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AGENDA REPORT

TO: Sabrina B. Landreth
City Administrator

FROM: Jason Mitchell
Director, Public Works

SUBJECT: Participation in Pacific Gas & Electric
On-Bill Financing and East Bay
Energy Watch Programs

DATE: April 2, 2018

City Administrator Approval

Date:

4/12/18

RECOMMENDATION

Staff Recommends That The City Council Adopt A Resolution Authorizing The City Administrator To: 1) Participate In Pacific Gas & Electric (PG&E) On-Bill Financing (OBF) Programs; And 2) Allow OBF Contractors To Accept Energy Rebates.

EXECUTIVE SUMMARY

Pacific Gas & Electric (PG&E) offers two programs to finance municipal energy efficiency projects in the form of On-Bill Financing (OBF): OBF Traditional and OBF Alternative Pathways (OBF-AP). These programs provide up-front capital, technical assistance, and repayment management for each project undertaken, coordinated with the energy bills paid by the City for utilities at each facility. The programs offer;

- 1) A zero percent (0%) loan for qualified individual energy projects at loan amounts between five thousand (\$5,000) and one million (\$1,000,000) dollars, with terms up to 10 years in length;
- 2) Loans paid back on utility bills, with projects and loan repayments designed to result in no net increase from previous average utility bills;
- 3) Maximum revolving loan fund of four million (\$4,000,000) dollars for use in energy efficiency projects;
- 4) Use of local and non-local vetted contractors; and
- 5) PG&E administration of the loan payment and loan program on behalf of the City.

OBF loan terms and monthly payment amounts to PG&E are based upon the estimated monthly energy savings from the selected and installed energy measures. PG&E OBF contractors are responsible for conducting an energy audit to estimate bill savings for each facility and providing a recommendation for energy measures, estimated costs and energy savings and the project's simple payback analysis for City staff. Staff recommends that City Council authorize the City Administrator to enroll in the PG&E OBF programs to finance energy efficiency projects for the City's facilities.

Item: _____
Public Works Committee
April 24, 2018

BACKGROUND / LEGISLATIVE HISTORY

Energy efficiency work is an on-going and important strategy for reducing energy costs and lowering greenhouse gas emissions, and is a Priority Action in Oakland's Energy and Climate Action Plan (ECAP). The City has over 100 facilities in use as office spaces, fire stations, libraries, Head Start facilities, police facilities, recreation centers and senior centers. As lighting, insulation, building controls, and heating, ventilation and air conditioning (HVAC) technologies continue to improve in energy efficiency, opportunities arise to conduct energy efficiency retrofits to boost energy performance and reduce greenhouse gas emissions associated with operating each building. Energy audits are used to identify potential projects for each facility and estimate their costs, reductions in energy use, and cost savings. Energy projects may consist of upgrading or replacing HVAC equipment, adding insulation or air sealing walls, retrofitting or replacing lighting, installing controls for lighting and HVAC systems, and replacing equipment with less-damaging environmental energy sources (such as replacing natural gas powered systems with electricity-based alternatives).

In 2007 the California Public Utilities Commission (CPUC) decision 07-10-032 directed each of California's investor-owned utilities to offer on-bill financing to nonresidential customers. PG&E started offering OBF-Traditional to municipalities in 2012 and expanded its OBF services by introducing OBF-AP to nonresidential customers in 2016. PG&E OBF-AP increased the program limits for municipalities to \$1,000,000 per facility and 10-year terms, and introduced the investor confidence project – project developer (ICP-PD) concept to provide full project management to include operations and maintenance support, and energy savings verification by a third party.

Under the OBF programs, PG&E has funded over 2,500 loans totaling over \$100 million. Currently the cities of Emeryville, Rohnert Park, San Ramon and Daly City are using PG&E OBF programs for energy efficiency improvements in their facilities. Other cities in the area are reviewing the program for use in municipal facilities.

ANALYSIS AND POLICY ALTERNATIVES

The City's use of the OBF-Traditional and OBF-AP programs would represent a significant new source of capital for the delivery of energy efficiency projects for municipal buildings. City Council has previously budgeted for energy efficiency projects through Fund 4400 (City Facilities), allocating capital to be used in replacing aging or inefficient equipment in buildings with modern, energy efficient alternatives. No funding was allocated in the current FY 2017-19 budget for energy projects in Fund 4400. Following passage of Measure KK in 2016, Council also authorized funding for upgrades to specific buildings in Fund 5330 (Measure KK). These sources of capital will continue to be used to finance building improvement projects. Two energy projects were funded in the Capital Improvement Program (CIP) for FY 2017-19: HVAC and energy management system replacement at the Municipal Service Center (\$1,650,000) and the City Animal Shelter (\$1,650,000).

The PG&E OBF programs offer an additional source of capital with exceptionally favorable terms for use in supplementing funding provided through Fund 4400 and Measure KK. OBF

offers interest-free capital for terms of up to five years (OBF Traditional) or 10 years (OBF-AP), with repayment managed by PG&E. The repayment of loans is conducted through the energy bills for each facility. The City is billed monthly for each energy meter (one or more per facility), reflecting the total energy consumption for the billing period. Under the OBF programs, an analysis of each potential energy efficiency improvement is performed, generating estimates of the reduction in energy consumption and bill reductions likely to occur as a result of the change. This analysis includes projections of utility rate increases over time, ensuring that typical increases in energy costs are accounted for in each year of repayment. An amount equal to the projected bill savings is then applied to the energy bill as repayment. The net result is an energy bill at the same total cost. Once the loan is fully repaid through this arrangement, the loan surcharge is removed, and the City's energy bills are lowered. The lifespans of the energy efficient products typically range from 10-30 years, while the terms of the OBF loans are one to 10 years. Thus, the City will expect to receive lower utility bills for up to 29 years, based on the types of improvements installed.

If the City were to close a utility account prior to full repayment of an OBF loan, the balance would become due immediately. The City would typically only close an account in the event of a full facility closure, whether due to disaster (such as fire or earthquake damage) or planned abandonment of use. The expected lifespan of each facility would be taken into account when making the decision to complete energy efficiency projects, and used in the determination of which facilities will make use of this program.

If approved for use by City Council, potential projects under the OBF programs would be coordinated closely with projects being implemented under Measure KK to ensure each funding source is fully utilized.

Design and Requirements of Each Program Option

OBF Traditional

Qualified energy improvements using OBF Traditional financing must have a simple payback of five years or less. OBF Traditional is the preferred method of financing energy measures as it allows the City to utilize any available rebates for the installation of energy efficient products, and includes projects with the quickest payback period. Under the OBF Traditional program the City enters an agreement with PG&E, who administers the loan and ensures that contractors use devices and systems that meet the necessary requirements. Contractors conduct energy audits of buildings to identify projects, complete improvements, submit required documentation, and accept the energy rebates from PG&E (as available). Table 1: OBF Traditional Responsibilities shows the obligations of each participant under this program.

Table 1: OBF Traditional Responsibilities

Position	Role	Responsibility
City of Oakland	Loan Recipient	<ul style="list-style-type: none">• Signs OBF loan agreement• Repays loan through PG&E energy bills• Operations and maintenance

Trade Professional / Contractor	Installer	<ul style="list-style-type: none"> • Submits pre- and post- installation application for review • Completes retrofit project to the City's satisfaction • Accepts available energy rebates
PG&E	PG&E Account Representative	<ul style="list-style-type: none"> • Communicates Payment History Savings (PHS) results • Creates and distributes loan agreements • Distributes loan payment and establishes billing on City's account

OBF - Alternative Pathway

PG&E's OBF-AP program provides financing for energy improvements with a simple payback of up to 10 years. OBF-AP financed projects would have an ICP-PD acting as the contractor, serving as both the project manager and the project installer. The ICP-PD will have a quality assurance (QA) provider, an operational performance verification (OPV) provider and an operations and maintenance (O&M) provider as part of their team. The City would hold the same role as in the OBF Traditional program, but would also share information regarding the past energy performance of each building via PG&E. The PG&E role would also remain the same as in OBF Traditional. Table 2: OBF-AP Responsibilities shows the obligations of each participant under this program.

Table 2: OBF-AP Responsibilities

Position	Role	Responsibility
City of Oakland	Project recipient	<ul style="list-style-type: none"> • Share information with project developer via the share My Data platform • Participate in O&M training provided by the ICP- Project Developer • Sign OBF loan agreement • Repay loan via PG&E energy bills
ICP - Project Developer	Installer & Project lead	<ul style="list-style-type: none"> • Installs energy measures (through EBEW contractors) to City's satisfaction • Originates projects • Point of contact for the City of Oakland • Completes regular M&V and O&M reports during the operations phase of the projects per the respective O&M plans
QA provider	Project reviews and verification	<ul style="list-style-type: none"> • Sets process and minimum level of engagement for review • Verifies that program criteria are met • Verifies savings estimations and M&V and O&M plans
O & M Plan	ICP-PD or sub consultant	<ul style="list-style-type: none"> • Verifies installed equipment • Establishes the scope & performance criteria

PG&E	Program Administrator	<ul style="list-style-type: none">• Process loan applications• Communicates Payment History Savings results• Creates and distributes loan agreements• Sets up billing in PG&E billing system
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Approving Contractors for OBF-Funded Project

If approved by Council, staff would initiate the City's participation in the programs by securing the services of eligible contractors. The City has two options for selecting contractors: 1) establishing a City of Oakland approved OBF contractor list, or 2) using contractors vetted through East Bay Energy Watch (EBEW), a longstanding partnership of PG&E and all cities in Alameda and Contra Costa counties. Staff has proposed to use both options to ensure the largest available pool of eligible contractors.

The vetting and hiring contractors is a three-phase approach. The first phase would involve the City's Contract & Compliance team informing local firms regarding participating in the OBF or EBEW programs. Interested local firms must apply through the OBF or EBEW programs, and if successful may become a OBF or EBEW contractor.

The second phase would be the issuance of an informational notice informing local OBF and EBEW contractors to submit an informal bid to the City for ranking and compliance purposes. The informal bid package includes a questionnaire regarding experience and qualifications (for ranking), an ability to adhere to City schedules, programs, and contract requirements, and describes the process of ranking local OBF and EBEW contractors. Since payments to contractors are made by PG&E and using outside capital, many City requirements such as Small and Local Business Enterprise (SLBE) and Equal Benefits Ordinance (EBO) do not apply. However, prevailing wage requirements do continue to apply.

The third phase would involve City staff grading and ranking the contractor questionnaire. Contractor scoring would consist of questionnaire point values along with points awarded by Contract Compliance to determine the overall score for each contractor within their respective field (ICP-PD, lighting contractor and HVAC contractor). For more complex projects, the City will use an ICP-PD acting as a prime consultant where the ICP-PD is responsible for all facets of managing the project to include hiring and managing sub consultants (contractors, O&M firms, Q&A providers) and coordinating their work with the City. Once ranked, the City may use multiple ICP-PDs and contractors as needed depending on the City's project needs and the City's remaining OBF loan capacity.

Each energy project may require a combination of OBF (Traditional or AP) and/or EBEW program assistance. Energy rebates and simple payback results will determine which combination of programs to use. Under OBF Traditional, the project's simple payback cannot exceed five years. If this condition is met, then improvements under OBF traditional are eligible for energy rebates from PG&E. If the payback period is greater than five years, energy measures would be financed using the OBF-AP program. OBF-AP allows financing energy measures that have a simple payback of up to 10 years, but the improvements installed in the project are not eligible for energy rebates. Simple projects such as small HVAC replacement or minor lighting projects may be conducted with EBEW contractors, either with use of the OBF

financing or without (based on the need for financing). Thus, staff will use the projected energy savings, value of the rebates, and the length of the payback period to determine which program to use for each project.

Types of Projects to be Undertaken

Based upon past energy projects and the current conditions of City facilities, Staff has identified four areas where energy efficiency measures may occur: lighting, HVAC, water heating and building envelope.

Lighting: The City started lighting retrofits in 1998, when most facility light fixtures consisted of T-12 fluorescent lamps with magnetic ballasts. Replacing these magnetic ballasts with electronic ballasts removed harmful polychlorinated biphenyl (PCB) and reduced electricity costs from lighting by 30 percent. From 2003 to 2007 the City conducted a large-scale lighting retrofit financed by the Williams Settlement. As part of this City-wide lighting retrofit effort, three lighting contractors conducted lighting retrofits in approximately 70% of City facilities, mostly with smaller and more efficient fluorescent lighting. Today, most City facilities would be best served with upgrades from fluorescent to light emitting diode (LED) fixtures. Approximately 90% of the City's facilities are candidates to replace fluorescent light fixtures with new LEDs.

HVAC: The City has a combination of central plant, single HVAC systems and packaged HVAC roof-top units that provide heating and air-conditioning for its facilities. City facilities such as libraries, recreation centers and fire stations have packaged roof-top HVAC units nearing the ends of their useful lives. Staff estimates 60 percent of the existing roof-top packaged HVAC may require either an upgrade or full replacement. In addition to the aging units, there are significant greenhouse gas (GHG) emissions reductions possible from switching some of these units from natural gas powered to electric heat pumps.

Building Envelope: Energy audits completed at fire stations #25 and #17 revealed a lack of wall and ceiling insulation, and due to the poor insulation, use of several window A/C units and portable space heaters throughout both stations to maintain comfortable temperatures. Facilities such as these have the potential to add insulation, air sealing, and other measures necessary to remove the need for window A/C and portable heating units. This would increase user/tenant satisfaction in these facilities, reduce GHG emissions and improve energy performance.

Alternatives to Use of OBF Programs

If Council does not approve this request, the City will rely solely on budgeted funds in Fund 4400 (City Facilities) and Fund 5330 (Measure KK) to provide capital for energy efficiency projects. As earlier noted, no projects were funded in Fund 4400 in the current cycle, while two projects were funded in Fund 5330. However, this will greatly reduce the number of energy efficiency projects that staff can deliver, as there are unfunded needs for improvements beyond the buildings eligible or scheduled for other funding sources. Also, this may not allow the City to benefit from deeper energy efficiency work that Staff would consider implementing, as the lower capital available would need to be spread out across more projects. Utilizing both PG&E OBF programs and Measure KK funding simultaneously would expand the capital available for investment in the municipal building stock and ensure the quickest implementation of needed energy efficiency projects.

FISCAL IMPACT

Use of the OBF Traditional and OBF AP programs creates multiple fiscal impacts to the City. The loans for each program are 0%, amortized over periods ranging up to five years in the OBF Traditional program and up to 10 years in the OBF AP program. The amortization period is based on analysis of the energy usage of the existing appliances and energy systems in each facility, and the projected cost savings associated with lower energy usage from the replacement improvements. The analysis provides for the expected reduction in monthly bills, and this amount is added to each monthly bill for repayment of the loan. Thus, the total energy costs for each facility remain the same until the loan is repaid. Following full repayment of the loan, the City expects to have lower energy bills for each participating facility for the remaining useful life of the energy systems installed. Thus, the long-term fiscal impact on the City is positive as a result of the program.

It is expected that the rates paid by the City for utility accounts may change over the course of the next few years as municipal accounts transition to East Bay Community Energy (EBCE). Participation in the OBF programs does not impact the ability of the City to take advantage of rates or other program offerings from EBCE. However, if rates change relative to the existing rates for particular facilities, this may change the rate of repayment for proposed projects. Staff does not anticipate that the minor changes in rate structures between PG&E and EBCE will affect the viability of any energy efficiency project. If the City decides to close a facility's utility account that has an OBF balance, the City must repay the remaining OBF balance. OBF allows early loan repayment without incurring penalties.

PUBLIC OUTREACH / INTEREST

Contract Compliance provided information to local engineering and trade firms about the project and required steps to achieve eligibility as an OBF and EBEW approved contractor. On February 27 and March 1, 2018 Contract Compliance hosted two pre-proposal meetings.

No additional public outreach has been conducted relative to this item.

COORDINATION

This item has been coordinated among Oakland Public Works (OPW) and the Office of the City Attorney (OCA). Staff from OCA reviewed and approved key sections of these documents. The Controller's Bureau was also consulted in the preparation of this report.

SUSTAINABLE OPPORTUNITIES

Economic: Implementing energy efficiency measures throughout the City's facilities creates jobs in the energy management and trade job fields. Professional services such as certified energy managers, engineers and cost estimators may be used to determine energy measures and to develop the financial analysis required for OBF approval. ICP-PD energy projects also require services from firms that specialize in operations & maintenance, and quality assurance

functions. Lastly, licensed lighting and HVAC contractors are required for procuring, installing and ensuring these energy measures operate correctly.

Environmental: Installing energy efficient lighting and HVAC equipment, and replacing natural-gas equipment with electric equipment will reduce greenhouse gas emissions (GHG) emissions during municipal operations. Additional environmental benefits derive from replacing fluorescent lamps with LED lamps, as LED lamps contain no mercury and therefore are not subject to hazardous disposal requirements.

Social Equity: Installing energy efficient measures and replacing natural-gas equipment results in social equity benefits to both the community by creating jobs and by reducing local air pollutants in specific areas, specifically in areas adjacent to or downwind from power plants that operate less frequently as a result of the project.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)


Approval of the Resolution would provide staff with direction to participate in the OBF and EBEW programs, as appropriate. This is not an eligible project under the California Environmental Quality Act. Therefore, CEQA does not apply to the action being considered by Council.

ACTION REQUESTED OF THE CITY COUNCIL

Staff recommends that the City Council adopt a resolution authorizing the City Administrator to:
1) Participate in Pacific Gas & Electric (PG&E) on-bill financing (OBF) programs; and 2); allow OBF contractors to accept energy rebates.

For questions regarding this report, please contact Pete Fong, Electrical Engineer II, at (510) 238-7074.

Respectfully submitted,



JASON MITCHELL
Director
Oakland Public Works

Reviewed by:
David Ferguson, Interim Assistant Director

Reviewed by:
Becky Dowdakin, Environmental Services Manager

Prepared by:
Daniel Hamilton, Sustainability Program Manager

FILED
OFFICE OF THE CITY CLERK
OAKLAND

OAKLAND CITY COUNCIL



 City Attorney

2018 APR 12 PM 3:56 RESOLUTION No. _____ C.M.S.

RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR TO: 1) PARTICIPATE IN PACIFIC GAS & ELECTRIC (PG&E) ON-BILL FINANCING (OBF) PROGRAMS; AND 2) ALLOW OBF CONTRACTORS TO ACCEPT ENERGY REBATES.

WHEREAS, in 2007 California Public Utilities Commission (CPUC) decision 07-10-032 directed each of California's investor-owned utilities to offer OBF to nonresidential customers; and

WHEREAS, in 2012, the City Council approved Resolution No. 84126 C.M.S., adopting the City of Oakland's Energy and Climate Action Plan (ECAP), which calls upon Oakland to use 62 million kilowatt-hours of electricity from renewable sources to help achieve the goal of reducing community-wide greenhouse gas emissions by 36 percent below 2005 levels by 2020; and

WHEREAS, Pacific Gas & Electric (PG&E) offers two programs to finance municipal energy efficiency projects in the form of On-Bill Financing (OBF): OBF Traditional and OBF Alternative Pathways (OBF-AP), which provide up-front capital, technical assistance, and repayment management for each project undertaken, coordinated with the energy bills paid by the City for utilities at each facility; and

WHEREAS, the OBF programs offer zero percent (0%) loans for qualified individual energy projects at loan amounts between \$5 thousand and \$1 million, with terms up to 10 years in length; and

WHEREAS, OBF programs include: loans paid back on utility bills, with projects and loan repayments designed to result in no net increase from previous average utility bills; maximum revolving loan fund of \$4 million for use in energy efficiency projects; and use of local and non-local vetted contractors; and PG&E administration of the loan payment and loan program on behalf of the City; and

WHEREAS, the City has over 100 facilities in use as office spaces, fire stations, libraries, Head Start facilities, police facilities, recreation centers and senior centers that are strong candidates for energy efficiency retrofits to improve energy performance and reduce greenhouse gas emissions associated with operating each building; and

WHEREAS, the energy projects may consist of upgrading or replacing HVAC equipment, adding insulation or air sealing walls, retrofitting or replacing lighting, installing controls for lighting and HVAC systems; and replacing equipment with less-damaging environmental energy now, therefore, be it

RESOLVED: That the City Administrator or her designee is authorized to enter multiple PG&E OBF agreements with PG&E OBF contractors to procure and install City approved energy measures that meets the PG&E OBF loan requirements; and be it

FURTHER RESOLVED: That participation in PG&E OBF programs does not impact the ability of the City to take advantage of rates or other program offerings from East Bay Community Energy; and be it

FURTHER RESOLVED: That this Resolution shall become effective immediately, unless otherwise required by the Charter of the City of Oakland; and be it

FURTHER RESOLVED: To allow PG&E OBF contractors to accept associated energy rebates offered by PG&E or other California Public Utilities Commission (CPUC) energy rebate programs and apply these rebates directly to the energy efficiency project.

IN COUNCIL, OAKLAND, CALIFORNIA, _____

PASSED BY THE FOLLOWING VOTE:

AYES - BROOKS, CAMPBELL-WASHINGTON, GALLO, GIBSON MCELHANEY, GUILLEN, KALB, KAPLAN, AND PRESIDENT REID

NOES -

ABSENT -

ABSTENTION -

ATTEST: _____
LaTonda Simmons
City Clerk and Clerk of the Council
of the City of Oakland, California