

**TO: HONORABLE CITY COUNCIL**

**FROM: CITY MANAGER DEPARTMENT: PUBLIC WORKS**

**DATE: DECEMBER 18, 2006 CMR:445:06**

**SUBJECT: APPROVAL OF A CONTRACT WITH SPG SOLAR, INC., IN THE AMOUNT OF \$2,648,461 FOR THE INSTALLATION OF PHOTOVOLTAIC (SOLAR) PANELS, TRACKERS AND CARPORTS AT THE BAYLANDS INTERPRETIVE CENTER, MUNICIPAL SERVICE CENTER AND CUBBERLEY COMMUNITY CENTER AS PART OF A PHOTOVOLTAIC DEMONSTRATION PROJECT- CAPITAL IMPROVEMENT PROGRAM PROJECT PE-05001**

**RECOMMENDATION**

Staff recommends that Council:

1. Approve and authorize the City Manager or designee to execute the attached contract with SPG Solar, Inc. in the amount of \$2,648,461 for the installation of photovoltaic (solar) panels, trackers and carports at the Baylands Interpretive Center, Municipal Service Center and Cubberley Community Center.
2. Authorize the City Manager or designee to negotiate and execute one or more change orders to the contract with SPG Solar for related, additional but unforeseen work which may develop during the project, the total value of which shall not exceed \$264,846.

**BACKGROUND**

On May 15, 2003, the City was awarded a grant from the Department of Energy (DOE), in the amount of \$1.4 million with a fifty percent funding match from the Utilities Department's Photovoltaic (PV) Partners program for a total project cost of \$2.8 million. Key objectives of the grant are to install photovoltaic systems at various publicly owned sites in order to showcase the diversity of photovoltaic products that are available to consumers and to educate the public about solar electric technology. In March 2004, a consultant for the U. S. Department of Energy toured a variety of potential sites including the Animal Services Center, downtown Parking Structures, Golf Course snack area, Cambridge Avenue parking structure, the Arastradero Preserve and Fire Station 1. Most of these sites were dismissed because of poor solar orientation, excessive shading by trees or limited public visibility. The three best sites were identified as the Baylands Interpretive Center, Cubberley Community Center and Municipal Service Center (MSC).

On February 22, 2005, Timmons Design Engineers was hired to design the photovoltaic systems for the three sites (CMR:158:05). The proposed designs were later reviewed by the Architectural

Review Board and Planning Commission as part of the site design and review process for a major project. On December 5, 2005, the designs were presented to and approved by the City Council (CMR:438:05).

One goal of the DOE grant is to educate the public about solar energy. Kiosk-type signage explaining how solar energy is produced will be installed at each location. In addition, monitoring hardware will be installed at each site that will link the PV system to the City’s website. This will allow staff and the public to monitor power generation and other features from a computer. This educational component is not part of this project, but will be completed under an existing Utilities Department contract, funded by the PV Partners program.

**DISCUSSION**

**Project Description**

The work to be performed under the contract is for the installation of PV systems at three locations. The three sites are the Baylands Interpretive Center, Cubberley Community Center and the Municipal Service Center. At the Baylands Interpretive Center, a rooftop PV system will be installed and a submarine periscope will be added to enable visitors to view the panels. At the Cubberley Community Center a rooftop PV system and photovoltaic canopy will be installed at buildings G and N. The canopy will generate electricity as well as protect the classrooms from sun and rain. Carports that use PV panels for the roof will be installed in the MSC employee parking lot and seven photovoltaic trackers (which turn to follow the sun) will be installed in the lawn area in front of the MSC.

These installations will generate the first “green” energy sold by the City that is actually generated within the City and will be available to the public as part of the Palo Alto Green Energy program. Producing “green power” locally will reduce costs to the City and participating residents by increasing the availability of photovoltaic energy. Energy produced by the project (225 kilowatts kW total for all three projects or approximately 428,442 kW-hours per year) will be used by the immediate facilities as well as be available for use with the City’s Green Energy Program. As a comparison, a typical single family home would install a 3 kW photovoltaic system to cover most, if not all, of its typical energy use.

**Summary of Bid Process**

Bid Name/Number	IFB 119128	City of Palo Alto Photovoltaic Demonstration Project -
Proposed Length of Project		210 Calendar Days
Number of Bids Mailed to Contractors	20	
Number of Bids Mailed to Builder’s Exchanges	11	
Total Days to Respond to Bid	34	
Pre-Bid Meeting?	Yes	
Number of Company Attendees at Pre-Bid Meeting	14	
Number of Bids Received:	*2	
Bid Price Range		From a low of \$2,648,461 to a high of \$3,167,750

\*Bid summary provided in Attachment B and Certificate of Non-Discrimination in attachment C.

Staff has reviewed all bids submitted and recommends that the bid of \$2,648,461 submitted by SPG Solar, Inc. be accepted and that SPG Solar, Inc. be declared the lowest responsible bidder. The bid is twenty six percent above the engineer's estimate of \$2.1 million. The change order amount of \$264,846 equals ten percent of the total contract. Staff recommends awarding the base bid, \$2,424,443 and alternate #1, \$224,018. Bid alternate #1 will require the installation of an additional 21 kW rooftop array on Cubberley Community Center Building N as recommended and funded by the Utilities Department.

Staff confirmed with the Contractor's State License Board that the contractor has an active license on file. Staff checked references supplied by the contractor for previous work performed and found no significant complaints.

**RESOURCE IMPACT**

In FY 2003-04, the City was granted \$1.4 million by the DOE for photovoltaic installations on public buildings with matching funds provided by the City Utilities Department PV Partners program, with an original estimated project cost of \$2.8 million. On March 16, 2005, the DOE notified the City that due to the federal government's Consolidated Appropriations Act, funding for the grant would be reduced by \$45,527. On November 13, 2006 the U.S. Internal Revenue Service notified the City that it has been awarded up to \$1.5 million in authority to issue Clean Renewable Energy Bonds (CREBs) to finance its share of the project cost, which will reduce the present value of the financing cost by approximately \$0.5 million as discussed in CMR:240:06.

Due to funding reductions and higher construction costs, the revised total project budget is about \$3.2 million, as shown on the table below. The City Utility Department's PV Partners and Palo Alto Green programs have agreed to fund the balance of the project costs. In addition, roofing previously scheduled for a later year will be moved up and will be funded by PF-00006 to avoid removing the newly installed PV units. Funding from the PV Partners program is currently in the PE-05001 budget with the additional amount of \$340,000 being requested as a transfer from the Electric Fund as part of the mid-year budget process. Additionally a mid-year request will be submitted to fund PF-00006 in order to address roofing projects that had been programmed for the current fiscal year. The total project budget and associated funding sources are below:

**Project Budget**

Design	\$ 296,900
Construction	<u>\$2,941,300</u>
Total Budget	<u>\$3,238,200</u>

**Project Funding**

DOE Grant	\$1,354,473
PV Partners	\$1,445,527
Palo Alto Green	\$ 340,000
PF-00006	<u>\$ 98,200</u>
Total Funding	<u>\$ 3,238,200</u>

**TIMELINE**

The project will take seven months to complete. The schedule is highly dependent on worldwide demand for solar panels.

**ENVIRONMENTAL REVIEW**

This project received National Environmental Policy Act (NEPA) approval on June 21, 2006, and is categorically exempt from the California Environmental Quality Act (CEQA).

**ATTACHMENTS**

- Attachment A: Contract
- Attachment B: Bid Summary
- Attachment C: Certificate of Non-Discrimination

**PREPARED BY:**

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