



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

375 – 11<sup>th</sup> Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

**AGENDA  
Sustainability/Energy Committee  
Tuesday, April 24, 2018  
10:30 a.m.  
Training Resource Center**

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

**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. Employee Commuting (Chan)
2. Renewable Energy Update (Briggs)

**ADJOURNMENT:**

**Disability Notice**

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**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, and can be viewed on our website at [www.ebmud.com](http://www.ebmud.com).*



## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: April 19, 2018  
MEMO TO: Board of Directors  
THROUGH: Alexander R. Coate, General Manager *ARC*  
FROM: Clifford C. Chan, Director of Operations and Maintenance *CCC*  
SUBJECT: Employee Commuting

### INTRODUCTION

District employees use various modes of transportation to commute to their workplace and jobsites. The District has a number of programs to reduce vehicle miles traveled, improve employees' quality of life, and support environmental sustainability. The District's commute programs will be presented at the April 24, 2018 Sustainability/Energy Committee.

### SUMMARY

Vehicle transportation by cars, buses, and other motorized vehicles is the largest source of air pollution in the Bay Area. Each day, District employees commute approximately 68,000 miles by car. To reduce vehicle miles traveled, the District maintains a number of programs, including an Alternative Commute Program and a Telecommuting Program, and offers priority parking for employees who carpool to work with other employees. A 2017 employee survey identified barriers for employee participation in District commute programs. In 2018, the District is actively promoting existing programs and investigating options to reduce barriers.

### DISCUSSION

According to the Bay Area Air Quality Management District, motor vehicle transportation is the largest source of air pollution in the Bay Area, and commute travel accounts for nearly half of total motor vehicle travel on an average weekday. Each day, approximately 1,330 District employees commute about 68,000 miles by car. The estimated annual greenhouse gas (GHG) emissions from this activity is 6,034 metric tons (MT) which is equivalent to the 2016 GHG emissions from the District's fleet. The District has an Alternative Commute Program, offers telecommuting for certain functions, and provides parking for employees who carpool to reduce vehicle miles traveled.

The District's Alternative Commute Program helps reduce traffic congestion and environmental pollution. Under the program, the District provides a monthly subsidy to employees who commute on public transit, ride a bike or walk to work. Approximately one-quarter of the District's employees utilize this program. The program saves about 1,696 MT of emissions each

year. The Alternative Commute Program also includes a guaranteed ride home in the event an employee needs to respond to personal emergencies or work overtime.

Telecommuting can reduce vehicle travel by allowing employees to work at home. The District Telecommuting Program, in place since the 1990s, allows employees to telecommute when there is a benefit to the District and the employee, and it is manageable by the supervisor. The program is currently used part time (several days each pay period) by 51 employees and full time by 14 employees. The District recently surveyed each department to determine if there were opportunities to expand the program and identified some additional limited opportunities where telecommuting could benefit the District and the employee.

Parking for personal vehicles is limited at many District facilities including the Administration Building, Adeline Maintenance Center (AMC), and service centers (yards). Parking spaces at the Administration Building are subject to availability based on a priority system consistent with District business purposes. In addition, spaces are provided for carpools consisting of at least two District employees commuting to work together at least three business days per work week. Currently, six spaces are used by twelve individuals for carpools.

In 2017, the District surveyed employees regarding their commuting practices and needs. Over 800 responses were received. Fifty-eight percent of the respondents drive their entire commute because there is no easy access to transit from home, the transit stop is too far from their work location, transit takes too long or requires more than one transfer, or they need their vehicle for personal obligations. In 2017, the City of Oakland approached the District about providing financial support for a shuttle from the West Oakland BART station to the MacArthur BART station with a stop near the AMC. The survey indicated at least 79 employees at the AMC and the Main Wastewater Treatment Plant would take public transit if a shuttle was available.

## **NEXT STEPS**

Staff will continue to promote the use of existing programs and investigate further options to reduce vehicle miles traveled. This includes:

- Continue to publish articles in Splashes, increase coverage of commute options in onboarding and new employee orientations, hold brown bags, and participate in Sustainability Committee events such as Earth Day to promote commute options, including the Alternative Commute Program and carpooling;
- Evaluate programs to match employees to carpools; and
- Continue discussions with the City of Oakland regarding a shuttle that could serve AMC and/or the Main Wastewater Treatment Plant.

CCC:sd

## EAST BAY MUNICIPAL UTILITY DISTRICT

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DATE: April 19, 2018

MEMO TO: Board of Directors

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

FROM: David A. Briggs, Manager of Water Operations *DB*

SUBJECT: Renewable Energy Update

### INTRODUCTION

This memo provides an update on the District's efforts to develop renewable energy and expand electric service through Community Choice Aggregation (CCA) programs in the District's service territory. This information will be presented at the April 24, 2018 Sustainability/Energy Committee meeting.

### SUMMARY

Since 2003, the District has developed eight photovoltaic (PV) projects under various contractual arrangements. In 2018, two additional PV projects will begin operation under Power Purchase Agreements (PPA) with SolarCity, further increasing District use of renewable energy. Staff is also taking steps to develop large PV projects on watershed property through a recently available Pacific Gas and Electric (PG&E) tariff that will significantly increase the District's production of emissions-free PV electricity. Furthermore, in 2018 two CCAs will expand and initiate electric service in the District's service territory. This will provide an alternative to PG&E electric service for the majority of the District electric services and in many cases provide options for lower cost utility power.

### DISCUSSION

#### **Power Purchase Agreements**

The District executed two Power Purchase Agreements (PPAs) with SolarCity in 2016 to purchase PV generated electricity from a 325 kilowatts (kW) project at the District's North Richmond Water Reclamation Plant and a 380 kW PV project adjacent to Camanche Dam. In February 2018, the North Richmond PV project was completed and will provide approximately 20 percent of the plant's annual electric load. The Camanche PV project is scheduled to begin construction in June 2018, and is expected to offset the electric load at four remote locations including the Camanche Fish Hatchery, Camanche hypolimnetic oxygenation system, and the Pardee Recreation Area water

and wastewater treatment plants. The combined 705 kW capacity of the two projects will produce approximately 1,320 megawatt-hours (MWh) in the first year of operation. The new projects will bring the District's total PV installations to ten, with a total estimated annual PV generation of 3,170 MWh, or about two and a half percent of the District's annual energy use.

### **Large Scale PV**

The District is investigating three potential sites (see attached map) on the District's East Bay watershed property to develop one or more 5 MW PV projects under PG&E's Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) tariff. The three sites are the Duffel property in Orinda (off Bear Creek Road), the Shuteman property north of Lafayette, and the Navy Flat property adjacent to the Castro Valley Christmas Tree Farm. The RES-BCT tariff program has a cap of 105 MW and approximately a quarter of the cap has been constructed and subsequently accepted into the program, while another 41 MW of projects, including the District's three proposed projects, are in the application/interconnection process. In the summer of 2018, PG&E will complete their analysis of the District's three PV projects and will provide the final costs for interconnection and the electric grid improvements necessary to accommodate each PV project. Once any feasible projects are selected, the District will enter into agreements with PG&E to construct the necessary PG&E electrical upgrades and interconnection facilities.

A Request for Proposals (RFPs) was sent to nine consulting firms to secure consultant services to complete the necessary California Environmental Quality Act (CEQA) review and permits for the PV projects. The District received six proposals and ultimately selected Panorama Environmental, Inc. following an interview and evaluation process. The Board will be asked to consider approving an agreement with Panorama Environmental, Inc. at its April 24 meeting. If approved, the CEQA work will take up to two years to complete.

In total, the District may spend \$800,000 in development costs prior to committing to any construction. Additional development costs may also be incurred before any District project is accepted under the RES-BCT tariff. The total estimated net present value of the most economical project, the Duffel property, is expected to exceed \$10 million over the 30-year life of the project while the two other less economical projects will be less. A single 5 MW project will produce an estimated 12,000 MWh annually, equivalent to 9 percent of the District's present annual energy use.

### **Community Choice Aggregators**

In 2018, the Marin Clean Energy (MCE), CCA will expand its service territory and a second CCA, East Bay Community Energy (EBCE), will initiate operations in the District's service area. MCE, which began serving District electric accounts in 2013 and currently serves 46 District accounts in Richmond, San Pablo, El Cerrito, Lafayette and Walnut Creek, will expand its service territory to include all of Contra Costa County except Orinda, Pleasant Hill, Clayton, Antioch, and Brentwood in April 2018. MCE offers a Light Green product that is 50 percent renewable at a 3 percent discount on PG&E service and the Deep Green product, which is 100 percent renewable at a 1.5

percent premium over PG&E rates. Since the District has met its Energy Policy indirect greenhouse gas (GHG) emissions goal for 2017 and expects to continue to meet the indirect GHG goals for the next few years, the additional cost to purchase lower emissions energy is not necessary at this time. The 3 percent discount from the Light Green product will provide \$100,000 in annual saving for the 175 District electric accounts eligible for MCE service. Therefore, most all of the eligible accounts will be enrolled into MCE Light Green service with exceptions, including accounts that are currently saving more through participation in PG&E's Peak Day Pricing Program, a demand response program.

In June 2018, the recently formed EBCE CCA will begin providing electric service to Alameda County and all of its incorporated cities except Pleasanton, Newark and Alameda. EBCE is offering a base service called Bright Choice, which has an emissions factor equivalent to PG&E and a 1.5 percent cost saving on the energy component of PG&E rates. Overall, this equates to an estimated 0.7 percent discount on PG&E service after fixed costs are included. Similar to MCE, EBCE offers an optional service, Brilliant 100, which is 100 percent renewable and emissions-free, at the same costs as current PG&E rates. The District has 193 electric accounts eligible for EBCE and the Bright Choice product would provide about \$26,000 in annual savings for the largest 62 accounts, while the total savings on the smaller 131 accounts is estimated to be only \$163 annually. Because of the marginal saving on the smaller accounts and the probability that future rate changes may eliminate the minor savings, only the larger accounts are recommended for EBCE service at this time. Similar to MCE, the additional cost to purchase lower emissions energy is not necessary.

## **NEXT STEPS**

Staff will support and monitor the construction of the Camanche PV system. The Board will be asked to consider approving an agreement with Panorama Environmental, Inc. at its April 24 meeting. If approved, staff will execute the CEQA agreement and support the PG&E interconnection analysis for the proposed large PV sites. By summer 2018, staff will have the information needed to select preferred PV sites to focus the CEQA efforts and will consider solicitation of proposals for a PPA. In addition, staff will assign the District electric accounts to the appropriate CCA.

ARC:DAB:sd

Attachment





### PV Systems Location Map



