



CITY OF BEVERLY HILLS STAFF REPORT

Meeting Date: November 30, 2010
To: Honorable Mayor & City Council
From: Alan Schneider, Director of Project Administration
Subject: Solar Energy For City Buildings Project Report
Attachments: None

INTRODUCTION

This report provides an update and a recommendation for the solar energy project for City buildings. Staff has submitted an agenda report for the City Council's formal consideration at the November 30, 2010 meeting recommending the approval of agreements with a solar integrator (contractor) and finance entity to proceed with the design, construction and installation of a solar system.

DISCUSSION

On July 8, 2010, staff presented to the City Council a report on developing a renewable energy program through installation of photovoltaic energy systems at selected City facilities. The City Council directed staff to review the project with the Technology Committee. The following summarizes the discussion and suggestions made at the Technology Committee meetings:

- City consultant, Francis Krahe & Associates (FKA) provided an overview of their Solar Feasibility Study and the Request for Proposal (RFP) which was issued earlier this year. The Feasibility Study assessed each property's potential for solar systems installations. Several factors were considered: (1) usable roof areas, (2) available sunlight, (3) roof/ waterproofing condition, and (4) on-site electrical demand and consumption. It was also noted that the cost of solar panels has decreased in the last 12 months.
- The primary benefits of a solar photovoltaic system are (1) hedge against dramatic utility rate increases, (2) reduction of CO₂, (3) to reduce utility payments, and (4) consistent with the City's sustainable plan adopted in 2010 toward reduction of its carbon footprint. The cost of these systems is such that they do not necessarily result in dramatic net financial savings but provide an implementation tool of the City's "green" strategy.

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- A summary of the 12 proposals received for six City sites was reviewed. The sites were the Library, Police Facility, Public Works and Water Treatment Plant, Fleet Services Center, Third Street parking garage and Civic Center parking garage.
- The following points were highlighted concerning the financial aspects of the proposals:
 - Proposals that submitted a Power Purchase Agreement (PPA) did not produce beneficial financial structures for the City. All of the PPA proposals had a base utility rate of \$0.13/kWh to \$0.24/kWh. This rate is greater than the current average utility rate (\$0.11/kWh) charged for the Library. The PPA's also had a fixed annual escalation of 4% to 6% for 20 years or more.
 - All proposals except for one yielded a negative cash flow when escalated utility rates were utilized.
 - One proposal from Sun Light & Power presented a neutral cash flow by taking advantage of a new utility rate structure designed for Renewable Energy systems. This rate has no demand charge but has higher mid-and-off peak rates. Another advantage of this proposal was that it combined the solar arrays of the Police Facility, Library and Civic Center garage connected to the Library/IT power center to exceed the minimum 15% renewable energy generation for the "R" type Utility rate. The Library electric meter is currently on a Time of Use General Service rate structure and would be changed to a Renewable Energy meter rate.
 - It was also noted that certain incentive and rebate programs will be reduced as certain capacity is reserved or eliminated at the end of the calendar year. The two programs cited are the California Solar Initiative (CSI) which steps to a lower rebate level once a certain capacity is met. The program is currently at Step 7, which is a tiered system based on a diminishing allocation of funds for solar projects. The other program, which is due to expire at the end of 2010, is the Federal Tax credit (30%). This credit is not available to the City, but is available to private taxpaying entities, which can incorporate the savings into the economics of the deal.

Recommendations from the Technology Committee meetings included:

- 1) Limit the scope of the project at this time to 3 building locations to reduce the risk; prepare the City for future expectations of similar solar projects; provide the City with experience in renewable energy projects; and allow for future technology to evolve for greater efficiency at lower cost.
- 2) Focus on respondents who exceed an appropriate threshold technologically and in experience and customer service. This moves the focal point on selecting a firm on the best financial deal.
- 3) The three contractors for this final proposal are (1) Sun Light & Power, (2) DRI Energy and (3) Petersen Dean. It was also recommended that these proposals be reviewed with the City's Finance staff for evaluation and

consideration of whether it would be less expensive if the City financed the purchase with bonds.

Updated proposals were received from the three contractors, which are described in the following chart. Sun Light & Power again was the only provider to offer a “no capital cost” lease option in addition to the purchase option offered by the others. DRI Energy has the lowest estimated system cost, however, it would require an initial City capital outlay of \$2,039,242 or more.

	Sun Light & Power	DRI Energy	Petersen Dean
System Cost	\$2,282,876	\$2,039,242	\$2,340,765
Estimated Savings	\$126,690	\$76,407	\$107,000
Financial Proposal	Lease with 5 th or 8 th Yr Purchase Option (8 yr = \$943,397)	PPA at \$0.1879/kWh	15 Yr. Lease with \$536,000 Pre-Pay and Buyout Options

FISCAL IMPACT

The primary goal of the RFP process was to achieve the most cost effective solar energy system, through the most desirable financial terms for the City. \$2.64 Million is budgeted in the FY 2010-11 Capital Improvement Program (CIP), of which \$2.4 Million in funding was estimated to be provided by grants, energy savings, rebates and provider financing.

The options to finance this project were discussed with the City’s Chief Financial Officer and Assistant Director of Administrative Services/Finance. The finance options came down to 1) the City financing the purchase of the solar energy system for approximately \$2.3M through bonds or a loan from City reserves or 2) accept the proposal from Sun Light & Power to lease the system at no/low direct City expense with a buyout of \$943,397 in year 9 or an alternate early buyout in year 6. Various City financing options would be available to set aside sufficient money every year to cover the early buyout cost.

From a purely financial return perspective the bond option is not desirable because the \$2.3 million system size is too small to efficiently offset the cost of issuance. If reserves were to be used, the financial return would be highest of all available options; however, the City Council has recently confirmed the desire to hold reserves for emergencies. Staff therefore is recommending the best available deal with a focus on limiting capital outlay with the provider offering a nearly cost neutral plan where the lease payments would be sculpted to match the anticipated energy savings and rebates over time. This approach reflects the funding plan contemplated in the FY 2010-11 budget.

The Sun Light & Power proposal includes the financing entity, New Resource Bank. A lease agreement with New Resource Bank provides the capital funds for the design and installation costs incurred by Sun Light & Power. Sun Light & Power and New Resource Bank would also qualify for the Federal Tax Credits that cover approximately \$684,000 from the total cost of the system and offsets the City’s lease payments. The Tax Credit application process has been investigated and it seems fairly certain that this program will qualify. However, to address the unlikely possibility that we do not qualify for the Tax

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Credit, a pre-negotiated approach has been developed under which all three parties (Sun Light & Power, New Resource Bank and the City) would reduce financial return in order to proceed with the project. The City would pay \$359,838 more in year 8 acquisition costs, with annual payments held to the same sculpted level as the base program if we did not get the \$684,000 Tax Credit. Some concern has been raised over the profitability of this proposal to New Resource Bank because the proposed financing, including the Tax Credits has an internal rate of return of over 6%. However, their proposal has the greatest net present value of savings for the City.

RECOMMENDATION

It is recommended that the City Council approve an agreement with Sun Light & Power to design, build and install a photovoltaic solar energy system combining solar arrays at the Police Facility, Library and Civic Center garage. It is also recommended that a Solar Energy Lease with New Resource Bank be approved to finance this project. Sun Light & Power has been in this business for over 34 years and has solid references. The other top candidates in the RFP process have extensive track records as roofing companies, but only 4-5 years of experience in the installation of similar solar panels systems. The Sun Light & Power agreement and New Resource Bank solar energy lease documents have been submitted for approval at the November 30, 2010 City Council regular meeting formal agenda.


For David Gustavson
Approved By
