

**MEMORANDUM  
CITY OF ALBANY**

**DATE:** May 21, 2012

**SUBJECT:** Update regarding Joint Solicitation for the Procurement of Municipal Solar Power on City Facilities

**FROM:** Nicole Almaguer, City Clerk

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**BACKGROUND**

On September 6, 2011 Council adopted Resolution No. 2011-42 authorizing the City Manager to enter into a Cooperative Agreement with the cities of El Cerrito, Piedmont, and San Pablo for the purpose of jointly soliciting proposals for the procurement of municipal solar power (PV system).

Staff, including city attorneys, from the four cities and the solar consultant, Optony, Inc., developed a thorough Request for Qualifications/Request for Proposals (RFQ/RFP) to satisfy city and grant requirements. The solicitation for proposals was issued on December 15, 2011. Statements of Qualifications were received from five solar companies:

- SunWize, of San Jose
- Real Goods Solar (RGS), of San Raphael
- Cupertino Electric, of San Jose
- Sun Light & Power, of Berkeley
- Solar Power Integrators, of Roseville

Ultimately, four of the companies were invited to submit a proposal (one did not meet financial qualification criteria), but only two made a submission:

- SunWize submitted a proposal for the construction of the Large Site Bundle only. Costs were 25% higher than those included in Real Goods Solar's proposal
- Real Goods Solar submitted a proposal for the construction of all the sites, small, medium and large at what is considered to be a competitive cost.

Real Goods Solar was selected to receive a non-binding letter of interest and enter into negotiations with the cities to better define specific project scopes and costs. The review committee determined that Real Goods Solar was the best choice because it bid to construct all the sites at competitive costs, and had the experience and qualifications to do so. On March 19, 2012, following the review of proposals and qualifications, the cities issued a non-binding letter of interest to Real Goods Solar, beginning a 45-day negotiation period. At the end of this period, each city is to individually select projects they wish to award.

**DISCUSSION**

The primary interest in collaborating with other cities on this solicitation was to obtain an economy of scale, and ideally, identify a provider that would offer the opportunity for the City to enter into a Power Purchase Agreement (PPA). A PPA would allow for the City to enter into a

contract with a third party to purchase all energy produced by a PV system installed on property owned by the City. This third party would own the PV system and would be fully responsible for all ownership costs, including financing, maintenance, insurance, and system production. This option generally has no cost to the City.

Based on the review of proposals received, the opportunity for a PPA is available but the costs would result in a financial burden to the City and would not produce the necessary positive annual cash flow. Neither SunWize nor Real Goods Solar provided for a feasible alternative financing scenario such as a PPA - largely because the alternative financing schemes do not necessarily make sense when constructing multiple small sites. Thus, the cities must consider directly purchasing the systems or borrowing from a lender to do so.

The most competitive proposal was received by Real Goods Solar, which would require a direct purchase and installation of solar equipment. Negotiations were held with Real Goods Solar, resulting in the attached final project estimates which include a projection of the total required financial commitment, annual cash flow, and the potential long term savings for the projects. As identified in the attached estimates, the anticipated cost for installing solar at City facilities is \$936,534. The projects include installation of PV systems at the following City locations. Project diagrams are also included as an attachment to this staff report.

- Childcare Center (rooftop)
- Teen Center (installation of a trellis adjacent to building)
- Community Center (installation of carport in existing parking lot)
- Civic Center (rooftop)

According to program staff of cities participating in this collaborative effort, the City of San Pablo intends to recommend their City Council authorize moving forward with their respective projects, estimated at approximately \$1.5 Million funded via borrowing against investments. The City of Piedmont City Council has authorized moving forward with installation of a carport with a PV system at the City's Corporation Yard, estimated at approximately \$32,000, which will be funded by general fund monies. The City of El Cerrito is considering which projects they may be able to move forward with and available funding.

### **SUSTAINABILITY IMPACT**

Installation of PV systems at City facilities is identified within the City's Climate Action Plan, Measure BE – 1.1.

### **FINANCIAL IMPACT**

The total project cost is \$936,000, which is not available in the City reserves. While borrowing is possible, a direct purchase through the use of capital improvement or other City funds would be preferred as interest from lender financing would lengthen the payback period (lessen cost effectiveness) for the systems. It may therefore be advisable to select some, but not all, of the projects for implementation at this time, and that appears to be what other cities will also be doing.

Lifetime Savings: It appears the most significant savings would come from implementing the project at City Hall (25-year cumulative savings of nearly \$700,000) – Project Cost \$499,778.

The most largest return on investment would be the Childcare Center (25-year cumulative savings of \$360,000) – Project Cost \$120,845.

The PV systems have a life expectancy of 20 to 30 years with the proper maintenance, although the inverter generally needs to be replaced about year 15. Typically, with the proper maintenance the electricity produced by the system is projected to decrease approximately 0.5% annually over its lifetime.

As with any other electrical or mechanical system, the new PV installations will require ongoing operation and maintenance (O&M) service to ensure that the system is functioning at its full potential. Such O&M costs would vary according to system size. A rough estimate for ongoing O&M for the four City facilities is approximately \$1,600/site/year, and it is recommended this O&M be conducted by a professional service provider.

The project is supported in part by installation incentives provided by PG&E, and estimated at approximately \$119,600 towards overall project costs. The PG&E incentives are in high demand, and funding will likely be fully utilized within the short term. If the PG&E incentive funds are not available, the project payback is not justifiable. Should Council wish to proceed with the projects in whole or in part, a deposit in the amount of \$8,750 is required by PG&E, due no later than June 8, 2012 to secure the installation incentive.

## **PROS AND CONS**

### Pros

- Helps accomplish Measure BE 1-1, B “Evaluate the potential to locate cost-effective renewable energy systems on city properties”
- Realizes savings to General Fund
- Reinforces green leadership/commitment
- Joint RFP allowed for increased savings/competitive edge we may not see if we do it alone later
- PG&E Rebates available for a short time only

### Cons

- Significant up-front investment
- Ongoing maintenance after warranty period
- Questions regarding aesthetics, design of structures, and operational impacts have not been assessed
- Does not demonstrate a no/low cost “turnkey” project that could be utilized by commercial sector



60 MODULES

6 MODULES

6 MODULES

6 MODULES

6 MODULES

36 MODULES

72 MODULES

24 MODULES

18 MODULES

42 MODULES

144 MODULES



ALBANY CITY HALL  
 (20) HANNAH, 280 WATT MODULES IN  
 (5) STRINGS OF 12 MODULES  
 171 SAN PABLO

420 Modules.

THE CITY OF EL CERRITO  
 1000 SAN PABLO AVE., ALBANY, CA 94706  
 (925) 762-1100  
 WWW.CITYOFELCERRITO.CA

CITY OF EL CERRITO  
 SMALL CITIES CLIMATE ACTION PARTNERSHIP

ALBANY CITY HALL  
 1000 SAN PABLO AVE., ALBANY, CA 94706

NO.	DESCRIPTION	DATE	BY
1	DESIGN		
2	PERMIT		
3	CONSTRUCTION		
4	COMPLETION		

PROJECT NO. PV0.1  
 SHEET NO. 1 OF 1  
 DATE: 10/1/2023



SHADE STRUCTURE

**ALBANY TEEN CENTER**  
 (20) HANNAH 250 WATT MODULES IN  
 (3) STRINGS OF 12 MODULES  
 10.8KW/AC



CITY OF EL CERRITO  
 SMALL CITIES CLIMATE ACTION PARTNERSHIP

**ALBANY TEEN CENTER**  
 1331 PORTLAND AVE., ALBANY, CA 94706

PROJECT NO. 2023-001  
 DATE: 08/15/2023  
 DRAWN BY: J. BROWN  
 CHECKED BY: J. BROWN  
 SCALE: AS SHOWN



NO.	DESCRIPTION	QTY	UNIT	PRICE	TOTAL
1	250W MONO PERC PV MODULE	20	EA		
2	12'x6' MONO PERC PV STRING	3	EA		
3	12'x6' MONO PERC PV STRING	3	EA		
4	12'x6' MONO PERC PV STRING	3	EA		
5	12'x6' MONO PERC PV STRING	3	EA		
6	12'x6' MONO PERC PV STRING	3	EA		
7	12'x6' MONO PERC PV STRING	3	EA		
8	12'x6' MONO PERC PV STRING	3	EA		
9	12'x6' MONO PERC PV STRING	3	EA		
10	12'x6' MONO PERC PV STRING	3	EA		
11	12'x6' MONO PERC PV STRING	3	EA		
12	12'x6' MONO PERC PV STRING	3	EA		
13	12'x6' MONO PERC PV STRING	3	EA		
14	12'x6' MONO PERC PV STRING	3	EA		
15	12'x6' MONO PERC PV STRING	3	EA		
16	12'x6' MONO PERC PV STRING	3	EA		
17	12'x6' MONO PERC PV STRING	3	EA		
18	12'x6' MONO PERC PV STRING	3	EA		
19	12'x6' MONO PERC PV STRING	3	EA		
20	12'x6' MONO PERC PV STRING	3	EA		
21	12'x6' MONO PERC PV STRING	3	EA		
22	12'x6' MONO PERC PV STRING	3	EA		
23	12'x6' MONO PERC PV STRING	3	EA		
24	12'x6' MONO PERC PV STRING	3	EA		
25	12'x6' MONO PERC PV STRING	3	EA		
26	12'x6' MONO PERC PV STRING	3	EA		
27	12'x6' MONO PERC PV STRING	3	EA		
28	12'x6' MONO PERC PV STRING	3	EA		
29	12'x6' MONO PERC PV STRING	3	EA		
30	12'x6' MONO PERC PV STRING	3	EA		
31	12'x6' MONO PERC PV STRING	3	EA		
32	12'x6' MONO PERC PV STRING	3	EA		
33	12'x6' MONO PERC PV STRING	3	EA		
34	12'x6' MONO PERC PV STRING	3	EA		
35	12'x6' MONO PERC PV STRING	3	EA		
36	12'x6' MONO PERC PV STRING	3	EA		
37	12'x6' MONO PERC PV STRING	3	EA		
38	12'x6' MONO PERC PV STRING	3	EA		
39	12'x6' MONO PERC PV STRING	3	EA		
40	12'x6' MONO PERC PV STRING	3	EA		
41	12'x6' MONO PERC PV STRING	3	EA		
42	12'x6' MONO PERC PV STRING	3	EA		
43	12'x6' MONO PERC PV STRING	3	EA		
44	12'x6' MONO PERC PV STRING	3	EA		
45	12'x6' MONO PERC PV STRING	3	EA		
46	12'x6' MONO PERC PV STRING	3	EA		
47	12'x6' MONO PERC PV STRING	3	EA		
48	12'x6' MONO PERC PV STRING	3	EA		
49	12'x6' MONO PERC PV STRING	3	EA		
50	12'x6' MONO PERC PV STRING	3	EA		

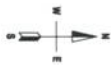
PV0.1





36 MODULES

60 MODULES  
ON SHADE STRUCTURE



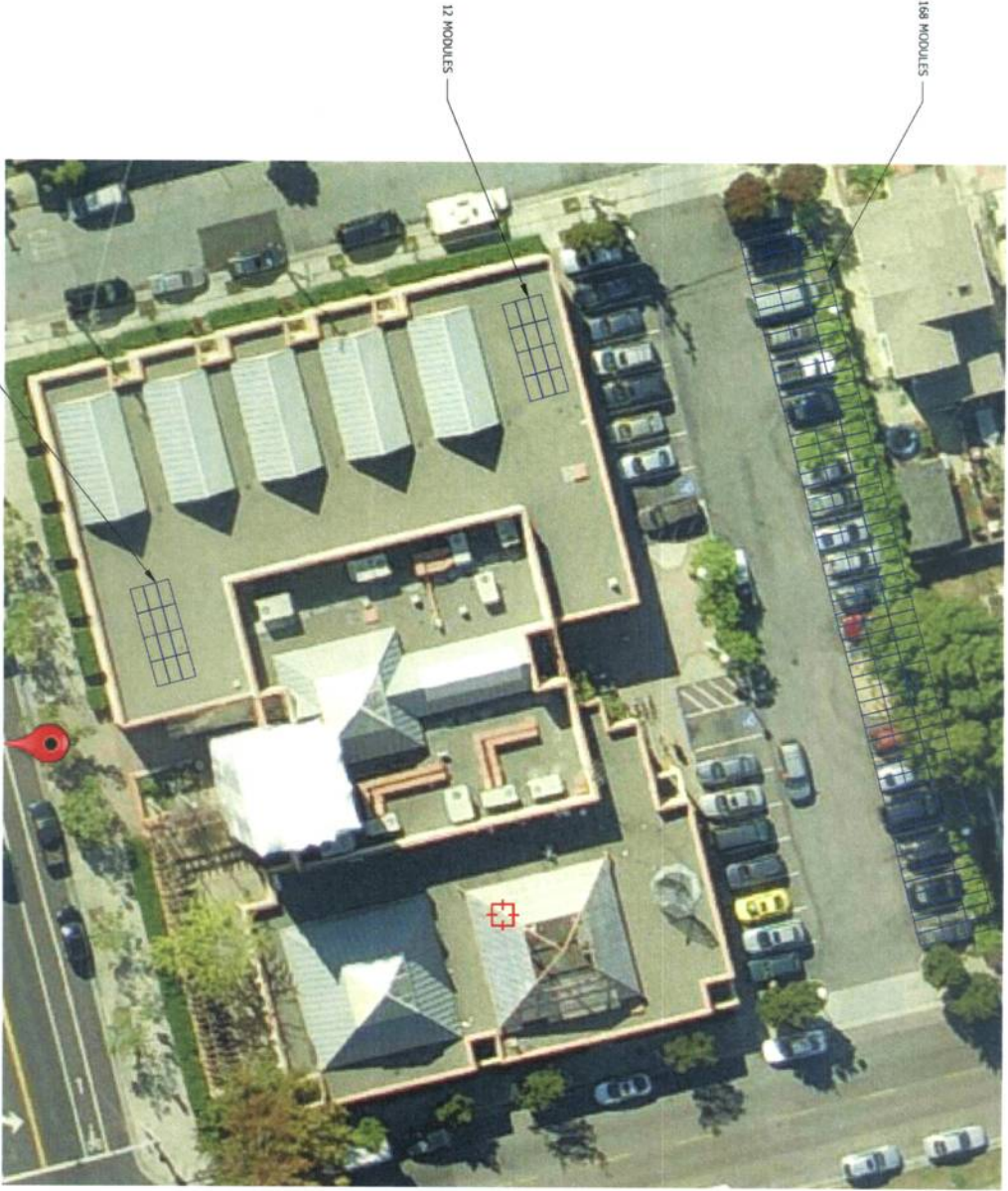
**ALBANY CHILDCARE CENTER**  
 (89) HANNAH 280 PKT 11 MODULES IN  
 (6) STRONG 280 PKT 11 MODULES  
 22 SERVICE

DATE:		
DRAWN BY:		
CHECKED BY:		
APPROVED BY:		
PROJECT:		
SHEET:		
TOTAL SHEETS:		
OWNER:		
DESIGNER:		

**PV0.1**

**CITY OF EL CERRITO**  
 SMALL CITIES CLIMATE ACTION PARTNERSHIP  
**ALBANY CHILDCARE CENTER**  
 900 BUCHANAN ST., ALBANY, CA 94706

**NCA ENERGY**  
 2750 SAN FRANCISCO BLVD., SUITE 100  
 SAN FRANCISCO, CA 94133  
 TEL: (415) 774-1100  
 WWW.NCAENERGY.COM

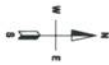


ALBANY COMMUNITY CENTER  
 (195) HANNAH 250 WATT MODULES IN  
 (14) STRINGS OF 12 MODULES  
 52.75KWDC

12 MODULES

188 MODULES

12 MODULES



CITY OF EL CERRITO  
 SMALL CITIES CLIMATE ACTION PARTNERSHIP  
 ALBANY COMMUNITY CENTER  
 1249 MARIN AVE., ALBANY CA 94705

PROJECT: ALBANY COMMUNITY CENTER  
 SHEET: PV0.1  
 DATE: 08/15/2023  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]

NO.	DESCRIPTION	DATE

PV0.1



**Attachment F1**

**DIRECT PURCHASE COST PROPOSAL  
FOR  
DESIGN/BUILD OF PHOTOVOLTAIC SYSTEM INSTALLATIONS**

TO: CITY COUNCIL - CITY OF EL CERRITO, CALIFORNIA

The undersigned declares that he has carefully examined the Request For Proposals and Addenda, the plans and the specifications as available, including all attachments and/or references therein, and is satisfied as to the field conditions he will encounter and hereby proposes to furnish all materials, labor and equipment and to do all work required to complete the work in accordance with the plans and specifications, for the prices set forth in the following schedule (prices shall include all applicable taxes):

**LARGE BUNDLE:**

Bid Item	Description	Quantity (kW-DC)	Quantity (kWh)*	Total Price (\$)	Price (\$/kWh)*
	Solar photovoltaic system to include all materials, labor, equipment, permits, warranties, and monitoring for:				
1	SP01 – San Pablo City Hall	193	245,994	\$912,953	\$3.71
2	SP02 – San Pablo Police Department	126	162,778	\$556,703	\$3.42
3	ELC01 – El Cerrito Public Safety Building	143	182,211	\$612,737	\$3.36
4	ELC 14/15– El Cerrito Community Center Offices and Pools	200	252,053	\$909,683	\$3.61
5	ALB02 – Albany City Hall	120	152,102	\$518,062	\$3.41

\* kWh forecast shall be for one year and must equal CSI-EPBB calculation based on system size (kW-DC), equipment proposed, and system design.

TOTAL BID (\$)           \$2,937,616          

All items are based on an "in-place" condition.

The undersigned further agrees to execute the required contract(s), with necessary bonds, within twenty (20) calendar days of notification that the contracts are ready for signature. Penalty for default shall be forfeiture to the City of El Cerrito of the proceeds of the check or bond accompanying this bid.

In case of discrepancy between the item price and the total set forth for the item, the item price shall prevail, provided, however, if the amount set forth as an item price is



ambiguous, unintelligible or uncertain for any cause, or is omitted, or in the case of unit basis items, is the same amount as the entry in the "total" column, then the amount set forth in the "total" column for the item shall prevail in accordance with the following:

As to unit basis items, the amount set forth in the "total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price.

The foregoing quantities are approximate only, being given as a basis for the comparison of bids and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith but reserves the right to increase or decrease the amount of any class or portion of the work or to omit any portion(s) (this includes complete base bid items) of the work as may be deemed necessary or advisable by the Engineer at the contract price. Price negotiations on the contract prices are optional if the actual amount of work is different from the above estimates by 25 percent or greater.

The undersigned is licensed in accordance with the State of California Contractor's License Law.

License No. 840934  
Class C-46, Gen B  
Expiration Date 6/30/2012

If an individual, so state. If a firm co-partnership, state the firm name and give the names of all individuals or co-partners composing the firm. If a corporation, state legal names of corporation and also names of President, Secretary, Treasurer, and Manager thereof.

Under penalty of perjury, I declare that to the best of my knowledge and belief the representations made herein are true, correct and complete.

SIGNATURE OF BIDDER 

Print or Type Name, Address and Telephone Number:

Kevin H. Johnston, 27 Simms Street San Rafael CA, 831-247-6356  
\_\_\_\_\_  
\_\_\_\_\_

DATED: 2-22-2012, 2011

**Attachment F2**

**DIRECT PURCHASE COST PROPOSAL  
FOR  
DESIGN/BUILD OF PHOTOVOLTAIC SYSTEM INSTALLATIONS**

TO: CITY COUNCIL - CITY OF EL CERRITO, CALIFORNIA

The undersigned declares that he has carefully examined the Request For Proposals and Addenda, the plans and the specifications as available, including all attachments and/or references therein, and is satisfied as to the field conditions he will encounter and hereby proposes to furnish all materials, labor and equipment and to do all work required to complete the work in accordance with the plans and specifications, for the prices set forth in the following schedule (prices shall include all applicable taxes):

**MEDIUM BUNDLE:**

Bid Item	Description	Quantity (kW-DC)	Quantity (kWh)*	Total Price (\$)	Price (\$/kWh)*
	Solar photovoltaic system to include all materials, labor, equipment, permits, warranties, and monitoring for:				
1	SP03 – San Pablo Church Lane Senior Center	34	42369	164,396	\$3.88
2	PDM01 – Piedmont City Hall and Fire Department	21	27,060	\$106,006	\$3.92
3	PDM02 – Piedmont Veteran’s Building and Police Department	18	23,787	\$88,464	\$3.63
4	PDM03 – Piedmont Recreation Center	16	20,518	\$83,603	\$4.07
5	PDM04 – Piedmont Corporation Yard	10	12,948	\$50,650	\$3.91
6	ELC02 – El Cerrito Fire Station #72	27	35,790	\$136,294	\$3.81
7	ELC04 – El Cerrito Public Works Building/Corporation Yard	24	30,717	\$117,055	\$3.81
8	ELC17 – El Cerrito Recycling Center	12	15,340	\$67,483	\$4.40
9	ALB03 – Albany Community Center and Library	53	70,236	\$250,600	\$3.57
10	ALB05 – Albany Childcare Center	26	34,510	\$125,266	\$3.63
11	BER01 – Berkeley West Branch Library	43	55,500	\$192,713	\$3.47

\* kWh forecast shall be for one year and must equal CSI-EPBB calculation based on system size (kW-DC), equipment proposed, and system design.

TOTAL BID (\$)           \$1,380,531

**Attachment F3**

**DIRECT PURCHASE COST PROPOSAL  
FOR  
DESIGN/BUILD OF PHOTOVOLTAIC SYSTEM INSTALLATIONS**

TO: CITY COUNCIL - CITY OF EL CERRITO, CALIFORNIA

The undersigned declares that he has carefully examined the Request For Proposals and Addenda, the plans and the specifications as available, including all attachments and/or references therein, and is satisfied as to the field conditions he will encounter and hereby proposes to furnish all materials, labor and equipment and to do all work required to complete the work in accordance with the plans and specifications, for the prices set forth in the following schedule (prices shall include all applicable taxes):

**SMALL BUNDLE:**

Bid Item	Description	Quantity (kW-DC)	Quantity (kWh)*	Total Price (\$)	Price (\$/kWh)*
	Solar photovoltaic system to include all materials, labor, equipment, permits, warranties, and monitoring for:				
1	ALB01 – Albany Teen Center	8	10,287	\$42,606	\$4.14
2	SP04 – San Pablo Davis Senior Center	6	7,982	\$37,793	\$4.73
3	SP05 – San Pablo Multi-Purpose Building	6	7,982	\$37,793	\$4.73
4	ELC03 – El Cerrito City Hall	4	5,230	\$25,307	\$4.84
5	ELC07 – El Cerrito Canyon Trail Clubhouse	5	6,344	\$31,634	\$4.99
6	ELC09 – El Cerrito Castro Park Clubhouse	4	5,289	\$25,307	\$4.78
7	ELC10 – El Cerrito Fairmont Childcare Center	3	3,877	\$18,981	\$4.90
8	ELC11 – El Cerrito Harding Childcare Center	6	7,562	\$37,961	\$5.02
9	ELC12 – El Cerrito Madera Childcare Center	5	6,540	\$31,634	\$4.84

\* kWh forecast shall be for one year and must equal CSI-EPBB calculation based on system size (kW-DC), equipment proposed, and system design.

TOTAL BID (\$)           \$289,017          

All items are based on an "in-place" condition.