| TRANSMITTAL | C |)150-10189-000(|
|------------------------------------------------------------------|--------------|------------------|
| Marcie L. Edwards, General Manager Department of Water and Power | JUN 2 4 2014 | COUNCIL FILE NO. |
| FROM The Mayor | | COUNCIL DISTRICT |

Request to Approve a Resolution Relative to Power Purchase Agreement
No. BP 13-057 Between the Department of Water and Power and Barren
Ridge 1, LLC (Recurrent) for a Solar Generating Facility, a Purchase Option
For the Barren Ridge Solar Generation Facility, a Purchase Option for the Barren
Ridge LandCo, LLC, and Real Estate License Agreement No. 14-017

Transmitted for further processing, including Council consideration. See the City Administrative Officer report attached.

MAYOR

(Ana Guerrero)

MAS:RPR: 10140084t

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date:

June 17, 2014

CAO File No.

0150-10189-0000

Council File No. Council District:

Outside City Limits

To:

The Mayor

From:

Miguel A. Santana, City Administrative Officer

Reference:

Communication from the Department of Water and Power dated April 2, 2014,

revised June 16, 2014; referred by the Mayor for report

Subject:

POWER PURCHASE AGREEMENT NO. BP 13-057 AND PURCHASE OPTION

FOR THE BARREN RIDGE 1, LLC (RECURRENT) SOLAR PROJECT

SUMMARY

The Department of Water and Power (DWP; Department) requests approval of a proposed resolution that authorizes the DWP Board of Commissioners (Board) to execute several agreements relating to the RE Barren Ridge 1 Solar Generation Facility (Barren Ridge Solar), a fixed tilt photovoltaic solar facility located in Kern County, California. The project includes a commercial operation date (COD) of December 31, 2015.

Approval of the proposed resolution specifically provides authority to the DWP Board to execute the following agreements, collectively identified as the Solar Transaction:

- i. Power Purchase Agreement (PPA) No. BP 13-057 with RE Barren Ridge 1, LLC (Recurrent), a developer of solar projects; which is a subsidiary of Recurrent Energy Development Holdings, LLC; which is a subsidiary of Recurrent Energy, LLC, which is a subsidiary of Sharp US Holding Inc., which is a subsidiary of Sharp Corporation of Japan, for the purchase of 60 megawatts (MW) of solar electric generating capacity with an average of 174,380 Megawatt hours (MWh) annually, including the associated environmental attributes, at a flat cost of \$67.83/MWh during a 20-year term. Approval is pursuant to City Charter Sections 674(a)(2), by ordinance, and Section 373.
- ii. Facility Purchase Option with Recurrent for the Barren Ridge Solar facility at the 6th, 10th, 15th, or 20th anniversary of the COD, with predetermined pricing constraints. Approval is pursuant to City Charter Section 674(a)(1), by ordinance.
- iii. Land Purchase Option with RE Barren Ridge LandCo, LLC; which is a subsidiary of Recurrent Energy LandCo, LLC; which is a subsidiary of Recurrent Energy US Holdings, LLC; which is a subsidiary of Recurrent Energy Portfolio Holdings, LLC, which is a subsidiary of Recurrent Energy, LLC; which is a subsidiary of Sharp US Holding Inc.; which is a subsidiary of Sharp Corporation of Japan, for the land underlying the Barren Ridge Solar facility at set intervals with predetermined market pricing requirements. Approval is pursuant to City Charter Section 674(a)(1), by ordinance.

iv. License Agreement BP 14-017 allowing Recurrent to construct, own, operate and maintain certain transmission facilities on DWP-owned land facilitating the connection of Barren Ridge Solar to the DWP Barren Ridge Switching Station for a term of 20 years with an option to extend up to a duration not exceeding 34 years and 11 months. Approval of this license agreement is pursuant to a finding of the City Council that the long term of the agreement is in the best interest of the City, in accordance with City Charter Section 607, as well as Section 606.

The proposed resolution and Solar Transaction consisting of a PPA, Purchase Option, Land Purchase Option, and License Agreement have been reviewed by the City Attorney and approved as to form.

Due to risks associated with not achieving compliance with California Energy Commission (CEC) requirements, and in consideration of the effort expended negotiating and developing this proposal, the DWP prefers to complete this contract with Recurrent. The DWP Board Report offers that an alternative to approving this proposal is for DWP to begin negotiations with another developer. DWP officials emphasize that beginning negotiations with an alternative developer could impact achieving CEC requirements. However, to date no penalties have been established for not achieving the CEC requirements. It is the recommendation to approve the proposed resolution and Solar Transaction. However, due to concerns with the project which are contained in this report and our desire for the Department to achieve the renewable energy goals, we believe the Department may want to embark on its alternative as a safeguard in the event of excessive delays or the unforeseen cancellation of the project.

BACKGROUND

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 resources 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 resources to 25 percent by the year 2016 and 33 percent by 2020. The DWP Board adopted the 2012 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 |
| | |

DWP's IRP presents several potential strategies for meeting the regulatory requirements and policy objectives for increasing renewable energy generation and reducing greenhouse gases.

During the past two years renewable energy prices have plummeted, in large part due to an influx of low-cost solar panels and a large number of renewable energy developers increasing the supply of available projects. Prior to 2011, solar was considered an expensive type of renewable energy technology while it is now generally among the least expensive. As a result of the changes in the industry, particularly for solar, renewable energy prices are approaching parity with long-term brown energy market prices once the value of emissions credit is included.

In February 2014, the U.S. Energy Department's (DOE) SunShot Initiative--a collaborative national effort launched in 2011 to make solar energy fully cost-competitive with traditional energy sources by 2020--announced that the solar industry is already most of the way to achieving SunShot's cost target of \$0.06 per kilowatt-hour (kWh) or \$60.00 per MWh by 2020 for utility-scale PV.

Notwithstanding the market forces causing a precipitous decline in solar prices and the SunShot Initiative, DWP continues to assert that the future price of solar energy is uncertain and that a number of factors could push renewable energy prices back up in the near future. Among the factors are (1) the scheduled expiration of federal tax incentives at the end of 2016; (2) the possibility that California will raise its RPS requirement; or (3) the federal government could impose a RPS requirement or impose a cost on carbon-emitting resources. As a result of the historically low prices and in light of scheduled changes and possible legislation, the DWP is supportive of executing long-term commitments that help the City meet its RPS goals.

The typical industry cost of various types of energy sources ranges from \$48 to \$225 per MWh, not including the transmission costs, which can add up to \$17 per MWh to the cost. The table on Exhibit A (attached) provides the average cost per MWh of the Department's various sources of energy since October 2012 for comparison with the cost under the proposed PPA.

REQUEST FOR RENEWABLE ENERGY PROPOSALS

In January 2012, DWP and multiple utilities participated with the Southern California Public Power Authority (SCPPA) to issue an annual Request for Proposal (RFP) for the purchase and/or acquisition of renewable energy sources. A total of 340 proposals were received. The purpose of the proposal process was to assess the availability of renewable energy projects and environmental attributes. It is the intent of the Department to evaluate and implement projects that satisfy the DWP Integrated Resource Plan (IRP) and the Renewal Portfolio Standards (RPS) requirements. It is expected that the Department will consider a combination of existing projects, DWP RFPs for renewable energy projects, and SCPPA-sponsored projects.

During the review of the proposed Agreement by this Office, DWP stated that, although the SCPPA RFP was released in 2012, the actual negotiations were initiated in July 2013 and that Recurrent submitted revised bids to SCPPA on February 27, 2013, and May 10, 2013. It is uncertain why the Department utilized a proposal that was not current; nevertheless, it appears that the resubmitted bid price per MWh of energy decreased compared to the previous 2012 bid. Regardless, it is worrisome that the current contracting process, as reported in the DWP Board Report, is not comprehensive and well documented. Furthermore, due to significant price declines that started in 2011 and appear to be ongoing within the solar industry, the age of the 2012 RFP, as well as the resubmitted bid, may not represent the current competitive market cost of solar or the best interests of the ratepayers, Department, or the City.

RECURRENT SOLAR PROJECT

One of the 340 proposals received during the SCPPA RFP process was from Recurrent, who proposed a power purchase agreement for the purchase of 60 MW of renewable solar energy, generating capacity, and the associated environmental credits from the Barren Ridge Solar facility. Although the SCPPA team used criteria identified by several SCPPA members, the location and limited transmission availability would increase costs to other SCPPA participants. Consequently, all other SCPPA members declined allowing DWP to be the sole participant. To limit administrative costs associated with SCPPA participation and to centralize management functions, DWP decided to redefine the PPA exclusively between DWP and Recurrent.

DWP states that Barren Ridge Solar project was selected because the Solar Facility:

- Utilizes existing transmission capacity at the nearby Barren Ridge Switching Station;
- · Obtains substantial solar energy resources due to its location; and
- Is located nearby existing DWP operation and maintenance crews

Site Control - According to the Department, the site of the Barren Ridge Solar facility is located on 588 acres of privately owned, non-tribal land; however, RE Barren Ridge LandCo, LLC holds an option to purchase the land from the unidentified private owner(s). Recurrent controls the land necessary for a solar facility through a lease with its subsidiary company RE Barren Ridge LandCo, LLC for a duration of 20 years with three five-year extension options, and a cumulative duration of 35 years. Title ownership of the land parcel has not been provided. Recurrent is also in the process of leasing land from the Bureau of Land Management for the gen-tie transmission line necessary to connect the solar facility to the Barren Ridge Substation. A licensing agreement is included in this DWP request to allow Recurrent to construct, own, operate, and maintain transmission facilities on DWP-owned land facilitating the connection of the solar facility to the DWP Barren Ridge Switching Station for a term of 20 years with an option to extend up to a total duration not exceeding 34 years and 11 months. It is a concern that the separate ownership of the land and facility could increase the risk of exercising the Facility Purchase Option in the event of bankruptcy by the developer.

<u>PPA Energy Cost and Term</u> – The solar energy delivered will be priced at a fixed rate of \$67.83 per MWh or \$0.06783 per kilowatt hour (kWh). This project is connecting to the DWP balancing authority and will not incur any additional transmission cost. The estimated cost of the renewable solar energy and the environmental attribute purchases over the 20-year term of the PPA is expected to total \$237 million or \$11.8 million annually. The impact on a typical residential customer bill is forecasted to be \$0.075 per month.

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 Recurrent PPA has been structured to receive the benefits associated with the ITCs through lower energy purchase prices. As provided by the Department, the estimated value of the ITCs to DWP under the Recurrent PPA is approximately \$2.5 million per year or \$50.4 million

over the 20-year term.

Facility Purchase Option and Land Purchase Option – Included in the proposal is a Facility Purchase Option for the solar facility at identified intervals beginning at year 6 of the PPA. This date corresponds to the completion of investment tax credits anticipated to be received by the developer, which is not available to municipally-owned utilities such as DWP. The purchase option includes minimum and maximum valuation amounts for forecasting the value of the solar facility in approximately the years 2021, 2025, 2030, and 2035. A separate land purchase option is also included in the proposal that provides DWP the ability to purchase the land throughout the term of the PPA. The table below outlines the predetermined values of both options at identified intervals.

Summary of Facility and Land Purchase Options by Year (\$ millions)

| Year | Facility Option Fair Market Value (min – max) | Land Option Fair Market Value (min – max) | Total (min – max) |
|-----------|-----------------------------------------------|-------------------------------------------|----------------------|
| 6 (2023) | \$108 - \$127 | \$4.5 - \$5.4 | \$112.5 - \$132.4 |
| 10 (2026) | \$101 - \$119 | \$5.6 - \$6.7 | \$106.6 - \$125.7 |
| 15 (2031) | \$90 - \$106 | \$7.7 - \$9.3 | \$97.7 - \$115.3 |
| 25 (2041) | \$75 - \$88 | \$9.5 - \$11.4 | \$84.5 - \$99.4 |

Executing an option to purchase each facility is subject to approval by the DWP Board of Commissioners and the Mayor and City Council, by ordinance, pursuant to the provisions of City Charter Section 674(a), prior to exercising the option. This Office and DWP agree that this subsequent approval, by ordinance, will allow for an elevated level of review by both the Mayor and City Council. Additionally, given that future energy costs are speculative, it will provide DWP the opportunity to develop and present a comprehensive financial analysis and review of the facility conditions, project costs, market conditions, industry developments, and new technologies. Furthermore, this analysis will provide an improved ability to determine if the estimated pricing included in the Purchase Option Agreements is appropriate or if the Department should continue to only purchase the energy through the duration of the PPA.

The expected life of the facility before significant maintenance is required is estimated by DWP to be 35 years, which is greater than most solar panel warranties of 25 years and inverter components of approximately five years. Compared to the DWP Beacon Solar Project which utilized 25 years for the valuation of the Facility Purchase Options, this longer lifespan could unfavorably result in higher estimated valuations, significant maintenance expense, and reduced energy generation capabilities caused by anticipated panel degradation (0.5 percent annually) if the DWP exercises a purchase option for the facility. The expected annual maximum energy output assuming a 35 percent capacity factor is approximately 174,380 MWh or 0.6 percent of retail customer sales. Support was not provided for the expected 35-year life of the facility nor the assumed capacity factor.

Power Purchase Agreement (PPA) Trends – Significant ongoing solar generation price declines have been observed since 2011. Evidence of this decline is provided in a presentation by the

Southern California Public Power Authority (SCPPA) which shows that during 2013 the price of solar proposals decreased 26 percent from \$79.80 to \$59.00 per MWh (see Exhibit B). Other comparisons to large-scale solar projects can be observed across California and Texas in the table below for comparison, including a PPA executed in May 2014 by Recurrent Energy for \$50 per MWh with Austin, Texas Electric.

Comparison of Proposed Recurrent PPA to Other Solar Projects

| | DWP Proposal by Recurrent Energy | *-DWP Beacon 50 | Austin, TX by Recurrent Energy | Roseville, CA Lost Hills & Blackwell | Palo Alto, (Elevation & W. Antelope) + Frontier | DWP Copper Mountain 3 | DWP K-Road Moapa |
|--------------------------------|----------------------------------|--------------------|-----------------------------------------|--------------------------------------------|----------------------------------------------------------|--------------------------|------------------------|
| Energy Price (\$/MWh) | \$67.83 Fixed | \$52.61 fixed | \$50.00 | \$75.00 Fixed | \$68.77 and \$69.00 fixed | \$95.75 fixed | \$93.19 fixed |
| COD | Dec 2015 | - | 2016 | Apr 2015 | Dec 2016 | Dec 2015 | Dec 2015 |
| Term | 20 years | 25 years | 25 years | 10 years | 30 years | 20 years | 25 years |
| MW Capacity | 60 MW | 50 MW | 150 MW | 32 MW | 80 MW | 210 MW | 250 MW |
| MWh per year | 174,380 | - | unknown | 79,000 | 182,500 | 420,000 | 760,000 |
| Cost of Energy per year | \$11.8 M | \$5.05 M | \$21M | \$0.920M | \$11.7 M | \$40.2 M | \$64.85M |
| Total Cost over PPA Term | \$237 M | \$126 M | \$525 M | \$9.2 M | \$350 M | \$805 M | \$1.6 B |
| Impact on typical bill / mo | \$0.075 | \$0.02 | unknown | Unknown | unknown | \$0.60 | \$0.80 |
| Contract Date | May 2014 | May 2014 | May 2014 | Jun 2013 | May 2013 | Nov 2012 | Nov 2012 |
| RFP Source + Date | SCPPA 2012 & May 2013 | DWP Nov 2013 | Austin, TX Oct 2013 | Roseville, CA | Palo Alto Fall 2012 | SCPPA 2011 | SCPPA 2011 |

^{*} DWP owns the Beacon property (land) and has expended approximately \$84.8 million to provide certain development investments which invariably subsidize the cost of energy.

According to the Department, the proposed price per MWh is competitive with other bids received through the 2012 SCPPA RFP and that met set criteria. However, due to significant ongoing price declines in the solar industry that began in 2011, it is a concern of this Office that costs included in a 2012 RFP may not represent the current competitive cost available to DWP. The DWP's 2012 Financial Plan Case No. 119 (see the table below) anticipated an increasing price of solar at \$115 per MWh by 2016 and \$161 per MWh by 2018. The proposed cost is lower than the DWP plan by 41 percent and 58 percent, respectively. While the Department can assert that the proposal is advantageous compared to its plan, it does not provide certainty that the amount is currently competitive or in the best interests of the ratepayers, Department, or the City. Recent agreements by DWP (e.g., Beacon 50 Solar project) and other utility agencies have been selected and approved within six months of a RFP that provide more certainty.

| Year | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|----------------------------------------------|---------|---------|---------|---------|---------|---------|
| Case 119 New RPS Project Average (\$/MWh) | \$158.2 | \$116.0 | \$111.2 | \$115.1 | \$115.6 | \$161.1 |
| Barren Ridge Solar (\$/MWh) | | | | \$67.83 | \$67.83 | \$67.83 |
| Percentage Less than DWP Financial Plan | | | | (41%) | (41%) | (58%) |

Certain levels of analysis and high-level review were performed by one or more outside consulting firms hired to review the DWP evaluation model. In a consulting report dated October 29, 2013, it is asserted that DWP is utilizing a reasonable approach in estimating the future Fair Market Value (FMV) of the project; however, the Department is forecasting an "extreme spike" in power prices compared to the PPA \$67.83/MWh to \$133.18/MWh, which is contrary to current trends and initiatives intended to lower costs. The Department's use of increasing cost assumptions affects the FMV calculations of the future purchase option and may result in speculative valuations that are not appropriate or well supported at this time. Furthermore, the consulting report cautiously states that due to the extreme spike in power price after the PPA term, the DWP financial model indicates the Project's value unexpectedly increases over time as it draws closer to the PPA expiration. The report also identifies some degree of risk (age. technological obsolescence, dispatchability of resource, etc.) from a projected total revenue perspective, which will likely have a significant impact on the FMV of the project. The DWP response is that consulting report was not intended to determine the future value of the project; therefore, it is not relevant. It concerns this Office that key assumptions affecting the future option valuations utilize assumptions which cannot be supported with market-observable data and which are noted exceptions by the Department's own consultant.

SOURCE OF FUNDING AND RATE IMPACT

DWP states that funding for this PPA has been included in the Fuel and Purchased Power Budget within the Power Revenue Fund. This PPA will affect rates through increases to the Capped Renewable Portfolio Standard Energy Adjustment (CRPSEA) and the Variable Renewable Portfolio Standard Energy Adjustment (VRPSEA) as provided in the Incremental Electric Rate Ordinance No. 112273 adopted on October 5, 2012. The PPA provides for the purchase of solar energy from Recurrent. However, should DWP decide to purchase the Barren Ridge Solar facility at the option dates indicated in the PPA, the impact on ratepayers will change from a fuel expense to a capital expenditure, which should be carefully considered in the DWP financial plan for future budgets as well as for potential rate increases during the 20-year term of this PPA. At this time, the PPA does not require purchase of the Barren Ridge Solar facility and DWP did not factor a purchase into its rates. The cost of the PPA is favorably lower than the DWP IRP and the adopted Incremental Electric Rate Ordinance.

DWP expects the Recurrent Barren Ridge Solar project to result in a ratepayer impact of approximately \$0.00015 per kilowatt-hour or approximately \$0.075 per month for a typical household consuming 500 kWh per month.

POWER TRANSMISSION

The solar energy generated from Barren Ridge Solar will first be delivered through a new two-mile transmission line that will connect to an existing DWP 230k Barren Ridge substation. Subsequently, the energy will transmit through existing capacity on the Barren Ridge 230kV transmission line into Los Angeles. In the event the energy no longer qualifies as Bucket 1 Renewable Energy, the PPA allows the price to drop from the fixed price of \$67.83 per MWh to an on-peak "brown energy" rate as published on the California Independent System Operator (CAISO) Open Access Same-time Information system (SP15 Trading Hub Day-Ahead Market price).

RISK MANAGEMENT

The PPA provides for Barren Ridge Solar to deliver solar energy for 20 years; therefore, it is in the best interest of DWP to partner with a viable company to provide this energy. One indication of the capability of a company to adhere to a long term commitment is its credit rating. The DWP advises that Recurrent is a subsidiary of Sharp US Holding Inc., which is a subsidiary of Sharp Corporation of Japan, a large manufacturer and seller of consumer/information products and electronic components, including solar cells consisting of crystalline solar and thin-film solar cells. Although Sharp has a completed 258 MW of projects and is currently developing 227 MW of additional projects, the Standard and Poor's (S&P) credit rating as of August 2013 for Sharp Corporation is B+ long term and B short term which is described as non-investment grade.

To ensure developer performance and delivery of the project, the developer will provide a project performance security deposit (in a letter of credit) totaling \$3 million before COD and \$9.5 million after COD until the completion of the PPA term. The Department states that the coverage provided by the performance security deposit is sufficient to protect the interests of the City and the Department's demand for qualifying renewable energy.

CANCELLATION OF AGREEMENT

The Agreement provides for multiple scenarios in which DWP can terminate the Agreement with Recurrent. One of the scenarios for termination is a Force Majeure Event that is commonly found in many agreements and provides for cancellation 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.

Furthermore, if Recurrent fails to deliver 50 percent of the Guaranteed Generation for a period of 18 consecutive months, or if the facility is inoperable and cannot be repaired or replaced within 24 months, termination of the agreement will be deemed "no-fault" and neither DWP or Recurrent shall have any liability or obligation to the other party.

PROPOSED USAGE OF SOLAR GENERATED ENERGY

The DWP electric generation can be separated into three basic categories: base, intermediate, and peak load units. Base load units derive their energy from operating generation stations on a constant (24 hours a day, 7 days a week) basis, historically needed to supply the DWP customers a majority of the time. Intermediate load units are utilized to satisfy periodic energy demand fluctuations. Peak load units are utilized to address short term seasonal or emergency needs.

Solar energy is affected by seasonal and meteorological variations that impact its availability; however, the facility is sited in an area which has a high probability of generating solar energy on a regular basis. The energy will not be utilized in the same manner as the Department's base energy generation because of the intermittent nature of solar energy; however, it will be used to supplement the base energy during peak hours and during high temperature periods.

CONCLUSION

As noted throughout this report, it is a concern of this Office that the Department may not have sufficiently considered the financial aspects or comparisons to valuations currently observed in the solar energy market. The DWP prefers to complete this contract due to the risks associated with not achieving compliance with CEC requirements and the upcoming expiration of federal Investment Tax Credits. The DWP Board Report does offer that an alternative to approving this proposal is for DWP to begin negotiations with another developer though DWP states that results from a new bid proposal are not guaranteed to cost less and may not be completed prior to the 2016 CEC requirements for compliance. It is the recommendation to approve the proposed resolution and Solar Transaction. However, due to our concerns with the project, which are contained in this report, and our desire for the Department to achieve the renewable energy goals, we believe the Department may want to embark on its alternative as a safeguard in the event of excessive delays or the unforeseen cancellation of the project.

This Office also provides several noted requests for improvement of DWP energy development project proposals as listed below:

- (i) Perform financial analysis and support all financial claims and assumptions to increase the certainty that project costs are appropriate and competitive;
- (ii) Consider an alternative to the current minimum and maximum pricing constraints for purchase options and determine the future project value at the time of executing any purchase options to improve the certainty of a project's value;
- (iii) Submit future renewable project requests for power contract proposals requiring Mayor and Council approval, by ordinance, within six months of the conclusion of an RFP;
- (iv) Develop a standardized process for reviewing renewable energy projects that includes significant analysis and documentation to support future investments and submission of title ownership of any impacted parcels of land;
- (v) Develop standardized Power Purchase Agreements and/or write a specific contract to be released for competitive bidding, which does not allow for post-bid price changes, in order to facilitate a shorter contracting process;
- (vi) Modify the DWP financial plan and/or forecasts to reflect the significantly changed

current market conditions.

This Office has met with DWP leadership and the Department has agreed to address the suggested improvements in future projects.

The above-mentioned aspects of the proposed Agreement, and this report, are based upon information received from the Department subsequent to the initial request submittal.

RECOMMENDATIONS

That the Mayor:

- 1. Approve the proposed resolution relating to the Power Purchase Agreement No. BP 13-057 with RE Barren Ridge 1, LLC; the associated Purchase Option; the associated Land Purchase Option with RE Barren Ridge LandCo, LLC; and the associated License Agreement BP 14-017, pursuant to Charter Section 607, which requires the City Council to make a finding by a two-thirds vote that the long-term nature of the License Agreement is in the best interest of the City, as the term of the License Agreement is greater than 30 years;
- 2. Request the Department to address areas of concern identified in this report on all future energy development proposals; and
- 3. Return the proposed resolution to the Department for further processing, including Council consideration.

FISCAL IMPACT STATEMENT

Approval of the proposed resolution authorizes expenditures of estimated at approximately \$11.8 million per year and \$23.7 million over the 20-year term of the agreement from the Power Revenue Fund. There is no impact to the City's General Fund. The proposed Agreement complies with the Department's adopted Financial Policies.

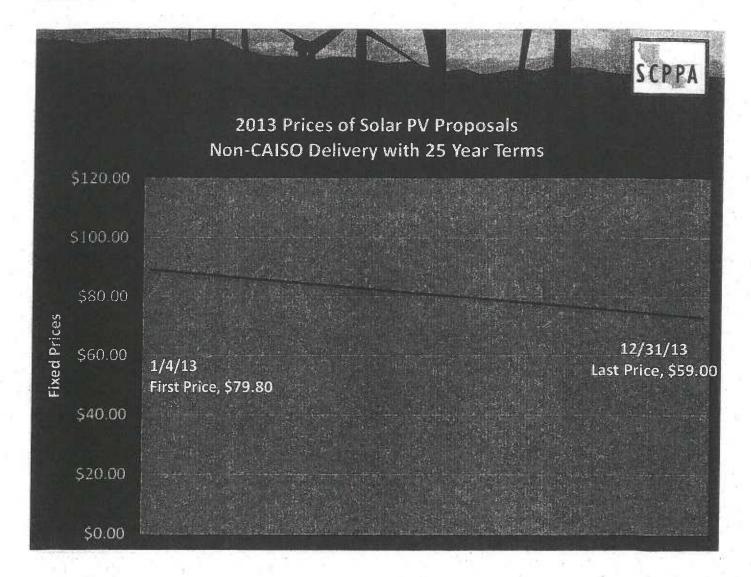
Attachment

MAS:RPR:10140084

Exhibit A

| | Cost per MWh | | | | |
|------------------------------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--|--|
| Costs of Recent DWP Solar Energy Projects | Costs teported for Beacon 50 A5 il 2014 F | THE REAL PROPERTY AND ADDRESS OF THE PARTY O | Costs reported for Cooper Mith 3 Sola 'Oct 2012 | | |
| DWP Beacon 50 (Site 4) | \$52.61 | | | | |
| DWP Manzana Wind | | \$82.50 | | | |
| DWP Copper Mountain 3 Solar | | | \$95.75 | | |
| Department Wide Costs of All Sources of Energy | April 2014 | 3 June 2013 1 | (1) 19al 2012 | | |
| Coal | \$48 | \$48 | \$48 | | |
| Combined Cycle Natural Gas | \$80 | \$80 | \$80 - \$170 | | |
| Simple Cycle Natural Gas | \$225 | \$225 | | | |
| Solar Photovoltaic (PPA) | \$94 | \$116 | | | |
| Solar Photovoltaic (In-Basin) | \$154 | \$154 | | | |
| Solar Photovoltaic (Owens Valley) | \$153 | \$153 | \$116 – \$152 | | |
| Solar Customer-Net-Metered | \$130 | \$130 | | | |
| Solar Feed-in-Tariff | \$152 | \$152 | | | |
| Wind | \$105 | \$105 | - | | |
| Geothermal | \$100 | \$109 | \$65 – \$106 | | |
| Biomass | \$100 | \$100 | \$68 – \$110 | | |
| Small Hydropower | \$85 | \$85 | \$76 | | |
| Large Hydropower | \$31 | \$31 | | | |

Exhibit B



ERIC GARCETTI Mayor Commission
MEL LEVINE, President
WILLIAM W. FUNDERBURK JR., Vice President
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, Secretary

MARCIE L. EDWARDS General Manager

CHANADMINISTRATIVE OFFICER

April 2, 2014

The Honorable Eric Garcetti Mayor, City of Los Angeles Room 303, City Hall Mail Stop 370

Attention: Ms. Mandy Morales, Legislative Coordinator

Dear Mayor Garcetti:

Subject: Los Angeles Department of Water and Power (LADWP) Power Purchase Agreement (PPA) No. BP 13-057 with RE Barren Ridge 1 LLC (Recurrent) for Solar Capacity, a Purchase Option of the RE Barren Ridge 1 Solar Generation Facility (Solar Facility), a Purchase Option of the RE Barren Ridge LandCo LLC (RE LandCo) Land, and Real Estate License Agreement No. BP 14-017

In accordance with Executive Directive No. 4, enclosed is a copy of a Board letter and supporting documents recommending approval and transmittal to the Los Angeles City Council of PPA No. BP 13-057, between LADWP and Recurrent for solar capacity, the purchase option for the RE Barren Ridge I Solar Generation Facility, the purchase option for the land, and Real Estate License Agreement No. BP14-017.

It is respectfully requested that your review be completed as soon as possible. Once the required City Administrative Officer's report has been received, the matter will be scheduled for action by the Los Angeles Board of Water and Power Commissioners and forwarded to the Los Angeles City Council for consideration.

Please contact Ms. Winifred J. Yancy, Director of Intergovernmental Affairs and Community Relations, at (213) 367-0025 upon completion of the review, if the review will take longer than 30 days, or there are any questions regarding this item.

Sincerely

Marcie L. Edwards General Manager

DB:nsh Enclosures

c/enc: Mr. Guy Lipa, Office of the Mayor

Board of Water and Power Commissioners

Ms. Winifred J. Yancv

Los Angeles Aqueduct Centennial Celebrating 100 Years of Water 1913-2013



RESOLUTION NO.

BOARD LETTER APPROVAL

RANDY S. HOWARD

Senior Assistant General Manager

Power System

MARCIE L. EDWARDS

General Manager

DATE:

May 23, 2014

SUBJECT:

LADWP Power Purchase Agreement (PPA) No. BP 13-057 With RE Barren Ridge 1 LLC for Solar Capacity, a Purchase Option of the RE Barren Ridge 1 Solar Generation Facility (Purchase Option), a Purchase Option with RE Barren Ridge LandCo LLC for the underlying land (Land

Purchase Option), and Real Estate License Agreement (License

Agreement) No. BP 14-017

SUMMARY

The PPA will authorize LADWP to purchase all of the solar energy, up to 60 Megawatts (MWs), it delivers, associated environmental attributes, and generating capacity rights of the RE Barren Ridge 1 Solar Generation Facility (Solar Facility) for a period of 20 years. The Solar Facility will be on non-tribal private lands, located 11 miles northeast of the community of Mojave in western Kern County, CA. The Solar Facility will be connected directly to the LADWP's transmission system at the Barren Ridge Switching Station (BRSS).

To obtain authorization to apply the energy and environmental attributes received under the PPA towards the compliance targets of LADWP's Renewables Portfolio Standard Policy and Enforcement Program (RPS Policy).

Los Angeles City Council (City Council) approval is required by ordinance pursuant to Los Angeles City Charter (Charter) Section 674.

City Council approval is also required for the License Agreement, which provides for a term of up to 34 years and 11 months, pursuant to Charter Section 606.

RECOMMENDATION

It is requested that the Board of Water and Power Commissioners (Board) adopt the attached Resolution recommending City Council's approval, by Ordinance, of PPA No. BP 13-057 with RE Barren Ridge 1 LLC, which includes the Purchase Option and Land Purchase Option per Charter Section 674.

It is also requested that the Board adopt the attached Resolution recommending City Council's approval of the License Agreement No. BP 14-017 per Charter Section 606.