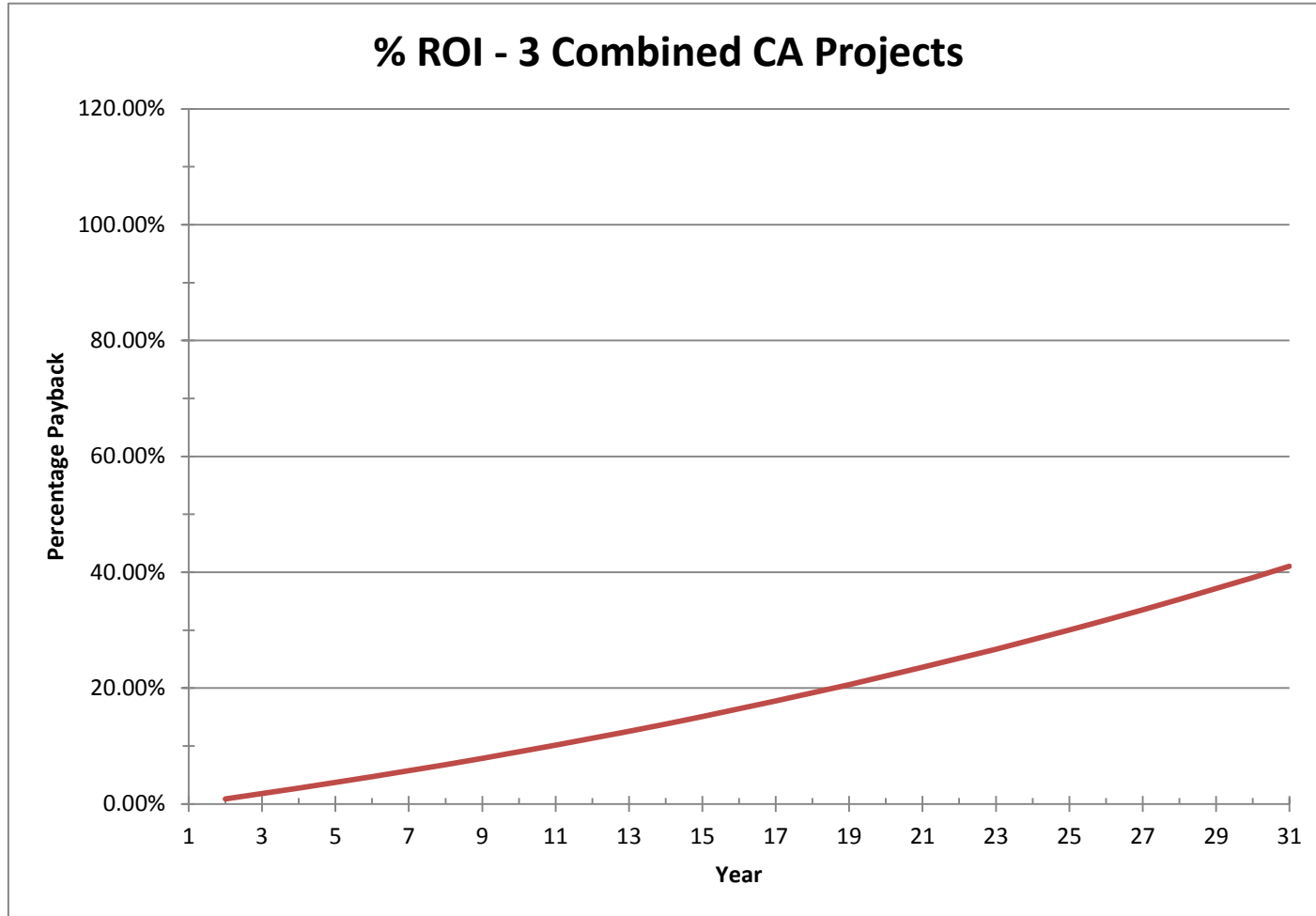


Project	Nameplate capacity (MW)	Projected annual output (MWh)	CF (%)	Capital Cost	\$/watt
California Valley Solar Ranch	250	482,000	22.0%	\$1,600,000,000	\$6.40
Antelope Valley Solar 1	250	482,000	22.0%	\$1,360,000,000	\$5.44
Topaz Solar Farm	550	1,096,000	22.7%	\$2,400,000,000	\$4.36
Combined Totals	1050	2,060,000	22.4%	\$5,360,000,000	\$5.10



Three CA Projects: CVSR, Antelope 1, & Topaz
Return on Investment Analysis for Solar PV Systems

Nameplate Capacity	input	1050	MW
Original Capital Cost	input	5.10	\$ per watt
Capacity Factor	input	22.4%	
Annual Energy Production per DOE EIA		2,060,000	MWh
Value of Electricity***	input	\$36	per MWh
Annual Inflation Rate applied to value of electricity	input	2.50%	
Annual Efficiency Degradation Rate	input	0.50%	
Annual O&M % of Capital Cost	input	0.50%	
1st year Maint. Cost		(\$26,800,000)	

Year	Energy (MWh)	Value of Electricity	Oper & Maint (no inflation)	Net Revenue	Cumulative Net Revenue	Cum. Cash Flow	% pay back
0						(\$5,360,000,000)	
1	2,060,000	\$36.00	(\$26,800,000)	\$47,360,000	\$47,360,000	(\$5,312,640,000)	0.88%
2	2,049,700	\$36.90	(\$26,800,000)	\$48,833,930	\$96,193,930	(\$5,263,806,070)	1.79%
3	2,039,452	\$37.82	(\$26,800,000)	\$50,337,154	\$146,531,084	(\$5,213,468,916)	2.73%
4	2,029,254	\$38.77	(\$26,800,000)	\$51,870,255	\$198,401,340	(\$5,161,598,660)	3.70%
5	2,019,108	\$39.74	(\$26,800,000)	\$53,433,827	\$251,835,166	(\$5,108,164,834)	4.70%
6	2,009,012	\$40.73	(\$26,800,000)	\$55,028,474	\$306,863,640	(\$5,053,136,360)	5.73%
7	1,998,967	\$41.75	(\$26,800,000)	\$56,654,815	\$363,518,455	(\$4,996,481,545)	6.78%
8	1,988,973	\$42.79	(\$26,800,000)	\$58,313,479	\$421,831,934	(\$4,938,168,066)	7.87%
9	1,979,028	\$43.86	(\$26,800,000)	\$60,005,110	\$481,837,044	(\$4,878,162,956)	8.99%
10	1,969,133	\$44.96	(\$26,800,000)	\$61,730,361	\$543,567,405	(\$4,816,432,595)	10.14%
11	1,959,287	\$46.08	(\$26,800,000)	\$63,489,902	\$607,057,307	(\$4,752,942,693)	11.33%
12	1,949,490	\$47.24	(\$26,800,000)	\$65,284,414	\$672,341,721	(\$4,687,658,279)	12.54%
13	1,939,743	\$48.42	(\$26,800,000)	\$67,114,592	\$739,456,313	(\$4,620,543,687)	13.80%
14	1,930,044	\$49.63	(\$26,800,000)	\$68,981,144	\$808,437,457	(\$4,551,562,543)	15.08%
15	1,920,394	\$50.87	(\$26,800,000)	\$70,884,794	\$879,322,252	(\$4,480,677,748)	16.41%
16	1,910,792	\$52.14	(\$26,800,000)	\$72,826,280	\$952,148,532	(\$4,407,851,468)	17.76%
17	1,901,238	\$53.44	(\$26,800,000)	\$74,806,352	\$1,026,954,884	(\$4,333,045,116)	19.16%
18	1,891,732	\$54.78	(\$26,800,000)	\$76,825,778	\$1,103,780,662	(\$4,256,219,338)	20.59%
19	1,882,273	\$56.15	(\$26,800,000)	\$78,885,341	\$1,182,666,003	(\$4,177,333,997)	22.06%
20	1,872,862	\$57.55	(\$26,800,000)	\$80,985,837	\$1,263,651,839	(\$4,096,348,161)	23.58%
21	1,863,498	\$58.99	(\$26,800,000)	\$83,128,080	\$1,346,779,920	(\$4,013,220,080)	25.13%
22	1,854,180	\$60.46	(\$26,800,000)	\$85,312,901	\$1,432,092,821	(\$3,927,907,179)	26.72%
23	1,844,909	\$61.98	(\$26,800,000)	\$87,541,145	\$1,519,633,966	(\$3,840,366,034)	28.35%
24	1,835,685	\$63.53	(\$26,800,000)	\$89,813,675	\$1,609,447,641	(\$3,750,552,359)	30.03%
25	1,826,506	\$65.11	(\$26,800,000)	\$92,131,372	\$1,701,579,012	(\$3,658,420,988)	31.75%
26	1,817,374	\$66.74	(\$26,800,000)	\$94,495,133	\$1,796,074,145	(\$3,563,925,855)	33.51%
27	1,808,287	\$68.41	(\$26,800,000)	\$96,905,874	\$1,892,980,019	(\$3,467,019,981)	35.32%
28	1,799,245	\$70.12	(\$26,800,000)	\$99,364,528	\$1,992,344,547	(\$3,367,655,453)	37.17%
29	1,790,249	\$71.87	(\$26,800,000)	\$101,872,048	\$2,094,216,595	(\$3,265,783,405)	39.07%
30	1,781,298	\$73.67	(\$26,800,000)	\$104,429,405	\$2,198,645,999	(\$3,161,354,001)	41.02%

end of life

*** Current weighted annual average wholesale price of electricity in the southern CA for 2013 year-to-date per DOE EIA is approximately \$36 / MWh

California Valley Solar Ranch 250 MW – 1500 acres

Typical CCGT Facility
200 to 400 MW – 10 acres
approximately to scale
overlaid onto aerial photo

