

# Chapter 6

## Opportunities for Energy Conservation



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## 6.0 Introduction

State law (Government Code Section 65583(a)(7)) requires Housing Elements to include an analysis of opportunities for residential energy conservation. According to the California Department of Housing and Community Development (HCD), the energy conservation section of a Housing Element must inventory and analyze the opportunities to encourage energy saving features, energy saving materials, and energy efficient systems and design for residential development. In San Jose, the City has focused its efforts on promoting electrification, as the majority of California's electric power comes from renewable resources and this reduces reliance on limited fossil fuel resources.

It is true that the main focus of building electrification is not primarily about energy efficiency, but rather on shifting energy sources to renewable resources and away from the world's dwindling supply of fossil fuels. By relying on a renewable source of energy, this promotes overall energy conservation. In addition, this shift does result in an increase in energy efficiency in a number of ways. Shifting to an electric induction cooktop from a natural gas cooktop is significantly more energy efficient, as well as beneficial to indoor air quality. Shifting to an electric heat pump water heater is generally three to four times more efficient compared to a natural gas water heater. From a vehicle standpoint, Electric Vehicles (EV's) are generally substantially more energy efficient than gas powered vehicles, as well as producing substantially less greenhouse gasses (GHG).

Residential energy conservation presents an opportunity to improve health, contribute to climate change mitigation and sustainability, and reduce the cost of living by reducing energy consumption. Statewide green building standards regulate energy efficiency and conservation as a part of building permit issuance and is updated every three years to ensure the integration of the latest research and technology. While electrification is one of the primary ways to reduce the environmental impact of a building and improve energy performance, existing residential buildings in San Jose face a range of difficulties when pursuing electrification including lack of electrical panel or service capacity, and the extensive renovations and remediations that the retrofitting for electrification might trigger.

Residents and property owners in San Jose have access to a variety of resources to assist with and incentivize residential energy conservation including local and state financing programs, and local resources such as solar rebates and incentives, and assistance with conversions of gas stoves to induction cooktops. Low-income San Jose utility customers who qualify can also take advantage of State and Federal Energy Bill assistance and energy efficiency programs. The State of California is pursuing aggressive policies to support efficient electrification, including resources for homeowners and renters, contractor training, and a broad outreach campaign.

As scientists continue to emphasize the need for rapid and far-reaching action to slow climate change, San José has already begun to feel the impact from wildfires, drought, and extreme heat. In November 2021 San José City Council acknowledged the need to accelerate action and set an aspirational goal for the City to become carbon neutral by 2030. This builds on the ambitious goals in the City's climate action plan, [Climate Smart San José](#), and seeks to set an example for other cities around the world.

Today, 85 percent of San José's greenhouse gas (GHG) emissions come from transportation and energy consumption at the building level. In response, San José created priority actions supporting the following four key strategies:

- Move to zero-emission vehicles
- Reduce the vehicle miles traveled by at least 20 percent by 2030 and 45 percent by 2040
- Switch from fossil fuel to 100 percent carbon-neutral renewable energy

## 6.1 Framework for Conserving Energy Resources

To achieve the accelerated goals for climate action, San José employs a range of interconnected strategies that are outlined in the Envision San Jose 2040 General Plan, which in turn is augmented by [Climate Smart San Jose](#), the City's plan to uphold the Paris Agreement and limit global warming to 2 degrees Celsius by 2100. This section discusses San Jose's strategies to reduce the City's carbon footprint, including policies, programs and ordinances that apply to residential development.

### 6.1.0 Envision San José 2040 General Plan

The [Envision San José 2040 General Plan](#) provides a clear, compelling vision to guide the continued development of San José. The General Plan is the City's expression of its ongoing commitment to guide growth in a way that creates an innovation-based economy that is environmentally sustainable and promotes social equity for its diverse population. As the guiding document for the City, the General Plan is directly responsible for outlining opportunities to implement energy saving features, energy saving materials, and energy efficient systems and design for residential development at all income levels. For more information on General Plan goals that support energy conservation, please see Appendix J.

#### Resiliency and Climate Action

San José committed to the Paris Agreement by facilitating the use of innovative approaches, new technologies, and economic development to reduce per capita energy use, waste, and pollutants to meet the projections and goals under the Agreement. In this effort, the City will prioritize the most vulnerable and underserved communities in developing climate solutions and take action to build resilience on all levels. Plans like the Green Vision (2007), which was superseded by Climate Smart San José (2018), focus on developing infrastructure toward zero emission transportation and clean energy sectors. Collaborating across City departments and public agencies to create these plans to effectively address environmental hazards and promote environmental health and resilience throughout the community has led to identifiable positive changes discussed below.

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### 6.1.1 GHG Reduction Strategy Aligned with SB 32

Passed in 2016, California Senate Bill 32 (SB 32) sets a statewide emissions reduction target of 40 percent below 1990 levels by the end of 2030, which supplements the earlier target of 80 percent reduction below 1990 levels by the end of 2050. Currently, if no additional reduction actions are taken, San Jose emissions are estimated to increase by 7 percent from 2017 to 2030 and nearly 18 percent from 2017 to 2040.

As written in the City of San Jose 2030 Greenhouse Gas Reduction Strategy (GHGRS), the City's approach for the local 2030 emissions reduction target is to align with state targets and further the policies within the Envision San José 2040 General Plan and *Climate Smart San José's* sustainability goals. San José has demonstrated environmental leadership in this regard with many actions:

- Adoption of the City Council Policy 5-1 on Vehicle Miles Traveled (VMT); and
- Establishment of San José Clean Energy, which supplies energy to 98% of customers in San Jose.

The City's 2030 GHG emissions reduction target aligns with the state's SB 32 target. It calls for GHG emissions intensity to reduce 2.94 metric tons CO<sub>2</sub>e per service population by 2020; based on Envision San Jose 2040 General Plan growth assumptions, this would correspond to total GHG emissions reducing to 5.3 million metric tons CO<sub>2</sub>e per year in 2030.

The City has identified several strategies to reduce GHG emissions to achieve the 2030 target. These strategies leverage the City's current programs and plans and span across energy, building, land-use, transportation, water, and waste sectors. GHG reductions from each strategy by 2030 are shown in *Table 6-1*, which also identifies the sources of origin for the strategies to demonstrate the overlap with state regulations or policies and the City's sustainability-related plans and policies. Based on the modeled GHG reductions, these strategies collectively provide at least the necessary 1.0 million metric tons of CO<sub>2</sub>e annually in mass (total) emission reductions.

Application of the 2030 GHG Reduction Strategy for development review through the planning entitlement process will ensure that the GHG reduction measures translate to on-the-ground results to achieve the interim 2030 reduction target. A Development Consistency Checklist applies to all discretionary reviews through the City's Planning, Building and Code Enforcement Department (PBCE). To help facilitate the implementation of the 2030 GHGRS, each strategy contains implementation information that identifies the strategy's GHG reduction potential in 2030, the performance standards associated with the GHG reduction estimates, and the initial implementation steps to help achieve the reduction levels.

**Table 6-1: 2030 GHG Reduction Strategies and Reduction Potential**CSSJ = *Climate Smart San José* | GHGRS = Greenhouse Gas Reduction Strategy | CO<sub>2</sub>e = Carbon dioxide equivalent

STRATEGY TITLE	2030 REDUCTIONS MT CO <sub>2</sub> E/YEAR	STRATEGY ORIGINS
GHGRS – 1 San José Clean Energy	655,104	Green Vision Goal 3 <i>Climate Smart San José</i> (CSSJ) Strategy 1.1
GHGRS – 2 Zero Net Carbon Residential Construction	43,678	California Energy Efficiency Strategic Plan CSSJ Strategy 2.2 General Plan Goal MS-14
GHGRS – 3 Renewable Energy Development	63,697	Green Vision Goal 3 CSSJ Strategy 1.1 General Plan Goal MS-2
GHGRS – 4 Existing Building Retrofits – Natural Gas	208,986	Senate Bill 350 CSSJ Strategy 2.2 General Plan Goal MS-2
GHGRS – 5 Zero Waste Goal	207,956	Green Vision Goal 5 General Plan Goal MS-5 Council Resolution 74077
GHGRS – 6 Caltrain Modernization Project	12,547	CSSJ Strategy 2.4
GHGRS – 7 Water Conservation	3,106	CSSJ Strategy 1.2 General Plan Goal MS-3
Total Emission Reductions (MT CO <sub>2</sub> e/year)	1,195,074	—
Total Emission Reductions in MMT CO <sub>2</sub> e/year	1.2	—

Source: Greenhouse Gas Emissions Reductions Strategies Memorandum (August 2019)

## 6.1.2 *Climate Smart San José*

San José's climate action plan, [Climate Smart San José](#) (*Climate Smart*), builds on the Envision San José 2040 General Plan by highlighting and interpreting elements related to the community's profile of carbon emissions and providing both analysis and recommendation to meet various climate goals. *Climate Smart* builds on the City's General Plan as a foundation from which it can create bold strategies to reach the Paris Agreement using three key strategies — create a sustainable and *Climate Smart* city, foster a vibrant city of connected and focused growth, and allow for an economically inclusive city of opportunity.

Opportunities for energy saving features, energy saving materials, and energy efficient systems and design for residential development are enabled throughout these key strategies through the following goals:

- Provide 100 percent GHG free power through San José Clean Energy (SJCE)—a non-profit supplier of green energy.
- Become the world’s first 1 Giga Watt solar city.
- Be the electric car capital of the U.S.
- 100 percent of new homes will be Zero Net Energy.
- Create an additional 22 million sq. ft. of commercial workspace located within half a mile of transit.
- Develop 40,000 dwelling units in urban villages and focused growth areas with a focus on walking and biking.
- No more than 2 out of 5 commute trips in San José will be taken in single occupancy vehicles.
- Reduce per capita residential water consumption by 30 percent compared to 2009.

In 2020, the City Council approved a General Plan text amendment during the four-year review process to reference *Climate Smart* where applicable and update tracking of measures associated with the previous Green Vision plan (adopted in 2007).

Since the sunset of Green Vision through the implementation of *Climate Smart San José*, 50,200 jobs have been created, and efforts are underway to bring businesses to San José at different income tiers to create inclusive and accessible middle-income pathways for our residents. Specific focus is placed on jobs and homes near transit to further increase access and reduce greenhouse gases. San José Clean Energy (SJCE) offers power to roughly 350,000 customers of which nearly 2,000 are Total Green customers — a 100 percent renewable source of energy. SJCE plans to further expand in the near future, offering local control, transparency, and increased accessibility.

### **San José Clean Energy**

San José Clean Energy (SJCE) is focused on renewable energy generation. With a 1-billion-dollar investment in renewable resources and energy storage options this green energy supplier can offer competitive rates to businesses and residents of San José. Pacific Gas and Electric (PG&E) is a partner of SJCE by providing delivery of renewable energy and customers can see the cost of both delivery by PG&E and the renewable energy plan compared to the generic PG&E plan on their PG&E bill. SJCE has offered rebate, incentive, and resource programs for various residential uses which include heating/cooling, solar, and retrofitting, among others. Anyone who is enrolled in the California Alternate Rates for Electricity (CARE), which discounts utility bills for low-income households, and/or the Family Electric Rate Assistance program (FERA), which does the same for households whose income slightly exceeds the CARE allowances, will automatically be enrolled in the San José Cares program by SJCE. The CARE and FERA programs are State run programs through PG&E—more information can be found in the subchapter on PG&E. SJ Cares is an additional 5 percent discount off SJCE’s lowest rates. Disadvantaged communities, who are in the CARE and FERA programs may also apply for the SJCE Solar Access program; disadvantaged communities are designated by CalEPA for purposes of Senate Bill 535 (SB 535). This program provides solar energy at a 20% discount and can be applied to the CARES, FERA, and SJ Cares programs for a total discount of 55 percent.

### **Parking and Transportation Demand Management Ordinance**

Reducing reliance on gas-powered vehicles and creating pedestrian friendly neighborhoods is another major strategy aimed to reduce carbon emissions outlined in the City’s General Plan and *Climate Smart*. In December 2022, City Council approved the Parking and Transportation Demand Management (TDM) Ordinance, removing minimum parking requirements and requiring a TDM plan in all new developments. Under the ordinance, developers can incorporate programs and improvements that make alternative

modes of transportation such as walking, biking, and using public transportation more viable. This shift will reduce vehicle miles traveled (VMT), reduce the cost of development, make housing easier to build, and help improve overall air quality leading to more sustainable communities.

### **Energy and Water Building Performance Ordinance**

California Assembly Bill 802 (AB 802) created a benchmarking program requiring owners of buildings over 50,000 square feet benchmark to disclose their building's energy performance. The City's Energy and Water Building Performance Ordinance (BPO) builds off AB 802 and requires owners of nonresidential and multifamily buildings that are 20,000 square feet or larger in size to annually track their energy and water use. The data is shared with the City of San José to better understand its building stock, develop energy and water efficiency programs, and measure its progress on GHG emissions and water conservation goals. Buildings that do not meet performance standards are provided several options to increase efficiency over time. Approximately 2,500 buildings are covered under this ordinance. In addition, beginning in 2023, buildings 20,000 SF or more will also be required to meet energy and water efficiency standards on a rolling five-year basis, or perform improvements if standards are not met.

### **Rehabilitation in Single Family Homes and Affordable Housing Developments**

In partnership with Habitat for Humanity Silicon Valley and Rebuilding Together Silicon Valley, the City's Minor Repair Program offers low-income families grants for appliances that are in need of critical repairs. If the appliances are unable to be repaired, homeowners will receive new energy efficient replacement models. The participation in this program has steadily increased over the years, serving a total 833 households over the period 2000-2023.

The City also assists existing Affordable Housing properties to incorporate energy-efficient rehabilitation. In 2022, the Housing Department continued oversight of the rehabilitation of 4 affordable housing developments with 393 total apartments that integrated energy-efficient elements including:

- Replacement of water fixtures to "low flow" fixtures – an estimated 30% savings in water usage
- Replacement of Domestic Hot Water (DHW) Boilers
- Split system heat pumps serving west facing units
- Indoor common area and office LED lighting
- Parking area and security LED lighting
- Re-wiring lighting circuits to separate outdoor and indoor lighting
- New energy efficiency appliances
- New high energy efficiency boiler
- New energy efficiency heating/cooling units

For more information on which General Plan goals implement Climate Smart San José, see Appendix J. Beyond the above-described programs, Climate Smart San José has implemented or completed many other programs that support energy savings and efficiency for residential development to enable the City's vision of a cleaner, more energy efficient future. See *Table 6:2 below for a list of these programs.*



**Table 6-2: Projects and Programs to Implement *Climate Smart San José***

PROGRAM	STATUS	DATE	DESCRIPTION
<a href="#">San José Clean Energy</a>	Implemented	2019	Nonprofit electricity provider focused on 100 percent renewable energy
<a href="#">Reach Code</a>	Implemented	2019	Local building energy code that encourages building electrification and energy efficiency, requires solar-readiness on nonresidential buildings, and requires electric vehicle (EV) readiness and EV equipment installation above and beyond standard code requirements.
<a href="#">Natural Gas Infrastructure Prohibition &amp; Updated Ordinance</a>	Implemented	2019-2020	Stemming from the Reach Code, an update was done to Title 17 of the Municipal Code to prohibit Natural Gas infrastructure in all new construction, with some minor exceptions.
<a href="#">Zero net carbon building demonstration &amp; educational materials</a>	Implemented	2019	Provide information to the public on how buildings can be designed to meet all its energy needs from carbon-free sources such as solar or wind.
<a href="#">DIY Energy Savings Toolkit</a>	Implemented	2020	Check out a Do-It-Yourself (DIY) Home Energy Saving Toolkit from a local library and following instructional materials to lower home energy consumption.
<a href="#">Electrify San José heat pump water heater rebate program</a>	Complete	2019-21	Provided rebates for San José households to switch from a natural gas water heater to an electric heat pump water heater.
<a href="#">Induction Cooktop Checkout Program</a>	Implemented	2019	San José residents can check out a portable induction cooktop and cookware at no cost for up to two weeks.
<a href="#">Online solar permitting</a>	Implemented	2020	Provides online permit application submittal for Single-Family or Duplex properties.
<a href="#">Evaluation of local solar energy potential by National Renewable Energy Labs (NREL)</a>	Complete	2017	Evaluates solar energy potential of San José.
<a href="#">SolSmart certification</a>	Implemented	2020	Provides no-cost technical assistance to help communities become “open for solar business.” Communities are recognized with designations of SolSmart Gold, Silver, and Bronze.
<a href="#">San José Clean Energy Going Solar webpage</a>	Complete	2020	Step-by-step guide outlining how to go solar on residential properties.
<a href="#">GreenSource power mix</a>	Implemented	2019	San José Clean Energy’s default service at 60% renewable sources.
<a href="#">TotalGreen</a>	Implemented	2019	San José Clean Energy’s 100 percent renewable service available to 308,000 residential and commercial customers.
<a href="#">San José Complete Streets Design Standards &amp; Guidelines</a>	Implemented	2018	Describes a vision and best available practices for designing streets that are comfortable, safe and welcoming for all modes of travel.
<a href="#">Transportation Analysis Policy</a>	Implemented Updated	2018 2022	Shift the focus of developments’ transportation improvements to pedestrian, bicycle and transit facilities.
<a href="#">Sustainable Commute Incentive Pilot</a>	Complete	2017-20	Test the effectiveness of various incentive strategies for reducing drive-alone automobile trips
<a href="#">Smart Moves San José</a>	Complete	2018	Encourages San José residents and employees to reduce drive-alone trips and increase walking, biking and use of public transit.
<a href="#">Climate Smart Challenge</a>	Implemented	2020	Encourages and activates San Jose residents to explore a number of options on making their homes more energy efficient.

Solar Access	Implemented	2021	The Solar Access program offers customers with low incomes living in disadvantaged communities a 20 percent bill discount and 100 percent solar energy from a solar facility in Northern California. The program has more than 800 customers and is expected to run for 20 years.
<a href="#">Home Appliance Savings Program</a>	Implemented	2022	The Home Appliance Savings Program offers 50-70% discounts on energy efficient refrigerators, clothes washers, and dryers and free smart thermostats to moderate-income single-family households as well as single-family households located in disadvantaged communities.

### 6.1.3 Energy Efficiency and Building Electrification Requirements

San José's *Climate Smart* GHG reduction strategy encompasses both residential and non-residential projects through energy efficient building requirements. This includes the use of energy saving materials and energy efficient systems. For residential development, new construction in San José must be designed to meet or exceed the requirements of both the 2022 Building Energy Efficiency and CALGreen Building Standards. San José can conservatively expect approximately 350 new single-family residences, 2,400 new multifamily residences, and 2.4 million additional square feet of commercial/industrial construction per year over the next three years. If these buildings were to use natural gas, an estimated increase of 897,000 tons of greenhouse gas emissions would result over the expected life of the buildings (50 years for residential and 50 years for commercial). This equates to almost 300,000 Metric Tons of CO<sub>2</sub> emissions per year, equivalent to 1.7 trillion car miles.

#### California Building Energy Efficiency Standards

Title 24, Part 6, of the California Code of Regulations (Building Energy Efficiency Standards for Residential Development), sets California's building standards for energy efficiency and supersedes any local regulations. These regulations respond to California's energy crisis, and each city and county must enforce these standards as part of its review of building plans and issuance of building permits. The standards are updated every three years to incorporate new energy efficiency technologies and methods. Local jurisdictions are allowed to exceed Title 24 requirements where cost effectiveness and need are demonstrated, such as for local climatic or geological considerations, through Reach Codes.

The 2022 Energy Code went into effect on January 1, 2023. Some of the new measures include:

- Establishing energy budgets based on efficient heat pumps in single-family homes, multifamily homes, and businesses to encourage builders to opt for electric heat pumps instead of gas-powered HVAC units;
- Requiring battery storage equivalent to a percentage of onsite solar-generated electricity in high-rise commercial and multifamily buildings;
- Increasing minimum kitchen range ventilation requirements; and
- Ensuring new single-family homes are electric-ready by:
  1. Requiring installation of 240-volt circuits to accommodate electric clothes dryers, water and space heating, and cooking/ovens.
  2. Providing electric panel, branch circuits, and transfer switch for battery storage of electricity.
  3. Requiring installation of circuits and panels that can easily convert from gas to electricity for major appliances in the future.

Since January 1, 2020, all new single-family homes, multifamily homes up to three stories high, and commercial businesses have been required to include solar panels. Beginning in 2023, all newly constructed multifamily dwellings will require both solar panels and photovoltaic battery storage.

This mandate also applies to major renovations. These changes help to ensure that operating all-electric buildings will be cost-effective compared to mixed-fuel buildings.

The California Building Code also includes CALGreen, a set of green building regulations to ensure more sustainable building practices through pollution reduction, resource conservation, and energy use. There

are statewide mandatory measures, as well as more stringent voluntary measures that local jurisdictions may adopt. The City of San Jose has adopted the voluntary measures, which speak to water use both indoor and outdoor, storm water management, pollution control (such as indoor air quality), and EV charging.

### San Jose Reach Code and Natural Gas Prohibition

To avert the GHG emissions discussed at the start of this section and work towards the City's goal of carbon neutrality by 2030, the San Jose Reach Code and subsequent amendments include requirements for all-electric design. The Code requires additional electric vehicle charging infrastructure across all building types, requires solar readiness for high-rise multifamily and non-residential buildings, and prohibits natural gas infrastructure in newly constructed buildings except where limited exemptions might apply. The specific components of San José's Reach Code are summarized in *Table 6:3*.

**Table 6-3: Reach Code Components**

OCCUPANCY TYPE	REACH CODE COMPLIANCE PATHWAYS	
	ALL-ELECTRIC*	MIXED FUEL **
Single-family & Low-Rise Multifamily	Efficiency: To Code	Efficiency: Energy Design Rating $\leq$ 10 & electrification-ready
High-rise Multifamily & Hotel	Efficiency: To Code EVCI: Same as Mixed Fuel	Efficiency: 5% (compliance margin) & electrification-ready EVCI: 10% EVSE, 50% EV Capable
Non-Residential	Efficiency: To Code EVCI: Same as Mixed Fuel	Efficiency: 10% office/retail, 0% industrial/manufacturing, 5% all other occupancies & electrification-ready EVCI: 10% EVSE, 40% EV Capable

\*Solar-readiness required for all buildings

\*\* Due to subsequent code updates to prohibit natural gas infrastructure, the Mixed Fuel pathway only applies if a project is approved for an exemption to permit natural gas infrastructure.

EVCI = Electric Vehicle Charging Infrastructure

EVSE = Electric Vehicle Supply Equipment

Source: City of San Jose Planning staff, 2022

Addressing electrification now in new buildings avoids hardships and retrofit costs for building owners in the future and acknowledges the GHG impacts of taking no action, particularly considering the benefits of building and transportation electrification when paired with carbon-free electricity that will be provided by SJCE. However, based on the City and State goals to reduce GHG emissions, electrification retrofits will still be necessary for existing buildings. To solve this, Electrify San Jose (2022), the City's framework for existing building electrification, recommends for increased outreach and incentive funding.

Promoting EV adoption and solar infrastructure represents further opportunity to reduce GHG. Since EVs are powered by electricity, they have the potential for zero tailpipe emissions and, therefore, represent a significant potential to reduce GHG in San José. SJCE purchases renewable energy from sources such as solar and wind farms, helping reduce GHG emissions dramatically and reduce energy costs for consumers. For vehicle electrification, *Climate Smart* proposes expanding the publicly available charging station network, incentivize charging stations in new commercial parking areas, and EV charger requirements and permit streamlining. For solar electricity, *Climate Smart* proposes measures such as building a community solar farm, expanding low-income solar subsidies, and incentivizing rooftop solar installation.

## 6.1.4 Local, State and Federal Energy Assistance Programs

### Pacific Gas and Electric

In addition to the City initiatives listed in section 6.1.2, PG&E, a major Bay Area energy supplier, offers the following financial and energy-related assistance programs for its low-income customers:

- **Energy Savings Assistance Program.** PG&E's Energy Savings Assistance program offers free weatherization measures and energy-efficient appliances to qualified low-income households. PG&E determines qualified households through the same sliding income scale used for CARE. The program includes measures such as attic insulation, weather stripping, caulking, and minor home repairs. Some customers qualify for replacement of appliances including refrigerators, air conditioners, and evaporative coolers.
- **Energy Efficiency for Multifamily Properties.** The Energy Efficiency for Multifamily Properties program is available to owners and managers of existing multifamily residential dwellings containing five or more units. The program encourages energy efficiency by providing rebates for the installation of certain energy-saving products.
- **Disadvantaged Communities – Single Family Solar Homes (DAC-SASH).** DAC-SASH provides free rooftop solar installations to homeowners.
- **California Alternate Rates for Energy (CARE) & Family Electric Rate Assistance Program (FERA).** PG&E offers federal rate reduction programs for low-income households. PG&E determines qualified households by a sliding income scale based on the number of household members. The CARE program provides a discount of 20 percent or more on monthly gas and energy bills. The FERA program provides a discount of 18 percent on electricity only for three-or-more people per household.
- **REACH (Relief for Energy Assistance through Community Help).** The REACH program is sponsored by PG&E and administered through a non-profit organization. PG&E customers can enroll to give monthly donations to the REACH program. Qualified low-income customers who have experienced uncontrollable or unforeseen hardships, that prohibit them from paying their utility bills may receive an energy credit. Eligibility is determined by a sliding income scale based on the number of household members. To qualify for the program, the applicant's income cannot exceed 200 percent of the Federal poverty guidelines.
- **Medical Baseline Allowance.** The Medical Baseline Allowance program is available to households with certain disabilities or medical needs. The program allows customers to get additional quantities of energy at the lowest or baseline price for residential customers.

In addition to the local programs described above, the California Department of Community Services and Development (CSD) administers the Federally funded Low-Income Home Energy Assistance Program (LIHEAP). This program provides two types of assistance: Home Energy Assistance and Energy Crisis Intervention. The first type of assistance is a direct payment to utility bills for qualified low-income households. The second type of assistance is available to low-income households that are in a crisis. CSD also offers free weatherization assistance, such as attic insulation, caulking, water heater blankets, and heating and cooling system repairs to low-income households.

### State Electrification Programs

California is pursuing aggressive policies to support efficient electrification, including resources for homeowners and renters, contractor training, and a broad outreach campaign:

- **Switch Is On.** Switch is On is a statewide marketing and outreach campaign to promote electrification. An online portal explains the benefits of electrification and shares resources for finding contractors. The program also provides marketing across the state in multiple languages.
- **Technology and Equipment for Clean Heating (TECH).** The TECH program is an initiative to advance the market for low-emission space and water heating equipment for new and existing residential buildings. The \$30 million program provides financial incentives, statewide marketing and outreach, and contractor engagement.
- **Building Initiative for Low-Emissions Development (BUILD).** BUILD is a \$20 million program that provides financial and other incentives for zero- and near-zero emissions development and construction of new single-family and multifamily homes, with at least 30 percent of funds reserved for low-income residences