

City of Lemoore

Phase 3 Solar Program – Item B



Chevron Energy Solutions

April 2, 2013

Presented by:

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Agenda



- Solar Project Layout
- Program Financial Analysis
- Program Benefits

Well #12 – Cedar Lane & Bluejay Avenue: Fixed-Tilt Ground Mounted Solar Project – 346 kW



CITY OF LEMOORE

3/25/2013

**WATER WELL No. 12 & SPORTS PARK CONCEPT
BLUEJAY AVENUE & CEDAR LANE
LEMOORE, CA 93245**



Program Financial Analysis – Item B



Total Project Fee \$1,224,109
 Total Financing Costs during Construction \$31,066
 Total Amount Financed \$1,255,175

1	2	3	4	5	6	7	8	9	10
Year	Utility Cost Avoidance	California Solar Incentive	Total Program Savings	Payment to Lessor	Measurement & Verification	O&M Services	Inverter Replacement Cost	Total Program Costs	Net Savings
1	\$124,243	\$49,117	\$173,360	\$91,748	\$0	\$4,490	\$0	\$96,239	\$77,121
2	\$129,803	\$48,871	\$178,674	\$96,928	\$0	\$4,625	\$0	\$101,553	\$77,121
3	\$135,611	\$48,627	\$184,238	\$102,353	\$0	\$4,764	\$0	\$107,117	\$77,121
4	\$141,680	\$48,384	\$190,064	\$108,036	\$0	\$4,907	\$0	\$112,943	\$77,121
5	\$148,020	\$48,142	\$196,162	\$113,987	\$0	\$5,054	\$0	\$119,041	\$77,121
6	\$154,644	\$0	\$154,644	\$72,318	\$0	\$5,205	\$0	\$77,523	\$77,121
7	\$161,564	\$0	\$161,564	\$79,082	\$0	\$5,362	\$0	\$84,443	\$77,121
8	\$168,794	\$0	\$168,794	\$86,151	\$0	\$5,522	\$0	\$91,673	\$77,121
9	\$176,348	\$0	\$176,348	\$93,539	\$0	\$5,688	\$0	\$99,227	\$77,121
10	\$184,240	\$0	\$184,240	\$101,260	\$0	\$5,859	\$0	\$107,119	\$77,121
11	\$192,484	\$0	\$192,484	\$109,329	\$0	\$6,035	\$0	\$115,363	\$77,121
12	\$201,098	\$0	\$201,098	\$117,761	\$0	\$6,216	\$0	\$123,977	\$77,121
13	\$210,097	\$0	\$210,097	\$126,574	\$0	\$6,402	\$0	\$132,976	\$77,121
14	\$219,499	\$0	\$219,499	\$135,784	\$0	\$6,594	\$0	\$142,378	\$77,121
15	\$229,321	\$0	\$229,321	\$145,409	\$0	\$6,792	\$0	\$152,201	\$77,121
16	\$239,584	\$0	\$239,584	\$0	\$0	\$6,996	\$0	\$6,996	\$232,588
17	\$250,305	\$0	\$250,305	\$0	\$0	\$7,206	\$0	\$7,206	\$243,099
18	\$261,506	\$0	\$261,506	\$0	\$0	\$7,422	\$0	\$7,422	\$254,084
19	\$273,209	\$0	\$273,209	\$0	\$0	\$7,644	\$0	\$7,644	\$265,564
20	\$285,435	\$0	\$285,435	\$0	\$0	\$7,874	\$0	\$7,874	\$277,561
21	\$298,208	\$0	\$298,208	\$0	\$0	\$8,110	\$173,636	\$181,746	\$116,462
22	\$311,553	\$0	\$311,553	\$0	\$0	\$8,353	\$0	\$8,353	\$303,199
23	\$325,495	\$0	\$325,495	\$0	\$0	\$8,604	\$0	\$8,604	\$316,891
24	\$340,060	\$0	\$340,060	\$0	\$0	\$8,862	\$0	\$8,862	\$331,199
25	\$355,278	\$0	\$355,278	\$0	\$0	\$9,128	\$0	\$9,128	\$346,150
26	\$371,177	\$0	\$371,177	\$0	\$0	\$9,402	\$0	\$9,402	\$361,775
27	\$387,787	\$0	\$387,787	\$0	\$0	\$9,684	\$0	\$9,684	\$378,103
28	\$405,141	\$0	\$405,141	\$0	\$0	\$9,974	\$0	\$9,974	\$395,166
29	\$423,271	\$0	\$423,271	\$0	\$0	\$10,273	\$0	\$10,273	\$412,997
30	\$442,212	\$0	\$442,212	\$0	\$0	\$10,582	\$0	\$10,582	\$431,630
Totals	\$7,547,666	\$243,140	\$7,790,805	\$1,580,258	\$0	\$213,627	\$173,636	\$1,967,521	\$5,823,283

Notes By Column:

- (2) Utility Cost Avoidance is escalated by 5% to account for inflation
- (5) Payment to Lessor is based on an annual interest rate of 2.97%, 15 year term. Actual rate will be determined at closing
- (7) O&M Services do not include panel washing
- (8) Inverter Replacement Cost has been escalated by 3% per year

Financial Analysis – Entire Program



- Feasibility Study Phase:
 - Annual projected net savings during the 15-year finance term: \$127,000
 - Total projected net savings over project life: \$25.2 million
- After Program Development:
 - Annual projected net savings during the 15-year finance term: \$346,000
 - Total projected net savings over project life: \$43.4 million

Financial Analysis – Entire Program



Total Project Fee \$13,155,204
 Total Financing Costs during Construction \$333,854
 Total Amount Financed \$13,489,058

1	2	3	4	5	6	7	8	9	10
Year	Utility Cost Avoidance	California Solar Incentive	Total Program Savings	Payment to Lessor	Measurement & Verification	O&M Services	Inverter Replacement Cost	Total Program Costs	Net Savings
1	\$1,022,365	\$379,848	\$1,402,214	\$994,224	\$12,600	\$48,969	\$0	\$1,055,794	\$346,420
2	\$1,068,116	\$377,949	\$1,446,065	\$1,035,930	\$12,978	\$50,737	\$0	\$1,099,645	\$346,420
3	\$1,115,914	\$376,059	\$1,491,974	\$1,079,599	\$13,367	\$52,587	\$0	\$1,145,554	\$346,420
4	\$1,165,852	\$374,179	\$1,540,030	\$1,125,316	\$13,768	\$54,526	\$0	\$1,193,610	\$346,420
5	\$1,218,023	\$372,308	\$1,590,331	\$1,173,171	\$14,181	\$56,559	\$0	\$1,243,911	\$346,420
6	\$1,272,530	\$0	\$1,272,530	\$867,417	\$0	\$58,693	\$0	\$926,110	\$346,420
7	\$1,329,476	\$0	\$1,329,476	\$922,122	\$0	\$60,934	\$0	\$983,056	\$346,420
8	\$1,388,970	\$0	\$1,388,970	\$979,259	\$0	\$63,291	\$0	\$1,042,550	\$346,420
9	\$1,451,126	\$0	\$1,451,126	\$1,038,935	\$0	\$65,771	\$0	\$1,104,706	\$346,420
10	\$1,516,064	\$0	\$1,516,064	\$1,101,260	\$0	\$68,384	\$0	\$1,169,644	\$346,420
11	\$1,583,908	\$0	\$1,583,908	\$1,183,212	\$0	\$54,276	\$0	\$1,237,488	\$346,420
12	\$1,654,788	\$0	\$1,654,788	\$1,252,464	\$0	\$55,904	\$0	\$1,308,368	\$346,420
13	\$1,728,839	\$0	\$1,728,839	\$1,324,838	\$0	\$57,581	\$0	\$1,382,419	\$346,420
14	\$1,806,205	\$0	\$1,806,205	\$1,400,477	\$0	\$59,308	\$0	\$1,459,785	\$346,420
15	\$1,887,033	\$0	\$1,887,033	\$1,479,525	\$0	\$61,088	\$0	\$1,540,613	\$346,420
16	\$1,971,477	\$0	\$1,971,477	\$0	\$0	\$62,920	\$0	\$62,920	\$1,908,557
17	\$2,059,701	\$0	\$2,059,701	\$0	\$0	\$64,808	\$0	\$64,808	\$1,994,893
18	\$2,151,873	\$0	\$2,151,873	\$0	\$0	\$66,752	\$0	\$66,752	\$2,085,120
19	\$2,248,169	\$0	\$2,248,169	\$0	\$0	\$68,755	\$0	\$68,755	\$2,179,414
20	\$2,348,775	\$0	\$2,348,775	\$0	\$0	\$70,817	\$0	\$70,817	\$2,277,957
21	\$2,453,882	\$0	\$2,453,882	\$0	\$0	\$72,942	\$1,504,411	\$1,577,353	\$876,529
22	\$2,563,693	\$0	\$2,563,693	\$0	\$0	\$75,130	\$0	\$75,130	\$2,488,563
23	\$2,678,419	\$0	\$2,678,419	\$0	\$0	\$77,384	\$0	\$77,384	\$2,601,035
24	\$2,798,278	\$0	\$2,798,278	\$0	\$0	\$79,706	\$0	\$79,706	\$2,718,572
25	\$2,923,501	\$0	\$2,923,501	\$0	\$0	\$82,097	\$0	\$82,097	\$2,841,404
26	\$3,054,328	\$0	\$3,054,328	\$0	\$0	\$84,560	\$0	\$84,560	\$2,969,768
27	\$3,191,009	\$0	\$3,191,009	\$0	\$0	\$87,096	\$0	\$87,096	\$3,103,912
28	\$3,333,806	\$0	\$3,333,806	\$0	\$0	\$89,709	\$0	\$89,709	\$3,244,097
29	\$3,482,994	\$0	\$3,482,994	\$0	\$0	\$92,401	\$0	\$92,401	\$3,390,594
30	\$3,638,858	\$0	\$3,638,858	\$0	\$0	\$95,173	\$0	\$95,173	\$3,543,686
Totals	\$62,107,972	\$1,880,343	\$63,988,315	\$16,957,750	\$66,894	\$2,038,858	\$1,504,411	\$20,567,913	\$43,420,401

Notes By Column:

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- (5) Payment to Lessor is based on an annual interest rate of 2.97%, 15 year term. Actual rate will be determined at closing
- (6) Measurement and Verification services are escalated by 3% to account for inflation
- (7) O&M Services do not include panel washing
- (8) Inverter Replacement Cost has been escalated by 3% per year

Program Benefits



Program projected to contribute over \$43.4 million to the Water, Sewer and General Funds

Program will attract nearly \$1.9 million in incentives

Program includes construction of new parking lot at CMC and replacement of electrical panels at WWTP & 40 G Street Facility

Reduces the impact of future utility rate increases

Minimum City risk because of turnkey design-build program with single source responsibility

Stimulates local economy and provides local jobs