



# COUNCIL REPORT

**DATE:** May 23, 2023

**CATEGORY:** Consent

**DEPT.:** Public Works

**TITLE:** **City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center), and Sustainability Projects, Project 20-99—Various Actions**

## **RECOMMENDATION**

1. Approve a Capital Improvement Program scope amendment to City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center) to include replacement of the two existing gas water heaters and gas kitchen appliances with all-electric heat pumps and cooking appliances.
2. Transfer and appropriate \$200,000 from the Construction/Conveyance Tax Fund and \$360,000 from Sustainability Projects, Project 20-99, to City Hall HVAC GHG Offsets, Phase I, Project 22-34. (Five votes required)
3. Accept \$497,000 in grant funds and appropriate the grant funds (revenues and expenditures) to City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center). (Five votes required)
4. Accept \$70,000 in grant funds and appropriate the grant funds (revenues and expenditures) to Sustainability Projects, Project 20-99. (Five votes required)
5. Authorize the City Manager or designee to execute a capital project grant agreement with Silicon Valley Clean Energy for an amount not to exceed \$497,000 for City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center).
6. Authorize the City Manager or designee to execute a grant agreement with Silicon Valley Clean Energy for an amount not to exceed \$70,000 for community engagement with residents and community groups on building decarbonization initiatives.
7. Authorize the City Manager or designee to execute a professional services agreement with Aetypic, Inc., to provide design services for City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center), in a not-to-exceed amount of \$150,000.

## **BACKGROUND**

On [November 10, 2020](#), Council directed staff to seek offsets for 200% of the greenhouse gas (GHG) generation associated with natural gas use from the City Hall/Center for the Performing Arts heating, ventilation, and air conditioning (HVAC) system and return to Council as part of the 2021-22 Capital Improvement Program (CIP) for funding. At the [May 25, 2021](#) Council Study Session reviewing the 2021-22 CIP, Council supported staff's recommendation to create the following two CIP projects:

- City Hall HVAC GHG Offsets, Phase I, Project 22-34 (\$200,000)—Plant 100 trees (\$50,000) and install a solar water heating system for the Senior Center (\$150,000).
- City Hall HVAC GHG Offsets, Phase II, Project 24-34 (\$250,000)—Plant more trees in the City (\$175,000) and replace City's smaller natural gas appliances with electric or solar-powered options (\$75,000).

Council approved appropriating an additional \$100,000 to Project 22-34 for the Senior Center solar water heating project as part of approving the Fiscal Year 2022-23 CIP on June 28, 2022.

## **Silicon Valley Clean Energy Grant**

Silicon Valley Clean Energy (SVCE) is providing \$3.2 million in funding to local agencies through the Community Decarbonization Demonstration Grant. The purpose of this grant program is to provide funding to support the electrification of public/community buildings and existing affordable housing complexes. The City was eligible to apply for up to \$500,000 per project. In late 2022, staff evaluated the City's facilities and identified the electrification conversion of the Senior Center's domestic hot water system and kitchen appliances as a top-priority project to apply for this funding. At the same time, staff also evaluated applying for a second SVCE grant for community engagement to educate residents and community groups about building decarbonization initiatives and their benefits.

On December 15, 2022, SVCE notified the City that both grant applications had been accepted, and the requested funds would be awarded pending execution of their respective grant agreements. The SVCE grant funds can be used for planning (management, design, and engineering) and capital improvement construction costs. Per the SVCE grant requirements, the deadline to complete the projects awarded grant funds is December 31, 2024.

## **ANALYSIS**

### **Original Project Scope**

The CIP project for the water heater system was initially comprised of a new solar water heater that was intended to supplement, but not completely replace, the two existing gas domestic water heaters at the Senior Center. When the sun is shining, this system heats the domestic hot water with solar thermal energy and the gas water heater provides the heating at all other times. As the design of this version of the project was nearing completion, staff learned of the new grant opportunity from SVCE that would allow the system to be expanded significantly to greatly reduce the facility's reliance on natural gas. Therefore, the project was placed on hold until the outcome of the grant application was known.

### **Revised Project Scope**

The grant funds from SVCE will help fund the full replacement of the two existing gas water heaters as well as the gas kitchen appliances with all-electric heat pumps and cooking appliances, respectively. The resulting system will be an all-electric heat pump for hot domestic water, augmented by a solar thermal water heater system. The Senior Center's kitchen has a 10-burner gas stove, five gas ovens, and a gas-powered griddle, which will be replaced with all-electric similar appliances. All the new equipment will be powered by 100% renewable energy from SVCE's "Green Prime" utility service.

After SVCE confirmed the City would be awarded the grant, it was necessary to assess the existing electrical system of the building and the standby generator and to perform an audit of energy usage of the Senior Center, which took several months to complete. With help from consultants and Facilities staff, the existing electrical systems were found to be sufficient to accommodate the all-electric kitchen and domestic water heating systems. However, the electrification of the gas-powered hot water boiler that provides heating to the building's HVAC system could not be added as part of the project due to the limitations of the existing electrical system and the time limits on the grant. Adding an electric-equivalent replacement of the boiler for the HVAC system to the project would require significant additional funding, an electric panel upgrade, and an upgraded PG&E service connection, extending the project completion date beyond the grant deadline. Staff will continue to seek out additional grants in the future that could be applied to the full electrification of the Senior Center.

During construction, the kitchen will not be available for approximately four weeks. To maintain the Senior Nutrition Program services, the program will be temporarily relocated to the Community Center, and a catering service will be used for the 165 daily meals. The cost of the catering service is included in the project's budget.

## **Consultant Selection**

To implement the original scope of this project, staff had been working with Sun Light & Power, Inc. (SLP), a mechanical consultant, to design a solar thermal water heating system and secure a construction permit. With the significant expansion of the project scope, SLP determined they did not have the capacity to continue as the lead consultant of the electrification project. The revised scope involves the management of various disciplines of engineering design services as well as architectural coordination with the existing building roof and structure.

To meet this project grant deadline and streamline the design effort, staff recommends using Aetypic, Inc. (Aetypic), for the design and coordination of the extended electrification project. Aetypic has an existing on-call architectural agreement with the City, procured through a competitive RFP process in 2018. A separate agreement would be executed for this project. Aetypic has the expertise and capacity for the design and management of this project.

The main elements of the scope of services include:

- Design for the heat pump system and the electrical kitchen appliances;
- Structural design for the mounting of the heat pump(s);
- Electrical load calculations and preparation of electrical diagrams; and
- Construction support services.

The recommended fee of \$150,000 for design services, construction support, and contingency is consistent for such services, and staff considers the fee to be fair and reasonable for the scope of work required.

If the recommended action is approved by Council, design is anticipated to be completed in fall 2023, and construction would begin in early 2024 and be completed in fall 2024, meeting the grant deadline.

## **FISCAL IMPACT**

City Hall HVAC GHG Offsets, Phase I, Project 22-34 (Mountain View Senior Center), has a project budget of \$250,000 from the Construction/Conveyance Tax Fund, with a remaining balance of approximately \$220,000. An increase in appropriations of \$1,057,000 is requested for the Senior Center portion of Project 22-34, for design and construction of the larger project scope. Staff

recommends transferring and appropriating funding from the Construction/Conveyance Tax Fund, Sustainability Projects, Project 20-99, and grant funds as follows:

**Table 1: Appropriations to Project 22-34**

Construction/Conveyance Tax Fund	\$ 200,000
Project 20-99, Sustainability Action Plan 4 (SAP-4) Task B4.7: Develop revolving loan program and provide seed funding of \$200,000	200,000
Project 20-99, SAP-4 Task S1.3: Allocate funds for community/municipal pilot projects and training	150,000
Project 20-99, SAP-4: Unallocated funds	10,000
SVCE Grant Funds	<u>497,000</u>
<b>TOTAL</b>	<b><u>\$1,057,000</u></b>

Construction/Conveyance Tax Fund and Sustainability Projects, Project 20-99, have funding available for the recommended transfers. Sustainability Projects, Project 20-99, is funded with \$148,329 from grant funds and \$7.5 million from the General Non-Operating Fund.

The fee for the recommended consultant agreement is \$135,000 for basic services and a contingency of \$15,000 for additional services, for a total not-to-exceed amount of \$150,000. There is sufficient funding in Project 22-34 for the consultant agreement.

Once the design is complete with an estimate of construction funding, staff will return to Council as part of the approval of the plans and specifications to recommend additional funding for construction, if needed.

An increase in appropriations of \$70,000 is also being requested for Sustainability Projects, Project 20-99. The \$70,000 grant fund from SVCE is dedicated to community engagement on decarbonization efforts. Due to this, the \$70,000 grant fund will not be used for the engineering services and construction of the electrification project.

**CONCLUSION**

The expanded electrification project is a crucial step in supporting the City’s climate action goals as it involves transitioning the Mountain View Senior Center from using fossil fuels to renewable

energy sources. By replacing appliances with electric ones, the project also aims to improve air quality at the Senior Center by eliminating the source of methane and its harmful byproducts. Council approval of the staff recommendations on funding will allow the design and construction of the Senior Center electrification of the domestic hot water system and kitchen appliances to partially meet the GHG-reduction goal for the generation associated with natural gas use from the City Hall/Center for the Performing Arts HVAC system. Council approval of the two grant agreements with SVCE will supplement City funding for the project and public outreach activities to promote electrification/decarbonization initiatives. Approval of the consulting agreement with Aetypic will allow design to commence sooner, helping to meet the grant deadline. Staff will return to Council in fall 2023 for approval of the final plans, specifications, and estimate for construction as well as authorization to advertise for monetary bids.

### **ALTERNATIVES**

1. Do not approve a CIP project scope amendment with the requested budget appropriations and defer the project.
2. Provide other direction.

### **PUBLIC NOTICING**—Agenda posting.

Prepared by:

Damtew Ayele  
Senior Project Manager

Reviewed by:

David O. Printy  
Principal Project Manager

Edward Arango  
Assistant Public Works Director/  
City Engineer

Approved by:

Dawn S. Cameron  
Public Works Director

Audrey Seymour Ramberg  
Assistant City Manager

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cc: APWD—Skinner, APWD—Arango, PCE—Shah, PPM—Printy, SCE—Ayele, SMA—Doan,  
SMA—Goedicke, F/c