
CITY OF TEMPE
REQUEST FOR COUNCIL ACTION

Council Meeting Date: 10/15/2015
Agenda Item: 6A5

ACTION: Approve a 20-year Solar Services Agreement and Performance Guarantee Agreement with SolarCity Corporation for the development, construction, and maintenance of a solar photovoltaic electric generating system to be installed at the Johnny G. Martinez Water Treatment Plant.

FISCAL IMPACT: The total cost of the 20-year Solar Services Agreement for the Johnny G. Martinez (JGM) Water Treatment Plant is estimated at \$1,796,609. Due to the lower per kilowatt-hour cost associated with the solar production portion of the plant's energy demand (\$0.055 per kWh), the City will realize a net savings over currently approved energy budgets. The 20-year projected net present value energy savings is calculated at \$448,004.

RECOMMENDATION: Approve the Solar Service Agreement (SSA) and the Performance Guarantee Agreement for the installation of a solar photovoltaic electric generating system at JGM Water Treatment Plant.

BACKGROUND INFORMATION: On May 9, 2013 City Council selected four (4) companies for an approved short-list of solar providers that included:

- Oak Leaf Energy Partners
 - Green Choice Solar
 - Gehrlicher Solar *
 - SolarCity Corporation
- *(since this initial award, company declined to renew)

As part of this initial selection, SolarCity Corporation was approved for a 20-year SSA for the construction of solar photovoltaic electric generating systems at the South Water Treatment Plant (SWTP) and the Police/Courts building complex. The Johnny G. Martinez Water Treatment Plant was one of seven (7) City sites included in the original Request for Proposals and because of limited incentives available at that time (1 MW of incentives per city per fiscal year), staff followed the recommendation of its utility consultant and elected to move ahead with the South Water Treatment Plant solar project and reserve the JGM Water Treatment Plant for a future time. Importantly, SolarCity Corporation proposed the lowest SSA rate and the lowest price over 20 years for the JGM Water Treatment Plant as part of this initial competition.

In the summer of 2014, Public Works staff took another look at installing solar panels at the JGM Water Treatment Plant and had several meetings with SolarCity Corporation to discuss the following project elements:

- Location of and installation method for the solar panels – using both reservoir covers to provide a nearly 1MW system;
- Structural issues
- Cost of the system

Water Utilities staff then hired a consultant to determine if the north reservoir roof could support solar panels and the result of the study was that the reservoir roof could not support solar panels and that the roof had reached the end of its useful lifespan. The consultant recommended replacement of the reservoir roof. Staff submitted a CIP budget request to install a new roof. During the design phase of the reservoir roof project, SolarCity Corporation worked closely with the engineering team to ensure that the new design would accommodate a solar array spanning over both reservoir covers and leave room for aerators and access aisles.

On June 25, 2015, Council awarded a construction contract to R.K. Sanders Inc. and a professional services contract to Carollo Engineers, Inc. for replacement of the roof on the north reservoir at the JGM Water Treatment Plant (CIP #3207149).

During construction of the north reservoir roof, Engineering staff worked closely with Public Works Administration staff and Purchasing staff to provide a status of the roof construction and timelines as it relates to the installation of solar panels.

SolarCity Corporation is proposing a 948.6 kW system and an SSA rate of \$0.055 per kWh. This is a flat rate for 20 years and is lower than the current average blended rate of \$0.075/kWh. The system size is slightly less than what was originally proposed, and the SSA rate has come down in price as well. The system will incorporate a total of 3,060 panels (310 Watt) covering the two reservoir roofs and be attached using a non-penetrating mounting system that has been evaluated and approved by the City's engineering consultant.

The triple bottom line for this project is that it will reduce operating costs, save ratepayers money and reduce carbon emissions by 1,181 metric tons per year, the equivalent of the removal of 249 cars from the road each year or the energy used in 162 homes each year. The social and economic benefit is \$448,004 in net present value savings over 20 years, which lowers plant operating costs and reduces costs to Tempe ratepayers.

If approved as recommended, SolarCity Corporation will start construction in late December after the completion of the north reservoir roof construction and should be completed by spring of 2016.

ATTACHMENTS: Solar Service Agreement and Performance Guarantee Agreement

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Department Director: Renie Broderick, Internal Services Director

Legal review by: David Park, Assistant City Attorney

Prepared by: Michael Greene, C.P.M. Procurement Administrator