



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

Notice of Date Change

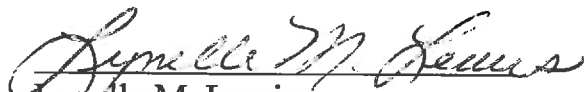
**SUSTAINABILITY/ENERGY
COMMITTEE MEETING**

8:30 a.m.

Wednesday, September 10, 2014

Notice is hereby given that the Sustainability/Energy Committee Meeting of the Board of Directors has been rescheduled from Tuesday, September 23, 2014 to Wednesday, September 10, 2014 at 8:30 a.m. The meeting will be held in the Training Resource Center of the Administration Building, 375 - 11th Street, Oakland, California.

Dated: September 4, 2014


Lynelle M. Lewis
Secretary of the District



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607

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AGENDA

Sustainability/Energy Committee

Wednesday, September 10, 2014

8:30 a.m.

Training Resource Center

(Committee Members: Directors Linney {Chair}, Foulkes, and Katz)

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DETERMINATION AND DISCUSSION:

1. Power and Water Resources Pooling Authority Update (Wallis)
2. Renewable Energy Update (Wallis)

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this Agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: September 4, 2014

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *ARC*

FROM: Michael J. Wallis, Director of Operations and Maintenance *MJW*

SUBJECT: Power and Water Resources Pooling Authority Update

INTRODUCTION

The Power and Water Resources Pooling Authority (PWRPA) is a publicly-owned electric utility that manages the Western Area Power Administration (WAPA) power for a number of irrigation districts and water agencies. PWRPA was reviewed at the November 26, 2013 Planning Committee. In December 2013, the District entered into an agreement with PWRPA to explore the costs and benefits to the District of joining PWRPA. Staff will provide an update on the findings of the evaluation and status of the settlement agreement between PWRPA and Pacific Gas and Electric (PG&E) at the September 10, 2014 Sustainability/Energy Committee meeting.

RECOMMENDATION

Complete the evaluation of the costs, benefits, and risks to the District of joining PWRPA for seven accounts, and allow PWRPA to submit these seven accounts to PG&E as new service delivery points.

DISCUSSION

PWRPA has completed the preliminary design and cost estimate for the intervening facilities for ten District facilities recommended by staff for evaluation. The intervening facilities are required in order to receive PWRPA service. Of the ten District facilities evaluated, seven had suitable space for the intervening facilities and had a favorable economic payback between two to five years. The remaining three sites had unfavorable economic payback. The District needs to verify the benefits and risks for the seven facilities including a review of the agreements necessary to join PWRPA.

In 2005, PWRPA and PG&E entered into a settlement agreement which temporarily resolved PG&E's challenge of PWRPA's right to exist. The settlement agreement will expire in September 2015. However, PG&E initiated discussions with PWRPA earlier this year to resolve their legal dispute regarding the validity of PWRPA as a Joint Powers Authority, and to modify limits imposed by their 2005 settlement agreement on the amount of additional loads PWRPA

may serve. The two parties are currently in negotiations and PWRPA is hopeful that a favorable resolution can be achieved this fall. In June 2014, the District and PWRPA executed a Non-Disclosure Agreement to allow the District access to information related to the settlement discussions between PG&E and PWRPA.

The settlement agreement between PG&E and PWRPA allows PWRPA to submit to PG&E in June and December of each year proposed new service delivery points. Submitting the seven accounts that were evaluated in the December 2013 request demonstrates the District's commitment to pursuing PWRPA membership and reserves the remaining available PWRPA capacity under the settlement agreement. Submitting facilities to PG&E will not subject the District to any obligations, liabilities, costs, or commitment to join PWRPA per the District's December 2013 letter agreement with PWRPA.

FISCAL IMPACT

The total estimated cost to construct the intervening facilities at the seven sites is approximately \$2.4 million with an estimated annual energy savings of over \$800,000.

NEXT STEPS

Review the existing agreements to understand the potential risks to the District and follow the negotiations between PG&E and PWRPA to verify that favorable conditions remain for District membership in PWRPA.

ARC:MJW:ss

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: September 4, 2014

MEMO TO: Board of Directors

THROUGH: Alexander R. Coate, General Manager *mc*

FROM: Michael J. Wallis, Director of Operations and Maintenance *hgw*

SUBJECT: Renewable Energy Update

INTRODUCTION

This memo provides an update on the District's renewable energy efforts including investigation of additional photovoltaic (PV) projects and an update on small in-conduit hydro projects. This information will be discussed at the September 10, 2014 Sustainability/Energy Committee meeting.

RECOMMENDATION

Pursue installation of PV systems at eleven District sites, and evaluate small in-conduit hydro for future projects. These projects meet the criteria in the District's Energy Policy 7.07.

SUMMARY

Staff completed a feasibility study of developing additional PV systems under PG&E's Net-Energy Metering (NEM) and NEM Aggregate (NEM-A) tariffs at a number of District facilities and identified eleven sites suitable for PV systems. The NEM tariff provides customers with onsite renewable generation (e.g., PV), an offset to their electric load and a credit for generation exported to the electric grid. The NEM-A tariff allows customers to apply energy credits to multiple electric accounts located on the same or adjoining land parcels. Five District sites under the NEM tariff and six District sites under the NEM-A tariff met the criteria in Policy 7.07. The District's Energy Policy 7.07 promotes the development of renewable energy projects to reduce greenhouse gas emissions, reduce costs, and minimize the District's reliance on fossil fuels.

Small in-conduit hydro generation units are being explored for use at the District's distribution system regulators to power the electric needs of the facility including the lights, ventilation, sump pumps, and communication systems. The first installation is expected to be completed by October 2014 at Cherry Regulator in Walnut Creek, and if successful, will be added to four other regulator rehabilitation projects currently in design.

DISCUSSION

Potential PV Projects

Staff completed a feasibility study to add PV systems under PG&E's NEM tariff at 77 of the District's mid-sized and 335 small-sized electrical accounts in the East Bay. The study found five sites that have the combination of a suitable area for PV panel installation, sufficient on-site electric load, and solar exposure necessary for a positive net present value over the 20-year life of the project. The District's large electrical accounts have been previously reviewed and their lower energy rates will not economically support a PV system. The five sites would require installation of PV panels on reservoir roofs and would have a combined capacity between 275 kW to 375 kW. The total installation cost for these sites is estimated to be between \$1 million and \$2.6 million with a net present value between \$750,000 and \$1.2 million. Two of the reservoir sites are planned for rehabilitation in the next few years so coordination of the project schedules will be necessary in order to complete the PV projects by the July 2017 end date of the existing NEM tariff.

In January 2014, PG&E released a new NEM tariff called NEM-A which allows participants to construct one PV system and apply the PV system's energy credits to multiple electric accounts located on the same or adjoining land parcels under the same ownership. Staff evaluated potential sites at Camanche and Pardee that met this requirement. The evaluation found six suitable sites for the NEM-A tariff with a combined capacity of 450 kW. The total installation cost for all the sites is between \$1.7 million and \$2.7 million, with a net present value of \$1.4 million to \$2.4 million. The NEM-A tariff in its current form will be available until July 2017 or when the capacity of generators participating in NEM-type tariffs reaches 5 percent of PG&E's customer peak demand or 2,409 MW. As of July 2014, 1,263 MW of capacity remains available for NEM applicants. When this end date or cap is met, all NEM-type tariffs will be revised and the revisions will likely be less economically favorable than the existing tariff.

In-Conduit Hydro Projects

Small in-conduit hydro generation units of approximately 250 watts are being explored for use at the District's distribution system regulators. These systems generate electricity from the flow of water through the regulator and would power the electric needs of the facility, including the lights, ventilation, sump pumps, and communication systems. This technology is being installed as part of the rehabilitation of Cherry Regulator in Walnut Creek. The work is expected to be completed by October 2014, and if successful, the technology will be added to four other regulator rehabilitation projects currently in design. Staff is also investigating additional facilities that may benefit from installation of in-conduit hydro generators.

FISCAL IMPACTS

The construction cost estimates range from \$2.7 million to \$5.3 million with a payback period of between 8 and 11 years.

NEXT STEPS

Prepare a Request for Proposals for the direct purchase of the PV systems at 11 sites and an option to enter into a power purchase agreement. Continue to evaluate additional opportunities to economically develop in-conduit hydro projects.

ARC:MJW:ss

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