

Board of Trustees Agenda Item

Board Meeting Date: February 7, 2011

Title of Item:

Energy Services Contract for Installation of Photovoltaic Arrays at De Anza College
(Measure C project #251C)

Background and Analysis:

Procurement with Government Code Section 4217

- California Government Code 4217.1 through 4217.17 allows public entities to procure energy services, similarly to professional services, without competitive bidding. While this is allowed, this Code also allows for competitive bidding and the selection of the 'best value' vendor based on experience, type of technology employed, costs, and any other relevant considerations.

The District engaged Newcomb Anderson McCormick, Inc. to develop Request for Qualifications/Proposals (RFQ/P) documents and the associated evaluation guidelines to solicit design-build firms for the delivery of the best value / highest generated electrical output within certain design and cost constraints. The RFQ/P was advertised and a Mandatory job walk was conducted on Dec. 23, 2010. Twenty-three (23) contractors attended the Mandatory job walk. Responses to the RFQ/P from were received on Jan. 18, 2011 from Roebbelen Construction, SolarCity, IES, Chevron Energy Solutions, and Sun Power Corporation. After review, including interviews with representatives of the five firms to determine the proposal with the highest electrical generating output and the most appropriate architectural features that was within the specified budget, it was determined that proposal from Sun Power Corporation is the top ranked proposal.

This installation, as proposed, will provide additional capacity of 1,146 kilowatts in Parking Lots A & B, and 7.68 kilowatts at the Kirsch Center, for a combined total of 1,154 kilowatts, an increase in photovoltaic electrical generation by 182% on the De Anza campus. With this installation complete and operating, the College will have the capacity to generate approximately 3.7 megawatt/hours of power annually from green energy facilities, which represents nearly 40% of the College's annual electrical needs.

A summary of the proposal and the location plan is shown on the attached. The system proposed for Parking Lots A & B will cover much of Parking Lot B and a portion of Parking Lot A. The smaller, educational system will be situated west of the Kirsch Center building and be readily accessible to the Environmental Studies students as an educational component. The proposed Lot A & B system would achieve simple payback within twenty-two (22) years. These systems will be completed as part of the Measure C Project 251C. Funding for the project is available within the project budget.

The Energy Services Contract with SunPower Corporation will be for the amount of eight million seven hundred fifty thousand dollars (\$8,750,000) and final terms and conditions will be negotiated should the Board approve this item. Design is intended to begin in early February and on-site construction set to occur in June through September 2011.

Recommendation: Charles Allen, Executive Director of Facilities, Operations & Construction Management recommends that the Board 1) adopt the attached Solar Services Resolution; and 2) authorize Executive Director Allen to negotiate and execute final terms and conditions for an Energy Services Contract with the SunPower Corporation for the provision of photovoltaic arrays at De Anza College.

Submitted by:	Charles Allen - Executive Director, Facilities, Operations & Construction Management (x6150)
Additional Contact Names:	Tom Armstrong - Director, De Anza College Bond Projects (x8289)
Is backup provided?	Yes

EXECUTIVE SUMMARY

SunPower Corporation appreciates the opportunity to submit the following response to the Foothill-De Anza Community College District's Request for Proposal (RFP) for solar power. We recognize the District's objective in this process is to select the most qualified and competitive provider to maximize savings while utilizing the least amount of space. SunPower sees the combination of our high-performing solar technology coupled with a strong project management team filtered through a well-crafted, competitive procurement process as a strong, winning combination. We believe the District's project will establish a high standard in terms of financial performance, providing an example for school projects throughout the nation.

The following correlates how SunPower's proposed PV System will enable the District to achieve its stated goals:

SunPower PV Technology – Achieve Maximum Energy Production in the Least Amount of Space; Reduce Peak Demand

SunPower is proposing a ~1.146 MW elevated parking tracker system for parking lots A & B, as well as three small demonstration systems to be located adjacent to the Kirsch Center. The parking tracker system will utilize SunPower's T-0 tracking system, a field-tested produce of which SunPower has installed over 200 MW's to date. SunPower's E19 series modules will be mounted atop the tracking system. The combination of the high-efficiency SunPower modules (19.6% efficiency) and tracking technology will help the District achieve the following:

- 1) Highest energy density (energy output (kWh)/square foot)
- 2) Greatest energy output during late afternoon periods, offsetting high peak rates
- 3) SunPower's tracking system covers the entire parking area, including driveways; thereby maximizing energy production in lots A & B.

The cutting-edge technology offered by SunPower will enable De Anza College to fit more PV on its campus in the future, which will help the District get closer to its goal of grid neutrality.

Schedule – Mitigating the Risk of Delays

The schedule for this project is aggressive, especially considering the condensed time for DSA approval, construction, and monthly flea markets. SunPower is uniquely capable of meeting this demanding schedule for the following reasons:

- 1) *Design:* SunPower recently completed a 1 MW elevated parking tracker system for Bakersfield College. Utilizing this DSA-approved design as a basis for the De Anza system will expedite design time and DSA approval times. If selected, SunPower will immediately commence design to ensure DSA submission in March, 2011 with the intent of obtaining DSA approval in June, 2011. This assumes vendor selection in early February, 2011.
- 2) *Procurement:* SunPower has an in-house supply chain team for procuring raw materials. Due to the scale of our projects, SunPower is one of the largest customers of inverter suppliers in the US. SunPower manufactures its own mounting systems and PV modules, which will be manufactured in our Milpitas, California facility. These capabilities will significantly reduce the risk of delays.
- 3) *Construction:* SunPower has a large, in-house team of project and construction managers and subcontractors with experience installing systems under tight summer and CSI rebate deadlines. Sam Pratt, who will oversee the project, and Steve Adelson, who will provide additional project management support on this project, have significant public sector/DSA experience installing parking systems for the likes of Santa Clara Valley Hospital (parking tracker), Bakersfield College (parking tracker), Mendocino College, and Shasta College. SunPower's proposed schedule and

costs incorporate project shut-downs/clean-up on Fridays and re-staging on Monday's to ensure no disruption of monthly flea markets.

Other Critical Factors

Project Team Installations Similar to the Proposed De Anza Project

Sam Pratt, Project Manager

- West Valley College + Mission College – fixed parking systems (in design)
- Applied Materials – parking tracker located in Sunnyvale, CA (completed)
- Santa Clara Valley Medical Center – parking tracker located in Santa Clara, CA (completed)
- Sierra Nevada Brewery – parking tracker located in Chico, CA (completed)

Stephen Adelson, Project Manager

- Agilent Technologies – parking tracker located in Santa Rosa, CA (completed)
- Bakersfield College – parking tracker located in Bakersfield, CA (completed)
- Additional DSA work: Mt. Diablo Unified School District, San Ramon Valley Unified, San Mateo Union HSD, Shasta College

Reliability/Quality

- SunPower's 25-years of experience and proven technology solutions = highest quality.
- SunPower's in-house Operations and Management Team, based in the Bay Area, will ensure the highest reliability and uptime for the District.
- SunPower has over 80 performance guarantee contracts in place and has yet to pay damages on a single contract to date.



Education/Workforce Development

SunPower and its Foundation has trained thousands of solar professionals. We intend to provide our expertise, curriculum programs, and credentials to the Kirsch Center to further our common goal of training future solar professionals.



7.3.10 TECHNICAL PROPOSAL

The specifications for the Kirsch Center have been provided by the District's RFP. Therefore, we will adhere to the technical specifications required by the RFP for the Kirsch Center. The following is a technical description of SunPower's proposed systems:

Proposed System Overview

	Lots A&B	Kirsch Center
kWp (dc) capacity	1,146.88 kWp	7.68 kWp
Expected Year 1 kWhac output	2,298,889 kWh	~13,000 kWh
Expected 25-year kWhac output	54,152,518 kWh	~300,000 kWh
Mounting approach	Elevated tracking system	Canopy, roof, tracking
Layout	Provided in this Section	Provided in this Section
Total PV system area:	128,233 square feet	E19 modules Energy density (fixed systems) = 17 watts/sq ft

Proposed Equipment List

	Lots A&B	Kirsch Center
Modules	SunPower E19 series	SunPower E19 series
Quantity	3,584	8 modules
Inverters	2 SMA 500's	Fronius or similar
Mounting Structures	Elevated parking tracker	Shade, roof, tracker
Tracking system	SunPower	SunPower
Generation Meters	Trimark	Trimark
DAS and Monitoring	SunPower	SunPower

Preliminary Layout of the Systems-Included in CD-ROM

Parking Lots A&B

