REPORT FROM

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date: January 16, 2015

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Council File No.
Council District: outside City limits

To: The Mayor
The City Council

From: Miguel A. Santana, City Administrative Officer

Reference: Communication from the Department of Water and Power dated December 17, 2014; referred by the Mayor for report on January 7, 2015

Subject: **POWER SALES AGREEMENT WITH SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY NO. BP 14-032 AND RELATED AGENCY AGREEMENT NO. BP 14-033 FOR THE DON A. CAMPBELL 2 GEOTHERMAL ENERGY PROJECT**

SUMMARY

The Department of Water and Power (DWP) proposes to enter into a Power Sales Agreement (PSA), No. BP 14-032, with the Southern California Public Power Authority (SCPPA), to purchase renewable geothermal energy from SCPPA for the Don A. Campbell 2 Geothermal Energy Project (DAC2). The Agreement, beginning December 31, 2016, results in an average annual expenditure of $11 million for purchased energy with a total projected cost of $219 million for the 20-year term.

The significant terms of the PSA are as follows:

- Commercial Operation Date (COD) is estimated in December 2016;
- Amount of power provided to DWP is 16.2 MW;
- 130,000 MWh annually of energy output;
- Fixed price per megawatt hour (MWh) of $81.25 with no escalation through the term.

The PSA also enables SCPPA to enter into a Power Purchase Agreement (PPA) with ORNI 37, LLC, owner of a proposed DAC2 power plant, to obtain the renewable energy and environmental attributes towards Renewable Portfolio Standard (RPS) exclusively for DWP. Additionally, the DWP proposes to enter into an Agency Agreement (AA), No. BP 14-033, with SCPPA which designates DWP as the Project Manager to administer the DAC2 Project for and on behalf of SCPPA.

The DAC2 Project would be an expansion phase of the existing Don A. Campbell 1 Geothermal Energy Project (DAC1), formerly known as the Wild Rose Geothermal Energy Project, approved

by City Council on April 3, 2013, C.F. No. 13-0294, which commenced commercial operation on December 6, 2013. The City of Burbank receives up to 2.49 MW of the 16.2 MW of total energy output from DAC1. All 16.2 MW of energy output from DAC2 is produced exclusively for DWP. The comparison cost of energy per MW and energy output is shown below:

Project	Cost Per MWh		Energy Output Received-DWP
DAC1	$99.00		13.71 MW
DAC2	$81.25		16.2 MW

The energy from DAC2 Project will be delivered to Mead 230-Kilovolt (kV) and Crystal 500-kV Substations which are directly connected to LADWP's transmission system.

The 16.2 MW of geothermal energy from DAC2 represents 1.67 percent of the Department's Renewables Portfolio Standard (RPS) requirement in 2020 and will provide enough energy to initially serve more than 22,500 homes.

RISK MANAGEMENT/CANCELLATION

The PPA provides for performance securities for various stages of construction and through the term of the Agreement, which DWP can draw on if certain conditions are not met. In order to better secure the credit risk, SCPPA obtained a Performance Security furnished by the seller in the aggregate amount of $2.5 million on the effective date and $8 Million on the Commercial Date of Operation. A failure to meet the following milestones will result in the damages as listed below:

DAC2 Milestones and Penalty Schedule	Cost per Day	Maximum Cost
Failure to achieve Power Block Construction Milestone (7/1/16)	$6,840	$615,600
Failure to achieve the Commercial Operation Milestone (12/31/16)	$20,520	$1,847,000

The Agreement also contains a Force Majeure Event cancellation provision, which is commonly found in many agreements, providing for the termination of the Agreement with DAC2 due to an uncontrollable condition such as a disaster or act of God, preventing one of the parties from performing obligations listed in the Agreement

THE DON A. CAMPBELL 2 GEOTHERMAL ENERGY PROJECT

The proposed DAC2 Project is a geothermal energy facility located on federal government land managed by the United States Department of Interior Bureau of Land Management (BLM) in the western portion of Gabbs Valley, in Mineral County, Nevada. The geothermal energy will be delivered to the Mead Substation located in Boulder City, Nevada which connects to the DWP transmission system. There is no purchase option of the DAC2 Project associated with this PPA.

DAC2 provides the opportunity to enhance the already successful geothermal energy production in Nevada, which is an integral part of DWP's coal replacement strategy for the Intermountain Power Plant in Utah.

The DAC2 Project was selected for the following reasons:

- Lowest price, including energy and transmission cost to the POD;
- Project location fits the DWP's long term coal replacement strategy;
- Baseload energy with insignificant integration cost and high capacity factor;
- POD is within DWP's Balancing Authority with available transmission capacity;
- Continuity and expansion of a plant already in service;
- Geothermal energy provides for a reliable source of renewable energy that is not subject to weather conditions.
- Experienced developer.

For each contract year, the annual guaranteed generation of the Project energy delivered to the Point of Delivery (POD) is 90 percent of the 16.2 MW nominal net capacity. However, actual delivery is expected to be higher as generation is projected to decrease by a maximum of 0.5 percent yearly. To the extent there is a shortfall of guaranteed energy delivered, the replacement energy will be made up in the following maximum of two contract years.

City Council approval of this PSA and AA is required pursuant to City Charter Sections 373 regarding rules for long-term contracts and 674(a) (1) and (2) regarding the purchase of power generating capacity. The proposed Resolution, PSA, and AA have been reviewed by the City Attorney and approved as to form and legality. Since the Agency Agreement will be administered by DWP staff, City Charter Section 1022 regarding the use of independent contractors is not applicable.

RECOMMENDATION

That the Council, subject to the concurrence of the Mayor, approve an Ordinance that approves the Resolution of the Board of Water and Power Commissioners that requests the execution of:

(a) Power Sales Agreement No. BP 14-032 between DWP and the Southern California Public Power Authority to purchase up to 16.2 megawatts of geothermal power annually through the ORNI 37, LLC for electric energy from the Don A. Campbell 2 Geothermal Energy Project located in Gabbs Valley, in Mineral County, Nevada; and

(b) Agency Agreement No. BP 14-033 between DWP and the Southern California Public Power Authority, which designates DWP as the Project Manager to administer the project for and on behalf of SCPPA.

FISCAL IMPACT STATEMENT

The proposed Agreements will have no direct impact on the City General Fund. The Power Revenue Fund will provide an average annual expenditure of $11 million annually for 20 years, or $219 million total over the 20 year duration of the Agreement. Funding is budgeted in the Power Revenue Fund's Fuel and Purchased Power Budget.

TIME LIMIT FOR COUNCIL ACTION

The City Attorney advises that there is no time limitation for items approved by ordinance.

MAS:MCD:06150077

APPENDIX

BACKGROUND

In 2002, the California Legislature passed Senate Bill (SB) 1078 which established the California Renewable Portfolio Standard. SB 1078 requires privately owned utilities and encourages public owned utilities to increase their use of renewable energy resources until 20 percent of generation is obtained from renewables by the year 2017. The RPS Policy was amended in December 2013 to comply with regulatory requirements of the California Renewable Energy Resources Act, also known as SB2 (1X) which requires publicly owned utilities, such as the DWP, to supply 25 percent of its energy from renewable sources by 2016 and 33 percent by 2020. The RPS Policy was amended in accordance with Section No. 399.30(e) of the Public Utilities Code.

SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY

The Southern California Public Power Authority (SCPPA) is a non-profit joint powers authority. SCPPA was formed in 1980 for the purpose of planning, financing, developing, acquiring, constructing, operating and maintaining projects for the generation and transmission of electric energy. The members include the municipal utilities of the cities of Anaheim, Azusa, Banning, Burbank, Cerritos, Colton, Glendale, Los Angeles, Pasadena, Riverside, and the Imperial Irrigation District. SCPPA is governed by a Board of Directors, which consists of representatives from each of its members. The management of SCPPA is under the direction of an Executive Director, who is appointed by the Board. SCPPA's role has evolved over the years to include legislative advocacy at the state and national levels. SCPPA currently holds capacity entitlements in various projects and 100 percent of the output is sold and controlled by its member utilities.

REQUEST FOR RENEWABLE ENERGY PROPOSALS

In February 2014, Southern California Public Power Authority (SCPPA) issued a Request for Proposals (RFP) for the purchase and/or acquisition of renewable energy sources. More than 90 proposals were received from developers with the capability to provide renewable energy from various sources such as solar, wind, cycle gas and geothermal. Eleven proposals were from geothermal developers including one from Ormat Nevada Inc. (Ormat).

The industry average cost for all new and existing geothermal projects submitted to SCPPA for the 2014 RFP ranges from $87.86 to $129.99 with an average of $107.63 per MWh. Some of the proposals do not include the transmission costs, which can add up to $17 per MWh to the cost. A recent survey of industry-wide energy prices comparing the approximate costs per MWh for other sources of energy and prices are provided below for comparison:

Source of Energy	Cost per MWh
Solar Photovoltaic-PPA	$77
Solar Photovoltaic-LA Solar	$143
Solar Photovoltaic-Owens	$130
Solar Customer-Net Metered	$67 (incentive only)
Solar Feed-In-Tariff	$161

Source of Energy	Cost per MWh
Wind	$111
Geothermal	$101
New Combined Cycle Gas	$91
New Simple Cycle Gas	$241

INTEGRATED RESOURCE PLAN

DWP's Integrated Resource Plan (IRP) presents several strategies for meeting the regulatory mandates and policy objectives for increasing renewable energy generation, reducing greenhouse gas emissions, maintaining electric power service reliability and minimizing the financial impact on ratepayers.

The IRP establishes the following key selection principles for renewable projects:

- Comply with the California Renewable Energy Resources Act, SB2 (1X);
- Maintain a high level of electric service reliability by taking advantage of the geographic diversity of renewable projects;
- Maximize the use of existing DWP assets such as substations with balancing authority and transmission lines with extra capacity;
- Take advantage of the benefits of clustering resources to optimize efficiency for operations and maintenance of facilities.

ORNI 37, LLC

The PPA provides for DAC2 to deliver geothermal energy on a long term basis. Therefore, it is in the best interest of DWP and SCPPA to partner with a viable company to provide this energy. The seller, ORNI 37, LLC is a wholly-owned affiliate of Ormat Nevada, Inc. who is fully owned by Ormat Technologies, Inc. (Ormat). Ormat is a leading geothermal energy developer in the U.S. and world-wide. The company currently owns and operates 1,750MW of geothermal energy projects world-wide (626 are in the U.S.) and currently employs 480 workers in the U.S. A large number of the staff members are devoted to geothermal energy development, construction, financing, commercial operation and facilities maintenance. Based on Ormat's experience and knowledge in geothermal energy and development, in addition to the financial statements submitted to DWP, the Department states that the risk is minimal.