

POWER SYSTEM

AUG 31 2015

EXECUTIVE OFFICE

TRANSMITTAL		0220-04719-0001
TO Marcie L. Edwards, General Manager Department of Water and Power	DATE AUG 28 2015	COUNCIL FILE NO.
FROM The Mayor	COUNCIL DISTRICT Citywide	
<p>POWER PURCHASE AGREEMENT WITH THE CITY OF LOS ANGELES BUREAU OF STREET LIGHTING FOR THE SOLAR TO GRID PROGRAM</p> <p>Approved and transmitted for further processing including Council consideration. See the City Administrative Officer report attached.</p> <p> MAYOR Ana Guerrero</p>		
MAS:RR:06150086T		

REPORT FROM

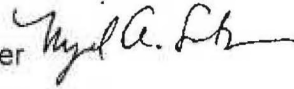
OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date: August 26, 2015

CAO File No. 0220-04719-0001
Council File No.
Council District: Citywide

To: The Mayor

From: Miguel A. Santana, City Administrative Officer



Reference: Communication from the Department of Water and Power dated February 10, 2015; referred by the Mayor for report on February 24, 2015

Subject: **POWER PURCHASE AGREEMENT WITH THE CITY OF LOS ANGELES BUREAU OF STREET LIGHTING FOR THE SOLAR TO GRID PROGRAM**

SUMMARY

The Department of Water and Power (DWP; Department) requests approval of a proposed resolution that authorizes a Power Purchase Agreement (PPA) with the City of Los Angeles (City) Bureau of Street Lighting (BSL) for the purchase of solar energy and Renewable Energy Credits (REC) through the BSL Solar to Grid Program (STG). The complete STG involves (i) installing 9,000 solar modules and inverters, at BSL expense, onto BSL streetlight poles; and (ii) selling all generated energy and associated environmental credits to DWP.

A pilot program was initiated by BSL to test the capabilities of the solar units and to determine the feasibility of providing renewable energy to DWP. BSL purchased and interconnected 48 units to the DWP system. During a two year period, the units operated with no reported electrical or safety issues. The 48 units generated an average of 357 kilowatt hours (kWh) per year and a total of 34,261 kWh. Based on the proposed PPA rate of \$0.15 per kWh, the calculated value of energy generated during the two year pilot program is \$5,140 (\$2,570 annually).

Approval of the proposed resolution will allow for an expanded implementation of the STG and specifically authorizes DWP to execute a PPA with BSL for the purchase of up to 2.3 megawatts of solar energy capacity, estimated to generate 4,025,000 kWh, along with the associated renewable energy credits (RECs). The PPA term is 25 years with a cost of \$0.15 per kWh. BSL will competitively bid the purchase of solar units through the City General Services Department.

If the STG program is fully implemented with 9,000 solar units, the estimated annual cost to DWP for the purchase of energy and RECs is \$603,750 and totals \$12,075,000 over the 25 year term.

The adopted City Budget for Fiscal Year 2015-16 provides limited funding which is only expected to support purchasing up to 550 solar units. Pending the availability of additional STG funding, higher panel generation, or a reduction in the cost of solar panels, the solar energy initially generated will be lower than the full STG implementation thus the estimated cost for DWP is correspondingly reduced to \$45,000 annually.

Based on the implementation of 550 solar units, BSL anticipates receiving annual net revenue of

\$36,970 (average) and total \$924,262 over the 25 year term. Net revenues include BSL maintenance and administration expenses.

Approval of the proposed resolution is pursuant to City Charter Sections 674. The City Attorney has reviewed and approved the proposed resolution as to form and legality. Background information relating to this request is provided in the attached Appendix.

RECOMMENDATIONS

That the Mayor:

1. Approve the proposed resolution authorizing a Power Purchase Agreement with the City of Los Angeles Bureau of Street Lighting for the purchase of solar energy and associated Renewable Energy Credits from the BSL Solar to Grid System; and,
2. Return the proposed resolution to the Department for further processing, including Council consideration.

FISCAL IMPACT STATEMENT

Approval of the proposed resolution authorizes initial expenditures from the Power Revenue Fund estimated at \$45,000 per year. Upon full implementation of the STG Program, the total estimated cost may increase up to \$603,750 per year and \$12,075,000 over the 25-year term of the agreement. Furthermore, BSL anticipates the STG will provide revenue for the Street Lighting Maintenance Assessment Fund. The adopted City Budget for Fiscal Year 2015-16 provides \$500,000 in the Nondepartmental Unappropriated Balance to fund the STG program. The proposed Agreement complies with the DWP adopted Financial Policies.

APPENDIX

RENEWABLE ENERGY MANDATE

In 2002, the California Legislature passed Senate Bill (SB) 1078 which established the California Renewable Portfolio Standard (RPS). SB 1078 requires privately owned utilities and encourages public owned utilities to increase their use of renewable energy until 20 percent of generation is obtained from renewables by the year 2017. Senate Bill SB2 1X, the California Renewable Energy Resources Act furthers SB 1078 by requiring both privately and publicly owned utilities, such as DWP, to increase their use of renewable energy to 25 percent by the year 2016 and 33 percent by 2020. The DWP Board adopted the 2014 Integrated Resources Plan (IRP) which maintains the following RPS Policy targets that achieve compliance with regulatory mandates:

RPS Policy and Compliance Targets

Renewable Energy Amount (Average)	Compliance Targets
20%	Jan. 1, 2011 to Dec. 31, 2013
25%	Jan. 1, 2016 to Dec. 31, 2016
33%	Jan. 1, 2020 to Dec. 31, 2020
33%	Each year after 2020

The environmental attributes provided as part of the price of energy would permit DWP to accumulate Renewable Energy Credits (RECs) as a credit toward the DWP RPS goals. In addition, current tax laws allow for the federal Investment Tax Credits (ITCs) to apply to private entities that develop and operate a qualifying renewable energy generation facility. DWP states that the proposed agreements have been structured to receive the benefits associated with the ITCs through lower energy purchase prices.

Energy and Renewable Energy Credits (RECs) from the completed STGS are anticipated to support 0.018 percent of the DWP renewable energy goal of 33 percent by Year 2020.

BACKGROUND

In 2009, DWP was contacted by several solar developers in response to a DWP Request for Proposal for renewable energy projects. Responses included proposals to install solar modules on power distribution poles as a component of its Utility Built Solar Program. DWP states that the feasibility of installing solar modules on power distribution poles was uncertain due to clearance requirements required by the California Public Utilities Commission (CPUC). Upon review, it was determined by the Department that BSL streetlight poles could be a more feasible location for a large scale program.

Various communications and plans involving STGS have been considered by both DWP and BSL. The following is a timeline of actions:

- December 2010 – BSL and DWP initiated a pilot program to test STG units on BSL streetlight poles and interconnecting them into the DWP grid. The units were installed and operated with no reported electrical or safety issues.

- June 24, 2011 – BSL proposed partnering with DWP for development of the STG Program.
- August 10, 2011 – DWP requested BSL to develop a financial plan.
- November 2011 – BSL submitted a financial plan of the STG proposal to the City Administrative Officer (CAO).
- June 18, 2012 – CAO issued a report that indicated the financial viability of the BSL proposal if the price of energy is between \$0.17 and \$0.20 per kWh. The current proposal provides a lower price of \$0.15 per kWh.
- July 1, 2015 – City of Los Angeles Adopted Budget for 2015-16 includes \$500,000 in the Non-Departmental Unappropriated Balance to fund a pilot program of the STGS.
- Proposed – Request consideration and approval of this proposed PPA allowing DWP to (i) Purchase BSL solar generated energy and RECs and (ii) Include the energy delivered towards the DWP renewable energy goals.

CANCELLATION OF AGREEMENT

The Agreement provides for termination under various scenarios including by mutual agreement of the parties and upon default by one party, as well as if power generation ceases for twelve consecutive months.