

**CITY OF ALBANY
CITY COUNCIL AGENDA
STAFF REPORT**

Agenda Date: September 6, 2011

Reviewed by: BP

SUBJECT: Cooperative Agreement with interested cities to jointly solicit proposals for the procurement of municipal solar power

REPORT BY: Nicole Almaguer, Environmental Specialist

STAFF RECOMMENDATION

That the City Council adopt 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.

BACKGROUND

In January 2010, the City of Albany - in partnership with the cities of El Cerrito, Piedmont, and San Pablo, and the non-profit Strategic Energy Innovations (SEI) - was awarded funding from the United States Environmental Protection Agency's Climate Showcase Communities (CSC) Program to collaboratively pursue a variety of climate protection and energy management activities. Entitled the *Small Cities Climate Action Partnership* (ScCAP), the central premise of the grant proposal was to create a model in which small cities would pool staff and consultant resources to support the implementation of common greenhouse gas emissions reduction activities, while also supporting each jurisdiction to advance individual emissions reduction activities and climate action planning.

As part of ScCAP's emissions reduction program, the partnership, with SEI acting as the lead, worked with an independent solar consulting firm, Optony Inc., to evaluate the technical and economic feasibility of installing solar photovoltaic (PV) on city facilities. The criteria for site evaluation included financial feasibility, electricity usage at the site, physical space available for PV installation, accessibility of the site for construction, existing conditions at the site including age of the building and structural and electrical limitations, planned renovations, as well as surrounding vegetation and other shading concerns.

A total of twenty-five sites (out of 32 evaluated) were deemed to be technically and economically feasible for solar PV installations. Per the feasibility study, total renewable energy generation from the 25 buildings is estimated to be over 1 megawatt (MW), which would generate over 1.3 million kilowatt hours (kWh) per year and reduce our collective

GHG emissions by 383 tons (US) of carbon dioxide equivalent (CO₂e). The following is a breakdown of the number of sites analyzed at each jurisdiction:

- Albany – 5 evaluated; 4 selected (Childcare Center, City Hall, Community Center and Teen Center. The Senior Center was not selected given future plans for renovation)
- El Cerrito – 17 evaluated; 12 selected
- Piedmont – 4 evaluated; 4 selected
- San Pablo – 6 evaluated; 5 selected

In total, solar at the Albany sites would offset an estimated 267,135 kWh per year, and provide an annual reduction of 63 tons of CO₂e. The first year utility bill savings is estimated to be \$55,698 with savings over the 25-year life of the systems estimated at \$2.5 million. This annual electricity savings is equal to 56% of the City's annual electricity bill. A summary of the site analysis findings is included as an attachment to this staff report.

Project Aggregation

In addition to providing a comprehensive inventory of the solar PV potential of municipal buildings for each city, analysis was conducted to identify the feasibility of aggregating the projects across all the cities to jointly solicit the best terms in procuring solar power. Collaborative municipal procurement of solar energy is being pioneered in several regions across the nation. Most notably, Santa Clara County recently led an effort with other municipalities within the County to procure, through a variety of financing mechanisms, over 14 MW of solar power. Project outcomes have demonstrated that collaborative purchasing has multiple benefits including savings due to site aggregation, administrative cost savings, and highly competitive contract terms.

Further, given that all four cities have expressed interest in solar procurement for their own facilities, staff in all the cities felt that a collaborative procurement strategy would help each city decrease project and administrative costs, while providing a collective process that would help each city negotiate the best possible project terms.

DISCUSSION

There are various financing methods commonly available for solar installations. As described below, each method has different advantages. The solicitation will be designed to encourage as many of these options as possible.

1. Direct Purchase – Each city would purchase the system outright. In this situation, each city would be responsible for all ownership concerns, including Operations & Maintenance, regular system cleaning, and monitoring of system production. In many situations, this may yield the greatest long-term returns, but requires cash up-front and operational costs.
2. Loan/Lease – Instead of paying for purchase costs up-front, the City would pay a third party on a monthly basis over 10 to 20 years. In some arrangements, the City would be responsible for all ownership concerns, just as with a Direct Purchase.

Solar vendors commonly provide terms for lease/purchase of their equipment. City-issued bonds or renewable energy bonds would also fall into this category.

3. Power Purchase Agreement (PPA) – The City would 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 is more commonly available to large commercial projects.
4. Energy Services Company (ESCO) – A third party would install a PV system on property owned by the City and recover costs of materials and installation through energy payments made by the City. These energy payments are often figured as a percentage of the energy savings realized by the City. The ESCO would own and maintain the system and bear all the costs and risks of ownership.

In order to proceed towards collaborative procurement of municipal solar PV, the first step is to execute a Cooperative Agreement between the participating cities, outlining the roles and responsibilities of each city and the terms governing the procurement process as it moves forward. A draft Agreement for Cooperative Purchasing of Solar Power is provided an attachment to this staff report.

It is important to note that the Cooperative Agreement only binds the City to participate collaboratively with the other cities in issuing solar power procurement process and to evaluate the proposals resulting from that process. It does not obligate the City to purchase solar power.

The City of El Cerrito has agreed to serve as the lead in the collaborative procurement process (developing and issuing the request for proposals) given that they have almost as many potential solar projects as all the other cities combined. Given the breadth of procurement, lease, and financing options currently available for solar projects, a Design/Build RFP/RFQ will provide the greatest flexibility in soliciting and evaluating the vendors that provide the best value (i.e., the most reliable technology for the lowest cost per kWh). Additionally, each city may also want to retain the option to install some or all of their systems through direct purchase or loan financing. As such, the solicitation process should also be consistent with procurement requirements under the Public Works Code. The Design/Build process will satisfy both of these needs.

SUSTAINABILITY IMPACT

Conducting this project would help satisfy Measure BE-1.1 of the City's Climate Action Plan which calls for installation of cost effective renewable energy systems on all City buildings. Additionally, the collaborative procurement of solar energy is an innovative approach to overcome traditional barriers to adopting solar energy in the public sector such as high capital and transactional costs.

FINANCIAL IMPACT

There are no costs associated with authorizing execution of the attached Agreement for Cooperative Purchasing of Solar Power. This authorization allows the City to participate collaboratively in issuing a joint solicitation for the purchase of solar power. Consultant costs associated with developing the solicitation and assisting in the evaluation of proposals will be entirely covered by the ScCAP grant. Should the solicitation result in proposals with terms where all or some of the proposed solar projects in Albany demonstrate a favorable financial return on investment, staff will bring the winning bids to the City Council for consideration.

Attachments

1. Summary of the site analysis findings
2. Draft Agreement for Cooperative Purchasing of Solar Power
3. Resolution No. 2011- 42