

County of Mendocino
Willits Library Project
Option 1 - Battery 40 kW, 122kWH

40 Year- PV+BESS+Roof, O&Maverage maintenance cost for roof over last 2 years, BESS replaced at year 16, material cost escalated at 3% per year for that value, Assuming PV and 2 BESS last 30 years

YR	Principal	Payment	Balance	Guaranteed Energy Savings	Operating and Maint. (O&M)	RECs and Incentives	Total Savings	M & V	Assets Planner Software Suite	BESS Subscription	O&M	Total Costs	Net Savings	Cumulative Cost/Savings
0	\$957,320													
		\$0	\$957,320											\$ (957,320)
1	\$957,320	\$957,320	\$0	\$12,669	\$2,596	\$247,040	\$262,305	-\$4,900	-\$1,343	-\$3,543	-\$6,057	-\$15,842	\$246,463	-\$710,857
2	\$0	\$0	\$0	\$13,303	\$2,673	\$140,346	\$156,322	-\$5,047	-\$1,383	-\$3,543	-\$6,238	-\$16,211	\$140,111	-\$570,746
3	\$0	\$0	\$0	\$13,968	\$2,754	\$0	\$16,722	-\$5,198	-\$1,425	-\$3,649	-\$6,425	-\$16,698	\$24	-\$570,722
4	\$0	\$0	\$0	\$14,666	\$2,836	\$0	\$17,503		-\$1,467	-\$3,759	-\$6,618	-\$11,844	\$5,658	-\$565,064
5	\$0	\$0	\$0	\$15,400	\$2,921	\$0	\$18,321		-\$1,511	-\$3,871	-\$6,817	-\$12,199	\$6,122	-\$558,942
6	\$0	\$0	\$0	\$16,170	\$3,009	\$0	\$19,179		-\$1,557	-\$3,988	-\$7,021	-\$12,565	\$6,613	-\$552,329
7	\$0	\$0	\$0	\$16,978	\$3,099	\$0	\$20,077		-\$1,603	-\$4,107	-\$7,232	-\$12,942	\$7,135	-\$545,194
8	\$0	\$0	\$0	\$17,827	\$3,192	\$0	\$21,019		-\$1,652	-\$4,230	-\$7,449	-\$13,331	\$7,689	-\$537,506
9	\$0	\$0	\$0	\$18,718	\$3,288	\$0	\$22,006		-\$1,701	-\$4,357	-\$7,672	-\$13,731	\$8,276	-\$529,230
10	\$0	\$0	\$0	\$19,654	\$3,387	\$0	\$23,041		-\$1,752	-\$4,488	-\$7,902	-\$14,142	\$8,898	-\$520,332
11	\$0	\$0	\$0	\$20,637	\$3,488	\$0	\$24,125		-\$1,805	-\$4,623	-\$8,139	-\$14,567	\$9,558	-\$510,773
12	\$0	\$0	\$0	\$21,669	\$3,593	\$0	\$25,262		-\$1,859	-\$4,761	-\$8,384	-\$15,004	\$10,258	-\$500,515
13	\$0	\$0	\$0	\$22,752	\$3,701	\$0	\$26,453		-\$1,915	-\$4,904	-\$8,635	-\$15,454	\$10,999	-\$489,516
14	\$0	\$0	\$0	\$23,890	\$3,812	\$0	\$27,701		-\$1,972	-\$5,051	-\$8,894	-\$15,917	\$11,784	-\$477,732
15	\$0	\$0	\$63,008	\$25,084	\$3,926	\$0	\$29,010		-\$2,031	-\$5,203	-\$9,161	-\$16,395	\$12,615	-\$465,117
16	\$63,008	\$63,008	\$0	\$26,338	\$4,044	\$0	\$30,382		-\$2,092	-\$5,359	-\$9,436	-\$16,887	\$13,495	-\$451,622
17	\$0	\$0	\$0	\$27,655	\$4,165	\$0	\$31,821		-\$2,155	-\$5,520	-\$9,719	-\$17,393	\$14,427	-\$500,202
18	\$0	\$0	\$0	\$29,038	\$4,290	\$0	\$33,328		-\$2,220	-\$5,685	-\$10,010	-\$17,915	\$15,413	-\$484,789
19	\$0	\$0	\$0	\$30,490	\$4,419	\$0	\$34,909		-\$2,286	-\$5,856	-\$10,311	-\$18,453	\$16,456	-\$468,333
20	\$0	\$0	\$0	\$32,015	\$4,551	\$0	\$36,566		-\$2,355	-\$6,031	-\$10,620	-\$19,006	\$17,560	-\$450,774
21	\$0	\$0	\$0	\$33,615	\$4,688	\$0	\$38,303		-\$2,425	-\$6,212	-\$10,939	-\$19,576	\$18,727	-\$432,047
22	\$0	\$0	\$0	\$35,296	\$4,829	\$0	\$40,125		-\$2,498	-\$6,399	-\$11,267	-\$20,164	\$19,961	-\$412,086
23	\$0	\$0	\$0	\$37,061	\$4,973	\$0	\$42,034		-\$2,573	-\$6,591	-\$11,605	-\$20,769	\$21,266	-\$390,820
24	\$0	\$0	\$0	\$38,914	\$5,123	\$0	\$44,037		-\$2,650	-\$6,788	-\$11,953	-\$21,392	\$22,645	-\$368,176
25	\$0	\$0	\$0	\$40,860	\$5,276	\$0	\$46,136		-\$2,730	-\$6,992	-\$12,312	-\$22,034	\$24,102	-\$344,073
26	\$0	\$0	\$0	\$42,903	\$5,435	\$0	\$48,337		-\$2,812	-\$7,202	-\$12,681	-\$22,695	\$25,643	-\$318,430
27	\$0	\$0	\$0	\$45,048	\$5,598	\$0	\$50,645		-\$2,896	-\$7,418	-\$13,061	-\$23,375	\$27,270	-\$291,160
28	\$0	\$0	\$0	\$47,300	\$5,766	\$0	\$53,066		-\$2,983	-\$7,640	-\$13,453	-\$24,077	\$28,989	-\$262,171
29	\$0	\$0	\$0	\$49,665	\$5,939	\$0	\$55,604		-\$3,072	-\$7,870	-\$13,857	-\$24,799	\$30,805	-\$231,367
30	\$0	\$0	\$0	\$52,148	\$6,117	\$0	\$58,265		-\$3,165	-\$8,106	-\$14,273	-\$25,543	\$32,722	-\$198,644
31					\$6,300		\$6,300				-\$14,701	-\$14,701	-\$8,401	-\$207,045
32					\$6,489		\$6,489				-\$15,142	-\$15,142	-\$8,653	-\$215,697
33					\$6,684		\$6,684				-\$15,596	-\$15,596	-\$8,912	-\$224,610
34					\$6,884		\$6,884				-\$16,064	-\$16,064	-\$9,179	-\$233,789
35					\$7,091		\$7,091				-\$16,546	-\$16,546	-\$9,455	-\$243,244
36					\$7,304		\$7,304				-\$17,042	-\$17,042	-\$9,738	-\$252,982
37					\$7,523		\$7,523				-\$17,553	-\$17,553	-\$10,031	-\$263,013
38					\$7,748		\$7,748				-\$18,080	-\$18,080	-\$10,332	-\$273,345
39					\$7,981		\$7,981				-\$18,622	-\$18,622	-\$10,642	-\$283,986
40					\$8,220		\$8,220				-\$19,181	-\$19,181	-\$10,961	-\$294,947
Total	\$1,020,328	\$1,020,328	\$63,008	\$841,731	\$195,712	\$387,386	\$1,424,828	-\$15,145	-\$63,887	-\$163,747	-\$456,668	-\$699,447	\$725,381	

County of Mendocino
Willits Library Project
Option 2 - Battery 30 kW, 40kWh

40 Year- PV+BESS+Roof, O&Maverage maintenance cost for roof over last 2 years, BESS replaced at year 16, material cost escalated at 3% per year for that value, Assuming PV and 2 BESS last 30 years

YR	Principal	Payment	Balance	Guaranteed Energy Savings	Operating and Maint. (O&M)	RECs and Incentives	Total Savings	M & V	Assets Planner Software Suite	BESS Subscription	O&M	Total Costs	Net Savings	Cumulative Cost/Savings
0	\$847,009													
		\$0	\$ 847,009											\$ (847,009)
1	\$847,009	\$847,009	\$0	\$12,669	\$2,596	\$247,040	\$262,305	-\$4,900	-\$1,343	-\$3,543	-\$6,057	-\$15,842	\$246,463	-\$600,546
2	\$0	\$0	\$0	\$13,303	\$2,673	\$101,909	\$117,886	-\$5,047	-\$1,383	-\$3,543	-\$6,238	-\$16,211	\$101,674	-\$498,872
3	\$0	\$0	\$0	\$13,968	\$2,754	\$0	\$16,722	-\$5,198	-\$1,425	-\$3,649	-\$6,425	-\$16,698	\$24	-\$498,848
4	\$0	\$0	\$0	\$14,666	\$2,836	\$0	\$17,503		-\$1,467	-\$3,759	-\$6,618	-\$11,844	\$5,658	-\$493,190
5	\$0	\$0	\$0	\$15,400	\$2,921	\$0	\$18,321		-\$1,511	-\$3,871	-\$6,817	-\$12,199	\$6,122	-\$487,068
6	\$0	\$0	\$0	\$16,170	\$3,009	\$0	\$19,179		-\$1,557	-\$3,988	-\$7,021	-\$12,565	\$6,613	-\$480,455
7	\$0	\$0	\$0	\$16,978	\$3,099	\$0	\$20,077		-\$1,603	-\$4,107	-\$7,232	-\$12,942	\$7,135	-\$473,320
8	\$0	\$0	\$0	\$17,827	\$3,192	\$0	\$21,019		-\$1,652	-\$4,230	-\$7,449	-\$13,331	\$7,689	-\$465,631
9	\$0	\$0	\$0	\$18,718	\$3,288	\$0	\$22,006		-\$1,701	-\$4,357	-\$7,672	-\$13,731	\$8,276	-\$457,356
10	\$0	\$0	\$0	\$19,654	\$3,387	\$0	\$23,041		-\$1,752	-\$4,488	-\$7,902	-\$14,142	\$8,898	-\$448,457
11	\$0	\$0	\$0	\$20,637	\$3,488	\$0	\$24,125		-\$1,805	-\$4,623	-\$8,139	-\$14,567	\$9,558	-\$438,899
12	\$0	\$0	\$0	\$21,669	\$3,593	\$0	\$25,262		-\$1,859	-\$4,761	-\$8,384	-\$15,004	\$10,258	-\$428,641
13	\$0	\$0	\$0	\$22,752	\$3,701	\$0	\$26,453		-\$1,915	-\$4,904	-\$8,635	-\$15,454	\$10,999	-\$417,642
14	\$0	\$0	\$0	\$23,890	\$3,812	\$0	\$27,701		-\$1,972	-\$5,051	-\$8,894	-\$15,917	\$11,784	-\$405,858
15	\$0	\$0	\$63,008	\$25,084	\$3,926	\$0	\$29,010		-\$2,031	-\$5,203	-\$9,161	-\$16,395	\$12,615	-\$393,243
16	\$63,008	\$63,008	\$0	\$26,338	\$4,044	\$0	\$30,382		-\$2,092	-\$5,359	-\$9,436	-\$16,887	\$13,495	-\$379,747
17	\$0	\$0	\$0	\$27,655	\$4,165	\$0	\$31,821		-\$2,155	-\$5,520	-\$9,719	-\$17,393	\$14,427	-\$428,328
18	\$0	\$0	\$0	\$29,038	\$4,290	\$0	\$33,328		-\$2,220	-\$5,685	-\$10,010	-\$17,915	\$15,413	-\$412,915
19	\$0	\$0	\$0	\$30,490	\$4,419	\$0	\$34,909		-\$2,286	-\$5,856	-\$10,311	-\$18,453	\$16,456	-\$396,459
20	\$0	\$0	\$0	\$32,015	\$4,551	\$0	\$36,566		-\$2,355	-\$6,031	-\$10,620	-\$19,006	\$17,560	-\$378,899
21	\$0	\$0	\$0	\$33,615	\$4,688	\$0	\$38,303		-\$2,425	-\$6,212	-\$10,939	-\$19,576	\$18,727	-\$360,172
22	\$0	\$0	\$0	\$35,296	\$4,829	\$0	\$40,125		-\$2,498	-\$6,399	-\$11,267	-\$20,164	\$19,961	-\$340,212
23	\$0	\$0	\$0	\$37,061	\$4,973	\$0	\$42,034		-\$2,573	-\$6,591	-\$11,605	-\$20,769	\$21,266	-\$318,946
24	\$0	\$0	\$0	\$38,914	\$5,123	\$0	\$44,037		-\$2,650	-\$6,788	-\$11,953	-\$21,392	\$22,645	-\$296,301
25	\$0	\$0	\$0	\$40,860	\$5,276	\$0	\$46,136		-\$2,730	-\$6,992	-\$12,312	-\$22,034	\$24,102	-\$272,199
26	\$0	\$0	\$0	\$42,903	\$5,435	\$0	\$48,337		-\$2,812	-\$7,202	-\$12,681	-\$22,695	\$25,643	-\$246,556
27	\$0	\$0	\$0	\$45,048	\$5,598	\$0	\$50,645		-\$2,896	-\$7,418	-\$13,061	-\$23,375	\$27,270	-\$219,286
28	\$0	\$0	\$0	\$47,300	\$5,766	\$0	\$53,066		-\$2,983	-\$7,640	-\$13,453	-\$24,077	\$28,989	-\$190,297
29	\$0	\$0	\$0	\$49,665	\$5,939	\$0	\$55,604		-\$3,072	-\$7,870	-\$13,857	-\$24,799	\$30,805	-\$159,492
30	\$0	\$0	\$0	\$52,148	\$6,117	\$0	\$58,265		-\$3,165	-\$8,106	-\$14,273	-\$25,543	\$32,722	-\$126,770
31					\$6,300		\$6,300				-\$14,701	-\$14,701	-\$8,401	-\$135,171
32					\$6,489		\$6,489				-\$15,142	-\$15,142	-\$8,653	-\$143,823
33					\$6,684		\$6,684				-\$15,596	-\$15,596	-\$8,912	-\$152,735
34					\$6,884		\$6,884				-\$16,064	-\$16,064	-\$9,179	-\$161,915
35					\$7,091		\$7,091				-\$16,546	-\$16,546	-\$9,455	-\$171,369
36					\$7,304		\$7,304				-\$17,042	-\$17,042	-\$9,738	-\$181,108
37					\$7,523		\$7,523				-\$17,553	-\$17,553	-\$10,031	-\$191,139
38					\$7,748		\$7,748				-\$18,080	-\$18,080	-\$10,332	-\$201,470
39					\$7,981		\$7,981				-\$18,622	-\$18,622	-\$10,642	-\$212,112
40					\$8,220		\$8,220				-\$19,181	-\$19,181	-\$10,961	-\$223,072
Total	\$910,017	\$910,017	\$63,008	\$841,731	\$195,712	\$348,949	\$1,386,391	-\$15,145	-\$63,887	-\$163,747	-\$456,668	-\$699,447	\$686,945	