the shortage.

If you have any questions regarding the information presented, please call Linda Fain at 3-0101.

Attachment

RESOURCES AND COSTS FOR BULLETIN 132-85

Energy Division
January 8, 1985

C—111334

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Section A
Monthly Operating Data

TABLE A-1

REID GARDNER UNIT No. 4

Annual Capacity Factors:	1985	60 percent
	1986	65 percent

State's share of Station Service: 30,500 kW (67.8 percent of 45,000 kW)

Nevada Power Company (NPC) Interruptions	hours*
1984-1989	300
1990-1994	750
1995 and thereafter	1,500

*Interruptions based on DWR full entitlement capacity

NOTE: 1. No on-peak capacity shown in annual tables since NPC can interrupt DWR Entitlement Capacity at any time. } Here we go again! JB
2. Assumes NPC capacity buy-back begins in August of 1998.

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REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total	
1985						
Jan	0	226,000	60,665	60,665	121,330 20	
Feb	0	226,000	54,794	54,794	109,588	65% CF
Mar	0	0	0	0	0	No Interrupt
Apr	0	0	29,354	29,354	58,708	
May	0	226,000	60,665	60,665	121,330	
Jun	0	226,000	47,408	58,708	106,116	
Jul	0	226,000	38,065	60,665	98,730 40	
Aug	0	226,000	38,065	60,665	98,730 40	
Sep	0	226,000	47,408	58,708	106,116 30	
Oct	0	0	30,332	30,332	60,664	
Nov	0	226,000	58,708	58,708	117,416	
Dec	0	226,000	60,665	60,665	121,330	
TOTAL			526,129	593,929	1,120,058	1338
						130
						1208
1986-1989						
Jan	0	226,000	65,720	65,720	131,440	
Feb	0	226,000	59,360	59,360	118,720	
Mar	0	0	0	0	0	
Apr	0	0	31,800	31,800	63,600	
May	0	226,000	65,720	65,720	131,440	
Jun	0	226,000	52,300	63,600	115,900	
Jul	0	226,000	43,120	65,720	108,840	
Aug	0	226,000	43,120	65,720	108,840	
Sep	0	226,000	52,300	63,600	115,900	
Oct	0	0	32,860	32,860	65,720	
Nov	0	226,000	63,600	63,600	127,200	
Dec	0	226,000	65,720	65,720	131,440	
TOTAL			575,620	643,420	1,219,040	
1990-1994						
Jan	0	226,000	65,720	65,720	131,440	
Feb	0	226,000	59,360	59,360	118,720	
Mar	0	0	0	0	0	
Apr	0	0	31,800	31,800	63,600	
May	0	226,000	65,720	65,720	131,440	
Jun	0	226,000	29,700	63,600	93,300	
Jul	0	226,000	9,220	65,720	74,940	
Aug	0	226,000	9,220	65,720	74,940	
Sep	0	226,000	41,000	63,600	104,600	
Oct	0	0	32,860	32,860	65,720	
Nov	0	226,000	63,600	63,600	127,200	
Dec	0	226,000	65,720	65,720	131,440	
TOTAL			473,920	643,420	1,117,340	

REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Total
1995-1997					
Jan	0	226,000	9,220	65,720	74,940
Feb	0	226,000	59,360	59,360	118,720
Mar	0	0	0	0	0
Apr	0	0	31,800	31,800	63,600
May	0	226,000	65,720	65,720	131,440
Jun	0	226,000	0	63,600	63,600
Jul	0	226,000	0	65,720	65,720
Aug	0	226,000	0	65,720	65,720
Sep	0	226,000	41,000	63,600	104,600
Oct	0	0	32,860	32,860	65,720
Nov	0	226,000	63,600	63,600	127,200
Dec	0	226,000	9,220	65,720	74,940
TOTAL			312,780	643,420	956,200
1998					
Jan	0	226,000	9,220	65,720	74,940
Feb	0	226,000	59,360	59,360	118,720
Mar	0	0	0	0	0
Apr	0	0	31,800	31,800	63,600
May	0	226,000	65,720	65,720	131,440
Jun	0	226,000	0	63,600	63,600
Jul	0	226,000	0	65,720	65,720
Aug	0	212,400	0	61,765	61,765
Sep	0	212,400	38,533	59,773	98,306
Oct	0	0	30,883	30,883	61,766
Nov	0	212,400	59,773	59,773	119,546
Dec	0	212,400	8,665	61,765	70,430
TOTAL			303,954	625,879	929,833
1999					
Jan	0	212,400	8,665	61,765	70,430
Feb	0	212,400	55,788	55,788	111,576
Mar	0	0	0	0	0
Apr	0	0	29,886	29,886	59,772
May	0	212,400	61,765	61,765	123,530
Jun	0	212,400	0	59,773	59,773
Jul	0	212,400	0	61,765	61,765
Aug	0	198,800	0	57,811	57,811
Sep	0	198,800	36,066	55,946	92,012
Oct	0	0	28,905	28,905	57,810
Nov	0	198,800	55,946	55,946	111,892
Dec	0	198,800	8,111	57,811	65,922
TOTAL			285,132	587,161	872,293

REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
2000					
Jan	0	198,800	8,111	57,811	65,922
Feb	0	198,800	52,216	52,216	104,432
Mar	0	0	0	0	0
Apr	0	0	27,973	27,973	55,946
May	0	198,800	57,811	57,811	115,622
Jun	0	198,800	0	55,946	55,946
Jul	0	198,800	0	57,811	57,811
Aug	0	185,300	0	53,885	53,885
Sep	0	185,300	33,617	52,147	85,764
Oct	0	0	26,942	26,942	53,884
Nov	0	185,300	52,147	52,147	104,294
Dec	0	185,300	7,560	53,885	61,445
TOTAL			266,377	548,574	814,951
2001					
Jan	0	185,300	7,560	53,885	61,445
Feb	0	185,300	48,670	48,670	97,340
Mar	0	0	0	0	0
Apr	0	0	26,073	26,073	52,146
May	0	185,300	53,885	53,885	107,770
Jun	0	185,300	0	52,147	52,147
Jul	0	185,300	0	53,885	53,885
Aug	0	185,300	0	49,930	49,930
Sep	0	171,700	31,149	48,319	79,468
Oct	0	0	24,965	24,965	49,930
Nov	0	171,700	48,319	48,319	96,638
Dec	0	171,700	7,005	49,930	56,935
TOTAL			247,626	510,008	757,634
2002					
Jan	0	171,700	7,005	49,930	56,935
Feb	0	171,700	45,098	45,098	90,196
Mar	0	0	0	0	0
Apr	0	0	24,160	24,160	48,320
May	0	171,700	49,930	49,930	99,860
Jun	0	171,700	0	48,319	48,319
Jul	0	171,700	0	49,930	49,930
Aug	0	158,200	0	46,004	46,004
Sep	0	158,200	28,700	44,520	73,220
Oct	0	0	23,002	23,002	46,004
Nov	0	158,200	44,520	44,520	89,040
Dec	0	158,200	6,454	46,004	52,458
TOTAL			228,869	471,417	700,286

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REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
2003					
Jan	0	158,200	6,454	46,004	52,458
Feb	0	158,200	41,552	41,552	83,104
Mar	0	0	0	0	0
Apr	0	0	22,260	22,260	44,520
May	0	158,200	46,004	46,004	92,008
Jun	0	158,200	0	44,520	44,520
Jul	0	158,200	0	46,004	46,004
Aug	0	144,600	0	42,049	42,049
Sep	0	144,600	26,233	40,693	66,926
Oct	0	0	21,025	21,025	42,050
Nov	0	144,600	40,693	40,693	81,386
Dec	0	144,600	5,899	42,049	47,948
TOTAL			210,120	432,853	642,973
2004					
Jan	0	144,600	5,899	42,049	47,948
Feb	0	144,600	37,980	37,980	75,960
Mar	0	0	0	0	0
Apr	0	0	20,346	20,346	40,692
May	0	144,600	42,049	42,049	84,098
Jun	0	144,600	0	40,693	40,693
Jul	0	144,600	0	42,049	42,049
Aug	0	131,000	0	38,094	38,094
Sep	0	131,000	23,766	36,866	60,632
Oct	0	0	19,047	19,047	38,094
Nov	0	131,000	36,866	36,866	73,732
Dec	0	131,000	5,344	38,094	43,438
TOTAL			191,297	394,133	585,430
2005					
Jan	0	131,000	5,344	38,094	43,438
Feb	0	131,000	34,408	34,408	68,816
Mar	0	0	0	0	0
Apr	0	0	18,433	18,433	36,866
May	0	131,000	38,094	38,094	76,188
Jun	0	131,000	0	36,866	36,866
Jul	0	131,000	0	38,094	38,094
Aug	0	117,500	0	34,169	34,169
Sep	0	117,500	21,316	33,066	54,382
Oct	0	0	17,084	17,084	34,168
Nov	0	117,500	33,066	33,066	66,132
Dec	0	117,500	4,794	34,169	38,963
TOTAL			172,539	355,543	528,082

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C-111341

REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Total
2006					
Jan	0	117,500	4,794	34,169	38,963
Feb	0	117,500	30,862	30,862	61,724
Mar	0	0	0	0	0
Apr	0	0	16,533	16,533	33,066
May	0	117,500	34,169	34,169	68,338
Jun	0	117,500	0	33,066	33,066
Jul	0	117,500	0	34,169	34,169
Aug	0	103,900	0	30,214	30,214
Sep	0	103,900	18,849	29,239	48,088
Oct	0	0	15,107	15,107	30,214
Nov	0	103,900	29,239	29,239	58,478
Dec	0	103,900	4,239	30,214	34,453
TOTAL			153,792	316,981	470,773
2007					
Jan	0	103,900	4,239	30,214	34,453
Feb	0	103,900	27,290	27,290	54,580
Mar	0	0	0	0	0
Apr	0	0	14,620	14,620	29,240
May	0	103,900	30,214	30,214	60,428
Jun	0	103,900	0	29,239	29,239
Jul	0	103,900	0	30,214	30,214
Aug	0	90,400	0	26,288	26,288
Sep	0	90,400	16,400	25,440	41,840
Oct	0	0	13,144	13,144	26,288
Nov	0	90,400	25,440	25,440	50,880
Dec	0	90,400	3,688	26,288	29,976
TOTAL			135,035	278,391	413,426
2008					
Jan	0	90,400	3,688	26,288	29,976
Feb	0	90,400	23,744	23,744	47,488
Mar	0	0	0	0	0
Apr	0	0	12,720	12,720	25,440
May	0	90,400	26,288	26,288	52,576
Jun	0	90,400	0	25,440	25,440
Jul	0	90,400	0	26,288	26,288
Aug	0	76,800	0	22,333	22,333
Sep	0	76,800	13,933	21,613	35,546
Oct	0	0	11,167	11,167	22,334
Nov	0	76,800	21,613	21,613	43,226
Dec	0	76,800	3,133	22,333	25,466
TOTAL			116,286	239,827	356,113

C-111342

REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
2009					
Jan	0	76,800	3,133	22,333	25,466
Feb	0	76,800	20,172	20,172	40,344
Mar	0	0	0	0	0
Apr	0	0	10,806	10,806	21,612
May	0	76,800	22,333	22,333	44,666
Jun	0	76,800	0	21,613	21,613
Jul	0	76,800	0	22,333	22,333
Aug	0	63,200	0	18,378	18,378
Sep	0	63,200	11,466	17,786	29,252
Oct	0	0	9,189	9,189	18,378
Nov	0	63,200	17,786	17,786	35,572
Dec	0	63,200	2,578	18,378	20,956
TOTAL			97,463	201,107	298,570
2010					
Jan	0	63,200	2,578	18,378	20,956
Feb	0	63,200	16,600	16,600	33,200
Mar	0	0	0	0	0
Apr	0	0	8,893	8,893	17,786
May	0	63,200	18,378	18,378	36,756
Jun	0	63,200	0	17,786	17,786
Jul	0	63,200	0	18,378	18,378
Aug	0	49,700	0	14,453	14,453
Sep	0	49,700	9,016	13,986	23,002
Oct	0	0	7,226	7,226	14,452
Nov	0	49,700	13,986	13,986	27,972
Dec	0	49,700	2,028	14,453	16,481
TOTAL			78,705	162,517	241,222
2011					
Jan	0	49,700	2,028	14,453	16,481
Feb	0	49,700	13,054	13,054	26,108
Mar	0	0	0	0	0
Apr	0	0	6,993	6,993	13,986
May	0	49,700	14,453	14,453	28,906
Jun	0	49,700	0	13,986	13,986
Jul	0	49,700	0	14,453	14,453
Aug	0	36,100	0	10,498	10,498
Sep	0	36,100	6,549	10,159	16,708
Oct	0	0	5,249	5,249	10,498
Nov	0	36,100	10,159	10,159	20,318
Dec	0	36,100	1,473	10,498	11,971
TOTAL			59,958	123,955	183,913

REID GARDNER UNIT No. 4
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
2012					
Jan	0	36,100	1,473	10,498	11,971
Feb	0	36,100	9,482	9,482	18,964
Mar	0	0	0	0	0
Apr	0	0	5,080	5,080	10,160
May	0	36,100	10,498	10,498	20,996
Jun	0	36,100	0	10,159	10,159
Jul	0	36,100	0	10,498	10,498
Aug	0	22,600	0	6,572	6,572
Sep	0	22,600	4,100	6,360	10,460
Oct	0	0	3,286	3,286	6,572
Nov	0	22,600	6,360	6,360	12,720
Dec	0	22,600	922	6,572	7,494
TOTAL			41,201	85,365	126,566
2013					
Jan	0	22,600	922	6,572	7,494
Feb	0	22,600	5,936	5,936	11,872
Mar	0	0	0	0	0
Apr	0	0	3,180	3,180	6,360
May	0	22,600	6,572	6,572	13,144
Jun	0	22,600	0	6,360	6,360
Jul	0	22,600	0	6,572	6,572
Aug	0	0	0	0	0
Sep	0	0	0	0	0
Oct	0	0	0	0	0
Nov	0	0	0	0	0
Dec	0	0	0	0	0
TOTAL			16,610	35,192	51,802

TABLE A-2

BOTTLE ROCK

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1985					
Jan	0	0	0	0	0
Feb	51,500	51,500	5,191	5,191	10,382
Mar	51,500	51,500	11,495	11,495	22,990
Apr	51,500	51,500	11,124	11,124	22,248
May	51,500	51,500	11,495	11,495	22,990
Jun	51,500	51,500	11,124	11,124	22,248
Jul	51,500	51,500	11,495	11,495	22,990
Aug	51,500	51,500	11,495	11,495	22,990
Sep	51,500	51,500	11,124	11,124	22,248
Oct	51,500	51,500	11,495	11,495	22,990
Nov	51,500	51,500	11,124	11,124	22,248
Dec	51,500	51,500	11,495	11,495	22,990
TOTAL			118,656	118,656	237,312
1986					
Jan	51,500	51,500	14,525	14,525	29,050
Feb	51,500	51,500	13,119	13,119	26,238
Mar	51,500	51,500	14,525	14,525	29,050
Apr	51,500	51,500	14,056	14,056	28,113
May	0	0	1,406	1,406	2,811
Jun	51,500	51,500	14,056	14,056	28,113
Jul	51,500	51,500	14,525	14,525	29,050
Aug	51,500	51,500	14,525	14,525	29,050
Sep	51,500	51,500	14,056	14,056	28,113
Oct	51,500	51,500	14,525	14,525	29,050
Nov	51,500	51,500	14,056	14,056	28,113
Dec	51,500	51,500	14,525	14,525	29,050
TOTAL			157,899	157,899	315,798

NOTE:
1. Date of Commercial Operation February 1985.
2. Capacity reduced by Station Service of 3,500 kW
3. Four week normal maintenance outage every other year beginning 1986.
4. Six week extended maintenance outage every other year beginning 1987.
5. Capacity Factor: 1985 = 60 percent, 1986 = 70 percent, 1987 and thereafter = 80 percent.

BOTTLE ROCK
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1987 and All Odd Years Thereafter					
Jan	51,500	51,500	16,600	16,600	33,200
Feb	51,500	51,500	14,993	14,993	29,986
Mar	51,500	51,500	16,600	16,600	33,200
Apr	0	0	10,174	10,174	20,348
May	0	0	0	0	0
Jun	51,500	51,500	16,064	16,064	32,128
Jul	51,500	51,500	16,600	16,600	33,200
Aug	51,500	51,500	16,600	16,600	33,200
Sep	51,500	51,500	16,064	16,064	32,128
Oct	51,500	51,500	16,600	16,600	33,200
Nov	51,500	51,500	16,064	16,064	33,128
Dec	51,500	51,500	16,600	16,600	33,200
TOTAL			172,959	172,959	345,718
1988 and All Even Years Thereafter					
Jan	51,500	51,500	16,599	16,599	33,198
Feb	51,500	51,500	14,993	14,993	29,986
Mar	51,500	51,500	16,599	16,599	33,198
Apr	51,500	51,500	16,064	16,064	32,128
May	0	0	1,606	1,606	3,212
Jun	51,500	51,500	16,064	16,064	32,128
Jul	51,500	51,500	16,599	16,599	33,198
Aug	51,500	51,500	16,599	16,599	33,198
Sep	51,500	51,500	16,064	16,064	32,128
Oct	51,500	51,500	16,599	16,599	33,198
Nov	51,500	51,500	16,064	16,064	32,128
Dec	51,500	51,500	16,599	16,599	33,198
TOTAL			180,449	180,449	360,898

TABLE A-3

SOUTH GEYSERS

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1987					
Jan	0	0	0	0	0
Feb	0	0	0	0	0
Mar	0	0	0	0	0
Apr	0	0	0	0	0
May	0	0	0	0	0
Jun	0	0	0	0	0
Jul	51,500	51,500	11,495	11,495	22,990
Aug	51,500	51,500	11,495	11,495	22,990
Sep	51,500	51,500	11,124	11,124	22,248
Oct	51,500	51,500	11,495	11,495	22,990
Nov	51,500	51,500	11,124	11,124	22,248
Dec	51,500	51,500	11,495	11,495	22,990
TOTAL			68,228	68,228	136,456
1988					
Jan	51,500	51,500	14,525	14,525	29,050
Feb	51,500	51,500	13,119	13,119	26,238
Mar	0	0	1,406	1,406	2,811
Apr	51,500	51,500	14,056	14,056	28,113
May	51,500	51,500	14,525	14,525	29,050
Jun	51,500	51,500	14,056	14,056	28,113
Jul	51,500	51,500	14,525	14,525	29,050
Aug	51,500	51,500	14,525	14,525	29,050
Sep	51,500	51,500	14,056	14,056	28,113
Oct	51,500	51,500	14,525	14,525	29,050
Nov	51,500	51,500	14,056	14,056	28,113
Dec	51,500	51,500	14,525	14,525	29,050
TOTAL			157,899	157,899	315,798

NOTE:
1. Date of Commercial Operation July 1987.
2. Four weeks normal maintenance outage in March 1988.
3. Capacity reduced by Station Service of 3,500 kW.
4. Six week extended maintenance outage every other year beginning 1989.
5. Four week normal maintenance outage every other year beginning 1990.
6. Capacity Factor: 1987 = 60 percent, 1988 = 70 percent, and 1989 and thereafter = 80 percent.

C—111347

C-111347

SOUTH GEYSERS
(Continued)

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1989 and All Odd Years Thereafter					
Jan	51,500	51,500	16,599	16,599	33,198
Feb	0	0	9,103	9,103	18,206
Mar	0	0	0	0	0
Apr	51,500	51,500	16,064	16,064	32,128
May	51,500	51,500	16,599	16,599	33,198
Jun	51,500	51,500	16,064	16,064	32,128
Jul	51,500	51,500	16,599	16,599	33,198
Aug	51,500	51,500	16,599	16,599	33,198
Sep	51,500	51,500	16,064	16,064	32,128
Oct	51,500	51,500	16,599	16,599	33,198
Nov	51,500	51,500	16,064	16,064	32,128
Dec	51,500	51,500	16,599	16,599	33,198
TOTAL			172,953	172,953	345,906
1990 And All Even Years Thereafter					
Jan	51,500	51,500	16,599	16,599	33,198
Feb	51,500	51,500	14,993	14,993	29,986
Mar	0	0	1,606	1,606	3,212
Apr	51,500	51,500	16,064	16,064	32,128
May	51,500	51,500	16,600	16,600	33,200
Jun	51,500	51,500	16,064	16,064	32,128
Jul	51,500	51,500	16,600	16,600	33,200
Aug	51,500	51,500	16,600	16,600	33,200
Sep	51,500	51,500	16,064	16,064	32,128
Oct	51,500	51,500	16,600	16,600	32,200
Nov	51,500	51,500	16,064	16,064	33,128
Dec	51,500	51,500	16,600	16,600	33,200
TOTAL			180,454	180,454	360,908

TABLE A-4

TERA - BETHANY WIND

Year	Energy (MWh) On	Off	Total
1985			
Jan	33	33	66
Feb	30	30	60
Mar	375	375	750
Apr	541	541	1,082
May	640	640	1,280
Jun	770	770	1,540
Jul	739	739	1,478
Aug	874	874	1,748
Sep	625	625	1,250
Oct	531	531	1,062
Nov	60	60	120
Dec	32	32	64
TOTAL	5,250	5,250	10,500
1986 and Thereafter			
Jan	66	66	132
Feb	60	60	120
Mar	750	750	1,500
Apr	1,082	1,082	2,164
May	1,280	1,280	2,560
Jun	1,541	1,541	3,082
Jul	1,477	1,477	2,954
Aug	1,748	1,748	3,496
Sep	1,251	1,251	2,502
Oct	1,062	1,062	2,124
Nov	121	121	242
Dec	63	63	126
TOTAL	10,501	10,501	21,002

NOTE: 1. One hundred units are in operation for 1985. Two hundred units by 1986.
2. Annual capacity factor of 24 percent.
3. Contract term of 20 years.
4. No capacity shown due to nature of wind generation.

TABLE A-5

HYATT-THERMALITO

Year	TOTAL On (kW)	TOTAL Off (kW)	TOTAL On (MWh)	TOTAL Off (MWh)1/	EDISON EXCHANGE Capacity (kW)	EDISON EXCHANGE Energy (MWh)2/
1985 3/						
Jan	765,000	765,000	132,781	3,720	296,000	54,600
Feb	765,000	765,000	262,535	106,467	296,000	147,601
Mar	603,700	603,700	259,469	3,720	231,500	105,276
Apr	765,000	765,000	156,981	3,600	296,000	64,232
May	765,000	765,000	242,601	3,720	296,000	98,528
Jun	900,000	900,000	282,755	3,600	350,000	114,542
Jul	900,000	900,000	339,947	9,467	350,000	139,766
Aug	900,000	900,000	238,748	3,720	350,000	96,987
Sep	773,700	773,700	74,164	3,600	299,500	31,106
Oct	737,900	737,900	74,088	3,720	285,200	31,123
Nov	746,700	746,700	63,895	3,600	288,700	26,998
Dec	746,700	746,700	75,253	3,720	339,200	31,589
TOTAL			2,203,217	152,654		942,348
1986-2004						
Jan	900,000	900,000	100,758	3,720	350,000	41,791
Feb	900,000	900,000	292,433	3,360	350,000	118,317
Mar	900,000	900,000	266,595	3,720	350,000	108,126
Apr	900,000	900,000	146,995	3,600	350,000	60,238
May	900,000	900,000	225,601	3,720	350,000	91,728
Jun	900,000	900,000	180,254	3,600	350,000	73,542
Jul	900,000	900,000	263,488	3,720	350,000	106,883
Aug	900,000	900,000	268,782	3,720	350,000	109,001
Sep	770,000	770,000	199,326	3,600	298,000	81,170
Oct	770,000	770,000	126,411	3,720	298,000	52,052
Nov	770,000	770,000	117,733	3,600	298,000	48,533
Dec	770,000	770,000	82,220	3,720	298,000	34,376
TOTAL			2,270,596	43,800		925,757

1/ Assumes 50 MW with 20 percent off-peak Capacity Factor to be used for regulation.

2/ Assumes no pumpback, with 40 percent energy to SCE each month. Edison Exchange is the amount of energy measured at Table Mountain for SCE under the Power Contract.

3/ Based on O&M Oroville Study No. 013.

MOJAVE SIPHON POWERPLANT

Phase I decision to construct is being presented to management. If constructed, the power plant would become operational some time in the 1990's. Monthly operating data will be shown in the output of the Aqueduct Simulation Model. Phase II is under consideration pending the enlargement of the East Branch.

C—111351

C-111351

TABLE A-6

THERMALITO DIVERSION DAM

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1987					
Jan	0	0	0	0	0
Feb	0	0	0	0	0
Mar	2,000	2,000	744	744	1,488
Apr	2,000	2,000	720	720	1,440
May	2,000	2,000	744	744	1,488
Jun	2,000	2,000	720	720	1,440
Jul	2,000	2,000	744	744	1,488
Aug	2,000	2,000	744	744	1,488
Sep	2,000	2,000	720	720	1,440
Oct	2,175	2,175	810	810	1,620
Nov	2,000	2,000	720	720	1,440
Dec	2,350	2,350	874	874	1,748
TOTAL			7,540	7,540	15,080

Annual Capacity Factor Based on Installed Capacity = 68.5%

1988 and Thereafter					
Jan	2,057	2,057	765	765	1,530
Feb	2,000	2,000	672	672	1,342
Mar	2,000	2,000	744	744	1,488
Apr	2,000	2,000	720	720	1,440
May	2,000	2,000	744	744	1,488
Jun	2,000	2,000	720	720	1,440
Jul	2,000	2,000	744	744	1,488
Aug	2,000	2,000	744	744	1,488
Sep	2,000	2,000	720	720	1,440
Oct	2,175	2,175	810	810	1,620
Nov	2,000	2,000	720	720	1,440
Dec	2,350	2,350	874	874	1,748
TOTAL			8,977	8,977	17,954

Annual Capacity Factor = 68.3%

C—111352

C-111352

METROPOLITAN WATER DISTRICT HYDRO PHASE I

Operating data for MWD Hydro Phase I covering the years 1993-2002 and 1985-1992 are contained in letters dated April 1, 1982, and November 15, 1984, respectively, regarding District-State Hydroelectric Power Sale Contract from Robert Thompson of MWD to Frank Hahn. The April 1, 1982 letter has been previously transmitted; the November 15, 1984 letter is attached. After 2002 assume the same data.

DWR has entered into an agreement with LADWP whereby LADWP receives and utilizes the energy generated at the Greg Avenue Powerplant. In return, LADWP provides to DWR during off-peak periods 98.8 percent of the energy it received from the power plant. Section 12 of the Power Contract between SCE and DWR remains applicable to the other four facilities.

C—111353

C-111353

The Metropolitan Water District of Southern California

November 15, 1984

Mr. F. Hahn, Chief
Energy Division
Department of Water Resources
State of California
P.O. Box 388
Sacramento, California 95802

Dear Mr. Hahn:

District-State Hydroelectric Power Sale Contract

Pursuant to the scheduling provisions of the "District-State Hydroelectric Power Sales Contract," enclosed are our monthly estimates from 1985 through 1992 of hydroelectric capacity and energy for each Project Plant under the contract. There has been no change in the monthly estimates for 1993 through 2020, which were last forwarded to you by letter dated April 1, 1982.

If we can be of further assistance in this matter, please call Mr. R. W. Schempp of my staff at (213) 250-6226.

Very truly yours

Robert W. Thompson, Manager
Power Contracts Administration

RWS/dfs

Enclosure

1111 Sunset Boulevard, Los Angeles, Calif. Mailing address, Box 54153, Los Angeles, Calif. 90054 / Telephone 213 250-6000

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1985

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	4,200
LAKE MATHEWS	5.14	3800	5.14	3500	5.20	3700	5.20	3700	5.20	3700	5.20	3700	5.20	3900	5.20	3900	5.20	3700	4.33	3200	2.83	2000	0.00	0	39,000
FOOTHILL FEEDER	0.00	0	0.00	0	0.00	0	6.00	4500	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	7.79	5800	7.79	5600	7.14	5300	52,100
SAN DIMAS	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.08	2200	4.73	3500	4.73	3500	2.41	1700	0.00	0	0.00	0	0.00	0	10,900
YORBA LINDA	2.75	2000	2.75	1800	3.82	2700	3.47	2500	3.29	2400	4.40	3200	4.87	3600	4.87	3600	4.49	3200	4.49	3300	3.13	2300	3.13	2300	32,900
MONTHLY TOTALS MWH		5800		5300		6400		10500		12600		15800		17900		17900		15300		12900		10500		8200	139,100
TOTAL MW	12.26		12.26		13.39		24.78		16.91		22.04		24.16		24.16		21.46		17.44		14.58		11.12		

D.W.R.

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1986

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	4.33	3100	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	18,900
FOOTHILL FEEDER	7.14	5300	7.14	4800	7.79	5600	8.51	6100	8.51	6300	8.51	6100	8.51	6300	8.51	6300	7.79	5600	7.14	5300	7.14	5100	7.14	5300	68,100
SAN DIMAS	0.00	0	0.00	0	2.41	1700	2.41	1700	4.73	3500	4.73	3400	6.37	4700	6.37	4700	4.73	3400	4.73	3500	4.73	3400	4.73	3500	33,500
YORBA LINDA	0.00	0	0.00	0	3.13	2300	3.47	2500	4.49	3300	4.87	3500	4.87	3600	4.87	3600	4.87	3500	4.49	3300	1.73	1200	0.00	0	26,800
MONTHLY TOTALS MWH		5900		5400		10200		14000		16900		18700		18400		18400		16200		12700		10300		8400	154,500
TOTAL MW	7.989		7.999		14.17		19.56		22.30		23.29		24.93		24.93		22.26		17.29		14.44		12.71		

C—111355

C-111355

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1987

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	7.79	5800	7.79	5200	7.79	5600	7.79	5600	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	7.79	5800	7.79	5600	7.79	5800	70,500
SAN DIMAS	6.37	4700	6.37	4300	6.37	4600	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6900	6.37	4700	25,100
YORBA LINDA	1.17	900	1.17	800	1.73	1200	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	3.47	2600	1.73	1200	1.17	900	28,900
MONTHLY TOTALS MWH		12000		10900		12000		9700		13700		13300		13700		13700		13300		9000		14200		12000	147,500
TOTAL MW	16.16		16.16		16.73		13.51		18.56		18.56		18.56		18.56		18.56		12.10		19.74		16.16		

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D.W.R.

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1988

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	7.79	5800	7.79	5400	7.79	5600	7.79	5600	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	7.79	5800	7.79	5600	7.79	5800	70,700
SAN DIMAS	7.18	5300	7.18	5000	7.18	5200	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6800	7.18	5300	27,600
YORBA LINDA	1.73	1300	1.73	1200	2.29	1600	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	3.76	2800	1.73	1200	1.73	1300	30,700
MONTHLY TOTALS MWH		13000		12200		13000		9700		13700		13300		13700		13700		13300		9200		14200		13000	152,000
TOTAL MW	17.53		17.53		18.09		13.51		18.56		18.56		18.56		18.56		18.56		12.40		19.74		17.53		

C-111356

C-111356

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1989

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	8.14	6100	8.14	5500	8.14	5900	8.14	5900	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	8.14	6100	8.14	5900	8.14	6100	72,600
SAN DIMAS	7.96	5900	7.96	5300	7.96	5700	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6800	7.18	5300	29,000
YORBA LINDA	2.29	1700	2.29	1500	2.75	2300	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	4.03	3000	2.29	1600	2.29	1700	32,800
MONTHLY TOTALS MWH		14300		12900		14200		10000		13700		13300		13700		13700		13300		9700		14900		13700	157,400
TOTAL MW	19.23		19.23		19.69		13.86		18.56		18.56		18.56		18.56		18.56		13.01		20.65		18.45		

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D.W.R.

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1990

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	8.14	6100	8.14	5500	8.14	5900	8.14	5900	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	8.14	6100	8.14	5900	8.14	6100	72,600
SAN DIMAS	7.96	5900	7.96	5300	7.96	5700	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6800	7.96	5900	29,600
YORBA LINDA	2.75	2000	2.75	1800	3.13	2300	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	4.27	3200	2.75	2000	2.75	2000	34,600
MONTHLY TOTALS MWH		14600		13200		14500		10000		13700		13500		13700		13700		13300		9900		15300		14600	159,800
TOTAL																									

C-111357

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HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1991

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	8.14	6100	8.14	5500	8.14	5900	8.14	5900	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	8.14	6100	8.14	5900	8.14	6100	72,600
SAN DIMAS	8.70	6500	8.70	5800	8.70	6300	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6800	8.70	6500	31,900
YORBA LINDA	3.13	2300	3.13	2100	3.47	2500	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	4.49	3300	3.13	2300	3.13	2300	36,100
MONTHLY TOTALS MWH		15500		14000		15300		10000		13700		13300		13700		13700		13300		10000		15600		15500	163,600
TOTAL MW	20.82		20.82		21.15		13.86		18.56		18.56		18.56		18.56		18.56		13.47		21.50		20.82		

-75,000

D.W.R.

HYDROELECTRIC GENERATION PROJECTIONS
CALENDAR YEAR 1992

Plant name	JANUARY MW	JANUARY MWH	FEBRUARY MW	FEBRUARY MWH	MARCH MW	MARCH MWH	APRIL MW	APRIL MWH	MAY MW	MAY MWH	JUNE MW	JUNE MWH	JULY MW	JULY MWH	AUGUST MW	AUGUST MWH	SEPTEMBER MW	SEPTEMBER MWH	OCTOBER MW	OCTOBER MWH	NOVEMBER MW	NOVEMBER MWH	DECEMBER MW	DECEMBER MWH	ANNUAL PLANT TOTALS (MWH)
GREG AVENUE	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	0.85	600	7,200
LAKE MATHEWS	0.00	0	0.00	0	0.00	0	0.00	0	4.33	3200	4.33	3100	4.33	3200	4.33	3200	4.33	3100	0.00	0	0.00	0	0.00	0	15,800
FOOTHILL FEEDER	8.14	6100	8.14	5700	8.14	5900	8.14	5900	8.51	6300	8.51	6100	8.51	6300	8.51	6300	8.51	6100	8.14	6100	8.14	5900	8.14	6100	72,800
SAN DIMAS	9.38	7000	9.38	6500	9.38	6800	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.38	6800	9.38	7000	34,100
YORBA LINDA	3.47	2600	3.47	2400	3.47	2500	4.87	3500	4.87	3600	4.87	3500	4.87	3600	4.87	3600	4.87	3500	4.49	3300	3.47	2500	3.47	2600	37,200
MONTHLY TOTALS MWH		16300		15200		15800		10000		13700		13300		13700		13700		13300		10000		15800		16300	167,100
TOTAL MW	21.83		21.83		21.83		13.86		18.56		18.56		18.56		18.56		18.56		13.47		21.83		21.83		

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TABLE A-7

PINE FLAT

Year	Capacity (kW) On	Capacity (kW) Off	Energy (MWh) On	Energy (MWh) Off	Energy (MWh) Total
1985					
Jan	0	0	0	0	0
Feb	33,000	33,000	11,550	11,550	23,100
Mar	48,000	48,000	17,850	17,850	35,700
Apr	69,000	69,000	24,900	24,900	49,800
May	106,000	106,000	39,550	39,550	79,100
Jun	165,000	165,000	59,350	59,350	118,700
Jul	161,000	161,000	59,900	59,900	119,800
Aug	69,000	69,000	25,500	25,500	51,000
Sep	46,000	46,000	16,700	16,700	33,400
Oct	0	0	0	0	0
Nov	0	0	0	0	0
Dec	0	0	0	0	0
TOTAL			255,300	255,300	510,600

Capacity Factor = 35.3%

1986 and Thereafter					
Jan	0	0	3,650	3,650	7,300
Feb	44,792	44,792	15,050	15,050	30,100
Mar	31,183	31,183	11,600	11,600	23,200
Apr	50,833	50,833	18,300	18,300	36,600
May	80,242	80,242	29,850	29,850	59,700
Jun	120,555	120,555	43,400	43,400	86,800
Jul	108,602	108,602	40,400	40,400	80,800
Aug	78,629	78,629	29,250	29,250	58,500
Sep	41,944	41,944	15,100	15,100	30,200
Oct	0	0	0	0	0
Nov	0	0	1,850	1,850	3,700
Dec	0	0	3,050	3,050	6,100
TOTAL			211,500	211,500	423,000

Capacity Factor = 29.3%

NOTE: 1. Data for 1985 based on current water estimates.
2. Continuous capacity for January, November, and December 1986 and thereafter is below minimum output rating of a single unit.
3. The year 1986 and thereafter based on median water year.

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TABLE A-8

NORTHWEST

Year	PGE (MWh)	PPL (MWh)	Non-Firm Energy (MWh)	Total (MWh)
1985				
Jan	74,400	110,000	0	184,400
Feb	67,200	100,000	0	167,200
Mar	74,400	110,000	0	184,400
Apr	0	0	194,400	194,400
May	0	0	200,880	200,880
Jun	0	0	194,400	194,400
Jul	0	0	0	0
Aug	0	0	0	0
Sep	0	0	0	0
Oct	0	0	0	0
Nov	0	0	0	0
Dec	0	0	0	0
TOTAL	216,000	320,000	589,680	1,125,680

Year	Non-Firm Energy (MWh)	Total (MWh)
1986-2004		
Jan	0	0
Feb	0	0
Mar	0	0
Apr	194,400	194,400
May	200,880	200,880
Jun	194,400	194,400
Jul	0	0
Aug	0	0
Sep	0	0
Oct	0	0
Nov	0	0
Dec	0	0
TOTAL	589,680	589,680

NOTE: 1. Assumes continuance of the PGE and PPL contract through March 31, 1985.
2. The Third Intertie is included in 2005 and thereafter (additional 100 MW).
3. Total EHV line capacity reduced in April, May, and June by 10 percent due to loop flow.
4. See notes of Page 34 regarding non-firm energy rates.

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NORTHWEST
(Continued)

Year	Non-Firm Energy (MWh)	Total (MWh)
2005 and Thereafter		
Jan	0	0
Feb	0	0
Mar	0	0
Apr	259,200	259,200
May	267,840	267,840
Jun	259,200	259,200
Jul	0	0
Aug	0	0
Sep	0	0
Oct	0	0
Nov	0	0
Dec	0	0
TOTAL	786,240	786,240

C—111361

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TABLE A-9

BULLETIN 132-85 DATA
EXCHANGE RATES FOR ENERGY FROM
SOUTHERN CALIFORNIA EDISON COMPANY

SOUTHERN CALIFORNIA EDISON COMPANY
POWER CONTRACT
EXCHANGE FORMULA FOR ADDITIONAL ENERGY
C1 - $90/kW-year

Year	PPI	C2	C	D	F
1985	327.800	5.400	0.071	0.060	0.052
1986	346.200	5.770	0.075	0.063	0.055
1987	364.500	6.190	0.079	0.066	0.058
1988	383.500	6.660	0.084	0.071	0.061
1989	404.900	7.160	0.088	0.074	0.064
1990	430.100	7.700	0.093	0.078	0.068
1991	458.000	8.300	0.099	0.084	0.073
1992	487.800	8.940	0.108	0.091	0.079
1993	519.000	9.620	0.119	0.100	0.087
1994	549.600	10.360	0.129	0.109	0.094
1995	581.500	11.160	0.139	0.117	0.102
1996	616.900	12.030	0.152	0.128	0.111
1997	656.400	12.970	0.166	0.140	0.122
1998	697.100	14.000	0.179	0.151	0.131
1999	739.700	15.070	0.196	0.165	0.143
2000	782.600	16.250	0.214	0.180	0.156
2001	828.000	17.520	0.232	0.196	0.169
2002	874.300	18.880	0.254	0.214	0.186
2003	921.500	20.350	0.276	0.233	0.202
2004	969.500	21.950	0.301	0.253	0.220

NOTE: 1. Assume Alamo on-line September 1985.
2. For Alamo in 1985 assume only one-fourth for C1, C2, and peaking term.
3. The PPI index for 1983 is 299.9 (letter from Donald H. Coltrain to Thomas F. Crampton, dated November 7, 1983).
4. Exchange rates based on information provided by SCE in November 1984.

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TABLE A-10

SOUTHERN CALIFORNIA EDISON COMPANY
EXCHANGE AGREEMENT
RETURN AND ADDITIONAL ENERGY

Year	Energy (MWh) Return	Additional	Total
1987	309,375	23,798	333,173
1988	412,500	31,730	444,230
1989	412,500	31,730	444,230
1990	412,500	31,730	444,230
1991	412,500	31,730	444,230
1992	412,500	31,730	444,230
1993	412,500	31,730	444,230
1994	412,500	31,730	444,230
1995	412,500	31,730	444,230
1996	412,500	31,730	444,230
1997	412,500	31,730	444,230
1998	412,500	31,730	444,230
1999	412,500	31,730	444,230
2000	412,500	31,730	444,230
2001	412,500	31,730	444,230
2002	412,500	31,730	444,230
2003	412,500	31,730	444,230
2004	412,500	31,730	444,230

NOTE: 1. Amounts shown are available to State at Midway or Vincent Substation.

2. The return energy for 1987 assumes 100 percent Capacity Factor 8 hours per day, 5 days per week for June, July, August, September, and December with remaining energy of SCE 309,375 MWh distriabuted based on 72.3 percent Capacity Factor in each of the other months.

For 1988 thruogh 2004 assumes 100 percent Capacity Factor for 8 hours per day, 5 days per week for January, June, July, August, September, and December with remaining energy of SCE 412,500 MWh distributed based on 76.1 percent Capacity Factor in each of the other months.

C—111363

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Section B
Resource Cost Data

TABLE B-1

BOTTLE ROCK AND SOUTH GEYSERS
GEOTHERMAL FUEL COSTS
(Nominal Dollars)

Year	mills/kWh
1985	35.0
1986	24.0
1987	21.5
1988	20.4
1989	23.7
1990	23.4
1991	25.7
1992	27.0
1993	34.8
1994	37.6
1995	42.8
1996	48.3
1997	60.4
1998	68.8
1999	68.0
2000	76.6
2001	92.3
2002	97.0
2003	93.4
2004	97.4
2005	114.0
2006	120.8
2007	128.0
2008	135.7
2009	143.9
2010	152.5
2011	161.7
2012	171.4
2013	181.6
2014	192.6

NOTES: 1. Geothermal steam price (including 0.5 mills/kWh for effluent disposal) and average annual escalation rates are based upon written estimates provided by PGandE on August 3, 1984, and reflect PGandE's current 1984 resource plan, revised Diablo Canyon I and II start dates, and average hydroelectric conditions: 1984-2014. Updates of these estimates will be obtained from PGandE during the second quarter of 1985.

2. Bottle Rock starts in 1985, South Geysers starts in 1987.

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TABLE B-2

METROPOLITAN WATER DISTRICT HYDRO PHASE I
EFFECTIVE COST
(Nominal Dollars)

Year	Lake Mathews, Foothill Feeder, San Dimas, and Yorba Linda mills/kWh	Greg Avenue mills/kWh
1985	49.5	53.0
1986	52.0	56.0
1987	54.5	58.5
1988	57.5	61.5
1989	60.0	64.5
1990	62.0	69.0
1991	66.5	71.0
1992	69.5	75.0
1993	73.0	78.5
1994	76.5	82.5
1995	80.5	86.5
1996	84.5	91.5
1997	89.0	95.5
1998	93.5	100.0
1999	98.0	105.0
2000	103.0	110.5
2001	108.0	116.0
2002	113.5	122.0
2003	119.0	128.0
2004	125.0	134.5

NOTES: Based on current negotiations with MWD, the Energy Division estimates that cost of MWD Hydro is 50.0 mills/kWh in 1984, with resulting "effective costs" based on exchange of MWD energy with SCE or LADWP. The return ratios from SCE to DWR for Lake Mathews, Foothill Feeder, San Dimas, and Yorba Linda are 1.200 and 0.950 to 1 for on-peak and off-peak, respectively. The return ratio from LADWP for Greg Avenue is 0.988. An escalation rate of 5 percent per year is being used beginning 1985, which reflects our current estimate of the average rate of change in the SWP's melded cost of energy. Negotiations are continuing with MWD to develop a basis for estimating the purchase price and escalation rate.

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TABLE B-3

PINE FLAT
CONTRACTUAL COST
(Nominal Dollars)

Year	mills/kWh
1985	26.0
1986	29.5
1987	30.0
1988	31.0
1989	31.5
1990	32.0
1991	33.0
1992	33.5
1993	34.5
1994	35.5
1995	36.5
1996	37.5
1997	39.0
1998	40.0
1999	41.0
2000	42.5
2001	44.0
2002	45.5
2003	47.0
2004	48.5

NOTES: Revised mill rate includes annual fixed charge required to return to KRCD the cost of bond repayment (for both Series A and Series B), plus a royalty payment of 7.6 mills/kWh in 1984, the first full year of operation (escalated at a rate equal to one-half the increase in SCE fuel cost index), plus all O&M costs estimated by KRCD (escalated at 6 percent), and an annual FERC charge based on the FERC decision of May 23, 1984. For 1985, with generation of 510.6 GWh, the FERC charge will be $961,200. For all subsequent years with estimated generation of 423.0 GWh, the FERC charge will be $786,000. Cost does not include interconnection cost.

C—111367

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TABLE B-4

TERA WIND EFFECTIVE COSTS
(Nominal Dollars)

85.0 mills/kWh	--	first 10 years
68.0 mills/kWh	--	second 10 years
68.0 mills/kWh or 80 percent of DWR's Avoided Cost	--	third 10 years

NOTES: Under an agreement between TERA and DWR, DWR would pay TERA 87.5 mills/kWh for 97.5 percent of the net energy output for the first 10 years and at least 70 mills/kWh for 97.5 percent of the net energy output for the second 10 years.

C-111368

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TABLE B-5

NORTHWEST POWER

Year	PGE		PPL		Non-Firm 1/ mills/kWh	
	$/kW-mo	mills/kWh	$/kW-mo	mills/kWh	On-Peak	Off-Peak
1985	7.5 2/	22.6	6.75 3/	21.0	21.00	19.30
1986	-	-	-	-	22.26	20.46
1987	-	-	-	-	23.60	21.69
1988	-	-	-	-	25.01	22.99
1989	-	-	-	-	26.51	24.37
1990	-	-	-	-	28.10	25.83
1991	-	-	-	-	29.79	27.38
1992	-	-	-	-	31.58	29.02
1993	-	-	-	-	33.47	30.76
1994	-	-	-	-	35.48	32.61
1995	-	-	-	-	37.61	34.56
1996	-	-	-	-	39.86	36.64
1997	-	-	-	-	42.26	38.84
1998	-	-	-	-	44.79	41.17
1999	-	-	-	-	47.48	43.64
2000	-	-	-	-	50.33	46.25
2001	-	-	-	-	53.35	49.03
2002	-	-	-	-	56.55	51.97
2003	-	-	-	-	59.94	55.09
2004	-	-	-	-	63.54	58.39

NOTES: 1. The non-firm rate will apply to energy from the Northwest under "spill" conditions. Pacific Northwest pricing is anticipated to be heavily influenced by BPA prices. Based on BPA schedule NF-83, assume standard rate of 18.50 mills/kWh for January-June 1985. Beginning July 1985, assume standard rates NF-85 of 21.00 mills/kWh on-peak and 19.30 mills/kWh off-peak, escalated at 6 percent.

2. During April 1983 through March 1985, power cost was $7.50/kW-month per contract. Contract cancelled March 1985.

3. Through March 1985, power cost was $6.75/kW-month per contract. Contract cancelled March 1985.

C—111369

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