CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Toni J. Taber, MMC
City Clerk

SUBJECT: **SEE BELOW**

DATE: March 27, 2025

SUBJECT: San José Clean Energy Programs Roadmap Status Report

Recommendation

As recommended by the Transportation and Environment Committee on March 3, 2025, accept the status report on the San José Clean Energy Programs Roadmap.
CEQA: Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action. (Energy)
[Transportation and Environment Committee referral 3/3/2025 - (d)1]

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Zachary Struyk

SUBJECT: San Jose Clean Energy Programs Roadmap Status Report

DATE: February 10, 2025

Approved  Date 2/21/2025

COUNCIL DISTRICT: Citywide

RECOMMENDATION

Accept this update on San José Clean Energy's Programs Roadmap and recommend this item for full Council consideration at the April 8, 2025, City Council meeting.

SUMMARY AND OUTCOME

This update on San José Clean Energy's (SJCE) Programs Roadmap provides information on customer programs, how staff develops the programs, and funding. SJCE's customer programs align with City Council guidance to reduce greenhouse gas emissions, support Climate Smart San José, promote equity and affordability, benefit customers and community, and maintain or improve the financial status of SJCE. Staff recommends allocating a maximum of $14 million for customer programs in Fiscal Year (FY) 2025-2026, subject to the 2025-2026 Proposed Budget development process. This funding level allows SJCE to offer 15 programs for residential and commercial customers (Figure 2). The programs will incentivize transportation and building electrification and the adoption of distributed energy resources; improve resiliency; and lower electricity bills for vulnerable customers. Collectively, FY 2025-2026 program implementation is anticipated to result in approximately $37 million lifetime customer savings and 65,000 metric tons of CO_2 avoided – equal to 1.3% of total communitywide emissions in 2021. More than 62% of program incentive funds are expected to be distributed to environmental justice communities.[1]

[1] Staff's recommended definition of environmental justice communities includes households with <80% of area median income, pollution-burdened communities as defined by CalEnviroScreen, and Justice40 communities, the Biden administration's definition that reflects poverty levels, pollution burden, and vulnerability to climate change, among other indicators.

BACKGROUND

One of the key advantages of local Community Choice Aggregators is the ability to provide programs that meet their community's needs. As such, SJCE created its Programs Roadmap in collaboration with community stakeholders and the City Council to guide the development of customer programs (Attachment A).[2] The Programs Roadmap identifies six focus areas:

1. **Vehicle Electrification**: Programs focused on accelerating the conversion of all vehicle usage to electric alternatives.
2. **Building Electrification**: Programs that support converting homes and buildings from gas and electricity-powered to solely electricity-powered.
3. **Distributed Energy Resources**: Programs that include resources on the customer side of the utility meter, such as solar, battery storage, and demand response.
4. **Energy Efficiency**: Programs that reduce energy usage and costs through equipment upgrades or building envelope improvements.
5. **Program-Specific Rates**: Programs designed to offer special rates for select customer classes to incentivize energy-use behavior or support those customer groups.
6. **Resiliency**: Programs to provide backup solutions to maintain power during an outage, often relying on distributed energy resources on the customer side of the utility meter.

The Programs Roadmap also outlines five guiding principles for program selection, as approved by the Transportation and Environment Committee on June 3, 2019:

1. Maximize greenhouse gas reduction opportunities
2. Align with Climate Smart San José, the City's climate action plan[3]
3. Promote equity and affordability and support disadvantaged communities
4. Produce customer and community benefits
5. Maintain or improve the financial status of SJCE

In addition to helping meet the City Council's energy and decarbonization goals, SJCE programs have the added benefits to SJCE operations of retaining existing customers, incentivizing opted out customers to return to SJCE service, and increasing demand for SJCE's clean energy, thereby increasing economies of scale and reducing costs for all customers.

[2] The City Council formally accepted the initial Programs Roadmap on March 9, 2021.
[3] There is alignment between these program areas and the four strategies identified by Climate Smart's Framework for Carbon Neutrality by 2030 and adopted by the City Council in June 2022: a) Move to zero emission vehicles, b) Reduce the miles we travel in our vehicles by at least 20%, c) Switch our appliances from fossil fuels to electric, and d) Power our community with 100% carbon neutral electricity.

Current Programs Status

SJCE currently offers eight customer programs utilizing a budget of $12 million through FY 2024-2025, as authorized by the City Council in April 2024 (Figure 1). Staff is working to launch two additional distributed energy resource programs by the end of FY 2024-2025 and will bring a slate of workforce development programs to the City Council separately for consideration.

Staff also ended, or is in the process of winding down, several programs and initiatives, including three externally funded programs that are no longer accepting applications: (1) the California Electric Vehicle Infrastructure Project (CALeVIP), (2) the Home Appliance Savings Program, and (3) the Energy Efficient Business Program. Information about completed and sunsetting programs is found in Appendix A. Impacts from a selection of the programs are detailed in Table 1. Updates on current programs that staff propose to continue into FY 2025-2026 are found in the next section. In addition to the programs listed in Figure 1, staff is working on four supporting initiatives and developing a leaf blower program detailed in Appendix B.

Figure 1. Current SJCE programs

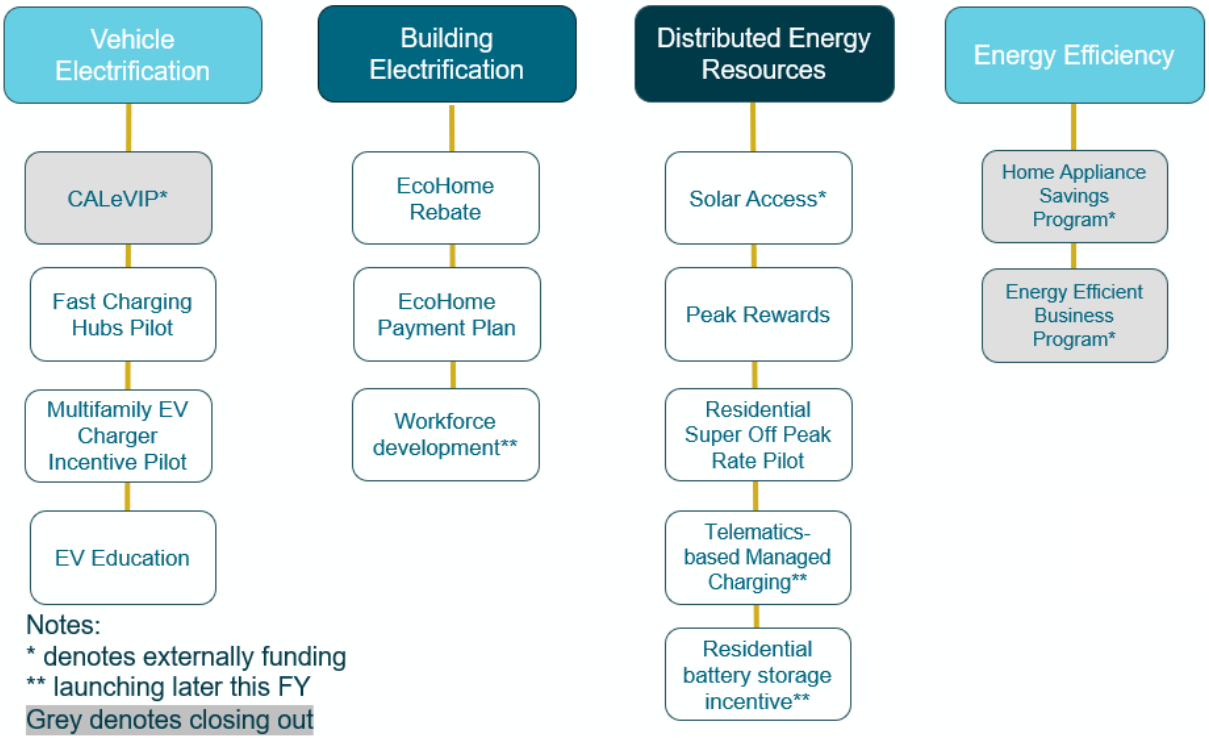

Table 1. Cumulative impacts of a selection of SJCE's current programs through the end of calendar year 2024

	Electricity savings in kilowatt-hours	**Lifetime greenhouse gas reductions in metric tons CO_2**	**Customer savings**	**Installations/ customers served**
California Electric Vehicle Infrastructure Project (CALeVIP)	-	604	$3,081,787	32 direct current fast charging ports, 197 Level 2 ports
Solar Access	-	546	$602,182	Approximately 830 participants
Home Appliance Savings Program	518,222	705	$487,700	281 appliances and 1,056 energy saving devices installed
Energy Efficient Business Program	34,470,220	17,440	$10,337,000	778 businesses served
Peak Rewards virtual power plant	11,461	4	$12,000	210 participants, 290 enrolled
Total	**34,999,903 kilowatt-hours**	**19,295 metric tons CO_2**	**$14,520,669**	-

ANALYSIS

Programs Prioritization and Scoring

Staff utilizes a scoring framework to evaluate the effectiveness of current and future energy programs. To develop a score for each program, staff calculate five metrics that are tied to the City Council-approved SJCE program guiding principles (weighted from highest to lowest):

1. Greenhouse gas emissions reductions,
2. Prioritizing electrification in communities where incentives will have the most impact,
3. Customer savings,
4. Peak demand reductions, and
5. Fiscal impact for SJCE.

Each metric value is divided by the total program budget, normalized, multiplied by its weighting factors, and summed together to yield one score. Certain aspects of programs that are challenging to quantify, including contribution to personal and community resiliency, ensuring all customer groups are benefitted, and availability of external funding, were considered after the score development. The recommended programs below yielded the highest scores. After a program launches, staff compares its performance to its expected score and calculates additional performance metrics, including customer service, budget utilization, and uptake among diverse customer groups.

Community Input

Community input also shapes the types and design of programs. The City's Climate Advisory Commission provides feedback annually on SJCE programs. In March 2024, the Energy Department filled a position dedicated to assessing community needs, driving community engagement, working with community-based organizations, and implementing feedback into all program areas. To inform FY 2025-2026 vehicle electrification programs, SJCE worked with the Silicon Valley Clean Cities Coalition to conduct a needs assessment. This included hosting four multilingual listening sessions with community members and conducting an online survey to learn about their perceptions of electric vehicles (EVs) and the support they need to own, lease, and charge one. Participants noted that the high upfront cost of EVs is their biggest barrier to adoption and that a point-of-sale incentive applied as a discount when purchasing or leasing EVs from new car dealers would best motivate them to get an EV when compared to other incentive designs. Additionally, a significant number of respondents that live in multifamily housing noted that access to charging was their next biggest barrier to EV adoption. These insights informed the design of the programs proposed herein.

Recommended FY 2025-2026 Programs

Staff recommends pursuing the 15 programs depicted in Figure 2 below in FY 2025-2026, with a maximum total program investment of $14 million (see Appendix C for a breakdown by program and funding source). At least 62% of program funding is expected to be allocated to efforts that benefit environmental justice communities. The anticipated impacts of a subset of the new proposed programs are detailed in Table 2 below.

Figure 2. Recommended FY 2025-2026 programs

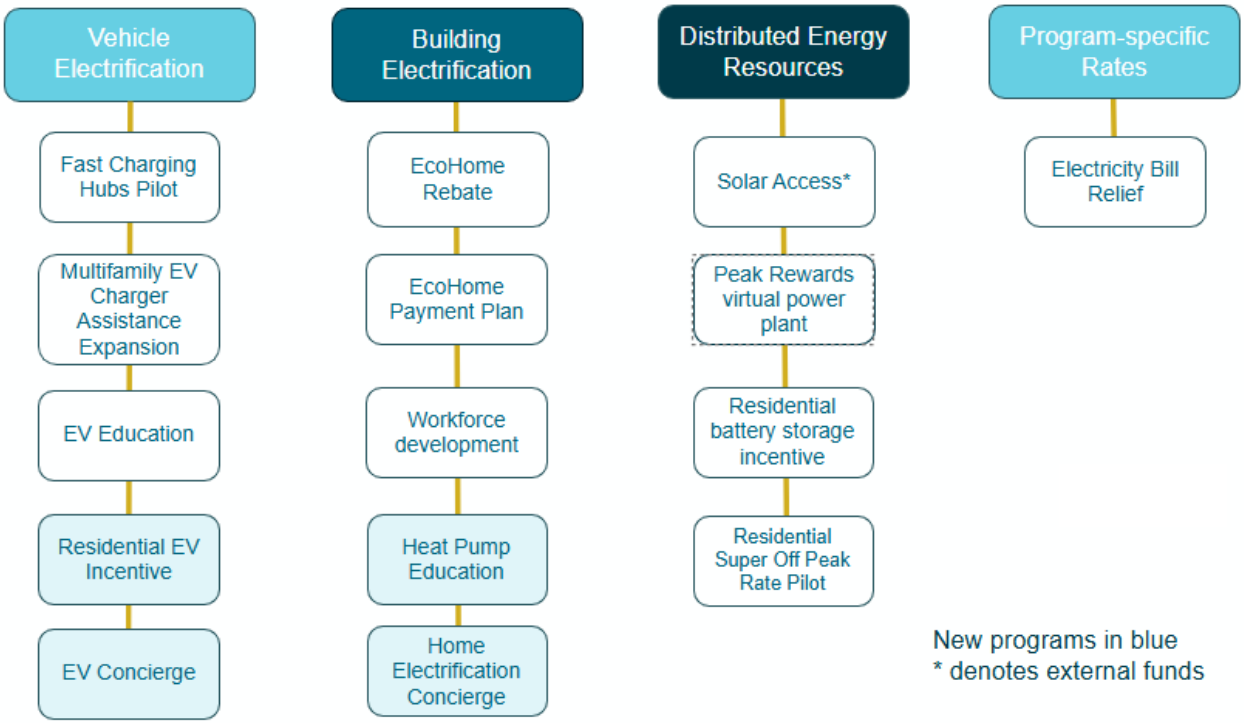

Table 2. Expected impacts of some of SJCE's FY 2025-2026 recommended programs

	Greenhouse gas reductions in metric tons CO_2	**Lifetime customer savings**	**Expected installations/ customers served**
Multifamily EV Charger Assistance	2,877	$2,326,500	240 charging ports at 20 properties
Residential EV Incentive	48,997	$19,227,900	850 customers served
EcoHome Rebate	5,620	$1,792,500	775 heat pumps installed
Solar Access	145	$262,500	830 customers served
Peak Rewards Virtual Power Plant	178	$1,240,000	7,650 customers served; 7.5 megawatts (MW) of flexible load
Residential Battery Storage Incentive*	465	$11,427,600	400 customers served
Electricity Bill Relief	-	$1,000,000	1,000 households
Total	**58,282 metric tons CO_2**	**$37,277,000**	**-**

*GHG reductions and customer saving projections for the Residential Battery Storage Incentive assume the battery is paired with solar. Batteries are primarily charged off solar electricity during the day and discharge during the afternoon hours, reducing or eliminating the need for the resident to pay for on-peak electricity from the grid.

Vehicle Electrification

The Energy Department and other City of San José departments working on transportation electrification continue to be focused on the Climate Smart San José plan and the City's adopted carbon neutrality by 2030 goal through the following priorities: [4]

1. Reducing the emissions produced from the transportation sector by increasing the adoption of passenger and commercial EVs and reducing vehicle miles traveled.
2. Ensuring residents have equitable access to public charging infrastructure and affordable charging rates.
3. Shifting more EV charging to the middle of the day to reduce the strain on the grid, lower costs, and help ensure abundant clean solar resources are fully utilized.
4. Developing a master plan to electrify the City of San José fleet and install accompanying charging infrastructure.

FY 2025-2026 Recommended Vehicle Electrification Programs:

- **Fast Charging Hubs Pilot**: In November 2022, the City Council approved SJCE to install direct current fast charging hubs in San José's environmental justice communities to increase access to affordable and reliable EV charging. Each hub will contain at least 10 charging ports and run for 10 years. SJCE will control variable retail pricing to encourage middle-of-the-day charging. In February 2025, staff re-published a Request for Offers for a vendor to build, own, and operate four to seven hubs at community centers and libraries through a pay-for-performance agreement.

- **Multifamily EV Charger Assistance Expansion**: In October 2024, the City Council approved SJCE to launch the Multifamily EV Charger Assistance Pilot. The Pilot provides incentives to multifamily property owners to cover the costs associated with installing Level 1 and low-power Level 2 EV charger outlets,[5] Level 2 charging stations,[6] and main panel upgrades for properties that cannot

[4] More on the drivers behind these goals and the City's workplan to achieve them can be found in the Memo to Transportation and Environment Committee (Departments of Energy, Public Works, and Transportation), November 8, 2024

[5] Level 1 outlets offer charging through a 120 Volt Alternating Current circuit, providing about 50 to 60 miles of range over a 12-hour overnight charge. This is the same as a standard electrical outlet. Low-power Level 2 outlets offer charging through a 208 to 240 Volt Alternating Current circuit, providing about 12 to 24 miles of range per hour. EV drivers bring their own charging cord for both types of outlets.

[6] Level 2 charging stations offer charging on a 208 to 240 Volt Alternating Current circuit, providing about 20 to 40 miles of range per hour. EV drivers plug the charger's cord into their vehicle.

install EV chargers without a panel upgrade. Adding EV charging to existing multifamily buildings can be costly to property owners who may also face significant permitting delays. The Pilot is implemented in-house and is designed to complement other EV charging infrastructure programs, such as the PG&E Multifamily and Small Business Direct Install Program and the California Energy Commission's Reliable, Equitable, and Accessible Charging for Multi-family Housing (REACH) 3.0 Grant, to share costs and drive participation from multifamily properties in low-income and pollution-burdened communities. Since its launch, the Pilot has received applications for installing 78 charging ports at 10 multifamily properties. There continues to be high demand to install EV chargers at multifamily properties in San José. To meet this demand, SJCE plans to expand the Pilot with an additional $1 million in incentives to install an estimated 240 charging ports at 20 multifamily properties in San José.[7] Additionally, staff will explore expanding the program in the future to include technical assistance and direct install components.

- **EV Education**: SJCE is focused on increasing EV adoption in San José, especially among residents with lower incomes and those who face the highest barriers to adoption. SJCE hosted two EV ride and drive events in 2024 at Emma Prusch Farm Park and PayPal Park. In total, 250 residents drove or rode in an EV at these events. Additionally, SJCE sponsored and co-hosted two EV financial incentive clinics with Acterra, attracting 100 total attendees. At these clinics, held in multiple languages virtually and in person, attendees learned how to stack State, federal and local incentives for EVs. The in-person event at Mayfair Community Center also included an EV expo where attendees could view and sit in five EV models and speak to the vehicle owners. In December 2024, SJCE staff attended a bilingual Community Lunch for Cleaner Transportation in East San José. SJCE will continue to leverage partnerships with nonprofits and community-based organizations to host educational events and disseminate information, focusing on environmental justice communities. These plans include another EV ride and drive at PayPal Park.

- **Residential EV Incentive (NEW)**: To increase EV adoption among customers in environmental justice communities, SJCE recommends launching an EV incentive program in late Summer 2025. The Program will provide financial incentives to eligible SJCE customers as a discount at the point-of-sale when they purchase or lease a new or used EV from participating car dealerships. Program eligibility will be limited to SJCE customers who live in environmental

[7] SJCE conducted an analysis of charging rates using a sample of 45 multi-family properties that have EV charging for their tenants. On average, the cost to charge was $0.34 per kilowatt-hour (kWh), which is lower than PG&E's residential peak and part peak pricing and comparable to their $0.30 cents/kWh residential off-peak pricing. SJCE will research and recommend as appropriate rate restrictions and/or reporting requirements in future Program terms and conditions to create more transparency and ensure that charging rates are priced fairly for tenants.

justice communities and those with household incomes that are at or below 80% of the area median income citywide, or about $147,000 for a family of four.[8]Residents with lower-incomes and who live in multifamily housing still experience significant barriers to EV ownership and have noted that they need considerable financial support to make their next car an EV. The incentive program will focus on simplifying the customer experience and providing EV education to dealer salespeople. The EV incentive program will be implemented by a consultant and is expected to fund incentives for over 850 EVs for San José residents.

- **EV Concierge (NEW)**: SJCE will launch a concierge service to provide resources and support to customers seeking to transition to an EV. The service will assist customers in understanding what it means to make the switch to an EV, the benefits of EVs, answer their EV and charging questions, assist them in receiving SJCE incentives and external funding, provide technical assistance, and assist them in finding a contractor if needed. Navigating new technologies, new and changing programs, and finding a qualified contractor is a major barrier for customers to make the switch to an EV. By providing customers with in-depth guidance, SJCE can help ensure that customers are receiving the information that they need to switch to and be able to charge an EV.

Building Electrification

In San José, buildings contribute 33% of greenhouse gas emissions, mainly due to natural gas appliances.[9] These can be replaced by efficient electric alternatives, such as heat pumps, electric dryers, and induction stoves, which also improve indoor air quality. While heat pumps cost more to install, incentive programs like SJCE's EcoHome Rebate and Payment Plan help reduce upfront costs. (Appendix E). More education and technical assistance are needed for homeowners, renters, landlords, and contractors to understand the benefits and operation of electric appliances. Staff continues to receive free technical assistance from the American Council for an Energy-Efficient Economy and incorporate learnings into programs to increase renter participation in electrification and energy efficiency programs, better engage landlords and tenants, and include renter protection policies in programs.

FY 2025-2026 Recommended Building Electrification Programs:

- **EcoHome Rebate**: This program[10] provides rebates to SJCE residential customers installing heat pump water heaters and/or heat pump HVAC systems. Additional incentives are available for panel upgrades, circuit pausers/splitters,

[8] Those who live in households at or below 80% area median income are considered lower-income and best represent the financial situation of the residents of San José as opposed to state or nationwide median incomes.
[9] Climate Smart San José 2021 Communitywide Greenhouse Gas Inventory
[10] EcoHome Rebate program webpage (also available in Spanish and Vietnamese).

prewiring to prepare for future upgrades, and attic insulation to increase the energy efficiency of the home and decrease the load requirement for the equipment. Increased incentives are available for customers meeting the program's environmental justice community qualifications, with the goal of dispersing 20% of rebates to these customers. In the first year, the focus is on equipment that serves a single household or single multifamily unit, with plans to include central systems for multifamily housing in future iterations. Since launching in December 2024, 258 customers have reserved $959,725 in rebates, and $62,750 is being issued to customers for completed projects, 28% of which qualified for the environmental justice community rebate. The average time between application submission to approval is 3 business days and 5.6 business days between claim submission and claim approval. Staff's goal is to have 500 heat pumps installed in FY 2024-2025 and 775 in FY 2025-2026. To increase familiarity with heat pumps, in FY 2025-2026 staff recommend adding a new rebate for contractors living in San José to install heat pumps at their own home or business. Contractors are often the best positioned to educate property owners about energy efficiency or electrification opportunities when appliances break or fail. Some contractors may be operating with misconceptions or doubts about heat pumps based on the performance of older models. Neighboring program implementers have successfully increased contractor awareness by incentivizing these types of installations.

- **EcoHome Payment Plan**: This pilot program[11] provides zero-interest on-bill financing for SJCE residential customers pursuing eligible home electrification upgrades. Customers can receive financing of up to $5,000 over loan terms of two, three, or five years and are charged the monthly payment through their electric bill. To date, the program has eight approved payment plans totaling $37,045. The program has enrolled 16 program-eligible contractors and posted their information to the program website to aid customers in finding a qualified installer. The average time between application submission to approval is two business days.
    - **EcoHome Network**: To ensure customers can easily find eligible contractors who have completed two or more EcoHome Rebate projects or have completed the program requirements to become eligible contractors for the EcoHome Payment Plan, staff developed the EcoHome Network.[12] The Network connects customers with contractors willing and able to complete their building electrification project. Contractors in the EcoHome Network have their contact information displayed on the SJCE website. In the future, staff aim to further cultivate relationships with

[11] EcoHome Payment Plan program website (also available in Spanish and Vietnamese)
[12] EcoHome Network website (also available in Spanish and Vietnamese)

contractors by developing a newsletter to inform them of the latest SJCE program offerings and solicit feedback on program design and operations.

- **Workforce Development**: Staff has been collaborating with local unions, labor groups, contractor groups, trade schools, community colleges, and the City's Office of Economic Development and Cultural Affairs to understand how to support the building electrification workforce in San José. Based on conversations with these stakeholders, staff will propose new workforce development programs (utilizing the community development funds SJCE secures through its clean energy power purchase agreements with developers for utility-scale clean energy resources) to City Council later in FY 2024-2025. Last Fall, the Department had an industry consultant under contract to research the current state of the electrification workforce (general contractors, electricians, plumbers, etc.) in San José, existing workforce training programs, and evaluate the speed at which buildings can be electrified with the current workforce. Based on their research, the study determined that the electrification workforce would need to increase by approximately 1,410 full-time workers by 2030 and an additional 1,570 full-time workers by 2040 to meet the Bay Area Air District 2027 and 2029 regulations and the City's carbon neutral by 2030 goal.

- **Heat Pump Education (NEW)**: In 2025, SJCE will launch a building electrification education campaign to pair with its EcoHome Rebate and Payment Plan. The education campaign will drive program participation while also disseminating educational messages and resources about heat pump technology and energy efficiency. The campaign will include renter-specific tactics. SJCE will work with community-based organizations to ensure that messages and tactics are culturally relevant. The education campaign will also include tactics for contractors and companies selling space and water heating equipment.

- **Home Electrification Concierge Service (NEW)**: SJCE will launch a concierge service to provide customers looking to electrify their home with resources and tools. Navigating new technology, new and changing programs, and finding a qualified contractor is a major barrier for customers to electrify. The service will walk customers through what it means to go electric, share the benefits of removing gas-powered equipment, and provide recommendations based on their individual needs, resources to find a contractor, up-to-date information on available incentives, and technical assistance to ensure the project provides the best outcome for the customer. By providing customers with in-depth guidance, SJCE can ensure customers are finding the best fit for their needs and the resources to actualize the project.

Distributed Energy Resources

Distributed energy resources (DERs) like rooftop solar, home battery storage, and demand response are generally customer controlled. California's solar investments result in abundant daytime electricity, but shortages can occur as the sun sets, especially on hot summer evenings with high AC use and EV charging. To maintain grid stability, utilities are investing in battery storage. However, battery storage sited at homes and commercial buildings comes with the same benefits, as well as increased resiliency and lower electricity costs for the owner. Increasing supply is not the only way to meet electricity demand during these critical times of the day; incentivizing customers to reduce their electricity usage or to adjust their smart devices like thermostats, batteries, and chargers is a cost-effective way to meet demand while reducing greenhouse gas emissions.

FY 2025-2026 Recommended Distributed Energy Resources Programs:

- **Solar Access**: SJCE's Solar Access program launched in 2021 and currently serves approximately 830 low-income customers in pollution-burdened communities, providing a 20% bill discount and powering their residences with 100% renewable electricity from a 2 MW solar facility in Merced County.[13] Staff recommends leveraging an added program allocation of up to 0.8 MW of permitted additional program capacity from the California Public Utilities Commission (CPUC) to extend this program to approximately 380 additional customers, providing the same 100% renewable energy at a 20% discount. To serve the additional customers, staff will need to secure either a permanent or interim solar resource that meets the state's requirements. Depending on market availability, SJCE may elect to take only a portion of the allocation and release the rest. The CPUC reimburses SJCE for Solar Access expenses, including the bill discounts for the existing 830 customers and the cost of procuring energy.

- **Peak Rewards Virtual Power Plant:** Demand response programs encourage customers to reduce energy use during high electricity prices or grid emergencies. By growing the demand response resource for grid reliability as a virtual power plant, SJCE can reduce the need for additional resource adequacy reserves and lower power procurement costs. In 2024, SJCE expanded its demand response program to all customers and partnered with Uplight, Inc. to expand the program and enable automated participation through smart technologies. In January, SJCE transitioned Peak Rewards for All and Peak Rewards for Business to Uplight. Launching in Spring 2025, Peak Rewards for Smart Homes will pay residential customers for granting access to their smart thermostats, EV chargers, and EVs, for telematics-based managed charging. Customers can override adjustments. In FY 2025-2026, SJCE will support

[13] Map of pollution-burdened communities as designated by the California Environmental Protection Agency and California Public Utilities Commission.

additional technologies like battery storage, heat pump water heaters, and pilot a smart thermostat offering for commercial customers aiming for 5 MW of reductions by Summer 2025 – serving about 9,375 participants – and 25 MW by mid-2028.

- **Residential battery storage incentive**: Staff will launch an incentive program in Spring 2025 that will lower the costs of battery equipment and installation, particularly for solar customers, to reduce the net demand on the grid during peak hours. Participants will receive a rebate for installation in exchange for mandatory participation in Peak Rewards virtual power plant, allowing SJCE to leverage a portion of the battery as a resource during peak hours of the day. Staff have explored several program structures and incentive levels in coordination with other Community Choice Aggregators and installers to ensure the program will be flexible and meaningful for customers. The program will be branded as part of the EcoHome suite of SJCE programs, allowing for a familiar application process for customers and installers. Staff recommend continuing to offer the program through at least FY 2025-2026 to improve grid reliability, lower SJCE power procurement costs, and improve resiliency for homes.

- **Residential Super Off-Peak Charging Rate Pilot**: Residential customers with an EV, battery storage, heat pump water heater, or heat pump HVAC can enroll in E-ELEC, a new time-of-use rate plan incentivizing electrification. Staff launched a Council-approved pilot in August 2024 that added a new "E-ELEC-SJ" rate plan with a new super off-peak period from 9 a.m. to 2 p.m. with the lowest rates of the day to incentivize EV charging (and other electrification uses) when the grid is typically flush with solar energy. For the pilot, SJCE is not raising rates in the other time-of-use periods in E-ELEC to compensate for the lower rates in the super off-peak period. Staff automatically enrolled customers in E-ELEC into E-ELEC-SJ. This included non-solar customers and solar customers on the new Solar Billing Plan. Legacy solar customers on Net Energy Metering 1.0 and 2.0 were excluded from auto-enrollment to prevent a potential loss in value due to the lower super off-peak rate during solar hours. E-ELEC-SJ will be open to residential customers with an EV, battery storage, heat pump water heater, or heat pump HVAC. Staff will continue to study rate plan uptake and the resulting load shifting and revenue impacts until the pilot ends in FY 2025-2026.

Program-specific Rates

Electricity is essential, yet low-income households often spend more on energy and live in less energy-efficient homes, lacking access to energy-saving technologies. Falling behind on bills risks disconnection, disproportionately impacting low-income

communities and communities of color.[14] Disconnections can be catastrophic to those relying on electricity for medical devices and life-supporting systems.

- **Electricity Bill Relief**: To help reduce disconnections, in 2024, staff worked with Sacred Heart Community Service and the County of Santa Clara's Homelessness Prevention Program to pilot an Electricity Bill Relief program. For 134 eligible residential customers, SJCE paid overdue electricity balances of up to $1,600 and applied $200 bill credits for three subsequent months. In total, $101,137 in credits were applied. The pilot successfully helped customers reduce overdue balances and avoid disconnection; staff analysis showed that compared to similar customers without bill relief, pilot participants saw a 72% drop in disconnection warnings and an 80% drop in actual disconnections. Still, the assistance was not enough for some – 21% saw an increase in their overdue balance despite SJCE's intervention. In FY 2025-2026, SJCE will expand the program to serve approximately 1,000 San José households seeking rental relief through the Homelessness Prevention Program. In the interim, staff will continue analyzing pilot data and refining the program with partners to maximize impact, while also working to boost participation in external electricity assistance programs like the Arrearage Management Plan, Low Income Home Energy Assistance Program, and Relief for Energy Assistance through Community Help.

Grant Funding

In partnership with the Departments of Transportation, Environmental Services, and Public Works, and the City Manager's Office Intergovernmental Relations team and other departments, the City was awarded two federal grants (Table 3). On January 21, 2025, the new administration issued an executive order pausing federal disbursements of Inflation Reduction Act and Infrastructure Investment and Jobs Act grants to awarded recipients, to be effective January 28. Prior to going into effect, a federal judge ordered a temporary pause to the order due to introduced litigation. The situation remains in flux; litigation was brought by 22 states and Washington D.C. and is ongoing. Staff continues to work with the City Manager's Office, Intergovernmental Relations team, our federal lobbyists, and other municipalities to understand the impact of these executive actions and the fate of the federal funds.

Staff continues to apply for other grant opportunities. Department of Transportation staff applied to the Metropolitan Transportation Commission for $3 million in grant funding to install chargers at a subset of the sites included in the City's successful federal Charging and Fueling Infrastructure grant. Staff is also considering applying to the CPUC to administer more funding for energy efficiency programs for SJCE customers.

[14] In a 2017 publication, the National Association for the Advancement of Colored People highlighted that African Americans are more vulnerable to high energy prices and utility disconnections. Citing a 2009 national survey, they reported that even among financially similar customers, African Americans experienced disconnections at higher rates.

Table 3. Federal and state grant opportunities

Grantor	**Opportunity**	**Funding amount**
Charging and Fueling Infrastructure (CFI) Community Program, US Dept. of Transportation	Funding to install 106 Level 2 and 14 fast charging EV ports at City of San José libraries, community centers, and parks for public use	$6 million plus $1.5 million match funding from SJCE
Energy Efficiency and Conservation Block Grant Program, US Dept. of Energy	Additional funding for residential building electrification incentives through EcoHome Rebate. Transferred from Environmental Services to Energy Department	$834,110
Energy Efficiency Apply to Administer, CPUC	Funding for energy efficiency and electrification measures	~$8 million per year, 2028-2032

Future Programs: FY 2026-2027 and Beyond

Potential future programs include:

1. **EV Charge Card Pilot** for qualifying customers to subsidize costs to charge at third-party operated public level 2 and fast chargers. Staff will explore partnering with third-party charger operators and financial institutions to offer a seamless method to lower retail charging rates at chargers around the City to match resident's residential off-peak charging rates.
2. **Workplace Charger Program** to incentivize the installation of Level 1, low power Level 2, and Level 2 chargers at businesses in San José that are in charging deserts or that predominantly employ multi-family and/or low-income residents currently lacking access to EV charging.
3. **E-bike Incentive** for qualifying customers to purchase an electric bike with the goal of reducing vehicle miles traveled (VMT) in passenger vehicles (cars).
4. **At-Home Connected EV Charger Incentive** in partnership with Peak Rewards to cover the cost of installing connected at-home EV chargers and shift EV charging to times of the day when the grid is cleaner.
5. **Fleet Electrification Advisor and Incentives** to provide technical assistance and incentives for EVs and chargers to businesses to electrify their fleet.
6. **Zonal Electrification** in partnership with PG&E to cost-effectively fully electrify homes on gas pipeline sections requiring capital upgrades.
7. **Automated Device Shop** that includes free or discounted smart thermostats and other internet-connected devices to enable more participation in Peak Rewards and reduce customer electricity bills.
8. **Power Purchase Agreements for Commercial Customers** to incentivize installation of large solar and storage systems. SJCE would minimize barriers by working with third parties to enable no upfront costs for solar and storage installation for commercial customers, provide on-bill financing, and an incentive to enroll the batteries in Peak Rewards.

EVALUATION AND FOLLOW-UP

Staff provides regular updates to the Transportation and Environment Committee on SJCE program performance through the semiannual Climate Smart updates and annual Programs Roadmap update.

COST SUMMARY/IMPLICATIONS

As described above, staff recommends allocating a maximum of $14 million in FY 2025-2026 for customer programs, subject to the appropriation of funds. This amount does not include any federal grant funding described above. All expenditures would be paid from the San José Clean Energy Fund. The allocation of program expenditure budgets and budgeted revenue estimates will be brought forward as part of the FY 2025-2026 Proposed Budget process for City Council approval.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the City Manager's Budget Office, the Environmental Services Department, and the Department of Transportation.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the March 3, 2025, Transportation and Environment Committee meeting and the April 8, 2025, City Council meeting.

COMMISSION RECOMMENDATION AND INPUT

Staff presented a summary of current San José Clean Energy programs and proposed additions and expansions for fiscal year 2025-2026 to the Climate Advisory Commission at the November 21, 2024, meeting. The Climate Advisory Commission accepted staff's update and supports its recommendations for fiscal year 2025-2026, including the focus on vehicle electrification programming given transportation's outsized emissions.

CEQA

Statutorily Exempt, ER24-021, CEQA Guidelines Section 15601(b)(3), Review for Exemption; and

Categorically Exempt, File No. ER24-021, CEQA Guidelines Section 15303, New Construction or Conversion of Small Structures.

PUBLIC SUBSIDY REPORTING

This item does not include a public subsidy as defined in section 53083 or 53083.1 of the California Government Code or the City's Open Government Resolution.

/s/
ZACHARY STRUYK
Acting Director, Energy Department

For questions, please contact Kate Ziemba, Senior Environmental Program Manager at kate.ziemba@sanjoseca.gov.

APPENDICES

Appendix A: Completed Programs Status
Appendix B: Supporting Initiatives and Leaf Blower Program Update
Appendix C: Programs Budget Breakdown Fiscal Year 2025-2026
Appendix D: Overview of Building Electrification Technologies
Appendix E: Summary of Residential Building Electrification Incentives and Average Upgrade Costs

ATTACHMENT

Attachment A - SJCE Programs Roadmap

Appendix A: Completed Programs Status

The following programs and initiatives have either sunset or are winding down.

Vehicle Electrification

- **California Electric Vehicle Infrastructure Project (CALeVIP)**: CALeVIP is a $14 million rebate program for Level 2 and Direct Current Fast Charging (DCFC) infrastructure co-funded by SJCE and the California Energy Commission and administered by the Center for Sustainable Energy. CALeVIP launched in December 2020 and closed to new applications in June 2023. As of January 2025, 197 Level 2 and 32 Direct Current Fast Charging ports funded by the program are operational. About 31% of the funds have been reserved or issued to projects in low-income and disadvantaged communities. The program is expected to conclude in Q4 2025, at which point any unspent funds committed by the City would be returned to the City. Unspent funds committed by the California Energy Commission will be re-allocated to other state programs.

Table 4. Location of operational EV chargers in San José funded by CALeVIP

Installation Street	ZIP	Main Site Use	Number of Charging Ports
1202 Oakland Rd	95112	Commercial (Gas Station)	4 DCFC
838 Cinnabar St	95126	Multi-Unit Dwelling	20 L2
1278 S. 10th St	95112	College/University	12 DCFC and 20 L2
875 Blossom Hill Rd	95123	Commercial (Gas Station)	2 DCFC
760 N 7th St	95112	Multi-Unit Dwelling	10 L2
750 N King Rd	95133	Multi-Unit Dwelling	20 L2
4000 Ellmar Oaks Dr	95136	Multi-Unit Dwelling	20 L2
2045 Lundy Ave	95131	Workplace	8 L2
415 E Taylor St	95112	Multi-Unit Dwelling	10 L2
377 Santana Row	95128	Multi-Unit Dwelling	10 L2
55 S Market St	95113	Workplace	4 L2
1790 S 10th St	95112	Commercial (Gas Station)	2 DCFC
10 W Trimble Rd	95131	Commercial (Hotel	8 DCFC
5981 Optical Ct	95138	Workplace	20 L2
1595 Branham Ln	95118	Commercial (Grocery Store)	4 DCFC
111 N Market St	95113	Workplace	9 L2
225 Richfield Dr	95129	Multi-Unit Dwelling	20 L2

1661 Hamilton Ave	95125	Multi-Unit Dwelling	20 L2
390 N Winchester Blvd	95050	Multi-Unit Dwelling	6 L2

- **City of San José fleet electrification master plan**: Energy, Public Works, and Transportation Departments staff are working with a consultant to produce a master plan to guide the electrification of the City fleet and new accompanying charging infrastructure. The master plan is in the final stages and provides an estimate of capital costs to buy electric vehicles and install chargers through 2035, based on replacement schedules, as well as operational savings, through lower fuel and maintenance costs. The consultant visited nearly 50 City facilities to assess electrical capacity for chargers, produced conceptual plans for charger installation, and determined future electrical demand at each facility from the fleet, public, and employee electric vehicles. Staff has used the findings to apply for multiple grant opportunities, including the federal Charging and Fueling Infrastructure grant that was awarded to San José.

- **EV Shopping Tool**: In July 2024, SJCE published an online multilingual website at sanjosecleanenergy.org/ev/ for comparing lifetime costs and emissions for EVs versus gas-powered cars, finding incentives and nearby chargers, and understanding how to charge.

Energy Efficiency

In September 2022, SJCE launched two energy efficiency programs with a combined budget of approximately $5.1 million from the CPUC. Both programs were implemented by Franklin Energy Services and ended in late 2024, the end of the three-year CPUC funding cycle. They resulted in 3,500 megawatt-hours of annual savings over the lifetimes of the energy-saving equipment – equal to the annual usage of about 720 homes.

- **San José Home Appliance Savings Program**: This program served two residential customer groups: single-family homes located in State-defined disadvantaged communities and moderate-income single-family homes citywide.[15] The program offered free smart thermostats, smart plugs, showerheads, and induction hotplates and 50-70% discounts at Airport Home Appliance on new energy-efficient refrigerators, washers, electric dryers, and induction cooktops, with free delivery, installation, haul away of the old appliance, and a five-year warranty. Customers received 140 smart power strips, 352 smart

[15] San José Home Appliance Savings Program webpage (also available in Spanish and Vietnamese). Moderate income is defined by the CPUC as between 200% and 400% of the federal poverty guidelines, or between $55,000 and $111,000 for a family of four.

thermostats, 351 portable induction tops, 213 low-flow showerheads, and purchased 281 appliances.

- **San José Energy Efficient Business Program**: This program offered 30-90% off HVAC, refrigeration, and water heating components and systems and installation to all San José Clean Energy commercial customers.[16] In total, 778 businesses participated in the program and received more than $1 million in incentives, many of which were restaurants and grocery stores, but also included churches and small businesses. The program helped customers through every step of the upgrade process, including offering a free energy audit to identify opportunities, finding a contractor that complies with the CPUC's specifications, helping the customer or their contractor apply for the rebates, and providing language assistance in Spanish or Vietnamese.

- **American Council for an Energy Efficiency Economy (ACEEE) Energy Equity for Renters Technical Assistance**: In 2024, SJCE worked with ACEEE and the International Children's Assistance Network, a local nonprofit, to develop interview questions for landlords and property managers regarding energy efficiency and electrification. SJCE staff then conducted outreach and interviewed seven local landlords. In 2025, SJCE's partners will analyze the interview findings and recommend strategies to increase renter participation in programs, as well as complementary policies to protect renters.

Appendix B: Supporting Initiatives and Leaf Blower Program Update

- **Permit streamlining**: Staff hired a consultant in Fall 2024 to examine City permitting processes and requirements for some clean energy technologies and to identify streamlining opportunities, both for customers and Planning, Building, and Code Enforcement Department staff. In partnership with City departments, the consultant is examining commercial EV charger, multifamily heat pump, and residential and multifamily battery storage permits. Staff expect to receive findings by the end of February 2025 and work with Planning, Building, and Code Enforcement Department staff to incorporate recommendations into building and zoning code updates in 2025.

- **Reach codes**: In July, Energy Department began leading the City's reach code work – efforts to set building codes for new construction in San José to be more energy efficient and result in fewer greenhouse gas emissions than state building codes. The building codes also include requirements for providing EV chargers at multifamily and nonresidential properties. Ahead of the 2025 state code cycle update (which will go into effect January 1, 2026), staff is utilizing a consultant to

[16] San José Energy Efficient Business Program webpage (also available in Spanish and Vietnamese)

research proposed state updates and reach code options for both new construction and existing buildings. Staff will conduct community outreach in Summer 2025 to receive input on any proposed changes and bring recommendations to the City Council for consideration in Fall 2025.

- **Coordination with Community Choice Aggregators around the Bay Area Air District's Zero NO_x appliance rules**: In 2023, the Bay Area Air District, formerly Bay Area Air Quality Management District, covering nine Bay Area counties, voted to ban the sale of water and space heaters that emit nitrogen oxides in 2027 and 2029, respectively. Currently, the only zero-nitrogen oxide space and water heating appliances are electric. Energy Department staff are collaborating with other Community Choice Aggregators to advocate to the Bay Area Air District to consider the needs of residents who will be financially burdened by the rule (i.e., low-income households and homes with space constraints that cannot accommodate the larger size and venting requirements of heat pump water heaters), identify exceptions for these groups, and scale financing support and financing options for all residents. SJCE and the Community Choice Aggregators are also working together on contractor training. Similar zero-nitrogen oxide appliance rules in the South Coast Air Quality Management District are currently facing litigation; staff are monitoring that situation closely.

- **Zonal electrification**: Zonal electrification involves decommissioning the gas infrastructure system serving two or more buildings and electrifying appliances instead. In September 2024, Governor Newsom signed Senate Bill 1221 (Min) into law, requiring gas corporations by January 1, 2026, to designate priority neighborhood decarbonization zones based on the cost-effectiveness of electrification versus gas distribution line replacement costs. It also directs the CPUC to develop a program with 30 pilot project sites statewide that facilitates the cost-effective decarbonization of priority neighborhood decarbonization zones. Energy Department and Climate Smart staff have engaged PG&E to review San José's priority neighborhood decarbonization zones as designated by PG&E and collaborate with PG&E to ensure a zone in San José can be one of the 30 pilot project sites, if desired by affected residents. Currently, zonal decarbonization is already pursued and paid for by PG&E if full electrification costs less than gas distribution line upgrades and 100% of affected customers agree to it. Staff is engaged with PG&E to learn more about upcoming opportunities based on gas line replacement schedules, and to understand how to best implement the pilot strategy in San José.

- **Leaf Blower Program:** In April 2024, the City Council directed staff to develop a program encouraging commercial landscapers to switch to electric leaf blowers. In November 2024, staff presented initial research findings and program options to the City Council Transportation and Environment Committee. Gas leaf blowers emit high levels of ozone and other pollutants, endangering workers' health and

local air quality. Though gas leaf blowers overall comprise a very small slice of total greenhouse gas emissions, staff found that a leaf blower program could potentially cost-effectively reduce greenhouse gas emissions. While upfront costs for electric leaf blowers are higher than gas, switching from gas to electric should result in significant long-term savings due to lower fueling and maintenance costs. Program options include a post-purchase rebate or a trade-in voucher; given the portability of leaf blowers, the latter best ensures greenhouse gas emissions and noise reduction benefits are realized locally. Committee members directed staff to conduct more outreach to landscapers to understand which program option would receive the most uptake. Staff is working with the Latino Business Foundation of Silicon Valley to interview businesses and expects to return to the City Council in FY 2025-2026 with a recommended program design and budget. Education about the health impacts and financial benefits of electric landscaping equipment will be an essential part of the future program; staff have engaged the American Green Zone Alliance for potential educational services. In addition, in January 2025, staff learned that the Bay Area Air District anticipates launching a program for electric commercial lawn and garden equipment in Spring 2025. Staff will track this program closely to inform an SJCE offering.

Appendix C: Programs Budget Breakdown Fiscal Year 2025-2026

Table 5. Programs cost breakdown for fiscal year 2025-2026

Program	**Estimated Cost**
Fast Charging Hubs Pilot Program*	$0
Multifamily EV Charger Incentive	$1,000,000
EV Shopping Tool	$68,000
EV Education	$100,000
Residential EV Incentive	$4,250,000
EV Concierge	$250,000
EcoHome Rebate	$2,675,000
EcoHome Payment Plan**	$0
Heat Pump Education	$150,000
Home Electrification Concierge	$400,000
Workforce development***	$745,000
Solar Access	$750,000
Peak Rewards Virtual Power Plant	$1,450,000
Battery storage incentive	$750,000
Residential super off-peak charging rate pilot	$40,000

Electricity Bill Relief	$1,000,000
Consultant studies	$370,000

*Spending expected in subsequent fiscal years after tolling agreement is executed
**Staff expect customers to continue to sign up for payment plans through FY 2025-2026, but no additional funding will be issued beyond the $1.25 million approved by the City Council in FY 2024-2025.
***Workforce development funds subject to Council approval in Fiscal Year 2024-2025.

Appendix D: Overview of Building Electrification Technologies

Electric appliances can efficiently replace natural gas uses within homes. Options are listed in Table 6 below.

Table 6. Descriptions of electric appliances

Gas-powered Appliance	Electric Option	How it Works
Water heater	Heat pump water heater (HPWH)	• Moves heat from the air to the water tank • Three times more energy efficient than gas water heaters • 240V or 120V
Furnace	Heat pump HVAC system	• Pulls heat from outside for heating indoors and pulls out heat from indoors for cooling • Provides heating and cooling • Two types: central/ducted (like central AC) and de-centralized ductless mini splits
Gas cooktop/stove	Electric or induction cooktop/stove	• Uses magnetism to heat cookware. • 40-50% more energy efficient than gas cooktops.
Gas heated clothes dryer	Electric or heat pump clothes dryer	• Reuses warm air for drying • Does not require vents

Electrification will require capacity and spare breaker spaces in the home's electrical panel. Electricity flows from the grid through PG&E distribution infrastructure to a home's electrical panel. Panels are made up of a series of circuit breakers that control the electrical current that flows to outlets. Circuit breakers protect your home from current spikes or overloads.

Approximately 32% of single-family homes in San José were built after 1978 and are more likely to have a 200-Amp panel. The remaining 68% of homes built before 1978 are more likely to have a 100-Amp panel or lower and may need new electrical panels

for safety reasons, especially those older than the 1960s.[17] The tools in Table 7 below enable electrification without upgrading the panel.

Table 7. Tools that enable whole home electrification without an electrical panel upgrade*(Source: Peninsula Clean Energy Design Guidelines for Home Electrification*[18])

Tool	What It Does
Circuit-sharing device	Allows two appliances to share the same circuit (e.g., EV charger and dryer).
Circuit-pausing device	Pauses appliance (typically EV charger) when total electrical draw nears panel capacity.
Smart panel	Monitors and controls electrical load, turning breakers on/off as needed.
120V HPWH	Uses a standard 120V outlet, avoiding infrastructure upgrades.

Appendix E: Summary of Residential Building Electrification Incentives and Average Upgrade Costs

Several federal, state, and regional building electrification programs are available to accelerate residential adoption of heat pump HVACs and heat pump water heaters by decreasing costs and covering electrical panel upgrades. These incentives can be stacked on top of SJCE's EcoHome Rebate and Payment Plan. Maximum incentive amounts are listed in Table 9 below. For some programs, the actual incentive amount is subject to applicant income and project costs. For example, through the federal High-Efficiency Electric Home Rebate Program (HEEHRA), households making 150% of the area median income (about $270,000 for a family of four) or lower can get rebates for heat pumps and other appliances as well as energy efficiency projects. Households making between 80% and 150% of the area median income can get rebates for 50% of project costs, while households making under 80% of the area median income can get rebates for 100% of project costs, up to the maximum rebate amount.

Table 8. Current Federal, State, and Regional Incentives for Residential Building Electrification Upgrades

Program	HPWH	HVAC	Cooktop	Clothes Dryer	Electric Panel	Type

[17] Building Electrification Institute, San Jose Building Stock and Housing Analysis, August 2020: https://www.sanjoseca.gov/home/showpublisheddocument/90629/638017001081730000
[18] https://www.peninsulacleanenergy.com/wp-content/uploads/2023/02/Design-guidelines-for-home-electrification-v021023.pdf

Energy Efficient Home Improvement Tax Credit (25C)*	Up to $2,000	Up to $2,000		-	Up to $600	Tax credit
High-Efficiency Electric Home Rebate Program (HEEHRA) – currently multifamily only*	$700-$1,750	$4,000 - $8,000	$840	$840	$4,000	Point-of-sale; part of TECH Clean California
Home Energy Performance-Based Whole-House Rebates Program (HOMES)*	Up to $8,000					Rebate
California Golden State Rebate Program	$700-$900	$90	-	-	-	Coupon
California Energy-Smart Homes Program**	Single family: $3,750 Multifamily low-rise/ADU: $2,000/unit				Single family: $1,000 MF low-rise/ADU: $600/unit	Rebate
@TECH Clean California – Multifamily	In unit: $7,300-$10,385 Central system: $300,000	-	-	-	$2,000-$4,000	Contractor Rebate

*The tax credits, HEERHA, and forthcoming HOMES programs, have not yet been halted by the new presidential administration.
**Requires whole-home electrification

Environmental Services staff contracted with AECOM to identify the average project costs to install residential heat pump water heaters and HVACs before incentives (Table 9). The cost estimates are based on an analysis of publicly available TECH Clean California data for Santa Clara County single-family projects[19] and cost estimates prepared for the City of San José by the Building Electrification Institute.[20] Many of the incentives can be stacked to reduce electrification upgrade costs to cost the same as or less than their natural gas counterparts (Tables 10-11).[21]

Table 9. Average Project Costs for Single-Family Home Electrification Upgrades

	25th Percentile	**Median**	**75th percentile**
Heat Pump Water Heater	$5,060	$6,800	$8,580

[19] TECH Clean California public data. https://techcleanca.com/public-data/
[20] San José Customer Economics Analysis for Residential Building Electrification. Appendix E1 of the Electrify San José Framework. February 2022. https://www.sanjoseca.gov/home/showpublisheddocument/90625/638017000335100000
[21] Tables 6-7 refer to owner-occupied single-family homes built before 2016.

Heat Pump HVAC central/ducted	$15,800	$19,380	$25,630
Heat Pump HVAC mini-split	$13,670	$18,790	$24,920

Table 10. Average Project Costs for Gas-powered Appliance Replacement

Technology	**Average cost**
Water heater	$2,550
Furnace and air conditioning	$17,000-23,000

Table 11. Heat Pump Net Effective Cost for Single-Family Households

Technology	**Gross Cost**	**Incentives**	**Net Effective Cost**
Heat Pump Water Heater	$6,800	$4,900	$1,900
Heat Pump HVAC	$19,380	$4,590	$14,790

In terms of operating costs, heat pump water heaters generally result in electricity bill savings if customers are enrolled in an electrification rate plan. Additionally, heat pump HVAC systems can result in higher bills if customers lack an air conditioner prior to installation. However, gaining the ability to cool homes in a warming climate may be a worthwhile tradeoff.