

## Staff Report

DATE: June 15, 2010

TO: Utilities Commission

FROM: Cari Dale, Water Utilities Director

SUBJECT: **RECOMMEND APPROVAL OF A POWER PURCHASE AGREEMENT AND SITE LEASE AGREEMENT FOR THE SAN LUIS REY WATER RECLAMATION SOLAR PHOTO-VOLTAIC SYSTEM LOCATED AT THE SAN LUIS REY WATER RECLAMATION FACILITY**

### **SYNOPSIS**

Staff and the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve a 20-year power purchase and site lease agreements with SunEdison of Beltsville, Maryland for the San Luis Rey Water Reclamation Solar Photo-Voltaic system; and authorize the City Manager to execute the agreements.

### **BACKGROUND**

The proposed project will produce an alternative source of energy for the San Luis Rey Water Reclamation facility. The goal is to enter into a Power Purchase Agreement (PPA) so the City will have a secure energy source alternative that will be below the cost the City would spend for that same amount of energy purchased from San Diego Gas & Electric (SDG&E) over the life of the PPA. In addition to this endeavor, the City also gains and owns Renewable Energy Credits. The solar-voltaic system will offset 1,339 metric tons of carbon dioxide annually, equivalent to greenhouse gas emissions from 256 passenger vehicles.

A community forum was scheduled for June 9, 2010. Staff sent approximately 450 mailers to the surrounding property owners. A press release was issued. The community forum had 10 attendees including 2 members of the utilities commission. The majority of the public questions were related to the proposed project's capacity, operations and maintenance, and security issues. All questions were answered by the representatives from SunEdison and city staff.

## **ANALYSIS**

Over the past year, staff has investigated opportunities to implement the use of solar panels to generate approximately 25 percent of the energy needed to operate the City's San Luis Rey Water Reclamation facility. Two main implementation options have been investigated. One is to design, build, and own our own solar panel generation facility. The second option is to negotiate a "Power Purchase Agreement." The difference between the two options is the first option requires the City to fund, own, and operate the facility. In the second option, the City negotiates a cost per kilowatt hour (kWh) for energy produced by the facility, which is designed, built, owned, maintained, and operated by the entity the PPA is entered into with. The PPA is economically favorable and the fair market value of the leasing of the real property subject to the PPA and Site Lease is anticipated to be offset by the value of the savings of the energy purchased under the PPA.

In February 2010, staff solicited Requests for Proposals from 14 solar energy services providers; 3 proposals were received. The proposals were reviewed by staff and SunEdison was selected as the best company for this project. The Water Utilities Department, on behalf of the City began negotiations with SunEdison to develop a PPA acceptable to the City and an investor. The investors are large financial institutions that fund the project and will have the PPA assigned to them. The investors utilize federal tax credits, accelerated depreciation schedules, and State solar incentives to make the project financially viable.

The basic terms of the PPA are as follows:

1. The term is 20 years. At the end of the 20 years the City has the option of:
  - a) Purchasing the system at the then fair market appraisal as determined by an agreed upon appraiser; or
  - b) Requesting the system be removed; or
  - c) Negotiating a new cost/KWh for energy produced for an additional 5 to 10-year period.
2. The City will lease to SunEdison an approximately 10 acre space. The lease terminates at the end of 20 years.
3. SunEdison will prepare all designs and obtain all necessary permits, except the solar incentive, to construct the project, including all coordination with SDG&E.
4. The project will produce at a minimum approximately 25% of the treatment plant's current energy requirement.
5. The solar panels have a 25-year warranty that specifies 80% efficiency or greater throughout the 25-year period.
6. The City is obligated to purchase all power produced by the project.
7. SunEdison is obligated to own, operate and maintain the solar system facility.
8. The City will assign its California Solar Incentives (CSI) funding rights to SunEdison.

9. The City will pay \$0.1250/KWh for all energy produced for a 20-year period with a 3% escalator annually.

The net savings of the project over 20 years is estimated to be approximately \$1,195,593. Assumptions used in the financial analysis include:

1. SDG&E average rate for the City in 2009 was \$0.1357/kWh.
2. SDGE rates will escalate at 3% annually over the 20-year term.
3. A 20-year term.

If approved by all parties, it is anticipated the project would be commissioned prior to the end of 2010.

SunEdison on behalf of the City will submit an application to secure California Solar Incentives and pay the approximately \$15,000 application fee required to apply for the incentive. The project is for a 1 Mega Watt AC (MW) facility, which is estimated to generate approximately 25% of the energy currently used at the San Luis Rey Water Reclamation facility.

Based on the current site conditions, staff anticipates adoption of a Mitigated Negative Declaration (MND) in compliance with all California Environmental Quality Act requirements for the proposed solar energy project. The solar energy project, as described in the MND, is to construct a 1 MW solar power facility comprised of a solar panel array on approximately 10 acres located within the boundary of the City's San Luis Rey Water Reclamation facility. A space utilization plan has been reviewed carefully confirming that with construction of the proposed solar energy project there is also sufficient space to accommodate any future expansion of the treatment plant. The final draft of the PPA will be reviewed by the City Attorney which could point out changes between the draft and final agreements. It is anticipated the only modifications between the draft and final agreement will be non-substantive.

### **FISCAL IMPACT**

The Fiscal Year 10-11 proposed budget for the Miscellaneous Sewer Projects (909978000722.5355) fund is \$1,000,000; the specialized legal review of the PPA is approximately \$5,000-15,000. The potential total project expenditure to the Water Utilities Department is approximately \$15,000. Therefore, adequate funds will be available.

### **INSURANCE REQUIREMENTS**

The City's standard insurance requirements will be met.

### **COMMISSION OR COMMITTEE REPORT**

The Water/Sewer Committee approved staff's recommendation at its regularly scheduled meeting on May 11, 2010.

On May 18, 2010, the Utilities Commission recommended that staff renegotiate the power purchase agreement based on not exceeding future increases by San Diego Gas and Electric.

The alternative utility rate offered by SunEdison was a floor-based utility-index approach that basically guarantees the power purchase agreement rate will stay 2% under the San Diego Gas and Electric utility rate for the duration of the power purchase agreement. The starting power purchase price from SunEdison would be \$0.16 per kilowatt hour and therefore, is not being recommended for inclusion in the power purchase agreement. This option also has the risk of utility rate increases that may significantly exceed what the City would have otherwise paid under the original SunEdison power purchase agreement and the utility would not realize a savings until year 10 of the project.

### **CITY ATTORNEY'S ANALYSIS**

The documents are being reviewed by the City Attorney's office.

### **RECOMMENDATION**

Staff and the Water/Sewer Committee recommend that the Utilities Commission recommend that the City Council approve a 20-year power purchase and site lease agreements with SunEdison of Beltsville, Maryland for the San Luis Rey Water Reclamation Solar Photo-Voltaic system; and authorize the City Manager to execute the agreements.

PREPARED BY:

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