

**MEMORANDUM OF AGREEMENT AMONG COALITION PARTNERS FOR  
PUBLIC FACILITY RESILIENCY IMPLEMENTATION PROJECT  
ADMINISTRATION AND IMPLEMENTATION**

This Memorandum of Agreement (“MOA”) is entered into by and between Silicon Valley Clean Energy, a joint powers authority registered in the state of California; City of Cupertino, a municipal corporation of the state of California; City of Morgan Hill, a municipal corporation of the state of California; City of Mountain View, a municipal corporation of the state of California; City of San Jose, a municipal corporation of the state of California; City of Sunnyvale, a municipal corporation of the state of California; Prospect Silicon Valley, a nonprofit corporation registered in the state of California; and SPUR – San Francisco Bay Area Planning & Urban Research Association, a nonprofit corporation registered in the state of California; collectively “Parties” or individually as a “Party.”

**RECITALS**

- A. The impacts of climate change have contributed to a warming climate and power outages, which call for improvements at public facilities to make them more resilient and energy-independent;
- B. The Parties have worked collaboratively to identify and plan for the installation of improvements in public buildings in the jurisdictions of Cupertino, Morgan Hill, Mountain View, San Jose, and Sunnyvale to enhance resiliency and reduce greenhouse gas (GHG) emissions;
- C. The 2022 Inflation Reduction Act (IRA) established the Climate Pollution Reduction Grants (CPRG) program which provides funds for implementation grants administered by the United States Environmental Protection Agency (EPA);
- D. The Parties jointly prepared a CPRG application for submission to the EPA entitled the *Public Facility Resiliency Implementation Project* (PFRIP) to obtain implementation grant funding to design, construct, and evaluate the identified public building improvements;
- E. Silicon Valley Clean Energy (SVCE) submitted said grant application to the United States EPA on April 1, 2024;
- F. The Parties desire to execute this MOA to govern the use of grant funds to implement the PFRIP and to set out the obligations of the Parties for the life of the grant term; and
- G. This MOA establishes policies, responsibilities, and obligations for the Parties.

**NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:**

**SECTION 1. PURPOSE OF THE MOA**

The purpose of this MOA is to establish:

- The obligations and responsibilities of each Party for the management and operation of the PFRIP.
- Agreed upon roles, responsibilities, and commitments made by each Party to ensure PFRIP success aligned with overall PFRIP goals, objectives, and target outputs.
- An operating model for the Parties.

- How the collaboration and partnerships associated with the Parties will benefit the PFRIP (as described in Exhibit A).
- The resources each Party will contribute to the PRFIP.

## **SECTION 2. EFFECTIVE DATE AND TERM**

This MOA shall be effective on June 30, 2024 and shall remain effective until all obligations associated with any awarded grant have been fulfilled, subject to the termination provisions below. Without limiting the foregoing, the anticipated performance period for the grant is to begin October 1, 2024 and end December 31, 2029. This MOA may only terminate early in the event that grant funds are not awarded, in the event that grant funds are rescinded and all of the Parties' obligations associated with the rescinded grant funds have been fulfilled, or in the event that the grant is funded in an amount less than the requested \$49,999,997. In the event that the grant is funded in an amount less than the requested \$49,999,997, the Parties shall immediately meet and confer regarding the feasibility of the Project. If the Parties do not agree to accept the funds and execute the Project due to a reduced award, SVCE shall not execute the grant agreement associated with the award and this MOA will terminate upon the expiration of the period during which the grant agreement must be signed to accept awarded funds.

## **SECTION 3. RESPONSIBILITIES OF THE PARTIES**

For purposes of the Implementation Grant, SVCE, as the lead applicant, will be accountable to the EPA, and accepts full responsibility for effectively overseeing the full scope of work and the proper financial management of the Implementation Grant. All Parties commit to participate in the coalition as described in the project workplan, attached as Exhibit A of this MOA, and to expend project funds as described in the project budget, attached as Exhibit B of this MOA. All Parties other than SVCE are grant subrecipients and shall be accountable to and support SVCE, lead applicant, for proper use of EPA funding and successful project implementation. Each of the Parties agrees to participate in the coalition for the life of the PFRIP and may not withdraw or otherwise relieve themselves of any responsibilities created through this MOA.

## **SECTION 4. COSTS**

The Parties anticipate that the awarded implementation grant funds shall be sufficient to complete the project successfully and agree to take all reasonable and necessary steps to complete the project within the budget established for the grant. However, in the event that grant funds are not adequate to complete project deliverables, the Parties will immediately meet and confer to discuss how to address budget shortfalls. The Parties agree that any resolution to such budget shortfalls shall not be contrary to, nor cause a breach or violation of the obligations and responsibilities contained in the grant agreement executed between the EPA and SVCE, nor be contrary to any EPA requirements associated with the grant.

## **SECTION 5. RECORDS AND ACCOUNTS AND THEIR RETENTION**

SVCE, as well as all other Parties, will keep complete and accurate financial, payroll, and procurement

records related to the PFRIP. Upon reasonable notice to SVCE, any Party to this MOA may inspect the financial records related to the PFRIP. Financial records, supporting documents, statistical records, and all other records pertinent to the PFRIP must be retained by all parties for a period of three years from the date of submission of the final expenditure report.

## **SECTION 6. FURTHER ASSURANCES**

Each Party will adopt, execute, and make any and all further assurances, documents, instruments, and resolutions as may be reasonably necessary or proper to carry out the intention or to facilitate the Parties' performance of their obligations under this MOA.

## **SECTION 7. REPRESENTATIONS AND WARRANTIES**

Each Party represents and warrants to all other Parties as follows:

7.1 Authority: Each Party has the full legal right, power, and authority under the laws of the State of California to enter into this MOA and to carry out all of its obligations herein.

7.2 Due Execution: Each Party's representatives who sign this MOA are duly authorized to sign and bind their respective agency.

127.3 Valid, Binding, and Enforceable Obligations: This MOA has been authorized and executed by each Party and constitutes the legal, valid, and binding agreement of the Parties, and is enforceable according to its terms.

## **SECTION 8. REMEDIES NOT EXCLUSIVE**

Any failure by any Party to perform the responsibilities outlined herein shall be deemed a breach of this MOA. In the event of any dispute regarding the proper interpretation of this MOA, the Parties shall first immediately meet and confer to attempt to resolve the dispute. If the dispute remains unresolved, the Parties may agree to mediation or other non-binding resolution processes and, if the Parties do not so agree, the dispute shall be decided by binding arbitration.

## **SECTION 9. INDEMNIFICATION**

In lieu of and notwithstanding the pro rata risk allocation, which might otherwise be imposed between the Parties pursuant to Government Code Section 895.6, the Parties agree that all losses or liabilities incurred by a Party shall not be shared pro rata but, instead, the Parties agree that, pursuant to Government Code Section 895.4, each of the Parties hereto shall fully indemnify and hold each of the other Parties, their officers, board members, employees, and agents, harmless from any claim, expense or cost, damage, penalty, or liability imposed for injury (as defined in Government Code Section 810.8) occurring by reason of breach of this MOA or the negligent acts or omissions or willful misconduct of the indemnifying Party, its officers, employees, or agents, under or in connection with or arising out of any work, authority, or jurisdiction delegated to such Party under this MOA. No Party, nor any officer, board member, or agent thereof shall be responsible for any damage or liability

occurring by reason of the negligent acts or omissions or willful misconduct or intentional acts of any other Party hereto, its officers, board members, employees, or agents, under or in connection with or arising out of any work authority or jurisdiction delegated to such other Party under this MOA, including contracts entered into by the Contracting Agent. The obligations set forth in this paragraph will survive the termination and expiration of this MOA.

#### **SECTION 10. SEVERABILITY**

The provisions of this MOA shall be severable, and if any clause, sentence, paragraph, provision or other part shall be adjudged by any court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of this MOA will be valid and binding on the Parties.

#### **SECTION 11. AMENDMENTS**

This MOA may only be amended by a written agreement signed by all of the Parties.

#### **SECTION 12. COUNTERPARTS**

This MOA may be executed in counterparts, each of which shall be deemed to be an original, but all of which together shall constitute one and the same instrument.

#### **SECTION 13. USE OF ELECTRONIC SIGNATURES**

Unless otherwise prohibited by law, the Parties agree that an electronic copy of a signed contract, or an electronically signed contract, has the same force and legal effect as a contract executed with an original ink signature. The term "electronic copy of a signed contract" refers to a transmission by facsimile, electronic mail, or other electronic means of a copy of an original signed contract in a portable document format. The term "electronically signed contract" means a contract that is executed by applying an electronic signature using technology approved by SVCE. For the purposes of this agreement, the approved methods of signing shall be via DocuSign or original ink signature signed in counterpart and scanned over to SVCE via electronic mail.

#### **SECTION 14. INTERPRETATION, PRIOR AGREEMENTS AND AMENDMENTS.**

This MOA, including all Exhibits attached hereto, represents the entire understanding of the Parties as to those matters contained herein. In the event that the terms specified in any of the Exhibits attached hereto conflict with any of the terms specified in the body of this MOA, the terms specified in the body of this MOA shall control. No prior oral or written understanding shall be of any force or effect with respect to those matters covered hereunder. This MOA may be modified only by a written amendment duly executed by the Parties to this MOA.

#### **SECTION 15. NO LEGAL RELATIONSHIP**

By entering into this MOA, the Parties are neither forming, nor do they intend to form a partnership, agency, or any other legal entity relationship. No Party is authorized to bind or to act as the agent or legal representative of the other Party for any purpose, and neither Party is granted any express or

implied right or authority to assume or create any obligation or responsibility on behalf of or in the name of any other Party.

## **SECTION 16. GOVERNING LAW AND VENUE**

This MOA has been executed and delivered in, and shall be construed and enforced in accordance with, the laws of the State of California. In the event that a suit shall be brought by any Party to this MOA, the Parties agree that the venue shall be exclusively vested in the state courts of the County of Santa Clara or, where otherwise appropriate, exclusively in the United States District Court, Northern District of California, San Jose, California.

IN WITNESS OF, the Parties have executed the MOA as of the last date set forth below:

\_\_\_\_\_  
Silicon Valley Clean Energy

Date:

\_\_\_\_\_  
Approval as to form, Silicon Valley Clean Energy Counsel

Date:

\_\_\_\_\_  
City of Cupertino

Date:

\_\_\_\_\_  
Approval as to form, Cupertino City Attorney

Date:

\_\_\_\_\_  
City of Morgan Hill

Date:

\_\_\_\_\_  
Approval as to form, Morgan Hill City Attorney

Date:

\_\_\_\_\_  
City of Mountain View

Date:

\_\_\_\_\_  
Approval as to form, Mountain View City Attorney

Date:

\_\_\_\_\_  
City of San Jose

Date:

\_\_\_\_\_  
Approval as to form, San Jose City Attorney

Date:

\_\_\_\_\_  
City of Sunnyvale

Date:

\_\_\_\_\_  
Approval as to form, Sunnyvale City Attorney

Date:

\_\_\_\_\_

Prospect SV

Date:

\_\_\_\_\_

Prospect SV

Date:

\_\_\_\_\_  
SPUR Executive Director

Date:

\_\_\_\_\_  
Chief Financial Officer

Date:

**EXHIBIT A**

DRAFT

## SECTION 1: OVERALL PROJECT SUMMARY AND APPROACH

The *Public Facility Resiliency Implementation Project* (PFRIP) will be a regional funding source and implementation project for design and construction of publicly owned and operated fuel-switching, electric vehicle (EV) charging, and solar/battery storage projects in Santa Clara County, CA. As a Coalition led by Silicon Valley Clean Energy (SVCE), the Cities of San José, Sunnyvale, Morgan Hill, Mountain View, and Cupertino, in collaboration with SPUR and Prospect Silicon Valley, will implement greenhouse gas (GHG) reduction measures at 62 critical and community-serving facilities all meeting EPA-defined disadvantaged criteria and \$49,999,997 worth of electrification projects and supporting performance assessments and community engagement activities. SVCE will be the coalition lead and submit a Memorandum of Agreement (MOA) signed by all coalition members by July 1, 2024. The MOA will describe the roles and responsibilities of each coalition member in implementing the proposed greenhouse gas reduction measures, including related equity analysis, performance evaluation, community engagement and workforce development activities, and fulfilling all reporting requirements for the grant performance period. SVCE will establish the *Public Facility Resiliency Fund* (Fund) and ensure timely distribution of the Fund to the coalition's members for use in PFRIP. Each coalition member City will be responsible for leading the design, construction, and maintenance of its GHG reduction measures; take an active role in planning and implementing the project equity analysis, performance evaluation, community engagement and workforce development activities; and fulfilling all reporting requirements, for activities that take place in its jurisdiction. SPUR will lead the equity, community engagement and GHG reduction performance analyses. Prospect Silicon Valley will lead the design parameters performance evaluation and workforce development activities.

PFRIP will benefit low income and disadvantaged communities throughout the Bay Area by electrifying and fortifying 62 critical facilities countywide such as community shelters and fire stations that serve the communities' most urgent needs during emergencies as first responders or cooling and heating centers, gathering/family reunification spaces and shelters for those without traditional homes or access to personal emergency equipment like generators. Publicly owned and operated facilities such as libraries, cultural facilities, and community or recreational centers are also equitable meeting spaces, providing daily childcare and eldercare programs or access to exercise and computer equipment to low-income individuals. When enhanced with decarbonized assets such as EV charging infrastructure and all-electric equipment and backup power, these spaces will become powerful community resiliency centers providing public charging access, and will move Bay Area cities towards national, state and local decarbonization goals<sup>1</sup>.

### a. Description of GHG Reduction Measures

The *Public Facility Resiliency Implementation Project* (PFRIP) will implement “Decarbonization Retrofits” that change natural gas powered equipment for electric counterparts in major building systems including Heating, Ventilation, and Air Conditioning (HVAC) replacements, water heating and pumping, and kitchen appliances; and install “Resiliency Upgrades” for green backup power in the form of solar and battery, or microgrids, that may be integrated with public Electric Vehicle Supply Equipment (EVSE). These same measures are listed in the San Benito County and Santa Clara County Priority Climate Action Plan (PCAP), under Measure BE-2 on page 19, (see file

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<sup>1</sup> such as the [Department of Energy's Decarbonizing the U.S. Economy by 2050](#) plan, California Air Resources Control Board's [Advanced Clean Fleets Regulation](#) and California's [Clean Energy Transition Plan](#), Santa Clara County's [Silicon Valley 2.0](#), and local climate action plans, such as [Climate Smart San José](#), [Sunnyvale's Climate Action Playbook](#), [Morgan Hill's Climate Action Plan](#), [Mountain View's Sustainability Action Plan](#) and [Cupertino's CAP 2.0](#).



CA\_SanBenito&SantaClaraCountiesMSAPCAP\_SVCE\_PFRIP) and were chosen for their transformative impact at achieving net-zero buildings, and wide recognition as the measures that lead to major greenhouse gas reductions in the multiple climate adaptation plans listed above, and many others. Each measure is listed in the Climate Pollution Reduction Implementation Grants (CPRG) Notice of Funding Opportunity, under the Electric Power, Transportation, and Building Sectors, as a recognized greenhouse gas reduction measure. Table 1 shows the locations and planned retrofits.

The GHG reduction measures will be implemented according to the project workplan, and scheduled milestones as described in Section 3 and completed before the end of the grant performance period. Completion dates are planned to provide a final performance evaluation period for assessing the actual GHG reduction benefit of each constructed measure in each facility. Underlying assumptions associated with this work plan are that projects will be contracted and initiated in a timely fashion as described by the workplan, all equipment will be available for purchase without major assembly line delays, and all additional power supplies needed for electrical system upgrades can be provided by the relevant utility companies within 1-2 years of design completion. Indeed, these same assumptions present project risks to impacting the project timeline, so early coordination with utility and equipment companies will be employed and construction milestones have intentionally been given contingency time and budget inflation to ensure timely deliverables are met. A thorough list of project risks and assumptions will be included in the Quality Assurance Project Plan (QAPP) upon award.

Number	Location Name	City	Decarbonization Retrofits			Resiliency Upgrades		
			Water Heating	HVAC	Kitchen	Solar System	Battery System	EVSE
1	50 Sites Total* - 100 Retrofits	San Jose	X					
2	Roosevelt Community Center	San Jose				X	X	
3	Happy Hollow Park & Zoo-Kelley Park	San Jose				X	X	
4	Fire Station #32	San Jose				X	X	
5	Fire Station #23	San Jose				X	X	
6	Fire Station #36	San Jose				X	X	
7	Fire Department Training & Emergency Operations Center	San Jose					X	X
8	Fire Station #2 & Joint Fire Academy Training Center	Sunnyvale	X	X	X	X	X	X
9	Water Pollution Control Plant Cleanwater Center	Sunnyvale		X		X		
10	Centennial Recreation Center	Morgan Hill	X	X	X		X	X
11	Mountain View Sports Pavilion	Mountain View		X		X	X	
12	Whisman Sports Center	Mountain View				X	X	
13	Cupertino Quinlan Community Center	Cupertino	X	X				

Table 1: List of the proposed GHG reduction measures to be implemented. \*Full Site list available in Other Attachments file *Areas\_SVCE\_PFRIP*. All projects include the necessary electrical panel and distribution upgrades to support these enhancements.

**i. Detailed Descriptions of City Coalition Members' Sub-Project GHG Reduction Measures:**

**San José Decarbonization and Resiliency Projects:**

Through the regional grant application, the City of San José Public Works Department seeks \$22,365,541 in funding for microgrid construction at six critical facilities:

- Roosevelt Community Center - 200 kW Solar System & 800 kWh BESS<sup>2</sup> & Controller
- Happy Hollow– Kelley Park Campus - 200 kW Solar System, 1200 kWh BESS & Controller

<sup>2</sup> Battery Energy Storage System (BESS)

- Fire Stations 23, 32, and 36 – each 75 kW Solar System, 176 kWh BESS & Controller
- Fire Training & Emergency Operations Center - 880kWh and 660kWh BESS & Controller

The project will also:

- Retrofit 100 gas water heaters at 50 facilities citywide with heat pumps,
- Install 60 Level 2 EV chargers at the EOC that will be available for public use,
- Develop a Project Website and social media to display PFRIP GHG emissions reductions and milestones in real-time, and
- Hold translated meetings and a celebratory Climate Art Fair to engage community members in climate action and inform them about the facility improvements.

All 56 San José facilities are located within Justice-40 recognized Low Income and Disadvantaged (LIDAC) census tracts.

Roosevelt Community Center and Happy Hollow Park and Zoo are active community emergency shelters used for disasters, heating, and cooling relief. The centers are part of a network of local emergency shelters that are typically activated between 1-2 times per month, operating year-round as needed. Roosevelt Community Center also provides daily childcare and elder care programs, and community access to meeting rooms, computers, exercise equipment, locker room, and a commercial kitchen. Happy Hollow Park and Zoo covers a large campus including the Association of Zoos and Aquariums-certified zoo caring for rare and endangered animals, the Leininger Community Center offering community meeting rooms and commercial kitchen, and Kelley Park which contains a sanitary pump station requiring constant electrical power to prevent sewage entering nearby Coyote Creek. Fortifying these critical facilities with solar and battery backup power will provide full electrification potential to convert them to resiliency centers, ensure their use as emergency shelters during wide scale power outages or disasters, and protect natural resources including local water quality.

Fire Stations 23, 32, and 36 will be newly built critical facilities with all-electric construction. Existing buildings of Fire Stations 23 will be demolished, and rebuilt, while Fire Station 32 is a newly built as-yet unoccupied facility and Fire Station 36 will be an entirely new facility adding emergency protection to previously unprotected disadvantaged communities in South-Central San José.

The Fire Training and Emergency Operations Center (EOC) is one of two regional fire training facilities that trains firefighters stationed throughout Santa Clara County, and the central Emergency Operations Center for the 10th largest City in the United States. The EOC will be used as the countywide central emergency center during Super Bowl 2026. The site currently has a 416.6 kW solar system in place but needs two batteries to complete its microgrid design. The microgrid to be installed through the project will ensure continuous operation of the EOC during disasters, including the 60 Level 2 EV chargers that will be directly linked to the microgrid system. The EV chargers installed through the project will ensure that public EV charging is available in San José both during times of emergencies and daily, serving the disadvantaged community in which they will be built.

The project will also retrofit 100 gas water heaters at 50 community-serving facilities with heat pump models, providing significant greenhouse gas reductions to the countywide building portfolio. These community-serving facilities span the City's disadvantaged neighborhoods and include 4 emergency shelters, 17 community and youth centers, 9 libraries, 8 fire stations, 5 cultural and recreational facilities, 6 municipal offices or corporation yards, and 1 police facility. Retrofitting water heaters in these facilities will ensure their beneficial services and improve air quality within their disadvantaged communities.

### **Sunnyvale Decarbonization and Resiliency Projects:**

The City of Sunnyvale seeks \$3,459,281 in funding for an all-electric rebuild of two critical facilities: Fire Station 2 and the Sunnyvale Water Pollution Control Plant.

Fire Station 2 is one of two regional fire training facilities to offer numerous required training courses for firefighters throughout Santa Clara County and serves two LIDAC communities in Sunnyvale. The Fire Station is also one where the community and firefighters can engage in events like the annual pancake breakfast. With the number of visitors and trainees coming through the Station, electrification of this building will have far reaching impacts in the community. Fire Station 2 meets multiple 90 percentile thresholds including PM 2.5 in the air, lack of green space, proximity to hazardous waste facilities and superfund sites, and traffic proximity and volume.

The project will install (based on initial design estimations):

- 12 electric rooftop packaged heat pump HVAC with optimizers
- Up to two 80-gallon electric heat pump water heaters
- 2 built-in induction cooktops
- 4 EV chargers for all-electric fire trucks at the station
- 75 kWh Solar + 176 kWh BESS

The Sunnyvale Water Pollution Control Plant is one of the oldest treatment plants on the West Coast. It works around the clock to provide essential wastewater treatment for all Sunnyvale residents and businesses. The Cleanwater Center is one of the necessary upgrades planned for this aging facility. Designed to LEED Gold standards, it will be an operational hub for the 67-person team who operates, maintains, and manages the Plant. It will also serve as the welcome center for the public, both visitors and participants in tours of the Plant made available to the public. The Cleanwater Center meets multiple 90 percentile thresholds including PM 2.5 in the air, expected agriculture loss rate, and projected wildfire risk.

- The project will install:
- 114 kW Solar System
- 1 Heat Pump Water Heater
- 3 Electric Heat Pump HVAC units and 1 large HVAC heat pump
- Electrical Design and Construction

Electrifying public buildings comes with increased costs and Play 2.2 of the City's Climate Action Playbook aims to eliminate fossil-fuel powered appliances and/or sources in public buildings upon rebuild or significant remodel. While Sunnyvale has established this goal, increasing construction costs and additional costs of electrification can be a burden. To ensure the City can continue to meet its CAP goals, grants to offset costs are required. Therefore, offsetting these costs through CPRG dollars will support the City in meeting its ambitious building decarbonization target to electrify 44% of existing buildings by 2030. Modernizing and electrifying Fire Station 2 and the Cleanwater Center will allow the City to continue to prioritize future public building decarbonization projects and foster healthy and safe working and training conditions for local firefighters and essential staff that serve Sunnyvale's diverse population and underserved communities.

### **Cupertino Decarbonization Project:**

Through the regional grant application, the City of Cupertino Works Department seeks \$1,951,321 in funding for upgrades to the cooling, heating, and water heating components at Quinlan Community Center.

- The project will install: Heat Pump HVAC and Heat Pump Water Heating

Quinlan is a multi-use building providing staff office space, classrooms for recreation classes, space for the Cupertino Historical Society, and rentals. Quinlan is also used when the City needs to activate a shelter for heating, cooling, air quality, or most recently as space for displaced residents after a fire at a multi-family complex. The HVAC system at Quinlan was described in a building condition assessment study as being “in poor condition and well past its useful service life... [and is] an outdated pneumatic system that does not allow for remote monitoring or modern energy efficiency strategies.” Ventilation is not sufficient in the dance and fitness rooms, leading to doors being propped open. The 27,000 square foot facility was built in 1989 and the heating and cooling equipment is original to the building.

### **Morgan Hill Decarbonization and Resiliency Project:**

Through the regional grant application, the City of Morgan Hill seeks \$3,599,871 in funding to support the Centennial Recreation Center (CRC) Electrification Project, which includes the following components:

- Replacement of 4 gas boilers with electric boilers
- Replacement of the pool heater with an electric heat pump
- Replacement of Kitchen appliances with electric appliances
- Increase in microgrid battery storage
- Required electrical upgrades to support these enhancements
- Installation of an electric vehicle charging unit

The proposed project will serve the entire City population including the City’s significant low-income population. The project will allow the CRC to act as a resilient heating, cooling, and gathering center for the community which will especially benefit residents who may not have heating or cooling at their own homes. Public facility electrification is a community-driven goal that was included by a community working-group in the City’s adopted CAP.

### **Mountain View Decarbonization and Resiliency Projects:**

The City of Mountain View seeks \$13,860,618 in funds for resiliency and decarbonization infrastructure improvements in the form of Solar and battery installation, and heat pump HVAC installation at two sites:

- Mountain View Sports Pavilion at Graham Middle School - 191.5 kW Solar & 2.5 MWh BESS & Heat Pump HVAC
- Whisman Sports Center at Crittenden Middle School - 66.7 kW Solar & 250 kWh BESS

These retrofits and installations will support the middle schools’ operations, energy resiliency, and critical heating and cooling during extreme weather events. The middle schools serve 877 and 590 students respectively and allow public use of the facilities. Daily indoor air quality will be improved for students, staff, and the public. Both sites are designated community shelters used during climate-related

and other emergencies, and the microgrids will ensure their intended emergency use. These projects support the City of Mountain View's goal to provide a livable community for all, supporting sustainability and resiliency.

#### **b. Demonstration of Funding Need**

Bay Area cities are struggling to meet decarbonization goals due to the high cost of electrification equipment paired with lack of capital dollars available in many cities' General Funds, and inability to generate revenue within capital budgets. Bay Area cities are therefore looking to the Federal Infrastructure Bill for desperately needed assistance in meeting these ambitious goals, of which the CPRG represent the most significant funding opportunity to date. Other funding opportunities were either not awarded, deemed ineligible or insufficient for meeting individual Bay Area cities' resiliency needs. The CPRG alone offers Santa Clara County Cities an opportunity to create zonal decarbonization, a wide variety of greenhouse gas reductions and conduct portfolio-wide building electrification and resiliency that will enhance the quality of their residents' lives without further burdening California taxpayers who already pay some of the highest taxes and energy rates in the nation.

While the Santa Clara County Cities are committed to electrifying public buildings, costs for electrification improvements are beyond what is available in General Funds, and Public Works Departments are unable to generate revenue through special fees. For this reason, the San José Budget Office, for example, discourages the use of loans and is generally unable to take advantage of tax incentives without upfront funding sources. As another example of funding challenges, in 2023 the City of Cupertino lost approximately 75% of its sales tax revenue because of a state audit of a local vendor. Resulting budget cuts have made advancing modernization projects exceedingly difficult, so outside funding must be sought. While there are tax incentives such as the Inflation Reduction Act (IRA) direct pay available for solar and battery projects, they do not cover full costs. The City of Mountain View conducted an analysis of available federal and state funding sources that revealed that there is not a comparable funding opportunity to the CPRG which would cover the funding gap needed for solar and battery on just its two locations.

Santa Clara County cities explored federal funding sources in 2023 to cover the costs of needed electrification improvements, particularly for microgrid systems, without successful project fit. The EPA's GHG Reduction Fund Solar for All program covers residential solar only, and therefore is not an eligible funding opportunity for public facilities. Sunnyvale explored the Energy Efficiency Block Grant program for funds to support public facility electrification, however Sunnyvale's share at under \$200,000 was insufficient to offset construction and equipment costs. San José staff prepared sub-applications for both the Federal Emergency Management Agency (FEMA)'s Building Resilient Infrastructure and Communities and Hazard Mitigation Grant Program grants, which are widely considered to be the two most notable federal grants offering microgrid eligibility but were advised by California representative staff to withdraw due to inability to create a positive Benefit-Cost Analysis (BCA) analysis, and conflicting project needs. FEMA-funded equipment may be used as emergency measures only, which precludes use of microgrids for daily energy shaving and thus significantly reduces their GHG reduction benefit. FEMA's BCA metrics consider microgrid systems to be a type of generator, thus are not optimized for microgrid applications. Finally, FEMA standards do not consider power outages due to rolling blackouts, brownouts, Planned Power Safety Shutoff (PSPS), or other non-federally declared disasters eligible events for BCA analysis or use of FEMA-funded equipment. Bay Area municipalities need to install microgrid systems as emergency power backup for a myriad of non-federally recognized emergencies

such as storm-driven outages, locally centered fires, and minor earthquakes, and mitigating effects of planned outages or rolling blackouts that have become more common in Northern California as the electric grid is strained during summer and fall heat waves. While FEMA does not recognize these events as emergencies, Bay Area residents still experience them as such and require refuge during them.

Staff explored recent California state funding options and incentives for covering costs of microgrid equipment implementation or planning. The recently announced GFO-23-403 - Local Government Building Decarbonization Challenge and Integrated Climate Adaptation and Resiliency Program (ICARP)'s Extreme Heat Resiliency grants do not offer significant enough funding amounts for implementing regional GHG reductions. San José staff applied to the ICARP Regional Resiliency Planning Grants program in June 2023 for a Microgrids Roadmap Planning Grant but were not awarded. The San José City Manager's Office was awarded an Adaptation Planning Grant through ICARP that will be used to create a citywide climate adaption plan that will include the implementation elements listed in this application among a variety of climate priorities.

Staff chose to include EVSE in this proposal due to previous EVSE grant incompatibility or lack of success. Staff are exploring ICARP's GF-23-306 grant program but due to the 100-port minimum, the EVSE projects included in this proposal do not meet that program's minimum requirements. San José, Sunnyvale, and Morgan Hill explored the Department of Transportation (DOT) Charging and Fueling Infrastructure (CFI) Discretionary Grant Program. The City of Morgan Hill found that CFI did not allow for installation of chargers at key local locations, including the City's recreation center which is a local hub, due to corridor-proximity requirements; and Sunnyvale Fire Station 2 also had incompatible project fit. The City of San José submitted applications for both CFI's Community and Corridor implementation funding grants in June 2023 but were awarded neither.

Finally, the Cities of San José and Sunnyvale investigated both state and federal earmarks for assistance; Sunnyvale was unsuccessful, and San José's individual infrastructure needs far outweigh the funding cap of these programs, making the listed microgrid projects in particular ineligible for earmarks. Finally, the outlook is not good for California state sponsored earmarks, and possibly grants as well with the upcoming expected State budget deficit. Tax-based revenue is the only option, aside from grants, for generating new funding and seen as last resort that should only be leveled on citizens if grant sources do not produce results. As stated above, Santa Clara County Cities are looking to the Federal Infrastructure Bill for much needed assistance to meet resiliency goals without increasing financial burdens to our low income and disadvantaged citizens.

The CPRG grant will provide much-needed funding for a portfolio of decarbonization, microgrid, and EVSE projects throughout Santa Clara County that cannot be matched by any other funding source available within the last 18 months. The funding request in this proposal would cover the gap between existing IRA and other federal/state incentives, and the full cost of the projects, for a portfolio of GHG reduction measures at 62 large public facilities achieving zonal decarbonization in Santa Clara County.

### **c. Transformative Impact**

**Market transformation of emerging GHG emission reduction technology**—While low-pollution equipment like heat pumps have matured technologically, they remain stuck in an “early adopter” stage in much of the US market, characterized by low market penetration compared with gas counterparts. There's reason to believe that, as the market matures, the cost of heat pumps will drop significantly, and market penetration of electric appliances will consequently accelerate as it becomes affordable relative

compared to gas-fired appliances.<sup>3</sup> A National Renewable Energy Laboratory study projects that costs for HVAC heat pumps and heat pump water heaters will decrease by 30%–40% and 50%–55%, respectively, by 2050.<sup>4</sup> These cost reductions will be driven by innovation spurred by research and development funding, changes in consumer choice that increase demand, and consequent increases in heat pump production. The speed and success of this market transformation will have enormous implications for California’s climate goals—gas heating equipment in homes and businesses is still responsible for roughly 10% of California’s total greenhouse gas emissions.<sup>5</sup>

In addition, in 2023, the Bay Area Air Quality Management District (BAAQMD) passed a “first in the nation” rule phasing out the sale of gas heating in the Bay Area by 2031. As a result of this strong and unequivocal signal to the market, Bay Area communities are already well-positioned to accelerate the regional market development of heat pumps. However, further heat pump market maturation is needed before the phase-out to improve affordability relative to gas appliances and market integration.

*PFRIP* will support the market transformation by:

1. **Increasing demand for heat pumps** through the replacement of 106 gas water heaters with heat pump water heaters at 54 facilities countywide. Heat pumps baseline costs remain higher than their gas counterparts. Additional investments from cities and municipalities are needed to sustain market momentum and bring heat pumps into price competitiveness with gas equipment. Investments in public facilities can accelerate the market and contribute to overall heat pump affordability relative to gas appliances in two key ways:
  - a. *Demand signal*: *PFRIP* represents a sustained public investment in turnkey projects with predictable timelines and appliance investments. This can send a high profile and robust demand signal to manufacturers and distributors and boost the regional supply chain for zero-pollution equipment (See Technical Appendix, page 1 for Cost Projections Figure).
  - b. *Workforce capacity*: *PFRIP* proposes investments in workforce training for contractors. Contractor training remains a critical bottleneck in the installation of electric equipment, and consequently the cost, complexity of retrofits, and overall market demand for heat pumps. Training contractors in building electrification will contribute to market penetration of heat pumps and represent a sustained benefit for Santa Clara County communities as these newly trained workers continue to install zero-pollution equipment well beyond the lifespan of the *PFRIP*.
2. **Contributing to regulatory and technical lessons**: Siting and installing electrical equipment in buildings often requires careful planning, navigation of incentives, and overcoming technical and regulatory hurdles. These challenges can increase the cost of zero-pollution equipment, slowing demand, and stalling market transformation. Federal investment in public facility electrification will provide city planners, elected officials, and energy providers with an up-close experience

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<sup>3</sup> Rosenow, Jan, Duncan Gibb, Thomas Nowak, and Richard Lowes. 2022. “Heating up the Global Heat Pump Market.” *Nature Energy* 7 (10): 901–4. doi:10.1038/s41560-022-01104-8.

<sup>4</sup> Feinstein, Laura. 2024. “Closing the Electrification Affordability Gap.” SPUR. <https://www.spur.org/publications/spur-report/2024-02-26/closing-electrification-affordability-gap>. page 15, see Technical Appendix for Figure T1, page 1

<sup>5</sup> “Zero-Emission Space and Water Heaters - Frequently Asked Questions (FAQs).” 2023. *California Air Resources Board (CARB)*. May. <https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/zero-emission-space-and-water-heater-standards/faq>.

with electrification for diverse building types. This in turn will drive the development of smart policies to address regulatory and technical frictions. Some example lessons might include:

- a. *Panel and service upgrades*: Installing new electrical equipment, like heat pumps, risks triggering electrical panel and service upgrades, which can increase upfront costs, and require utilities to invest in additional distribution infrastructure and increase electric rates for its customers. Piloting the electrification of public buildings will generate lessons in optimizing panel load for medium and large-scale buildings to avoid panel and service upgrades. These lessons can in turn inform how municipalities encourage and support building electrification across the South Bay.
  - b. *Learning to reduce regulatory and “red-tape” barriers*: Regulatory barriers exist to siting, installing, and permitting heat pumps. These barriers vary across jurisdictions. By engaging in turnkey programs, Santa Clara municipalities can identify changes to city ordinances and permitting processes that can smooth the siting and installation of electric equipment.
  - c. *Electrification planning for localities*: Building electrification planning resources, such as Switch is On, Quit Carbon, and regional and local “concierge” services, are making electrification planning easier. However, navigating local peculiarities in contractor matching, available incentives, building types, and permitting and building ordinances, remain a challenge at all scales of building electrification. PFRIP will spur the creation of new electrification planning resources that are tailored to local building stocks, legal realities, contractor services, and incentives.
3. **Education**: There is a need to educate distributors, contractors, cities, and residents about zero-pollution equipment, and pathways to electrification. Electrifying public buildings allows cities to lead by example and offer examples of building electrification that are highly visible for the wider community. Through contractor education, the PFRIP can prompt contractors to promote the installation of heat pumps over gas water heaters. Through public education, the PFRIP can prompt residents to switch out gas water heaters for heat pumps more quickly than the BAAQMD phase-out requires.

Santa Clara County is at the forefront of pioneering research and innovative practices aimed at significantly reducing greenhouse gas emissions. Microgrids and EVSE technology reflect similar trends for pricing, adoption and needs for market expansion as discussed above for heat pumps. For example, additional EVSE at public facilities will accommodate a rapidly transitioning personnel vehicle market.<sup>6</sup>—San José saw the fastest growth in EVs of any major US city. These Cities have embraced a dynamic business incubation approach that melds participatory design with a unified commitment to slashing GHG emissions, fostering a vibrant ecosystem of innovative solutions. This approach is poised to unlock novel pathways, policies, and programs with potential for replication beyond their borders.

## SECTION 2: IMPACT OF GHG REDUCTION MEASURES

### a. Magnitude of GHG Reductions from 2025 through 2030

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<sup>6</sup> Source: Nadia Popovich, "The Bay Area Leads the National Shift to Electric Vehicles" New York Times. <https://www.nytimes.com/2024/03/12/us/bay-area-electric-vehicles.html>



According to the San Benito County and Santa Clara County MSA Priority Climate Action Plan (PCAP), Santa Clara County has 630 municipally owned buildings with 53,200 square feet (sqft) of building space with a collective GHG reduction potential of at least 32,970 MT CO<sup>2</sup> for the 2025-2030 period. Collectively buildings account for 43% of greenhouse gas emissions in Santa Clara County, with 23% of that coming from natural gas appliances.

Pilot implementation will achieve widescale decarbonization of major appliances and additional decarbonization via microgrid resiliency technology and EV charger infrastructure at 62 very large facilities in Santa Clara County. Based on the PCAP, each building has an average 2025-2030 period reduction potential of 52.33 MT CO<sup>2</sup>. However, based on a simple per square foot (sqft) estimate, PFRIP measures implemented can reduce greenhouse gas emissions by up to 0.62 MT CO<sup>2</sup> per sqft for the 2025-2030 period. Based on the San Jose HPWH cohort of known building gross floor area (GFA), the PFRIP Coalition has potential GHG reduction of over 2,100,860.18 MT CO<sup>2</sup>. These GHG Reduction calculations are available in the GHGcalcs\_Silicon Valley Clean Energy\_PFRIP.xlsx, Tab entitled "PCAP Calcs".

Staff also conducted a benchmarking analysis on a subset of available buildings' energy data to scope the GHG reduction potential for the pilot portfolio utilizing the EPA's ENERGY STAR Portfolio Manager (ENERGY STAR). The data exported from ENERGY STAR supports the hypothesis that the annual emissions reduction potential from these measures will be much greater than indicated in the PCAP, as emissions reductions for the San José subset of heat pump water heater replacements alone showed potential direct GHG savings of at least 1239.5 MT CO<sup>2</sup> for 2025-2030<sup>7</sup>, plus indirect GHG emissions savings of 1831.55 MT CO<sup>2</sup>, or 3,245 MT CO<sup>2</sup>.

#### **b. Magnitude of GHG Reductions from 2025 through 2050**

According to the PCAP, Santa Clara County's 630 municipally owned buildings have a collective GHG reduction potential of at least 655,774 MT CO<sup>2</sup> for the 2025-2050 period, providing an average per building reduction estimate of 1040.91 MT CO<sup>2</sup> for the period.

Pilot implementation will achieve widescale decarbonization of major HVAC and heating appliances and additional decarbonization via microgrid resiliency technology and EV charger infrastructure at 62 facilities in Santa Clara County. Based on the PCAP, measures implemented can reduce greenhouse gas emissions by up to 64,536 MT CO<sup>2</sup> for the 2025-2050 period.

According to San José ENERGY STAR analysis, the annual emissions reduction potential from these measures could be much greater than indicated in the PCAP, as emissions reductions for the San José subset of heat pump water heater replacements alone showed potential direct GHG savings of at least 30987.5 MTCO<sub>2</sub> for 2025-2050, plus indirect GHG emissions savings of 45788.75 MTCO<sub>2</sub> by 2050, or 76776.25 MT CO<sup>2</sup>.

#### **c. Cost Effectiveness of GHG Reductions**

According to the PCAP, the total average cost effectiveness for the period of 2025 -2030 will be at least \$49,999,997/3,245 MT CO<sup>2</sup> = \$15,409.90 per MT CO<sup>2</sup> by 2030, on average. The total cost of San José's heat pump replacements will be \$1,684,035.38 including all equipment, labor, permitting, and staff

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<sup>7</sup> Conservative assessment assumes all replacements will be completed by 2029, with only one year of operation. Per work plan, ~24 units per year will be installed, creating additional expected GHG savings for the 2025-2030 time period that will be assessed in the project performance evaluation.

oversite, so the total cost effectiveness potential of these measures alone could be as efficient as \$548.36 per MT CO<sup>2</sup> by 2030 per heat pump replacement.

#### **d. Documentation of GHG Reduction Assumptions**

The PCAP emission potential benefits were calculated using IPCC recommended methods and under an EPA-approved QAPP. However, this analysis used a very conservative estimate of countywide building counts only that did not include other types of non-building facilities, such as pools, bathrooms, and pump stations, that are included in the PFRIP portfolio, and estimated emissions based on an average per building energy usage and local utility provider fuel mix specifications rather than actual usage. Details about the accounting methods used in the PCAP can be found in the attached PCAP copy and relevant sections have been provided in the Technical Appendix, Techappx\_Silicon Valley Clean Energy\_PFRIP.

According to the Natural Resources Defense Council (NRDC)<sup>8</sup>, heat pump water heater conversion can reduce onsite emissions by up to 50-70%. Microgrids can provide the potential for full electrification of a building combined with power savings during times of peak grid demand, such as summer and fall 5-9 pm hours, or during times when the grid is typically gas power plant fed, such as 12-4 am.

Staff also conducted a benchmarking analysis to scope the GHG reduction potential for the pilot portfolio utilizing the EPA's ENERGY STAR Portfolio Manager (ENERGY STAR) and real building energy usage values on a subset of available buildings' energy data. 12 months of Electricity and gas utility data from each of the City of San José's 50 planned heat pump retrofit sites were entered to ENERGY STAR for the calendar year of 2023<sup>9</sup> to provide a 2023 annual Direct GHG Emissions (Metric Tons CO<sub>2</sub>e) and Indirect (Location-Based) GHG Emissions (Metric Tons CO<sub>2</sub>e) value for each building. Data was exported from ENERGY STAR and applied to the heat pump water emissions reductions factor of 50% for each location to achieve an expected annual emissions reduction. The export table including relevant building ENERGY STAR IDs and spreadsheet calculations are available in the Technical Appendix spreadsheet, GHGcalcs\_Silicon Valley Clean Energy\_PFRIP.

Cost effectiveness values were calculated using the EPA's required cost effectiveness calculation equation applied to 1) whole cost of all PFRIP measures (including all budget categories) divided by the Sum of Quantified GHG reductions from 2025-2030 according to the PCAP and 2) whole cost of San José heat pump conversions (including all budget categories) alone divided by the Sum of Quantified GHG reductions from 2025-2030 according to the ENERGY STAR analysis. Additional details about the GHG Reduction Assumptions and methods used to calculate are available in the in the Technical Appendix.

### **SECTION 3: ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES**

#### **a. Expected Outputs and Outcomes**

The project will assess output and outcome metrics in alignment with the PCAP, and in pursuit of the actual GHG benefit, comparing energy and GHG values pre-installation to post-installation at all existing facilities.

The following output metrics are included in the PCAP and will be quantified:

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<sup>8</sup> [Electric Heat Pumps Can Slash Emissions in California Homes \(nrdc.org\)](https://www.nrdc.org/buildings/electric-heat-pumps)

<sup>9</sup> In a few instances 2023 data was not fully available, so 2022 values were used. The appendix provides details about the calculations and includes the ENERGY STAR data output.

- Number of facilities retrofitted
- Number of carbon-free appliances purchased or installed

In addition, the project will assess the following outcomes:

- Average energy savings per building, both as electricity and natural gas usage
- Average energy cost savings per building, both as electricity and natural gas usage
- Average Energy Usage Intensity (EUI) reduction per building
- Total quantity of avoided GHG emissions as calculated from real time energy use, production, an/or storage in microgrids and EVSE
- Total quantity of GHGs reduced from natural gas appliances switched to electric
- Amount of reduced purchased fuel by fuel type
- Assess feasibility of quantifying CAP and HAP emissions reduction
- Actual Cost effectiveness of avoided GHGs
- Assess feasibility of avoided CAP and HAP emissions

#### **b. Performance Measures and Plan**

##### **i. GHG Reduction Performance:**

Immediately following award acceptance, SPUR will lead the Coalition to select a consultant to conduct the GHG performance analysis. A QAPP will be developed and submitted by the end of Year 1. Electricity and utility data will be analyzed at each site for a period of at least 2 years preceding the kickoff of construction to provide site specific EUI, Natural Gas Usage, and a calculated GHG Emissions factor baseline comparison. Temporary metering will be used to determine peak loads and energy generation or usage profiles for each installed measure following construction completion. Sites will be monitored for a period of 2 months – 2 years depending on timeline for construction completion (see 3.c below). For sites with longer performance periods, both summer and winter peak monitoring will be assessed in real time. For entirely new facilities such as San José Fire Stations 23 and 36 and Sunnyvale San José Fire Station 2, the avoided GHGs and summer/winter peaks will be modelled based on minimum two month temporary metering and profiles of like counterparts within the project’s portfolio or other similar existing facilities. As projects are assessed for real-time or modelled GHG emissions benefits, the results will be displayed using an online dashboard included in the project website, described in Sections 3c and 4.

##### **ii. Work Plan Performance: Design Guidelines and Evaluation**

The *Public Facility Resiliency Fund* fuels an ambitious set of facility upgrades to establish a network of community resilience centers serving disadvantaged and vulnerable communities across Santa Clara County. It is critical each location will produce a consistent set of facility features and service capacity, based on local needs. To that end, Prospect Silicon Valley, (ProspectSV) with an experienced engineering team from Point Energy Innovations and IDeAs Consulting, will lead the Coalition to establish a basis of design for each project to be performed under PFRIP. The approach will be as follows and include a QAPP:

- Develop a *Roadmap for Community Resiliency Center Features (Roadmap)*. These will be Design Guidelines for essential features of the community resiliency centers included in the project, providing a consistent benchmark for building construction performance, capacity for services, and energy efficiency.

- Develop a *PFRIP Standard RFP/RFQ and Mechanical Engineering and Plumbing (MEP) Bid Package*: These will be guidelines, scope elements, and team qualifications provided to each City's project team for securing standardized qualified design and construction services.
- Develop and Implement *Decarbonization Retrofit and Resilience Upgrades Assessments*: Review each facility's pre and post construction conditions, required upgrades, and available funds against the *Roadmap, RFP, and Bid Package Guidance* to provide project-specific performance metrics assessing build quality and final facility features and service capacity to local community members (e.g. air quality protection, water supply, power resiliency, or shelter). Results of this review would be provided in a project metrics and performance report.

### c. Authorities, Implementation Timeline, and Milestones

SVCE is a Joint Powers Authority eligible to lead this grant<sup>10</sup>, and will establish the *Public Facility Resiliency Fund* (Fund) ensuring timely project reimbursement and distribution of the Fund to the Coalition's members for use in the PFRIP. Each coalition member City will be responsible to lead design, construction, and inspection of its GHG reduction measures; take an active role in planning and implementing the project equity analysis, performance evaluation, community engagement and workforce development activities; and fulfill all reporting requirements, for activities that take place in its jurisdiction. SPUR will lead the Equity Analysis, Community Engagement and GHG Performance. Prospect Silicon Valley will lead Design Parameters Performance and Workforce Development. Each Coalition member City has the authority to carry out its proposed measures, and will contract for design and construction as needed, within its jurisdiction. Assistance will be required from Pacific Gas and Electric (PG&E), the local utility provider, for installing electrical panel and transmission related upgrades to accommodate increased electrical capacity at each site.

#### Major Workplan Milestones:

a. Administration and Reporting: Prior to grant award and acceptance, SVCE will lead development and submittal of the Coalition's Memorandum of Agreement (MOA) by July 1, 2024. The Workplan is expected to initiate with grant award by October 1, 2024, and complete five years later by September 30, 2029. Semi-annual reports including reimbursement receipts will be submitted to the EPA every six months following award acceptance, on March 31 and September 30, or the closest prior business day, annually. The Project Plans for GHG Performance and Building Design Performance and each's respective Quality Assurance Performance Plan (QAPP), and the Low Income Benefit Report and Community Engagement Plan, will be submitted by September 30, 2025. The Final Project Report and reimbursement receipts will be submitted by September 30, 2029.

SVCE Project Management & Reporting	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Quality Assurance Performance Plan Submittal, including all Performance Project Plans	Completed by Sep 30, 2025				
Semi-Annual Reports Submittals	1 each by Mar 31 & Sep 30	1 each by Mar 31 & Sep 30	1 each by Mar 31 & Sep 30	1 each by Mar 31 & Sep 30	1 each by Mar 31 & Sep 30
Low Income Benefit Report & Community Engagement Plan	Completed by Sep 30, 2024				
Final GHG & Design Parameters Performance, Equity Analysis, & Workforce Development Reports					Completed by Sep 30, 2029
Final Report Submittal					Completed by Sep 30, 2029

<sup>10</sup> Silicon Valley Clean Energy's Joint Powers Authority Charter may be viewed in the file Attachment, *Executed JPA\_SVCE\_PFRIP*.

b. Decarbonization Projects:

i. San José's 100 Heat Pump Water Heater Retrofits at 50 facilities: The City of San José will contract with one its existing vendors for purchase of heat pump water heating (HPWH) equipment and conduct installations using existing Citywide Facilities Maintenance Staff. HPWH will be installed at a rate of 2 per month following an initial training period, sponsored through the Project Work Force Development plan (see Section 5). All projects are expected to be installed and inspected by June 30, 2029.

San Jose 50 Sites Total - 100 HPWH Retrofits	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Planning, Design, & Permitting	22 total by Sep 30	46 total by Sep 30	70 total by Sep 30	94 total by Sep 30	100 Total by June 30
Installation - HPWH	22 total by Sep 30	46 total by Sep 30	70 total by Sep 30	94 total by Sep 30	100 Total by June 30
Inspection	22 total by Sep 30	46 total by Sep 30	70 total by Sep 30	94 total by Sep 30	100 Total by June 30
Performance Period		22 total by Sep 30	46 total by Sep 30	70 total by Sep 30	100 Total by Sep 30

ii. The City of Cupertino's project will include HPWH and HVAC retrofit requiring full construction planning, design, and bid package and is expected to include an 18-month performance period.

Cupertino Cupertino Quinlan Community Center	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Planning, Design, & Permitting	X	X			
Bid Package Procurement & Construction - HPWH, HVAC			X		
Inspection				X	
Performance Period				X	X

c. Resiliency Upgrades at Pre-Designed Facilities: San José's Roosevelt Community Center, Happy Hollow-Kelley Park Campus and Fire Station 32, and Sunnyvale's Fire Station 2 projects have already been designed. Fire Station 32 will be ready to move immediately to construction, Fire Station 2 to Permitting, and the other two will move immediately to construction bid package procurement. The four projects are expected to have two year performance periods and serve as baseline comparison models for the Design Parameters Analysis.

San Jose Roosevelt Community Center	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Bid Package Procurement & Construction - Solar, BESS	X				
Inspection		X			
Performance Period			X	X	Project Complete
San Jose Happy Hollow Park & Zoo-Kelley Park	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Bid Package Procurement & Construction - Solar, BESS	X				
Inspection		X			
Performance Period			X	X	Project Complete
San Jose Fire Station #32	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Construction - Solar, BESS	X				
Inspection		X			
Performance Period			X	X	Project Complete
Sunnyvale Fire Station 2	Year 1 10/1/2024 - 9/30/2025	Year 2 10/1/2025 - 9/30/2026	Year 3 10/1/2026 - 9/30/2027	Year 4 10/1/2027 - 9/30/2028	Year 5 10/1/2028 - 9/30/2029
Planning, Design, & Permitting	X				
Bid Package Procurement & Construction - HPWH, HVAC, Solar, BESS, EVSE, Kitchen	X	X	X		
Inspection			X		
Performance Period			X	X	X

f. Resiliency Upgrades at Existing Facilities: Most projects will take place at existing facilities. Immediately following award acceptance, Cities will conduct procurement for design services as needed; this task is rolled into the Planning, Design, & Permitting task on each milestone table below. All projects are expected to be completed no later than June 30, 2029, to allow for a minimum two month performance period - projects inspected in Year 4 will have a minimum 18 month period.

San Jose Fire Department Training & Emergency Operations Center (EOC)	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting	X				
Bid Package Procurement & Construction - BESS, EVSE		X			
Inspection			X		
Performance Period				X	X
Sunnyvale Cleanwater Center	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting	X				
Bid Package Procurement & Construction - HVAC, Solar, HPWH		X	X		
Inspection				X	
Performance Period				X	X
Morgan Hill Centennial Recreation Center	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting	X	X			
Bid Package Procurement & Construction - HPWH, HVAC, BESS, EVSE, Kitchen		X	X		
Inspection			X		
Performance Period				X	X
Mountain View Mountain View Sports Pavilion	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting	X	X	X		
Bid Package Procurement & Construction - HVAC, Solar, BESS			X	X	X
Inspection					X
Performance Period					X
Mountain View Whisman Sports Center	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting	X	X	X		
Bid Package Procurement & Construction - Solar, BESS			X	X	X
Inspection					X
Performance Period					X

e. Resiliency Upgrades at New Facilities: San José is building new Fire Stations 23 and 36 that will be all-electric construction including microgrids. Both projects will conduct land acquisition in years 1-2 that will not be grant covered and are expected to have six month performance periods including modeling analyses informed by on-site metering of at least a two month period.

San Jose Fire Station #23	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting			X		
Bid Package Procurement & Construction - Solar, BESS				X	
Inspection					X
Performance Period					X
San Jose Fire Station #36	Year 1	Year 2	Year 3	Year 4	Year 5
10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029	
Planning, Design, & Permitting			X		
Bid Package Procurement & Construction - Solar, BESS				X	
Inspection					X
Performance Period					X

f. Performance Evaluations: SPUR will lead evaluation for GHG Performance and ProspectSV will lead Building Design Performance. All Project Plans with QAPPs will be submitted September 30, 2024. Final Performance Reports will be submitted by the end of the grant term, by September 30, 2029.

SPUR - GHG Performance Assessment	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Consultant Procurement	Completed by Mar 31, 2025				
Develop & Submit Project Plan & Quality Assurance Performance Plan	Completed by Sep 30, 2025				
Develop & Conduct Baseline Facilities' Benchmarking & Individual Technology Performance Assessments (e.g. HPHW)		X			
Microgrid Performance Assessments		X	X	X	X
Final Performance Data Analysis & Report Submittal					Completed by Sep 30, 2029
Prospect Silicon Valley - Design Parameters Performance	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Develop & Submit Roadmap for Resilience Centers Features, Including Quality Assurance Project Plan	Completed by Sep 30, 2025				
Develop Specific Project Assessments	X	X			
Develop Mechanical Electrical Plumbing (MEP) Design Conceptual Bid Package	X	X	X		
Develop Standard RFP for Design & Construction Services	X				
Review and Design of Construction Documents, Assist Construction Bid Process & Implementation	X	X	X	X	X
Final Performance Evaluation & Report Submittal				X	Completed by Sep 30, 2029

g. Community Engagement and Online Reporting: SPUR will lead Equity Performance and Community Engagement and submit the Project Plan and Low Income Benefit Report by September 30, 2024, and the Final Evaluation by September 30, 2029. Four events total will be planned to showcase completed projects and encourage climate action countywide, two managed by SPUR and two by the City of San José Office of Economic and Cultural Affairs as a Climate Art Fair. San José will host a Project Website including GHG Dashboard for displaying reduced emissions as projects are completed, and 5 community presentations translated into the County's three widely spoken non-English languages of Spanish, Vietnamese, and Mandarin Chinese including live translation for community meetings.

SPUR - Community Engagement	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Project Plan Development & Submittal	Completed by Sep 30, 2025				
Interview Planning & Partnership Development	X	X			
Initial Low Income Benefit Report Development & Submittal	X				
Interviews & Surveys with Residents, Staff, & Others Involved			X	X	
Community Engagement Events (3 total)				X	X
Post-Project Evaluation & Report Submittal					Completed by Sep 30, 2029
San Jose - Community Engagement & Website	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Website Initial Development & Annual Updates	X	X	X	X	X
Annual Translated Presentations	X	X	X	X	X
Community Engagement Events Planning (3 total)				X	X
Community Engagement Events Implementation (3 total)					X

h. Workforce Development: ProspectSV will lead Workforce Development Activities. Training Modules and Apprenticeship Program will be developed in Year 1. Trainings will be provided to city staff and 50 low income individuals, sponsored by the grant, in years 4-5, with final program evaluation submitted by September 30, 2029.

Prospect Silicon Valley	Year 1	Year 2	Year 3	Year 4	Year 5
	10/1/2024 - 9/30/2025	10/1/2025 - 9/30/2026	10/1/2026 - 9/30/2027	10/1/2027 - 9/30/2028	10/1/2028 - 9/30/2029
Develop Training & Apprenticeship Program; Submit Project Plan	Completed by Sep 30, 2025				
Implement Municipal training		X	X	X	X
Implement Apprenticeship Program		X	X	X	X
Annual Assessment		X	X	X	X
Final Assessment					Completed by Sep 30, 2029

All projects, performance assessments, community engagement, and reports will be completed by September 30, 2029.

## SECTION 4: LOW-INCOME AND DISADVANTAGED COMMUNITIES

### a. Community Benefits

All locations proposed for the PFRIP's GHG reduction measures meet EPA-defined criteria as disadvantaged census tracts, either by directly meeting the Disadvantaged criteria, or by meeting 2 or more 90th percentile for recognized environmental or socioeconomic stressors according to the Climate and Economic Justice Screening Tool (), such as PM 2.5, traffic volume and proximity, and linguistic



isolation. The relevant CEJST census tracks are listed under Attachment, *Areas\_SVCE\_PFRIP*. On The Cover Page displays a map of the full project service area, planned measures by category, the corresponding disadvantaged census tracks per CEJST layers, and the number of CEJST 90th percentile stressors met at each site.

Lower income individuals use Santa Clara County community centers, recreation centers, and libraries daily for child and elder care programs and to access books, computers, workout equipment, and meeting rooms. These facilities are established and trusted neighborhood focal points used year-round for community-building activities, providing resources to residents, and supporting and strengthening community relationships. In addition, fire department facilities exist primarily to assist the most vulnerable communities, either those experiencing physical threats or health issues. The facilities featured in PFRIP are activated during disasters like major storms, fires, flood events, and heat waves and are used as emergency shelters and cooling/heating centers to provide residents respite from the elements. Low-income and vulnerable communities are most likely to be impacted by hazards and disaster events like flooding, heat waves, and power outages.<sup>11</sup> For example, in the event of a heat wave, lower-income residents most often live in older apartment buildings without air conditioning or are unable to afford AC utility costs. Lower-income residents are also more likely to live in neighborhoods with less tree cover, making their homes and neighborhoods hotter on average.<sup>12</sup> For example, South Central San José has less tree cover and is hotter than other neighborhoods of the city.<sup>13</sup> During heat waves, low-income residents benefit greatly from public cooling centers. By advancing resiliency retrofits at these facilities, many of these public facilities will soon be able to maintain critical community services using microgrid systems. PFRIP will improve community services at the facilities with a mix of decarbonization retrofits and resiliency upgrades. Community benefits may differ depending on the measure implemented, see detailed community benefits below.

**Resiliency upgrades** will include photo voltaic (PV), battery energy storage systems (BESS) installations, and microgrids installations, that may be integrated with public EV charging infrastructure. PFRIP's resiliency upgrades will realize several direct benefits to the community:

- *Improved access to services and increased resilience to climate hazards:* Many of the facilities undergoing PV, BESS, and microgrid upgrades are activated during hazards like major storms, fires, flood events, and heat waves and are used as emergency shelters and cooling/heating centers to provide residents respite from the elements. These distributed energy resources will enhance the energy security and stability of these facilities, making them less vulnerable to power shutoffs and outages during hazards. Upgrading community centers and recreation centers will increase the capacity of facilities to serve residents continuously during times of intermittent power shutoffs and outages, offering a space for community members to access

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<sup>11</sup> US EPA, OA. 2021. "EPA Report Shows Disproportionate Impacts of Climate Change on Socially Vulnerable Populations in the United States." News Release. September 2. <https://www.epa.gov/newsreleases/epa-report-shows-disproportionate-impacts-climate-change-socially-vulnerable>.

<sup>12</sup> Zhou, Weiqi, Ganlin Huang, Steward T.A. Pickett, Jing Wang, M.L. Cadenasso, Timon McPhearson, J. Morgan Grove, and Jia Wang. 2021. "Urban Tree Canopy Has Greater Cooling Effects in Socially Vulnerable Communities in the US." *One Earth* 4 (12): 1764–75. doi:10.1016/j.oneear.2021.11.010.

<sup>13</sup> "SJSU News | Learn By Doing/ Excite Your Mind." 2024. Accessed March 28. <https://sisunews.com/article/lack-of-trees-proves-harmful-to-sj-san-josé-state-and-city-experts-say-deficit-in-canopy-coverage-causes-inequality-and-climate-issues>.



shelter, information, and electrical power (e.g. for charging phones) when nearby homes and businesses may lack power or have experienced other hazard-related damages. Low-income residents are disproportionately vulnerable to climate hazards due to several factors, including limited resources, socioeconomic disparities, and inequitable access to infrastructure and services. During heat waves, low-income residents benefit greatly from public cooling centers because they lack access to air conditioning or cannot afford to pay utility costs. Finally, by transitioning to electric-powered heating, cooling, and appliances, communities will also decrease their carbon footprint and contribute to mitigating climate change impacts.

- *Lower electricity bills and net metering for solar PV means reinvestment in community services:* PV, combined with BESS, allows for buildings to supply their own electricity during much of the year, and during a large portion of the day. BESS allows buildings to continue to use energy produced by PV passed peak sunlight hours. Net metering policies allow for PV energy producers to sell excess energy back to the grid during peak sunlight hours. Together, these upgrades allow buildings to save on utility bills, sell PV energy to further reduce energy bills, and use bill savings to reinvest in building services and amenities.

**Decarbonization retrofits** will change natural gas-powered equipment for electric counterparts in major building systems including Heating, Ventilation, and Air Conditioning (HVAC) replacements, water heating and pumping, and kitchen appliances. *PFRIP's retrofits* will realize several direct benefits to the community:

- *Improved public health resulting from reductions in co-pollutants:* By transitioning from fossil fuel-based appliances, like gas water heaters, to cleaner electric appliances like heat pumps, nitrous oxide, and particulate matter concentrations decrease and air quality improves, reducing respiratory issues such as asthma and allergies. Electrifying gas stoves to induction stoves eliminates carbon monoxide and other particulate matter concentrations, reducing harmful indoor air pollutants in the facilities in question. Furthermore, electrification often involves the adoption of energy-efficient technologies, leading to lower emissions from energy generation and further mitigating air pollution, which is linked to cardiovascular and respiratory diseases.
- *Improved access to services and amenities:* Many public facilities struggle with deferred maintenance on infrastructure due to lack of funding. This can lead to disruption in access to certain services for community members. For example, community centers may provide hot showers, but if the facility's hot water heater is old it may break often and require repairs. Replacing older appliances with upgraded electric appliances will improve the quality of the equipment and reduce service disruptions for the community.
- *Energy cost savings mean reinvestment in community services:* When heating water or air, heat pumps are three to four times more energy efficient than their gas counterparts. Additionally, forecasts of energy rates in California estimate that gas rates are likely to escalate faster than electric rates over time. With the addition of solar panels, batteries, and microgrids, building maintenance budgets have the potential to realize savings year-over-year, freeing up additional resources for improvements and community services.
- *Workforce training opportunities:* Workforce training opportunities, led by Prospect Silicon Valley, will provide contractors with the skills required to install zero-pollution equipment, such as all-electric heat pump water heaters and heat pump HVACs. This partnership will not only directly support the proposed municipal facilities retrofits but will also expand the workforce

needed to decarbonize the South Bay’s municipal (and residential) building stock, and accelerate the transition off of gas heating in buildings. The training program will be available to 50 low-income individuals free of charge and will include apprenticeship ride-along with City staff during installation and maintenance of proposed resiliency upgrades and decarbonization retrofits.

**Continued assessment**—To determine the *Public Facility Resiliency Implementation Project’s* GHG-emission reduction impact and community benefits, including the direct and indirect benefits to low-income and disadvantaged communities, SPUR will conduct an assessment to share outcomes and best practices associated with the Project. By the end of Year 1, SPUR will submit a Low Income Benefit Assessment and Equity Analysis Project Plan. Final assessment findings will be shared as a report and will be ready in advance of the five-year grant deadline.

The assessment will generally include:

- An overview of the participating municipalities’ public facility building portfolio and why this subset of buildings was chosen for funding.
- A review of the approach of the Project’s “by-equipment” versus “by-building” approach with an explanation of the resiliency upgrades and the decarbonization retrofits and how this approach reduced the impact on operations and other conditions.
- GHG reduction and cost savings calculations
- A review of the Project’s design standards
- Workforce development impacts from the partnership with Prospect Silicon Valley
- Three case studies of representative buildings that underwent resiliency upgrades or decarbonization retrofits: What was the process of retrofit, what was learned, who are communities served by buildings, and what were the community benefits or disbenefits? What specific planning, zoning and permitting issues or experiences that arose during project implementation?
- Equity Analysis (see below for more details)
- Challenges and Best Practices: What can be learned from these projects to support other jurisdictions in making their public facilities more resilient through electrification transitions and other upgrades?

To operationalize equity in its policy work, SPUR developed the *Equity Framework of Analysis - Guiding Questions for Policy Projects*. This equity framework was adopted to ensure SPUR’s research methodology and practices are inclusive, collaborative, and responsive to the needs of impacted people. This Framework will guide the assessment of this Project. Guiding questions include: How does this project address the pressing needs of marginalized groups? Are there data gaps? What additional data would help analyze the project to better understand its equity impacts? If so, how can SPUR obtain better data? What past investments/budget allocations have there been to this group/geography? These are the types of questions that SPUR’s assessment of the project will consider in its equity analysis.

## **b. Community Engagement**

### **SPUR**

As leader of the PFRIP’s Community Engagement and Equity assessment, SPUR will engage the community through surveys and interviews of residents who are served by these facilities, in addition to facility staff members, heat pump and microgrid installers, and other key people engaged in the resilience upgrades and decarbonization retrofits. The findings from this assessment will be shared through a free SPUR public event and regional outreach. SPUR will also support the municipalities in

implementing community engagement and public education plans, including co-hosting two public events at municipal facilities that have undergone a resiliency upgrade or decarbonization retrofit. These events are meant to highlight the upgrades made at each facility through a festive community gathering and report back on assessment findings, particularly community benefits achieved through the specific facility's upgrade or retrofit in addition to benefits achieved across the entire project.

### **City of San José**

The project includes a focused community engagement plan that will build upon San José's Climate action plans and City Infrastructure Strategy that are informed by prior extensive community, technical, and stakeholder processes. Improving grid resiliency through microgrids and decarbonizing buildings and commutes are specific strategies of the *Pathway to Carbon Neutrality* as well as the *City Infrastructure Strategy, Brilliant at Basics*. From 2018 to 2021, San José undertook an extensive community engagement process to co-create *Electrify San José: Framework for Existing Building Electrification* that lays out how to reduce greenhouse gas emissions from existing buildings in San José through building electrification, while bringing to the forefront the concerns and priorities of historically marginalized communities. Over a year and half of monthly meetings with two community-based organizations (CBOs) representing San José's Latinx and Spanish communities, three community forums with over 40 CBOs, labor, environmental, development and housing organizations, and five public outreach meetings, participants identified three relevant overarching community needs and priorities: 1. Housing and energy costs 2. Clean and reliable energy 3. Health and air quality

Many families throughout San José are not able to purchase ventilation systems to cool their homes and protect their indoor environments from air pollution. San José residents are concerned about more frequent smoky days from the wildfire season, and pollution from highways and industrial sites that disproportionately affects low-income communities. Vulnerable populations living in areas of higher air pollution are already experiencing disproportionately negative health outcomes, such as higher rates of asthma. In addition, many longtime residents who are not working in the tech industry have seen their living costs skyrocket without a proportional wage increase. San José families are already struggling to pay their utility bills. Eleven percent of San José households have a high energy burden, which means they spend above 6 percent of household income on utility bills, while 6 percent of households have a severe energy burden, meaning they spend above 10 percent of household income on utility bills. It is critical that building electrification does not exacerbate housing and energy unaffordability in San José, particularly for those who are already struggling to remain in their homes and in the city.

Guided by the findings of these previous engagement activities, the City's Public Works Department conducted a wide ranging map assessment of City census tracts aligned with the CEJST layer to identify facilities in the most economically challenged areas for the CPRG decarbonization and resiliency measures. In addition, the proposed workplan and budget includes a community engagement plan that will ensure all citizens are given the resources to be heard by including engagement strategies targeted at Spanish, Vietnamese, and Mandarin Chinese speakers as well as low-income residents. Planned strategies for language accessibility include live communication in native languages, virtual input opportunities, and a fully translated project website. In addition to the countywide work led by SPUR, the Public Works Department will work with the San José Office of Economic and Cultural Affairs to hold a Climate Action Fair including two community engagement events within its jurisdiction.

### **City of Morgan Hill**

The City of Morgan Hill's adopted Climate Action Plan (CAP) was developed with significant input from a community working group which saw the importance of public facility electrification. They specified a goal in the CAP to convert all municipal buildings to all-electric by 2035. The CPRG funds would be a significant step toward meeting this community-driven goal because it would allow the City to fully electrify one of the community's key cultural hubs.

The City of Morgan Hill will seek meaningful engagement with low-income and disadvantaged communities continuously for the life of the grant by providing outreach, engagement, input opportunities, and information about the project in both English and Spanish languages. The City will partner with local groups including the public library, school groups, AAUW, and climate action groups to reach a wide range of residents. Additionally, the City is proposing to install a mural completed by a local artist that will incorporate a clean energy theme. The artwork will be designed to inspire and intrigue across the City's diverse cultural and socioeconomic backgrounds.

The City of Morgan Hill has more affordable housing units per capita than any other city in northern California. The City has been planned in a way that incorporates affordable housing throughout the community and as a result the City does not have a specific census tract that is identified in the Climate and Economic Justice Screening Tool as LIDAC, although the Centennial Recreation Center is located within a census tract that meets several of the tool's individual disadvantaged metrics. In addition to acting as a heating, cooling, and reunification center, Morgan Hill's recreation center also offers services for the elderly, children, and youth, and provides affordable activities and workout equipment to the entire community including a significant lower income population.

### **City of Mountain View**

The City of Mountain View, in partnership with local organizations, conducted outreach in 2023 to inform its resiliency efforts. For example, the Community Services Agency (a nonprofit organization which has partnered with the City for more than 40 years on social safety net services) and the City worked together to conduct surveys in English, Spanish, and Chinese at the Senior Center to 120 senior nutrition program participants. Survey results highlighted opportunities to increase public awareness of cooling centers (such as Mountain View Sports Pavilion and Whisman Sports Center) and augment citywide resiliency infrastructure. This raised the CPRG grant as a timely opportunity to enhance the City's facilities with resiliency improvement.

If awarded, the City of Mountain View will engage with low-income and disadvantaged communities throughout the development and implementation of the grant. For many years, the City's Multicultural Engagement Program (MEP) has been building relationships within the City's culturally diverse populations and neighborhoods, including among the Hispanic/Latino, Chinese, and Russian communities. The City has a civic engagement academy that is offered in Spanish and Chinese. MEP also provides translation/interpretation services and culturally appropriate outreach. The City's Sustainability and Resiliency Division and MEP would partner to provide linguistically and culturally appropriate outreach to incorporate community input and provide updates throughout the grant process. The City is also undergoing other planning processes that will involve community engagement around resiliency infrastructure and programming that can be leveraged for PFRIP. Over the coming year, the City will develop a Community Resiliency Strategy as well as the Parks and Recreation Strategic Plan.

Outreach for these projects will include surveys, partnerships with community groups, one-on-one meetings or interviews, and community meetings, many of which will offer translation or interpretation options and childcare. The City will consider community feedback from these processes to inform the CPRG projects.

### **City of Sunnyvale**

The City of Sunnyvale adopted its Climate Action Playbook (CAP 2.0 or Playbook) in 2019 with significant input from the community through surveys, public meetings, workshops and input from a community advisory committee. The City and community emphasized the importance of public facility electrification when feasible, to ensure the City is doing its part to contribute to the community wide GHG reduction targets. Play 2.2 of the City's Playbook specifies a target to convert municipal buildings to all-electric upon rebuild or significant remodel to assist in reducing natural gas emissions from existing buildings. Currently, the City is updating its specific work plan for implementing the Playbook, Game Plan 2028. The most recent presentation of analysis of this work plan highlights the importance of reducing natural gas from existing buildings to achieve the City's 2030 goal. The City conducted outreach to the community to gather input on the Draft Game Plan through workshops, online surveys available in English and Spanish, email blasts, and presentations to community groups. The current Draft outlines increasing the City's goals for reducing natural gas use to 42% in residential and 38% in commercial by 2030. The CPRG funds would be a significant step toward meeting these ambitious goals because it would allow the City to fully electrify two critical operations centers, monitor their energy performance and serve as model buildings to justify the need for advancing building electrification of municipal facilities on a broader scale.

If awarded, the City of Sunnyvale plans to bolster its engagement with low-income and disadvantaged communities throughout the development and implementation period of the grant term. As part of the design and construction process for city facilities, the City hosts public meetings in local spaces to invite the community to provide feedback and input on the design and construction plans. In 2021, the City of Sunnyvale hired an Equity, Access and Inclusion (EAI) Manager and established an equity, access and inclusion team of staff from each City department to advance the City's reach and engagement with its most vulnerable populations. In addition, the City adopted Council Policy 7.2.1 specifically for community engagement, which was developed after the City hosted a series of listening sessions to hear from the community. The policy ensures the community is well informed about local issues and City Programs and Services. This is part of a larger obligation called the Sunnyvale Unity Commitment which commits the city to creating a culture of belonging where all members of our diverse community feel included, heard, and respected. The City's Sustainability team plans to partner with the EAI team to develop outreach materials in Spanish, Mandarin and Tagalog to design linguistically and culturally appropriate outreach materials for engagement throughout the grant term. Both facilities in Sunnyvale's application are important community engagement centers, will serve as educational centers for the public and will demonstrate the City's ability to meet climate goals and targets set for and by the community.

### **SECTION 5: JOB QUALITY**

The City of San José partners with the Santa Clara County Office of Labor Standard Enforcement on prevailing wage and wage theft policies to ensure countywide wage equity and prevent wage theft. San José's Office of Equality Assurance will oversee prevailing wages for the project and help monitor companies who would be contracted for project implementation to ensure that their workers are

properly paid for the work they do. The Office of Equality Assurance conducts active enforcement of prevailing wages on City contracts.

To expand the regional work force, team member ProspectSV would coordinate a training series for building industry practitioners on building decarbonization and zero-carbon building systems. ProspectSV has partnered with DMG North, a representative of leading HVAC (Heating, Ventilation, and Air Conditioning) equipment manufacturers in Northern California, to establish a Northern California Training Center in the Bay Area. This center will be available for industry training and education over the duration of the grant period and beyond. DMG North regularly hosts training sessions with Trade Professionals, Professional organizations, Unions, Vocational Schools, Colleges, and Universities. They have committed to being a resource for the industry and to help educate and train others, which will have a far-reaching impact on commercializing this in the marketplace. The training series, to be developed under PFRIP funding in Year 1, would be based on the experience of veteran workforce development professionals with a history of supporting clean technology workforce efforts across the Bay Area. The program will include classroom and webinar training and speaking engagements, but also will leverage the partnerships of professional organizations like Sustainable Purchasing Leadership Council, North American Sustainable Refrigerants Council, International Facilities Management Association, and others to reach the broadest and most relevant stakeholders across the buildings industry value chain. Special attention will be paid to the buildings design and modeling industry through a network of design leaders engaged in as program advisors. The program will be available to the Coalition's staff as in service training, and up to 50 low income residents seeking journeyman plumbing or electrician credentials, during years 2-5 of the grant period.

## **SECTION 6: PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE**

### **a. Past Performance**

The Coalition led by SVCE collectively has considerable experience with receiving and managing federal and non-federal grants. The City of San José manages more than 100 federal awards for various grant types. In fiscal year 2022-2023, San José reported more than \$196 Million (M) in federal grant awards and expenditures. Two key examples of grants completed within the last three years include: 1) the U.S. Department of the Treasury's Coronavirus Relief Fund<sup>14</sup> which provided \$178M during the Pandemic to cover community needs for food, shelter, testing, and other essentials and 2) CalOES Public Safety Power Shutoff Allocation<sup>15</sup> which provided \$500,000 for emergency response. The City of Cupertino recently received and expended \$214,549 in grant funds through State of California Proposition 68 OGALS<sup>16</sup> to build the city's first full-sized basketball court, filling a gap in recreational variety in the Parks Master Plan. For the fiscal year ending June 30, 2023, the City of Sunnyvale reported 32 federal awards

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<sup>14</sup> Grantor: U.S. Department of the Treasury's Coronavirus Relief Fund; Grant Assistance Number: OIG-CA-20-021, from March 1, 2020 – December 31, 2022; Total Funding: \$178,295,348; How Spent: \$90.1M in personnel costs of dedicated time responding to the COVID-19 emergency; \$29.9M in food and necessities distribution; \$27.2M in unhoused sheltering/support; \$20.4M in local assistance; \$4.5M testing, tracing and isolation; and \$2.2M facility improvements

<sup>15</sup> Grantor: State of California Governor's Office of Emergency Services (CalOES) Public Safety Power Shutoff Allocation; Grant Assistance Number: 085-68000; Grant Dates: July 1, 2019 – February 29, 2024; How Spent: \$99,360 for development of City's Power Vulnerability Plan; \$122,340 in design and specifications for New Emergency Generators for Fire Station #28 and Police Sub Station; \$240,900 in Radio Communications Equipment for Public Safety; and \$37,400 in Radio Communications Equipment for Non-Public Safety.

<sup>16</sup> Grantor: California Department of Parks and Recreation via Office of Grants and Local Services (OGALS); Grant Name: California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018; Grant Assistance Number: 18-43-016 and 18-43-017; Grant Amount: \$214,549; Grant Term: through 12/31/2021 - 7/31/2024; How Funding Was Spent: Remove existing landscape, irrigation, storm drain, Install a full-size basketball court (court surface, backboards/nets, drainage). Remove and replace existing walking path leading to new basketball court. Total: \$214,549 spent by 12/31/23.

and \$29.7M in federal grant expenditures; City of Mountain View reported 11 federal awards and \$10.8M in federal grant expenditures; and the City of Morgan Hill reported 4 federal awards and \$800,732 in federal grant expenditures<sup>17</sup>. SVCE administered a \$1.5M grant from the CAPP<sup>18</sup> in FY21-22 that helped California energy customers reduce past due energy account balances during the Pandemic.

### **b. Reporting Requirements**

The PFRIP Coalition members successfully complete grants compliance reporting accurately and timely. In early 2024, the Cities of Morgan Hill, Mountain View, San José, and Sunnyvale completed their Single Audit on the Schedule of Expenditures of Federal Awards required by the Uniform Guidance with no material weaknesses or significant deficiencies regarding the review of the Schedule of Expenditures of Federal Awards, which includes all federal awards received directly from federal agencies and federal awards passed-through other governmental agencies. In 2023, Cupertino expended the OGALS funds 7 months ahead of the deadline. In 2022, the Department of Treasury's Office of Inspector General (OIG) conducted Desk Review of the Coronavirus Relief Funds of \$178.2M for the City of San José. After completing their Desk Review, Treasury OIG indicated that they had no findings, exemptions, and no questionable/unallowable costs. As proven by the OIG's Annual Desk Review, all reporting and financing requirements were completed on time and within budget.

### **c. Staff Expertise**

Silicon Valley Clean Energy (SVCE) has substantial experience with handling and distributing funds. SVCE regularly provides its constituents grant opportunities and financial assistance, such as the CAPP, and this expertise will apply to distributing subawards to the Coalition members as a pass-through entity. SVCE has an annual 2023 operating budget of \$324.5M<sup>19</sup> and typically keeps 300 days of cash on hand, expecting 365 this calendar year, and an "A" Credit Rating<sup>20</sup>, putting the organization in a stable and experienced position for managing and distributing the *Public Facility Resiliency Fund*. The PFRIP Coalition of Cities is fully positioned and ready to complete PFRIP on schedule within a 5-year grant term following acceptance of the grant award. Immediately following acceptance of award, each City can contract with one of its existing vendors for planning, design, permitting and implementation of measures. Each City's procurement requirements for services, supplies, and equipment generally meet the Uniform Grant Guidance (UGG) (2 CFR 200) minimum requirements. The competitive procurement process, through a third-party web-based bid solicitation platform, ensures open and free competition for purchasing, and provides small business considerations and credits and provides measures to prevent conflicts of interest. The history of the procurement process is documented thoroughly to include selection of contract type, cost for the contract, solicitation of bids, responses from potential contractors, determination that the price is reasonable and any amendments to the contracts. PFRIP will follow the Best Practice Guide for Procuring Services, Supplies, and Equipment under EPA Assistance Agreements.

## **SECTION 7: BUDGET**

### **a. Budget Detail**

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<sup>17</sup> Federal Audit Clearing House, OMB# 3090-0330, EXP: 09/30/2026, <https://app.fac.gov/dissemination/search/>

<sup>18</sup> Grant Administrator: [California Arrearage Payment Program](#) (CAPP); No Grant Assistance Number, Total Amount: \$1,545,172; grant term ended September 30, 2022; <https://www.csd.ca.gov/CAPP>

<sup>19</sup> Silicon Valley Clean Energy Authority; Independent Auditors Report, Financial Statements Years Ended: September 30, 2023, September 30, 2022; <https://svcleanenergy.org/wp-content/uploads/Silicon-Valley-Clean-Energy-Authority-9.30.2023-Financial-Statements-FINAL.pdf>

<sup>20</sup> RatingsDirect, S&P Global Ratings, [Silicon Valley Clean Energy Authority, California; Retail Electric, May 11, 2023](#)

The Total Cost for PFRIP is \$49,999,997. Full budget details for all categories including itemized charges can be viewed in the Budget Spreadsheet *Budget\_SVCE\_PFRIP*, and Budget Appendix *Budgetcalcs\_SVCE\_PFRIP* which includes a Table of Staff Rates covering Personnel, Fringe, and Indirect Hourly Rates.

- i. Personnel: Total Cost: \$5,185,857 based on 45 classifications spanning SVCE and all sub-awardees developed from staff time hourly rates of actual known employees and the hours or percentage of Full Time Employee (FTE) required to complete grant objectives.
- ii. Fringe Benefits: Total Cost: \$2,703,931 based on 45 classifications spanning SVCE and each sub-awardee, as a percentage of Personnel time of actual known employees that varies by organizational benefits but typically includes: health premiums (medical, dental, vision), flexible spending/health reimbursement accounts, workers' compensation, life insurance, and disability leave. Fringe rates may vary upon union, benefit choices, and retirement system tier.
- iii. Travel: Total Cost: \$8,500 based on local, in-state, and out-of-state travel needs for implementing community engagement strategies and subsequent project performance presentations at two conferences.
- iv. Equipment: Total Cost: \$20,590,387 based on 62 implementation sites' costs for installing GHG reductions measures, including but not limited to, heat pump water heaters, heat pump HVAC, and solar systems and batteries at various capacities.
- v. Supplies: Total Cost: \$16,600 based on two sites' electric cooking appliances and four community events' needs.
- vi. Contractual: Total Cost: \$18,886,212 based on all vendor services needed to produce PFRIP outcomes, including but not limited to design, permitting, construction, GHG and Building Design performance and community engagement.
- vii. Other: Total Cost: \$417,750 based on stipends for qualifying low income trainees and community engagement participation, community art and celebratory events.
- viii. Indirect Charges: Total Cost: \$2,190,759.80 based on 45 classifications spanning SVCE and each sub-awardee, as a percentage of personnel salaries that vary by organizational overhead needs or approved Negotiated Indirect Cost Rate Agreement (NICRA).

#### **b. Expenditure of Awarded Funds**

To ensure that grant award is efficiently expended on time within the grant period, the PFRIP Coalition will meet monthly to plan upcoming activities and review recent progress; and through the [Santa Clara County Climate Collaborative](#), providing opportunities to share news, challenges, lessons learned, and best practices, and coordinate activities. All final report information and receipts will be provided to SVCE by sub-awardees no later than two weeks prior to a relevant reporting deadline (see Section 3c) to ensure timely report submittal to the EPA. Semi-annual reports will be provided on March 31 and September 30, or the closest prior business day, throughout the grant term until the Final Report due date of September 30, 2029.

#### **c. Reasonableness of Costs**

All PFRIP's Direct and Indirect costs are necessary to construct the GHG reduction measures and conduct specific grant performance and community engagement. Costs were calculated through engineering and project manager review and assessment, supported by vendor quotes to the extent possible and represent the most feasible and reasonable costs available at the time of this proposal.



## Consolidated Budget Table

Public Facilities Resiliency Implementation Project

BUDGET BY YEAR							
COST-TYPE	CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Direct Costs	TOTAL PERSONNEL	\$1,154,236	\$981,111	\$1,109,626	\$1,067,385	\$873,498	\$5,185,857
	TOTAL FRINGE BENEFITS	\$638,092	\$507,853	\$583,354	\$571,556	\$403,076	\$2,703,931
	TOTAL TRAVEL	\$200	\$200	\$350	\$3,850	\$3,900	\$8,500
	TOTAL EQUIPMENT	\$4,234,377	\$7,898,698	\$2,603,764	\$939,304	\$4,914,244	\$20,590,387
	TOTAL SUPPLIES	\$0	\$500	\$5,000	\$0	\$11,100	\$16,600
	TOTAL CONTRACTUAL	\$7,220,066	\$5,195,311	\$2,369,705	\$2,440,199	\$1,660,932	\$18,886,212
	TOTAL OTHER	\$30,000	\$343,500	\$14,333	\$13,633	\$16,284	\$417,750
	TOTAL DIRECT	\$13,276,971	\$14,927,172	\$6,686,133	\$5,035,927	\$7,883,034	\$47,809,237
	TOTAL INDIRECT	\$555,640	\$431,915	\$466,222	\$442,749	\$294,234	\$ 2,190,759.80
TOTAL FUNDING		\$13,832,611	\$15,359,087	\$7,152,355	\$5,478,675	\$8,177,268	\$49,999,997

BUDGET BY PROJECT			
Project Number	Project Name	Total Cost	% of Total
1	Silicon Valley Clean Energy (Grant Administration)	\$1,415,775	3%
2	San Jose Portfolio Project (6 microgrids, EVSE, 100 HPHWs, 1 Website, 5 Translated Community Meetings & Social Media Postings, & Climate Art Fair)	\$22,365,541	45%
3	Sunnyvale Portfolio Project (2 microgrids, HVAC Heat Pumps, HPWH, EVSE, Induction Cook Tops)	\$3,606,777	7%
4	Morgan Hill Portfolio Project (Electric Boilers & Pool Heater, Heat Pump HVAC, Electric Kitchen, and EVSE)	\$3,599,871	7%
5	Mountain View Portfolio Project (2 microgrids)	\$13,713,123	27%
6	Cupertino Portfolio Project (Heat Pump HVAC & HPHW)	\$1,951,321	4%
7	SPUR (Community Engagement, Equity, & GHG Performance Assessments)	\$1,556,411	3%
8	Prospect Silicon Valley (Building Design Performance & Workforce Development)	\$1,791,177	4%
Total	PFRIP Total	\$49,999,997	100%