

**Board Report**

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**CONSTRUCTION COMMITTEE
JULY 20, 2017**

**SUBJECT: ALTERNATIVE FINANCING MECHANISM FOR
RENEWABLE ENERGY AND ROOF REPLACEMENT**

**ACTION: REAFFIRM THE USE OF POWER PURCHASE AGREEMENT TO IMPLEMENT
A DESIGN-BUILD PROJECT AND APPROVE USE OF DESIGN-BUILD
PROJECT DELIVERY METHOD FOR ROOF REPLACEMENTS AND SOLAR
PHOTOVOLTAIC SYSTEMS**

RECOMMENDATION

CONSIDER:

- A. REAFFIRMING the use of a Power Purchase Agreement (PPA) to implement a design-build project at Divisions 9, 11, 14 (Expo Yard), and 22 (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B) including the design, construction and installation of new roofs for Divisions 11 and 22 to be paid for through a PPA; and
- B. FINDING that use of the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242, et. seq. will achieve certain private sector efficiencies in the integration of the design and construction by providing for the award of a design-build contract to the lowest responsive and responsible bidder for the installation of new roofs at Divisions 11 and 22 and installation of solar photovoltaic ("PV") systems at Divisions 9, 11, 14, and 22, which will be solicited through either an Invitation for Bid (IFB) or Request for Proposal (RFP) procurement method.

ISSUE

Pursuant to Metro's Renewable Energy Policy attached as Attachment A, Metro has committed to a 66% renewable energy use goal by 2020. One of the strategies that Metro has employed to achieve that goal is to install solar PV systems on its facilities at various Metro properties (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B). That authority allows the use of Renewable Energy Power Purchase Agreements (PPAs). This mechanism allows for guaranteed revenue to repay the investment of renewable energy systems or rental of land or roof

space to 3rd party providers.

Staff's assessments and evaluation studies conclude that four of the optimal locations among Metro's real property assets for the installation of solar PV systems are Metro Divisions 9, 11, 22, and the Expo Yard. Staff also determined that based on available utility programs at these locations as well as available incentives, use of a PPA (discussed further below) would be appropriate ("**Solar PPA Project**"). The Solar PPA Project would generate energy for Metro's consumption that will offset a portion of the utility-provided energy at such sites, and is projected to result in energy cost savings.

Roof replacement work ("**Roof Replacement Work**") is necessary to support the installation of solar PV equipment at Divisions 11 and 22. The roofs at these Divisions are at the end of their useful life and are already being scheduled to be replaced. Existing structures at these divisions also need to be reinforced to accommodate the future solar PV systems load.

DISCUSSION

As described above, the proposed Roof Replacement Work is necessary in order to facilitate the installation of the Solar PPA Project. This section of the report provides a discussion of how the PPA works as well as the additional details on the justification of the Roof Replacement work.

Solar PPA Project

Staff anticipates that the Solar PPA Project will be implemented by way of a public-private partnership in the form of a solar PV PPA transaction authorized pursuant to Government Code ("GC") Section 4217.10 *et seq.* A PPA transaction is among the various alternative financing strategies that have been identified by staff for project delivery, as described in the attached report on Alternative Financing Mechanisms for Energy Projects dated May 15, 2013, attached as Attachment D. In a PPA transaction, Metro would license or lease its property to a third party solar energy provider ("**Power Provider**"). The Power Provider installs the solar PV system on Metro's property, and Metro purchases solar energy from the Power Provider at a negotiated cost, which cost is projected to be less than the anticipated marginal cost to the agency that would have otherwise been consumed from other sources. The Power Provider, selected through a competitive solicitation process pursuant to the contracting authority sought hereunder, will design, finance, and furnish the solar PV system, and maintain the system for at least twenty (20) years. The amount of energy produced by the solar PV system and the net monetary savings to Metro shall be guaranteed in the form of PPA performance incentives that focus on kilowatt hours to be generated and costs avoided.

Upon completion of the analysis of the best Solar PPA Project, staff will seek Board approval for the award of the PPA contract in compliance with the requirements of GC Section 4217.10 *et seq.*

Roof Replacement Work

The roofs at Divisions 11 and 22 were installed approximately 26 and 21 years ago, respectively. Maintenance service requests files reviewed by staff show repairs made due to roof leaks, drywall repair, repainting, and mold remediation among others. It is therefore timely that the repair of these roofs occurs in conjunction with the Solar PPA Project. The Roof Replacement Work will be conducted according to or consistent with all applicable codes, and furthermore, the technical specifications will require that the roofs have the structural capacity to accommodate solar PV system facilities.

The Roof Replacement Work will be solicited as part of the PPA solicitation and will be installed as part of the awarded contract resulting from the solicitation.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety for Metro maintenance and contractor personnel that may be required to maintain the PV equipment as well as other projects that should become more energy and operationally efficient.

FINANCIAL IMPACT

Funding for staff support of this project will come from Project Number 450003, Miscellaneous Contingency-Capital Construction, in Cost Center 8510. Since the roof is to be funded through the PPA, there will be no additional funding that is required of Metro for capital and operations and maintenance during the life of the solar panels.

Since this is a multi-year capital project, the cost center manager and Chief Program Management Officer and the Executive Officer, Environmental Compliance and Sustainability will be responsible for budgeting in future years.

Impact to Budget

FY18 funding required for this project comes from Proposition A 35% cash/bonds.

The Solar PPA Project and the Roof Replacement Work will be funded and financed by the Power Provider who will be awarded the PPA contract at a later date, following Board approval. Staff will provide additional information at the time that staff seeks Board approval for awarding of the contract for the Roof Replacement Work and Solar PPA Project.

ALTERNATIVES CONSIDERED

Metro has committed to using up to 66% of its energy from renewable energy sources. Installation of

solar panels at our facilities has been employed for some time. We have an opportunity through this project to replace roofs that are at the end of their useful life at Divisions 11 and 22 as an integral part of our renewable energy program.

The Board may reject the request to use the PPA alternative financing mechanism contract for Solar PPA Work and the Roof Replacement Work; and consequently force Metro to simply replace the roof at our own cost and in the future retrofit for the installation future installation of solar panels. This series of steps will have a cumulative effect on our achievement of our renewable energy use goal, protecting employee health, and replacing our infrastructure with as small capital outlay to our agency as possible.

NEXT STEPS

After the recommended Board Action is approved, staff will release an Invitation for Bids (IFB) to solicit a design-build contractor for the PPA and to install the new roofs at Divisions 11 and 22. Upon evaluation of the IFB bids, staff will seek Board approval prior to award of contract.

ATTACHMENTS

- Attachment A - Renewable Energy Policy
- Attachment B - Funding and Operating Sustainability-Related Infrastructure report
dated September 18, 2014
- Attachment C - Report on Design Build, November 19, 2015
- Attachment D - Report on Alternative Financing Mechanisms for Energy Projects
dated May 15, 2013

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