



**Contra
Costa
County**

To: Board of Supervisors
From: Brian M. Balbas, Public Works Director/Chief Engineer
Date: June 18, 2019

Subject: HEARING to consider approving ten Power Purchase Agreements with Solar Star Co Co 1, LLC

RECOMMENDATION(S):

OPEN the public hearing noticed, pursuant to Government Code Section 4217.12, on the Power Purchase and Storage Services Agreements (PPA)s with Solar Star Co Co 1, LLC.

RECEIVE testimony, and CLOSE the public hearing.

DETERMINE that the terms of the PPAs are in the best interest of the County.

FIND that the anticipated cost to the County for electrical energy provided under the PPAs over twenty-five years (\$21,350,614 total, based on an average output of 6,162,643 kWh per year) will be less than the marginal cost to the County of electrical energy that will be consumed by the County in the absence of those purchases, which cost is estimated to be approximately \$16,497,946 higher.

FIND that the above project is exempt from the California Environmental Quality Act CEQA Guidelines sections 15301 and 15303 and DIRECT the Conservation and Development Director, or designee, to file a Notice of Exemption with the County Clerk and DIRECT the Public Works Director, or designee, to arrange for the handling fees to the

☒ APPROVE

☐ OTHER

☒ RECOMMENDATION OF CNTY

☐ RECOMMENDATION OF BOARD

ADMINISTRATOR

COMMITTEE

Action of Board On: **06/18/2019** ☒ APPROVED AS RECOMMENDED ☐ OTHER

Clerks Notes:

VOTE OF SUPERVISORS

AYE: John Gioia, District I Supervisor
Candace Andersen, District II Supervisor
Diane Burgis, District III Supervisor
Karen Mitchoff, District IV Supervisor
Federal D. Glover, District V Supervisor

I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: June 18, 2019

David Twa, County Administrator and Clerk of the Board of Supervisors

By: June McHuen, Deputy

Contact: Frank Di Massa,
925.957.2473

cc:

Department of Conservation and Development and the County Clerk for the filing of the Notice of Exemption.

RECOMMENDATION(S): (CONT'D)

APPROVE and AUTHORIZE the Public Works Director, or designee, to execute ten Power Purchase Agreements with Solar Star Co Co 1, LLC in an amount of \$20,097,031 for period of June 18, 2019 through June 18, 2044 for solar generated power, and \$1,253,583 for the period June 18, 2019 through June 18, 2034 for energy storage system services.

FISCAL IMPACT:

Total estimated electricity cost savings from the agreements is \$1,249,321 for the first five years and \$16,497,946 for the twenty-five year term of the PPA. The estimated cost of executing and managing the PPA is \$200,000 which is 100% General Fund.

BACKGROUND:

On July 10, 2018, the Board of Supervisors approved the Public Works Department's Distributed Energy Resource (DER) Plan that calls for the installation of distributed energy resources to include: distributed renewable energy sources such as rooftop and parking lot canopy PV systems and energy storage systems (ESS) to optimally dispatch the stored solar power to reduce PG&E demand and energy charges. The PV and ESS systems will significantly reduce greenhouse gas emissions, a primary goal of the County's Climate Action Plan and the State of California's Global Warming Solutions Act of 2006 (AB32). The PPAs will allow the County to annually purchase an average of six million kWh of electricity from renewable self-generation, thereby reducing GHG emissions by 4,243 MTCO₂e/year.

Through the DER Plan, the Board authorized the Public Works Director to issue an RFQ to select a solar development partner, and through this process the County selected SunPower Corporation based in Richmond, California.

The ten PPAs obligate the County to purchase electricity produced by SunPower's PV systems for 25 years. There is no cost to the County for the installation of the PV systems and SunPower provides all operations and maintenance services to assure that the PV systems are up and running for the term of the contract. The electricity purchase price is set at a below-market rate in year one and the PPA rate remains the same throughout the contract period assuring a hedge on inflation.

Under the terms of the PPAs, SunPower has agreed to participate County's Construction Outreach program and to the sign the County's Project Labor Agreement resulting in the utilization of local union labor and subcontractors for the installation of PV systems and energy storage systems at the following locations:

Roof-Mounted Solar Installations

40 Muir Road, Martinez (DCD)

595 Center Avenue, Martinez (HSD)

597 Center Avenue, Martinez (HSD)
1000 Ward Street, Martinez (Martinez Detention Facility)
50 Douglas Drive, Martinez (Probation)

Solar Parking Lot Canopy Installations

50 Douglas Drive, Martinez (Probation, HSD)
30 Douglas Drive, Martinez (Department of Information Technology)
595 Center Avenue, Martinez (HSD)
4545 Delta Fair Boulevard, Antioch (EHSD)
4549 Delta Fair Boulevard, Antioch (EHSD)
1305 MacDonald, Richmond (EHSD)
2350 Arnold Drive (Insurance and Risk Management)

Energy Storage System Installations

1000 Ward Street, Martinez (Martinez Detention Facility)
595 Center Avenue, Martinez (HSD)
2350 Arnold Drive (Insurance and Risk Management)

Buy-Out Provision

Starting at year six of the PPAs, the County has the option to purchase any or all of the PV systems at a fixed or fair-market price whichever is higher, and thereafter pay no cost for the electricity produced by the purchased PV systems. This buy-out provision will enable the County to evaluate the benefits of ownership versus continuing with the PPA based on past performance, cost of ownership, and changes in electricity rates between the PPA and PG&E/MCE.

Tree Removal

Limited removal and or trimming of native and non-native landscape trees and shrubs will be necessary to install the parking area arrays and ensure the arrays are not shaded by vegetation. Potential tree removal includes approximately: four trees at 1305 MacDonald Ave, twenty-seven small parking lot trees at 50 Douglas Drive, six trees at 595 Center Avenue, nineteen trees at 4545 Delta Fair Boulevard, and seven trees at 4549 Delta Fair Boulevard. Permission from the City of Richmond will be obtained prior to tree removal at the 1305 MacDonald Avenue location.

Energy Storage Systems (ESS)

Energy Storage Systems will be installed at 1000 Ward Street, Martinez, 597 Center Avenue, Martinez and 2530 Arnold Avenue, Martinez. ESS are large lithium ion batteries that charge up with solar power in the morning and discharge throughout the day to keep peak power demand down thus reducing demand charges which often constitute a significant portion of the PG&E and MCE electricity bill.

Further, beginning in November, 2019, the PG&E/MCE summer “peak” period, characterized by higher rates, will shift to later in the afternoon. Currently, in the summer, the highest demand (kW) and energy (kWh) charges occur from noon to six PM. Starting

in November, 2019, the peak period will shift to 4PM through 9PM. This creates an energy arbitrage opportunity for stored solar energy which can be used to offset these expensive after-hours kilowatt-hours providing further cost savings. The storage systems are fully self-contained and will be installed outside of the buildings on a concrete pad with a footprint of 13.5'x11' and enclosed within a chain-link fence with a lockable gate.

Savings Guarantee Agreements

Solar Star Co Co 1, LLC provides a Savings Guarantee associated with each of the three Energy Storage Systems. The Savings Guarantee has two components: a Guaranteed Demand Savings (associated with kW) and a Guaranteed Energy Savings (associated with kWh). The Guaranteed Demand Savings is a specific dollar amount calculated over a twelve billing cycle (a billing cycle is approximately one month) term. The Demand Savings Guarantee is determined by subtracting a calculated figure based on the cost the County would have paid for demand charges using historic demand data and current PG&E/MCE rates from the actual demand charges for the billing period.

A similar approach is used to calculate the Guaranteed Energy Savings. The sum of the Demand and Energy comprises the full annual Guaranteed Savings amount.

PV System Performance Guarantee

The PV System Performance Guarantee is a way to assure that the PV systems are performing at the expected level and if they do not for any reason the County suffers no loss. The expected energy production from each system is determined through modeling. The PV System Performance Guarantee assures that every year the system will produce at least 90% of the expected energy and if it does not the County is paid the avoided energy price times the kWh deficit.

Indemnification

Under the PPAs, the County agrees to indemnify and defend Solar Star Co Co 1, LLC against (1) liens the County creates on the PV systems; (2) losses caused by County's negligence or willful misconduct at the PV Sites; and (3) County's breach of the PPAs.

CONSEQUENCE OF NEGATIVE ACTION:

The solar PV and ESS systems would not be installed and it would be more difficult to achieve a reduction in greenhouse gas emissions. Also, the County would lose the opportunity to achieve an average of \$609,000 annual energy cost savings.

ATTACHMENTS

CEQA

PPA with PV Only (30 Douglas)

PPA with PV Only (1305 Macdonald)

PPA with PV Only (4545 Delta)

PPA with PV Only (4549 Delta)

PPA with PV Only 30 Muir

PPA with PV Only 50 Douglas

PPA with PV Only 597 Center Ave

PPA with Storage (2350 Arnold)

PPA with Storage 595 Center

PPA with Storage 1000 Ward St

SGA 595 Center Ave

SGA 1000 Ward St

SGA 2530 Arnold