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**CITY OF TEMPE  
REQUEST FOR COUNCIL ACTION****Council Meeting Date: 01/29/2015  
Agenda Item: 6A2**

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**ACTION:** Approve the award of a 20-year Solar Services Agreement with SolarCity Corporation for the development, construction and maintenance of three solar photovoltaic electric generating systems to be installed at the Tempe Public Library complex.

**FISCAL IMPACT:** The total combined cost of the 20-year Solar Services Agreement, also known as the Power Purchase Agreement, is estimated at \$2,944,041. This cost estimate is based on using SolarCity's guaranteed 20-year cost per kilowatt hour for the Tempe Public Library (\$0.077), History Museum (\$0.083), and Pyle Adult Recreation Center (\$0.0990) and multiplying it by the estimated kilowatt hour production of the proposed solar systems over the 20-year period. No capital funds will be used to pay for this project. All funds to pay for this agreement will come from established budgets for electricity expenses.

**RECOMMENDATION:** Approve the contract award to SolarCity Corporation for the 20-year Solar Service Agreement at the Tempe Public Library complex.

**BACKGROUND INFORMATION:** This library solar proposal as presented has no upfront capital costs with the assumptions that: (1) SRP grandfathers this project in when they rule on net metering rate changes on February 26 and that (2) the design remains the same as currently proposed, basic. However, based on Council feedback over the past several years, there are instances where a more desirable aesthetic and multi-use functionality is desirable, similar to the "Power Parasol" installations ASU has near their Baseball/Track complex and the Gammage. In order to address potential financial pro-forma challenges and supplemental funds for architectural/aesthetic upgrades for the special event area, staff will be proposing \$200,000 of capital funds in the 2015/16 DRAFT CIP. Staff recommends approval of this project as a placeholder to have a better chance at grandfathering of this project prior to any SRP rule changes.

An inter-departmental staff committee met several times over the last several months to discuss design criteria, layout, and timeframe for the planned solar project located at the Tempe Public Library complex that includes the roofs of the Library, History Museum and surrounding parking areas. On October 13, 2014, staff issued a request for pricing to the four firms (shown below) on the City's approved solar supplier short-list:

Request for Pricing Issued to:

Gehrlicher Solar  
Green Choice Solar  
Oak Leaf Energy Partners  
SolarCity Corporation

As part of the request, staff supplied the approved solar companies with design criteria, bills for the previous year, site plans and roofing plans. Staff met with the approved firms and walked the site and discussed the importance of solar structures being set back from residential areas and having a low profile in those areas, providing covered spaces for ADA parking, and allowing for clearance up to 20 feet high for delivery and refuse trucks on the eastern side of the property for access to the recycling area. Also, staff requested the solar companies provide a large shaded event space in the parking area between the Pyle Adult Recreation Center and the History Museum to accommodate special events, farmer's markets and food trucks. The City issued several addendums in response to supplier questions.

The City received offers on December 6, 2014 from the following firms:

SolarCity Corporation  
Oak Leaf Energy Partners

Two of the approved solar providers (Green Choice Solar and Gehrlicher Solar) declined to participate. It is important to note that the proposals were based on SRP's solar rates at that time, which assumed two of the three meters at the library complex would be net metered. During that same week, SRP presented a solar rate change proposal and said that commercial projects would no longer be net metered but would be placed on a buy-back rider. Net metering allows customers to get full retail rate for excess power generated by the system. Customers can bank the excess energy and get full credit for future energy. If approved, the SRP proposal would put commercial customers on a buy back rider in which SRP will give wholesale credit for excess power instead of retail credit. The SRP Board will take public comments and will make a final decision on solar rates and a 3.9% rate increase on February 26, 2015. SRP staff said solar projects that are installed or have signed agreements before December 8, 2014 would be grandfathered.

Evaluation of Offers

The evaluation committee made up of staff representing Public Works and Internal Services worked with a utility consultant (Kent Simer of K.R. Saline & Associates) to review the offers in accordance with the following evaluation criteria:

Evaluation Criteria:

- Cost .....40%
- Design Proposed.....30%
- Quality of Solar Panels/Inverters.....10%
- Construction Implementation Schedule.....10%.
- Performance Guarantee, Monitoring/Maintenance.....10%

The following table shows each firm's proposed design size (kW DC), per kWh cost, and evaluation score:

Firm	Tempe Public Library		History Museum		Pyle Adult Rec Center		Annual Escalator	Evaluation Scores
	Size kW DC	Cost per kWh	Size kW DC	Cost per kWh	Size kW DC	Cost per kWh		
Oak Leaf Energy Partners	1,148	\$0.10	402	\$0.10	83	\$0.10	2%	734
SolarCity Corporation	594	\$0.077	387.30	\$0.083	78.8	\$0.099	0%	940

As the above table shows, SolarCity Corporation has offered the more competitive pricing that includes no price escalator throughout the 20-year term. Oak Leaf Energy Partners offered a larger system size and higher pricing that includes a two-percent annual escalator. The committee scored the proposals in accordance with the above criteria. The total scores are shown above in the far right column.

The energy consultant assisted the committee in preparing a very detailed cost analysis that includes estimates of the 20-year net present value savings using a variety of utility scenarios with the addition of solar at the three meters at the Tempe Public Library site. These three meters include the Tempe Library, History Museum & Edna Vihel Center (both buildings are on one meter) and the Pyle Adult Recreation Center. The pricing analysis reveals that there are no 20-year net savings associated with the Oak Leaf Energy Partners proposal under any of the scenarios listed. The analysis does show 20-year net savings with the SolarCity proposal under most of the scenarios listed.

The consultant's pricing analysis has been included as an attachment to this action. Due to the uncertain outcome of the proposed SRP solar rate changes, staff directed the consultant to run a number of scenarios that would display 20-year costs as determined by different decisions that could be made by the SRP Board that includes:

- No change in Net Metering based on current rates
- No change in Net Metering and approval of proposed rate increase (3.9%)
- Elimination of Net Metering (replaced with a buyback provision) based on current rates
- Elimination of Net Metering (replaced with a buyback provision) and approval of proposed rate increase (3.9%)

This award recommendation is based on the second bullet point scenario noted above that represents no change in net metering and approval of a 3.9% rate increase. Reviewing the attached Cost Benefit Analysis for SolarCity's price line for the History Museum (line titled "Net Metered – Proposed Rates (Grandfathered) the analysis shows an estimated 20-year NPV savings for the History Museum and Edna Vihel Center buildings of \$214,014. The estimated 20-year NPV savings for

the Pyle Adult Recreation Center is \$15,977. The library inverter is over 300kW and is not eligible for net metering but the site still manages to generate a 20-year NPV savings of \$88,155. Combined NPV savings over the 20-year period for all three systems is estimated at \$318,146. These projected savings are based on applying a 3.6% per year inflationary increase to the traditional cost of electricity. The SolarCity cost per kWh for the three systems is a guaranteed flat rate that will not increase over this 20-year period. Importantly, the above calculations are based on two key assumptions: 1) there will be no change to the current net metering conditions and 2) approval of the proposed 3.9% Salt River Project (SRP) rate increase.

Based on the consultant's analysis, the three SolarCity systems would still provide some minor savings or break even without net metering. However, as shown with the continuation of net metering there would be more savings over 20 years even with a 3.9% SRP rate increase.

Staff recommends approval of SolarCity's proposal as determined to be the most advantageous offer that generates the greatest cost savings based on the expectation that SRP will grandfather net metering at the History Museum and Pyle Adult Recreation Center and approve a 3.9% rate increase. If the SRP Board elects not to grandfather this project, staff believes there would still be minor savings but more likely a break even result. In the event the SRP Board declines to grandfather this project, staff will return to Council in the near future with additional analysis and options to consider. Once the 1 Megawatt library project is complete, the City would meet the first milestone toward the 20% by 2025 renewable energy goal, with 5% of City operations powered by renewable energy.

After careful consideration the evaluation committee is recommending that Council award a 20-year SSA with SolarCity Corporation for the installation of solar photovoltaic systems at the Tempe Public Library Complex based on the expectation the SRP Board will grandfather this project to preserve net metering at the two eligible buildings. If approved as recommended, staff will immediately coordinate with SolarCity Corporation to draft the SSA and related documents to be presented for review at the next scheduled City Council meeting.

**ATTACHMENTS:** SolarCity Corporation Proposal and Cost Benefit Analysis

**STAFF CONTACT(S):** Grace DelMonte Kelly, Energy Management Coordinator, (480) 350-8369

Department Director: Renie Broderick, Internal Services Director  
Legal review by: David Park, Assistant City Attorney  
Prepared by: Michael Greene, C.P.M. Procurement Administrator