

SCVWA



Pro Forma

4217 Attachment 2

Scenarios Included in this Pro Forma:

#1 - Battery Cash Purchase - Rio Vista TP

Summary of Results

Financing Scenario	Net Benefit Year 1	Net Benefit Years 1-10	Net Benefit Years 1-15	Years to Payback
#1 - Battery Cash Purchase - Rio Vista TP	(\$1,626,266)	\$334,992	\$1,191,987	8

Project Portfolio



Meter Name	Service Account ID	Meter Number	Connection Level	Rate (Current)	Rate (After Project)	Program	Ex-Solar Max Demand (kW)	Ex-Solar Customer Usage (kWh)
#1 - Rio Vista TP	8001055094	V345N-000417	2kV-50kV	TOU-8 LG	TOU-8 LG	RES-BCT + AES	528	2,428,968
Portfolio Totals								2,428,968

Meter Name	Service Account ID	Ex-Solar Customer Usage (kWh)	Existing Solar Production (kWh)	Existing Solar Sizing	Existing Solar Array Size (kW-DC)	Ex-Solar Max Demand (kW)	Battery Sizing	Battery Size (kWh)	Battery Size (kW)
#1 - Rio Vista TP	8001055094	2,428,968	10,492,860	432%	5,460	528	108%	2,285	571
Totals		2,428,968	10,492,860	432%	5,460	-	108%	2,285	571

Savings



Meter Name	Service Account ID	Pre-Project Total Electricity Bill (year 1)	Post-Project Total Electricity Bill (year 1)	Total Savings (year 1)	RES-BCT Credit Impact (year 1)	Battery Savings From Demand Reduction (year 1)	Battery Savings From Arbitrage (year 1)
#1 - Rio Vista TP	8001055094	\$327,775	\$97,234	\$177,338	(\$53,203)	\$69,278	\$161,263
Totals		\$327,775	\$97,234	\$177,338	(\$53,203)	\$69,278	\$161,263

Dashboard

Scenario: #1 - Battery Cash Purchase - Rio Vista TP

Technical Assumptions	
Existing Solar Size	5.46 MW, DC
Annual Solar Yield	1,922 kWh/kW
Year-1 Existing Solar Production	10,492,860 kWh
Annual Solar Degradation Factor	0.50%
Total Storage Project Size	2,285 kWh
Storage System Cost	\$1,293 /kWh
Number of SCE Accounts	1

Avoided Cost & Revenue Sources	
Estimated Utility Energy Cost Escalator	3.00%

Asset Management Services Assumptions	
Asset Management Services, Storage (client-owned)	\$1,000 /battery
Asset Management Services Escalator	3.00%

Total Net Benefit (15 years)	
Utility Bill Savings	\$2,757,861
Total Initial Project Cost	(\$2,953,223)
Operating Expenses	(\$429,743)
Grant/SGIP	\$1,030,200
ITC	\$642,860
DRAM	\$144,032
Total Net Benefit	\$1,191,987

Cash Flow

Electricity						Expenses			Cash Position										
Year	Annual Existing Solar Production (kWh)	RES-BCT Credit Impact	Savings from Demand Reduction	Savings from Storage due to Arbitrage	Subtotal: Annual Utility Bill Savings (TerraVerde Projections)	Subtotal: Annual Utility Bill Savings (Stem Projections)	Asset Management Service (Storage)	Services	Subtotal: Annual Operating Expenses	Net Benefits (Total)	Grant/SGIP	ITC	DRAM	Cash Contribution	Total Cash	Cumulative Cash Position (TerraVerde)	Cumulative Cash Position (Stem)	Conservative Cumulative Cash Position	Term
2023	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (2,953,223)	\$ (2,953,223)	\$ (2,953,223)	\$ (2,953,223)	\$ (2,953,223)	0
2024	10,492,860	\$ (53,203)	\$ 69,278	\$ 161,263	\$ 177,338	\$ 157,446	\$ (1,000)	\$ (20,640)	\$ (21,640)	\$ 155,698	\$ 515,100	\$ 642,860	\$ 13,298	\$ -	\$ 1,326,957	\$ (1,626,266)	\$ (1,646,159)	\$ (1,642,011)	1
2025	10,440,396	\$ (54,799)	\$ 71,357	\$ 156,135	\$ 172,693	\$ 159,199	\$ (1,030)	\$ (21,451)	\$ (22,481)	\$ 150,211	\$ 103,020	\$ -	\$ 12,506	\$ -	\$ 265,737	\$ (1,360,529)	\$ (1,393,915)	\$ (1,392,194)	2
2026	10,388,194	\$ (56,443)	\$ 73,497	\$ 153,975	\$ 171,030	\$ 161,006	\$ (1,061)	\$ (22,294)	\$ (23,355)	\$ 147,675	\$ 103,020	\$ -	\$ 12,249	\$ -	\$ 262,944	\$ (1,097,585)	\$ (1,140,995)	\$ (1,145,350)	3
2027	10,336,253	\$ (58,136)	\$ 75,702	\$ 153,308	\$ 170,874	\$ 162,867	\$ (1,093)	\$ (23,170)	\$ (24,263)	\$ 146,611	\$ 103,020	\$ -	\$ 11,194	\$ -	\$ 260,826	\$ (836,759)	\$ (888,176)	\$ (900,811)	4
2028	10,284,571	\$ (59,880)	\$ 77,973	\$ 152,462	\$ 170,556	\$ 164,786	\$ (1,126)	\$ (24,081)	\$ (25,206)	\$ 145,349	\$ 103,020	\$ -	\$ 10,570	\$ -	\$ 258,939	\$ (577,820)	\$ (635,007)	\$ (658,350)	5
2029	10,233,149	\$ (61,677)	\$ 80,313	\$ 154,232	\$ 172,868	\$ 166,764	\$ (1,159)	\$ (25,027)	\$ (26,187)	\$ 146,681	\$ 103,020	\$ -	\$ 9,872	\$ -	\$ 259,574	\$ (318,246)	\$ (381,537)	\$ (415,453)	6
2030	10,181,983	\$ (63,527)	\$ 82,722	\$ 157,896	\$ 177,091	\$ 168,805	\$ (1,194)	\$ (26,011)	\$ (27,205)	\$ 149,886	\$ -	\$ -	\$ 9,034	\$ -	\$ 158,921	\$ (159,325)	\$ (230,902)	\$ (273,413)	7
2031	10,131,073	\$ (65,433)	\$ 85,204	\$ 161,641	\$ 181,412	\$ 170,911	\$ (1,230)	\$ (27,033)	\$ (28,263)	\$ 153,149	\$ -	\$ -	\$ 8,687	\$ -	\$ 161,837	\$ 2,512	\$ (79,566)	\$ (128,667)	8
2032	10,080,418	\$ (67,396)	\$ 87,760	\$ 165,469	\$ 185,833	\$ 173,085	\$ (1,267)	\$ (28,096)	\$ (29,362)	\$ 156,471	\$ -	\$ -	\$ 8,100	\$ -	\$ 164,571	\$ 167,083	\$ 72,257	\$ 18,596	9
2033	10,030,016	\$ (69,418)	\$ 90,392	\$ 169,381	\$ 190,356	\$ 175,330	\$ (1,305)	\$ (29,200)	\$ (30,504)	\$ 159,852	\$ -	\$ -	\$ 8,057	\$ -	\$ 167,909	\$ 334,992	\$ 225,140	\$ 168,972	10
2034	9,979,865	\$ (71,500)	\$ 93,104	\$ 173,379	\$ 194,983	\$ 177,648	\$ (1,344)	\$ (30,347)	\$ (31,691)	\$ 163,292	\$ -	\$ -	\$ 8,048	\$ -	\$ 171,340	\$ 506,332	\$ 379,145	\$ 322,548	11
2035	9,929,966	\$ (73,645)	\$ 95,897	\$ 174,116	\$ 196,368	\$ 180,043	\$ (1,384)	\$ (31,540)	\$ (32,924)	\$ 163,444	\$ -	\$ -	\$ 8,007	\$ -	\$ 171,451	\$ 677,784	\$ 534,271	\$ 475,995	12
2036	9,880,316	\$ (75,854)	\$ 98,774	\$ 174,741	\$ 197,661	\$ 182,518	\$ (1,426)	\$ (32,779)	\$ (34,205)	\$ 163,456	\$ -	\$ -	\$ 7,970	\$ -	\$ 171,426	\$ 849,210	\$ 690,554	\$ 629,169	13
2037	9,830,915	\$ (78,130)	\$ 101,738	\$ 175,247	\$ 198,854	\$ 185,076	\$ (1,469)	\$ (34,068)	\$ (35,536)	\$ 163,318	\$ -	\$ -	\$ 8,153	\$ -	\$ 171,471	\$ 1,020,681	\$ 848,247	\$ 782,133	14
2038	9,781,760	\$ (80,474)	\$ 104,790	\$ 175,626	\$ 199,941	\$ 187,722	\$ (1,513)	\$ (35,406)	\$ (36,919)	\$ 163,022	\$ -	\$ -	\$ 8,284	\$ -	\$ 171,306	\$ 1,191,987	\$ 1,007,334	\$ 934,667	15
	152,001,734	\$ (989,514)	\$ 1,288,501	\$ 2,458,873	\$ 2,757,861	\$ 2,573,207	\$ (18,599)	\$ (411,144)	\$ (429,743)	\$ 2,328,118	\$ 1,030,200	\$ 642,860	\$ 144,032	\$ (2,953,223)	\$ 1,191,987	\$ 1,191,987	\$ 1,007,334	\$ 934,667	

Disclaimers and Assumptions

- 1) Projections of future savings are calculated based on patterns of previous electricity usage with billing data from March 2021 through February 2022, and assume that historical usage patterns hold at the same level over the life of the project.
- 2) Projections of future savings are subject to rate tariff eligibility over the life of the installation. This analysis uses SCE rate tariffs published June 2023.
- 3) Projections in the "Cumulative Cash Position (Stem)" column on the Cash Flow page are based on Stem's projected utility bill savings over the life of the project.
- 4) Some meters included in this portfolio are currently subject to Schedule S standby charges. Avoided cost is subject to change as the applicable Supplemental Contract Capacity (SCC) is confirmed.
- 5) This analysis assumes that all included sites are eligible for SGIP Large Scale Storage with the Resiliency Adder. The SGIP incentive value for this budget starts at \$0.45/Wh and varies per site based on the total battery size and battery duration according to the SGIP rules. SGIP incentive cannot exceed the storage installed cost.
- 6) Other Expenses includes insurance and other O&M.
- 7) This analysis assumes an Investment Tax Credit of 30% per site based on achieving Permission to Operate between 2023 and 2032. This does not constitute tax advice and SCV Water should seek professional tax advice from their tax advisors to confirm all potential tax savings and the assumptions made in this analysis.
- 8) This analysis applies the Investment Tax Credit to the total engineering, procurement, and construction costs less 15% of the SGIP incentive.
- 9) Asset Management Services include system performance monitoring, warranty enforcement, and detailed energy & financial reporting for site host owned systems.
- 10) No part of TerraVerde Energy's deliverables, messaging, presentation or anything else shared with its clients should be construed by the client or any other entity as advice on scope for future contracts, work orders or other engagements.
- 11) The projected annual solar production of the existing system is estimated using as-built drawings along with PVWatts production curves specific to the location, azimuth, tilt, and age of the arrays. Actual production may vary due to weather, degradation, and system performance.

