DATE: September 12, 2023

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt a Resolution Approving the Expenditure Plan for the Calpine Clean Energy Fund

RECOMMENDATION

That Council reviews and comments on this report and adopts a resolution (Attachment II) approving an expenditure plan for the utilization of clean energy funding from Calpine.

SUMMARY

The Russell City Energy Center (RCEC) is a 600-megawatt powerplant located in Hayward's industrial area. The plant is owned and operated by the Calpine Corporation and began commercial operations in 2013. As Council is aware, on May 27, 2021, RCEC experienced a mechanical failure of the steam turbine generator that resulted in an explosion and fire. The steam turbine generator experienced extensive damage and debris from the explosion flew from the site to surrounding areas, including the City's Water Pollution Control Facility (WPCF) and the City's Homeless Navigation Center.

The City has entered into a Coordination, Resiliency, and Action Agreement with Calpine. The intent of the Agreement is to document improvements made in the working relationship between the City and Calpine as well as create a mechanism for donations to the Fire Department for the purchase of a hazardous materials response vehicle, to the Russell City Reparative Justice Project (RCRJP), and to the City to fund clean energy efficiency projects in the City. Energy related projects are intended to support grid resiliency and may include microgrids, solar energy, and/or battery storage installations. Staff is seeking Council's approval of a program that would carry out the clean energy funding portion of the Agreement.

BACKGROUND

On February 7, 2023[1], Council approved the original Coordination, Resiliency, and Action Agreement that was the result of more than two years of investigations, meetings, and collaboration between the California Energy Commission (CEC), California Public Utilities Commission (CPUC), Calpine Corporation staff, and City staff. The intent of the Agreement is to document improvements made in the working relationship between the City and Calpine as well as create a mechanism for donations to the Fire Department for the purchase of a hazardous materials response vehicle ($150,000) and to the RCRJP ($20,000). Calpine has made these initial contributions to the City.

Following additional settlement negotiations between Calpine and the CEC, Calpine agreed to contribute an additional $1,250,000 to the City for clean energy efficiency projects in the City to support grid resiliency, including microgrids, solar energy, and/or battery storage installations. On May 16, 2023[2], Council adopted a resolution authorizing the City Manager to execute an amended Agreement to accept and appropriate the additional contribution.

DISCUSSION

Staff is seeking Council approval of a proposed expenditure plan for the funds designated for clean energy projects. Staff is proposing that part of this contribution be used to pay for costs of installation of renewable energy at the Fire Station 6 (FS6) and Regional Fire Training Center (FTC), which is located on West Winton Avenue, west of Hesperian Boulevard and in relative proximity to RCEC. FS6 and FTC has 189 kilowatts of solar photovoltaic panels installed on three buildings and a 250-kWh battery for resiliency. The solar is expected to generate enough electricity to make the facility a zero net energy project. Staff proposes to use $922,000 of the clean energy fund to cover the cost of the installation of solar and battery for this project. The remaining $328,000 is proposed to be used for residential energy efficiency and clean energy in the vicinity of RCEC.

Staff proposes to focus the clean energy projects in the census tracts that are nearest RCEC, shown in Figures 1-3, and to implement the projects in low-income homes. As shown in Table 1, staff estimates the three census tracts have approximately 1,600 households that may be enrolled in PG&E's low-income discount program (CARE)[3].

[1] https://hayward.legistar.com/LegislationDetail.aspx?ID=6016050&GUID=5C9CD27C-59A7-4434-B2B9-EADEE40A9627&Options=ID|Text|&Search=russell+city
[2] https://hayward.legistar.com/LegislationDetail.aspx?ID=6204883&GUID=A0C1059A-2A8B-4A26-A3B4-C303CD997776&Options=ID|Text|&Search=russell+city
[3] CARE is the California Alternate Rates for Energy Program.

Figure 1.
Census Tract 4371.01

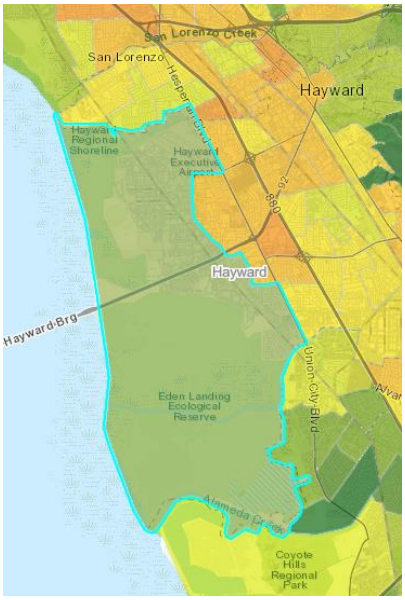

Figure 2.
Census Tract 4372.00

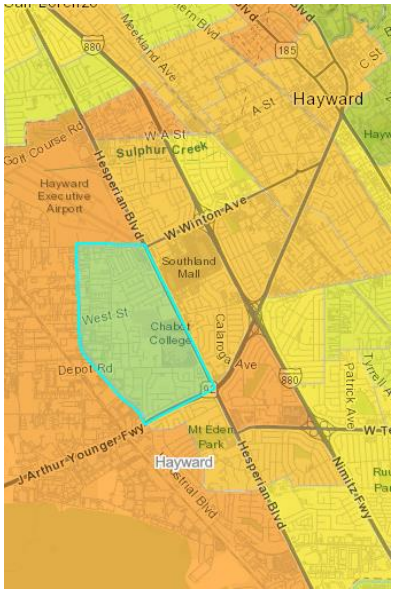

Figure 3.
Census Tract 4371.02

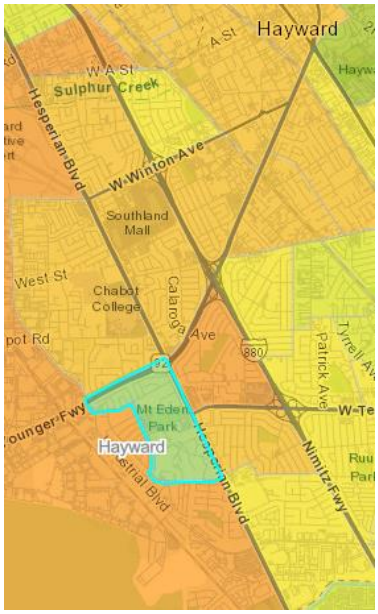

Table 1. Demographics of Selected Census Tracts

	Census Tract 4371.01	Census Tract 4372.00	Census Tract 4371.02	Totals
Population	7,867	7,489	4,521	19,877
Estimated Households	2,538	2,416	1,458	6,412
Estimated Low-Income Households	634	604	365	1,603

Staff proposes to offer households in this area electric heat pump water heaters (HPWH) to help shift the community away from the use of fossil fuels. HPWH can be scheduled to operate primarily during non-peak periods of electricity use, which helps to ease demands on the grid during the peak period of 4 p.m. to 9 p.m. Also, new rules adopted by the Bay Area Air Quality Management District (BAAQMD) in March 2023, will require that only water heaters with zero nitrogen oxide emissions can be sold or installed in the Bay Area starting in 2027. At this time, only HPWH meet this strict emissions requirement. Installing a HPWH before failure of a gas water heater can be easier and cheaper than an emergency replacement. According to the BAAQMD, HPWH are typically cheaper to operate than gas water heaters[4]. The proposed program would take advantage of the significant incentives

[4] https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-9-rule-4-nitrogen-oxides-from-fan-type-residential-central-furnaces/2021-amendments/documents/20230522_faq_appliance-rules_final-pdf.pdf?la=en

currently available from East Bay Community Energy and the Bay Area Regional Energy Network (BayREN)[5].

Staff estimates that approximately 90 homes[6] could be retrofitted with a HPWH with the clean energy fund. Staff recommends that the program be focused on low-income customers enrolled in PG&E's CARE program. Upon Council's approval of this proposed program, staff will issue a request for proposals to find a firm to design the program and install the water heaters. Staff would work with the selected firm to determine an appropriate cost share for the property owner that maximizes homes served while making the proposition attractive to the owner.

Staff has considered but is not recommending other potential programs for the clean energy fund. One alternative would be to install solar on homes within the selected census tracts. Staff estimates that approximately 20 to 30 homes could have solar installed with the allocated budget[7]. Staff is not recommending this program due to the small number of households that would benefit.

Another alternative would be to upgrade low-income customers from EBCE's cheaper and dirtier Bright Choice product to Renewable 100 (100% renewable energy). For the roughly 1,600 low-income households in the three census tracts, staff estimates the fund could pay the premium for Renewable 100 for about two years. Staff is not recommending this program due to the complexities of billing arrangements and the fact that the change in energy product would be temporary.

ECONOMIC IMPACT

The clean energy fund would benefit residents who live in the area of RCEC by providing them with cleaner, more affordable means of water heating. Furthermore, the households receiving new water heaters would benefit from postponing the costs associated with installing a new water heater when their current water heater fails. In addition, the request for proposals would encourage responding firms to employ local plumbers and electricians and to pay prevailing wages.

FISCAL IMPACT

The proposed water heater replacement program will be funded entirely by funds from Calpine for clean energy and energy efficiency projects and will have no negative impact on the General Fund or other City funds.

[5] https://ebce.org/hotwater/
[6] Estimate assumes an average installed cost of $4,000 and an owner contribution of $500. Some homes may include installation of a dedicated 240-volt circuit.
[7] Estimate assumes an average cost of $28,000 per home and an owner contribution of $14,000.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority to *Confront Climate Crisis & Champion Environmental Justice*. This item does not relate to a specific project but does address the overall goal to *Reduce Greenhouse Gases and Dependency on Fossil Fuels.*

SUSTAINABILITY FEATURES

Replacement of natural gas water heaters with electric heat pump water heaters would reduce GHG emissions. Hayward's most recent inventory of community wide GHG emissions shows that approximately 15% of emissions are from natural gas combustion in homes. Water heaters and furnaces typically account for 91% of residential natural gas use[8]. Reducing natural gas consumption will help the City reach its goal of reducing emissions 55% below 2005 levels by 2030.

PUBLIC CONTACT

Staff intends to conduct outreach to target customers while designing program details to ensure the water heaters are well received. Once the program is ready to launch, staff will contact eligible households directly by mail.

NEXT STEPS

Upon Council's approval of the program, staff will prepare and issue a request for proposals (RFP). Staff will return to Council to seek authorization for an agreement with the selected firm.

Prepared by: Erik Pearson, Environmental Services Manager

Recommended by: Alex Ameri, Director of Public Works

Approved by:

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Kelly McAdoo, City Manager

[8] See page 11 at https://www.energy.ca.gov/sites/default/files/2021-08/CEC-200-2021-005-PO.pdf