



Annual Report 2024

A Shared Horizon:

Better Buildings, Brighter Tomorrow

BAYREN

Local Governments Empowering Our Communities

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Executive Summary

In 2024, BayREN made significant progress in advancing energy efficiency, electrification and climate resilience—moving toward a shared vision of better buildings and brighter communities across the Bay Area. The launch of four innovative programs—**Climate Careers**, the **BayREN Refrigerant Replacement (BRRR) Program**, **Targeted Decarbonization Services (TDS)** and **Integrated Energy Services (IES)**—expanded BayREN’s portfolio to **10 programs**, addressing critical gaps in energy efficiency and decarbonization. These new offerings reinforce BayREN’s commitment to delivering tangible benefits to residents, businesses and local governments.

The **Multifamily** program, known as the **Bay Area Multifamily Building Enhancements Program (BAMBE)**, remained a cornerstone of BayREN’s efforts. In 2024, the program facilitated improvements at **38 properties**, benefiting **916 units** and delivering over **107,000 net therms** of energy savings—reducing emissions by **522 MTCO₂e**. Nearly all projects included electrification measures, highlighting the growing shift toward cleaner, more efficient technologies. These upgrades are helping multifamily properties become more comfortable and resilient, ensuring that residents and property owners alike benefit from the transition to a low-carbon future.

The **Single Family** program successfully sunset the **Home+ rebate program** after issuing over **\$24.11 million** in incentives to upgrade over **19,350 homes** with over **53,950 measures** since 2019. An extensive two-year research effort and stakeholder engagement process, involving over **100 stakeholder groups**, informed the development of the new **Efficiency and Sustainable Energy (EASE) Home program**, slated to launch in mid-2025. The new program will provide low-cost, healthy-home retrofits and targeted support for moderate-income residents.

The **Green Labeling** program remained a key driver of market transformation, approving over **4,800 Home Energy Scores** and training over **240 real estate professionals** to identify and promote energy-efficient homes. The groundwork laid in 2024 supports the anticipated launch of **Home Energy Score California** in 2026.

BayREN’s commitment to resource efficiency extends to water conservation efforts through the **Water Upgrades Save program**, which introduced a new **Outdoor Offer** to support lawn-to-drip irrigation conversions. This effort aligns with state goals to reduce outdoor water use and increase water resilience for Bay Area residents and businesses.

The **Climate Careers** program continued to empower youth and local communities. In 2024, the program hired **43 local youth** to provide energy-saving services to **2,000+ households**—building a pipeline of climate leaders while helping Bay Area residents reduce energy costs and consumption.

BayREN's offerings for small businesses saw remarkable growth. The **BayREN Business** program completed **218 projects**, saving over **1.4 million kWh** annually and delivering average electricity bill savings of about **\$3,000** per business. Notably, **100% of the projects** served hard-to-reach (HTR) businesses, demonstrating BayREN's continued focus on accessible program design. Meanwhile, the newly launched **BRRR** program piloted a program design model that supports food-sector and floral sector businesses by optimizing refrigeration systems, reducing refrigerant leaks and transitioning to more environmentally friendly alternatives.

The **Codes and Standards** program supported **79 Bay Area jurisdictions** through training, technical assistance and policy guidance—strengthening local implementation and enforcement of energy codes. A major milestone was the launch of the **Existing Building Study Dashboard**, which provides all Bay Area local governments with detailed data on building energy use and emissions, helping to inform future decarbonization strategies.

The launch of **IES** and **TDS** strengthened BayREN's capacity to support public agencies in achieving their climate goals. IES launched technical assistance and strategic planning support through its

Energy Concierge and **Energy Roadmapping** services while TDS hosted trainings through the **Decarbonization Education and Financing** services and prepared to launch the **Decarbonization Showcase**.

As BayREN looks towards 2025 and beyond, the focus will remain on **scaling impact, increasing accessibility and driving market transformation**. “The anticipated statewide rollout of Home Energy Score California, the relaunch of the Single Family program and expanded offerings for businesses and local government position BayREN to continue leading the transition to a more sustainable and equitable Bay Area while cultivating the next generation energy workforce,” shares Jane Elias, Portfolio Administrator for BayREN. These milestones reflect BayREN's ongoing commitment to providing innovative solutions that address the region's energy and climate challenges.



The Bay Area Regional Energy Network (BayREN) is a coalition of the Bay Area's nine counties – a network of local governments and the Association of Bay Area Governments (ABAG) partnering to promote energy, water and greenhouse gas reduction.

Member Counties:

- Alameda
- Contra Costa
- Marin
- Napa
- San Francisco
- San Mateo
- Santa Clara
- Solano
- Sonoma



Success to Date

**Over 166 million
tons of carbon avoided**

\$88 million incentives paid

**76,000 housing units
& businesses upgraded**

**13,500 attendees
participated in
600 technical trainings**

BAYREN

2024 Programs



Single Family

Program Overview

BayREN's Single Family program supports underserved, moderate-income residents in the Bay Area, who often face significant barriers in accessing energy efficiency upgrades. These barriers include affordability challenges, programmatic complexities and limited access to resources. In 2023, the Home+ program started a redesign process to align its outcomes with program goals. Throughout 2024, BayREN focused on identifying gaps, collecting community and stakeholder feedback and refining the program design to make it more equity focused—all informed by extensive stakeholder engagement.

The new program, Efficiency and Sustainable Energy (EASE) Home, an Equity segment program, aims to better meet the goals of health, comfort, safety and savings by providing low-cost energy upgrades and comprehensive support for qualifying moderate-income residents in the Bay Area. Program outreach will prioritize households located in pollution-burdened areas or that do not speak English as their primary language. New programmatic elements intentionally address affordability, access and equitable distribution of direct benefits—from marketing to the customer journey. Key milestones in 2024 include successfully contracting with a new program implementer, forming over a dozen new community-based partnerships and developing tools for targeted marketing and outreach in multiple languages.

Activities & Achievements

Sunsetting BayREN's Home+ Rebate Program

BayREN's Home+ program was sunset on October 31st, 2024, after 5 years of implementation. Over the course of ten months, the program provided over \$2.5 million in incentives, upgrading over 2,600 homes with over 5,200

measures. Home+ utilized a phased approach, where measures were sunset throughout the year instead of all at once. While the program was successful in reaching many single-family homes, the new EASE Home program aims to better serve moderate-income and other underserved residents in the Bay Area.

Program Redesign Process

The program redesign process engaged over 40 community-based organizations (CBOs) across all nine counties and over 70 partner organizations, including CCAs, installing contractors and energy program implementers. BayREN also conducted a household survey with over 1,300 single-family respondents, which oversampled from single-family, moderate-income families in the Bay Area.¹

This research demonstrated that moderate-income single-family residents in the Bay Area are underserved by energy programs. These residents, who are often not eligible for income-qualified programs, have consistently not participated in ratepayer energy efficiency programs in the Bay Area and state. According to 2024 household survey results, moderate-income households look more like low-income households than high-income households, in terms of awareness and participation in energy efficiency programs. However, few programs target moderate-income residents and even less are available across the Bay Area region. While moderate-income residents have high awareness of energy efficiency benefits, they face numerous barriers to energy-saving actions and have low participation in energy programs. The top cited barriers include the following:

- **Prohibitively high upfront costs and financial constraints:** The capital required for necessary weatherization upgrades, such as insulation and appliance replace-

¹ Grounded Research, CivicMakers, ILLUME Advising (2025). [BayREN 2023-2024 Defining Underserved in the Bay Area – Single Family Moderate Income Report](#).

ments are often out of reach for moderate-income households, whose budgets are already strained by other expenses. More than half of single-family moderate-income homeowners report facing barriers to adopting energy efficiency measures, with upfront costs being the most significant obstacle. Our survey found that 37% of moderate-income respondents struggled to afford food or medicine, while 25% were unable to pay their energy bills at some point in the past year.

- **Efficiency and weatherization upgrades for health and comfort:** While electrification-focused programs are growing, few are focused on weatherization and energy efficiency. BayREN is well-positioned to continue filling this gap, as attic insulation was the most utilized rebate from BayREN's Home+ program. Plus, our research demonstrates that messaging around home health and comfort, such as fixing drafty rooms, resonates most with moderate-income residents.
- **Programmatic complexities and difficult to access:** Navigating incentive programs can be difficult due to complex technical requirements, administrative burdens and varying program rules. Language and digital accessibility barriers further limit access for vulnerable populations. Half of survey respondents expressed strong interest in programs that offer free assistance in finding and applying for incentives, as well as using designated contractors for energy upgrades.

Based on the identified gaps, BayREN's EASE Home will deliver low-cost, healthy-home retrofits with a focus on weatherization and energy efficiency upgrades, such as improved insulation and air sealing, to qualifying moderate-income residents in the Bay Area. These types of upgrades will improve indoor air quality and comfort while better preparing homes for environmental challenges related to climate change. To qualify, households will need

to have a household income at or below 120% of area median income, based on county and household size.

As the name suggests, BayREN's EASE Home program is designed to make it easier for customers to overcome the hurdles to program participation, including high upfront costs, language barriers and administrative challenges in navigating rebate programs and seeking out contractors. Participants will receive one-on-one assistance from a project coordinator to guide electrification upgrades, directly installed by trusted experts and support in acquiring rebates through other programs. The entire process will be managed by the project coordinator, making it less burdensome and hassle-free for the customer. The program will be designed to complement existing programs and is anticipated to launch in mid-2025.

Administering the Mid-stream Heat Pump Water Heater Incentive

StopWaste, a BayREN partner agency, continued to administer the BayREN Mid-Stream Heat Pump Water Heater program designed to increase the use of heat pump water heaters (HPWH) in the region. In 2024, over 365 HPWHs were installed through the program, utilizing 32 contractors and stacking 66% of the projects with rebates from TECH Clean California.

Partnerships & Outreach

Building local and community-based partnerships is critical to BayREN's residential work. In 2024, BayREN county members strengthened partnerships with CBOs to reach underserved populations. Experienced CBOs like North Marin Community Services, El Concilio and Bayview Hunters Point Community Advocates are well-positioned to support EASE Home, with outreach strategies already underway.

To address the need for more inclusive programming, BayREN partnered with well-known in-language and in-culture media platforms in the Bay Area, including Telemundo,

Univision and KTSF, to build effective and relatable campaigns on health and comfort, heating and cooling and induction cooking. The campaigns resulted in over 11.6 million impressions with Spanish- and Chinese-speaking populations and other diverse populations of the Bay Area.

BayREN, in partnership with counties and the Building Decarbonization Coalition, organized events tailored to non-English-speaking communities, including induction cooking demos featuring emerging talent and renowned chefs such as Martin Yan, Scott Spencer, Kimberly Ayala and Reina Montenegro. These events, which reached over 615 attendees, showcased the diverse range of cuisines that can be prepared with induction technology, from Chinese to Filipino and Mexican dishes.

Future Opportunities

EASE Home looks forward to leveraging local efforts to multiply impact. BayREN's unique county coalition model fosters strategic collaboration with county and city initiatives. In 2024, rebates through the Pinole Energy Enhancement program, administered by the County of Contra Costa, were designed to stack easily with BayREN's Home+ rebates. Similar opportunities in 2025 include leveraging electrification grants awarded to County of Contra Costa, San Francisco Environment and County of Santa Clara. When paired with additional funding, EASE Home will provide a more robust offering, such as whole-home upgrades with weatherization, electrification and minor home repairs at low-cost.

Additionally, EASE Home will conduct research and pilot programs to improve landlord and renter engagement in residential decarbonization programs. Lastly, the new EASE Home program will provide an opportunity to track and evaluate the non-energy benefits associated with residential decarbonization. Recognizing the value of non-energy benefits will not only be important for the program's target audience, but for all home retrofit programs.

2024 Single Family Achievements

\$2.5 million in rebates dispersed

2,600 homes upgraded

5,200 measures installed

100 stakeholders engaged

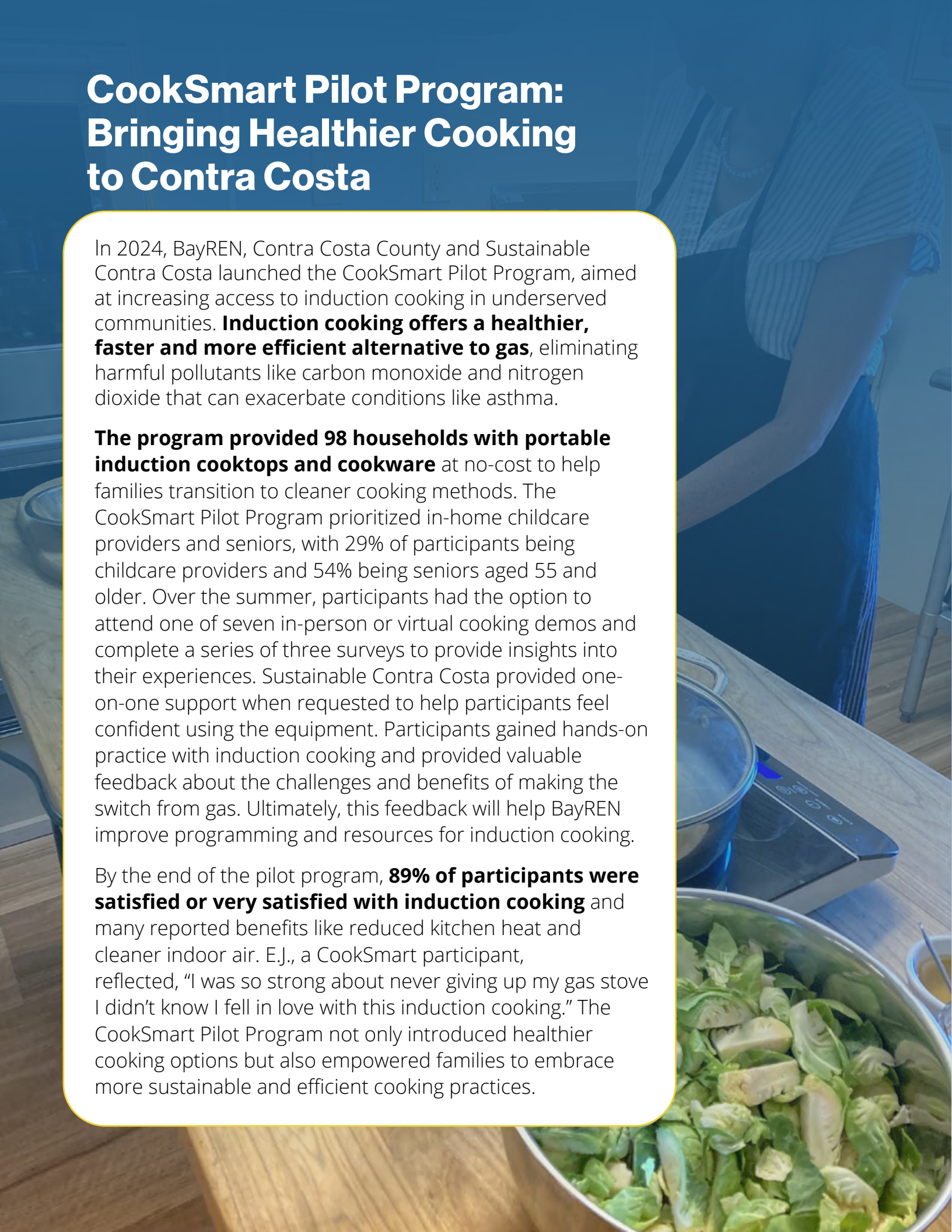


CookSmart Pilot Program: Bringing Healthier Cooking to Contra Costa

In 2024, BayREN, Contra Costa County and Sustainable Contra Costa launched the CookSmart Pilot Program, aimed at increasing access to induction cooking in underserved communities. **Induction cooking offers a healthier, faster and more efficient alternative to gas**, eliminating harmful pollutants like carbon monoxide and nitrogen dioxide that can exacerbate conditions like asthma.

The program provided 98 households with portable induction cooktops and cookware at no-cost to help families transition to cleaner cooking methods. The CookSmart Pilot Program prioritized in-home childcare providers and seniors, with 29% of participants being childcare providers and 54% being seniors aged 55 and older. Over the summer, participants had the option to attend one of seven in-person or virtual cooking demos and complete a series of three surveys to provide insights into their experiences. Sustainable Contra Costa provided one-on-one support when requested to help participants feel confident using the equipment. Participants gained hands-on practice with induction cooking and provided valuable feedback about the challenges and benefits of making the switch from gas. Ultimately, this feedback will help BayREN improve programming and resources for induction cooking.

By the end of the pilot program, **89% of participants were satisfied or very satisfied with induction cooking** and many reported benefits like reduced kitchen heat and cleaner indoor air. E.J., a CookSmart participant, reflected, "I was so strong about never giving up my gas stove I didn't know I fell in love with this induction cooking." The CookSmart Pilot Program not only introduced healthier cooking options but also empowered families to embrace more sustainable and efficient cooking practices.



Multifamily

Program Overview

In general, residents living in multifamily housing tend to have lower incomes than those living in single-family homes and only 14.5% of multifamily residents own their homes in the Bay Area, compared to nearly 80% of single-family residents.² Without the resources or ownership required to make home upgrades, many multifamily residents are left with inefficient, less comfortable homes and high energy bills.

The Bay Area Multifamily Building Enhancements (BAMBE) program—an Equity sector program—provides no-cost technical assistance (TA) and rebates for energy upgrades that save energy and water, lower greenhouse gas emissions and improve resident safety and comfort. The program serves multifamily properties with 5 or more units (or those with 2–4 units that have central systems) and requires a minimum of two upgrades that achieve at least 10 percent building-wide energy savings. Energy efficiency and electrification upgrades that qualify for rebates include insulation, new windows, replacement HVAC systems and heat pump water heaters.

The BAMBE program aims to reach multifamily communities that are often underserved by traditional energy programs. These include smaller (fewer than 50 units), deed-restricted and unsubsidized affordable housing (UAH) properties and those that are independently owned or operated by a co-op or Community Land Trust (CLT).

Property owners, especially those of smaller, independently owned buildings, face barriers to participation in energy programs and upgrading their properties. Some lack awareness of energy upgrades and incentive pro-

grams that could provide savings or increased comfort to their renters. Many others lack the time, resources and/or operating budgets to take on significant energy upgrades, or they may be hesitant to invest in upgrades that deliver utility bill savings to the renter rather than the owner (i.e., the “split incentive” problem). The BAMBE program aims to address these barriers by providing hands-on technical assistance and considerable rebates to multifamily properties.

Since 2023, the program has offered significantly higher rebates for properties in census tracts experiencing disproportionate heat, air quality and housing cost burdens. Multifamily properties in these areas can qualify for higher incentives if they install measures that aim to alleviate these burdens. The current program design also incentivizes property owners to upgrade from gas to more efficient electric appliances and service panel upgrades. Through its program offerings, the BAMBE program not only improves building energy performance but also helps to create healthy, safe and vibrant living environments for residents who have been historically underserved by energy programs.

2 U.S. Census Bureau (2023). *Tenure by Units in Structure. American Community Survey 5-Year Estimates Subject Tables, Table B25032.*



2024 Multifamily Achievements

Nearly all projects upgraded underserved properties

\$2.68 million in rebates dispersed

87% of projects featured 1 or more electrification measures

Activities & Achievements

In 2024, the BAMBE program supported upgrades at 38 properties totaling 916 individual units and disbursed more than \$2.68 million in rebates. These upgrades represent energy savings of more than 107,000 net therms, accounting for emissions reductions of 522 MTCO₂e. Since the program was launched 10 years ago, more than 650 properties and over 48,000 units have received over \$39.2 million in rebates through BAMBE, representing over 6% of the multifamily housing stock in the Bay Area.

The number of resident units in equity-targeted areas³ doubled between 2022 and 2023. In 2024, nearly 100% of BAMBE projects are in equity-targeted areas, primarily due to the higher incentives available for properties in program-identified burden zones.⁴ Roughly half of 2024 projects that were in one of the three burden zones installed resident-benefiting measures that qualified the project for higher incentives. These measures, like in-unit heat pump HVACs, insulation and lighting, improve the health and safety of residential units.

Following the 2023 program incentive redesign, the number of projects including in-unit measures rose from half to 94%. At the same time, the rate of low-cost installations, such as faucet aerators and showerheads decreased while the installation of higher-cost measures, like in-unit heat pump HVAC systems and induction cooktops, increased by over three-fold.

Given increasing concern about electricity rates, the BAMBE program launched two research studies in 2024 to investigate the impact of electrification on resident utility bills. One study, funded by the DOE Buildings Upgrade Prize, will provide an open-source utility bill modeling tool that compares estimated bill impacts of heat pump water heater installations and full electrification with basic enclosure updates in multifamily buildings. Another study will provide benchmarking data—pre- and post-installation in-unit utility bill data—on properties that have installed electrification measures through BAMBE to allow for project-level utility bill tracking. Both studies will help to inform future program design and offerings to mitigate any negative impact of electrification on resident utility bills.

³ As defined by the CPUC, equity targeted projects are either located in a disadvantaged community (DAC), within an underserved community (i.e., within a census tract where the median income is at or below 80% of the statewide average median income, AMI), or are hard-to-reach (HTR), according to the *2025 Multifamily Program Evaluation by Grounded Research*.

⁴ In 2025, the program plans to adjust the definition of “underserved” to better reflect the populations considered underserved by the Bay Area local government members. See *Appendix B*.

Partnerships & Outreach

The Association for Energy Affordability (AEA) and San Francisco Department of the Environment (SFE) have been key implementation partners for BAMBE since program inception, delivering the program's TA to shepherd projects from intake to scope development, bid procurement, installation and rebate payment. TA staff spend time supporting property owners throughout the process and often help to layer BAMBE rebates with other incentive programs to maximize the scope and cost coverage of upgrades.

BayREN county members are trusted messengers that play a critical role in driving program awareness and increasing enrollment. In 2024, they hosted 29 workshops and presentations, ran 18 targeted mailer campaigns, participated in multiple trade association events, conducted contractor outreach and sponsored digital advertising. Additionally, PG&E's Single Point of Contact Service and Marin Clean Energy provided leads to the program.

Future Opportunities

Going forward, the BAMBE program will continue delivering incentives to underserved multifamily properties, prioritizing energy savings, reducing greenhouse gas emissions and providing resident benefits. The program will focus on strengthening partnerships with regional energy efficiency programs and expanding renter engagement efforts to deliver on these goals.

Since 2022, BAMBE has partnered with Sonoma Clean Power to deliver a jointly designed Panel Upgrade Pilot, aimed at overcoming barriers to electrification by offering rebates for upgrading outdated and insufficient common area and in-unit electric panels. This initiative improves access to electrification for multifamily residents in Sonoma County and streamlines the rebate process. In 2024, two properties took advantage of this program, with more



Hilltop view of San Francisco homes with the Bay Bridge in the distance.

planned for 2025. BAMBE hopes to explore more formal partnerships with CCAs and local government agencies to provide offerings that leverage multiple local energy efficiency programs.

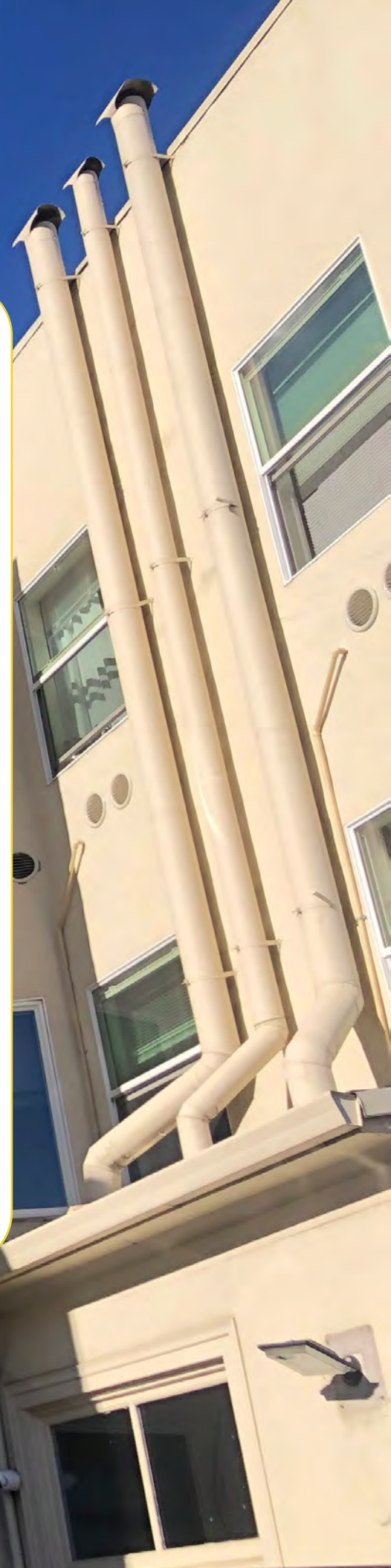
In 2024, the BAMBE program kicked off a renter engagement pilot (REP) with the goal of better understanding, documenting and communicating the impact of the program on renters and maximizing the energy and non-energy benefits of renters. This was partly informed by monthly gatherings of the Retrofits for Rentals (R4R) group, co-organized by BAMBE program staff and other researchers, public health officials and local government staff. Activities that will continue into 2025 include resident surveys, in-person, post-install renter educational events and focus groups.

House of Dignity: Empowering Vulnerable Residents in Alameda County

The House of Dignity apartment building, located in Oakland, provides 56 units of housing for some of Alameda County's most vulnerable residents, including veterans, people living in encampments and others experiencing homelessness. **This 100-year-old property recently underwent a large electrification retrofit** through BayREN's Multifamily Program (BAMBE) and the Low-Income Weatherization Program (LIWP), replacing outdated heating systems with modern in-unit heat pump HVAC units and a central heat pump water heater. The upgrades now allow residents to set their own home temperature, offering them a greater sense of freedom and comfort.

In addition to these improvements, the building was equipped with solar PV panels, further reducing energy costs and supporting the property's sustainability goals. **"The upgrades have made the building feel more luxurious for both staff and residents,"** said one team member.

Thanks to the vision of the late Executive Director Marguerite, who had been committed to reducing costs and positively impacting the environment, **the project has not only improved the quality of life for residents but also built a stronger sense of community and pride in the building.** "The contractors were wonderful—they communicated well and treated the residents with respect, which was key to building trust and connection."



Green Labeling

Program Overview

In California, the building sector is responsible for roughly 25% of the state's greenhouse gas emissions and 70% of the state's electricity use.⁵ To reach the state's goal of carbon neutrality by 2045—and mitigate the worst effects of climate change—major investments in building efficiency are essential. Upgrading residential buildings to be more energy efficient not only supports California's decarbonization goals but can deliver a range of economic and social benefits to residents, including reducing utility bills and improving the comfort, health and safety of homes. Many homeowners know their house is drafty or uncomfortable but don't know where to start with energy efficiency improvements.

Green Labels

The Green Labeling program, a Market Support sector program, advances residential decarbonization through Green Labels, which provide information on a home's energy and other sustainability features. These labels help homeowners understand their home's existing features, identify improvement opportunities and compare efficiency to similar homes. They also increase market transparency by enabling the value of green building improvements to be recognized and acted on by homeowners, buyers and real estate professionals. BayREN's Green Labeling program uses the U.S. Department of Energy's Home Energy Score, which evaluates a home's physical features—such as insulation, appliance age and efficiency and window type—to produce a 1 to 10 rating, like a miles-per-gallon rating for a car. While full energy audits can provide a wealth of detailed information, the cost and length of time to complete can be a barrier to wide scale adoption, the Home Energy Score is a low-cost tool to close this information gap. Broader uptake of Green Labels has the potential to:

- **Create market transparency** and enable the value of green building improvements



Aerial view of East Oakland streets and homes.

to be recognized and acted on by homeowners, home buyers and the real estate and financial professionals who facilitate transactions.

- **Drive investment in residential building energy efficiency**, especially in mild climates across California where energy upgrades can have a long payback period.
- **Accelerate consumer awareness** about the value of energy and green improvements.

By encouraging energy-efficiency investments at key moments—during a home's sale, before major renovations or at the start of a homeowner's efficiency journey, the Green Labeling program helps to provide long-term benefits to the home and the larger community.

Real Estate Trainings

To improve the energy efficiency of existing buildings, BayREN's Green Labeling program also trains real estate professionals to understand and market the benefits of energy efficient homes. This enables them to effectively communicate with their clients about the value of energy upgrades alongside cosmetic improvements at the time of sale.

⁵ California Air Resources Board. [Building Decarbonization Program](#); California Energy Commission. [2022 Building Energy Efficiency Standards Summary](#).



Presenter at a real estate training in San Mateo County.

This program builds capacity through classes offered to real estate professionals—including realtors, appraisers and lenders—such as the National Association of Realtors Green Designation, the Accredited Green Appraiser Training, green home tours, marketing of green homes and induction demonstrations. These trainings fill a gap in the marketplace by providing a free pathway to “green” certification for realtors and appraisers, empowering them to guide clients toward valuable upgrades and connect them with resources like incentive programs and energy efficiency contractors.

Activities & Achievements

In 2024, the Green Labeling program approved 4,855 Home Energy Scores, including 394 scores under Berkeley’s Building Emissions Savings Ordinance (BESO).⁶ Scores were completed by 53 assessors working under 23 companies.

Over the years, the program has collaborated with the U.S. Department of Energy to customize the Home Energy Score report to better serve the Bay Area and California markets. These modifications included custom recommendations that align with California’s energy

code, an increasing focus on electrification recommendations and using local PG&E energy rates and utility emissions factors. In 2024, the program completed a comprehensive redesign and launched the updated *Energy Savings Pathway Report*. Previously, DOE methodology constraints prevented the modeling of a home’s performance after upgrades. This updated version provides the current score and estimates of energy consumption and greenhouse gas emissions and models this information for two upgrade pathways: (1) improving the building shell (e.g., insulation and air sealing) while keeping existing space and water heating equipment and (2) making the same shell improvements while transitioning to high-efficiency electric heat pumps. This gives homeowners a clearer understanding of how upgrades could impact their home’s performance and guide informed decision-making.

BayREN hosted 24 real estate trainings in 2024, attracting 248 total attendees, including 37 repeat attendees. According to surveys and interviews, 98% of real estate event participants reported increased knowledge about energy efficiency, solar and building electrification and the attendees would recommend BayREN’s events to a colleague. In pursuit of cultivating local green real estate champions, BayREN’s Green Labeling offerings have increasingly focused on in-person, hands-on experiences and creating new classes that would bring attendees back for additional learning opportunities. Last year, BayREN led five green home tours for realtors in Alameda, San Francisco, San Mateo, Solano and Sonoma counties. These tours are a chance for real estate professionals to see energy efficiency and electrification home features in person, ask questions about them and learn how they could discuss their benefits to clients or market such features in their listings.

⁶ The BESO requires a Home Energy Score at the time a home in Berkeley is listed for sale. More information can be found on the [BESO page](#).

2024 Green Labeling Achievements

4,855 homes scored

**\$1.11 million in rebates
dispersed**

**24 real estate trainings
with 248 attendees**

**Approved to launch
Home Energy Score
California**

Partnerships & Outreach

The BayREN county members play a key role in promoting Home Energy Score and conducting local outreach and marketing. Last year, county outreach activities included sending mailers to new homeowners, distributing promotional Home Energy Score bill inserts and local assessor recruitment events. County members also attend real estate trainings and association meetings to help spread awareness about the program and build relationships with their local real estate workforce. The counties are seen as a trusted local resource for the program, allowing them to effectively engage with key stakeholders like realtors and homeowners.

Other partners include local real estate associations, who work with BayREN to host and advertise program offerings and Home Energy Score assessor companies who are a primary driver in bringing in leads.

Future Opportunities



Hillside view of multilevel single-family homes in a San Leandro neighborhood.

In 2025, Green Labeling will continue to improve the usefulness of the Home Energy Score report, including launching county-specific customizations and incorporating CCA and municipal utility rates and emissions factors. While the volume of scoring and assessor workforce meets program demands, there is potential for increasing the number of assessors serving San Mateo and Santa Clara counties due to the large number of single-family housing stock. The program will strategize activities to recruit more assessors in these counties to increase Home Energy Score activity.

Looking forward to the launch of the Home Energy Score California program in 2026, BayREN will be completing the statewide program's Implementation Plan. BayREN will also complete database updates to include geographies outside of the Bay Area and begin assessor recruitment and training and marketing and outreach.

Climate Careers

Program Overview

Climate Careers began in 2000, when local Bay Area high school students learning about climate change joined forces with Rising Sun Center for Opportunity to launch Berkeley Youth Energy Services. Nineteen years later, the evolved Climate Careers program partnered with BayREN's Single Family program in 2019 to serve the Bay Area's most HTR and/or underserved residents while providing young people in the Bay Area an opportunity to start their high-road green career. In 2024, Climate Careers integrated into the BayREN portfolio, as an Equity sector Workforce Education & Training program, further deepening its presence throughout the region.

Climate Careers offers paid summer jobs with Green House Calls to youth from low-income households, providing their first employment opportunities. Participants engage in a week-long extensive training with multiple hands-on practice opportunities prior to the program's start. All 43 participants in 2024 identified as low income with 86% identifying as Black, Indigenous, People of Color (BIPOC). Climate Careers participants who come from disadvantaged backgrounds and underrepresented in the climate workforce including women and those who are opportunity youth – individuals who are not employed and engaged in an education institution. Through surveys, 88% of participants felt that their overall professional skills improved because of participating in the program while 86% of participants felt more prepared to enter the workforce after they joined Climate Careers. In addition to providing their communities with Green House Calls, participants also attended weekly professional development workshops designed to build their professional skills and repertoire; increase their financial literacy; and improve their knowledge and understanding of environmental justice issues in their communities.

Following the completion of Green House Call services and programming, participants put their newly acquired skills into action through externships, paid career exploration opportunities, with trusted secondary partner organizations working in the clean economy. The externship program is now in its fourth year and has provided Climate Careers participants with experience in positions such as project managers, educators, researchers and more. In 2024, five externs were offered a job at their host site.



Climate Careers retreat with staff and youth gathered outdoors.

Activities & Achievements

As an equity program, creating access for underserved and under resourced populations is a priority for Climate Careers. The multi-layered community engagement and outreach approach continued to support HTR and/or underserved populations including seniors, low to moderate income households, residents whose primary language is not English and renters. Climate Careers participants provided in-language services to residents in Spanish, Vietnamese and Chinese. All outreach collateral was printed in multiple languages and those opting to receive an energy efficiency kit could do so through offered translation services.

2024 Climate Careers Achievements

**2,001 Green House
Calls completed**

**43 youth specialists
trained**

**Recognized as a
Climate Smart
Energy Champion**

In 2024, Climate Careers served 2,001 households with Green House Calls. In-person home assessments and installations of energy and water saving devices were conducted in 622 homes. In addition, 1,379 energy efficiency kits were delivered directly to homes in the Bay Area. Devices including power strips, LED light bulbs, smart plugs, low-flow showerheads, sink aerators, night lights and draft-stopping outlet gaskets were available at no-cost to eligible residents. The estimated energy and water savings equate to an annual reduction of 406,717 kWh of electricity, 15,009 therms of heat and 3,395,738 gallons of water, preventing 364 metric tons of CO₂ from entering the atmosphere each year. Each home also received a personalized client report based on their home assessment. A client report provides additional resources for energy savings and to promote health, comfort and safety.

Of all Green House Calls recipients, 80% were classified as low-to-moderate income according to state AMI guidelines and 41% were renters. In 2024, there was a 9% increase in renters who took advantage of Green House Calls compared to 2023. Out of 207 feedback surveys collected, 97.9% rated the service "Good" or "Excellent."

Climate Careers has built strong trust with stakeholders and communities. In 2024, it was recognized by several city governments, including San Jose for five years of service and with the Climate Smart Energy Champion award. Daly City also honored the program with a City Council recognition. The program was invited to local and statewide forums to share its successful youth employment model and residential energy efficiency efforts.



Partnerships & Outreach

Green House Calls

Climate Careers solidified relationships with county partners to broaden the scope of outreach and create customized strategies that are tailored for their jurisdictions. Through these collaborations, Climate Careers sent out co-branded residential mailers and newsletters, conducted presentations and attended community events.

Climate Careers also conducted regional outreach that is traditionally grassroots and community based. The team worked with organizations such as North Marin Community Services who trains and engages local *promotores*, which are Latine community leaders working on the ground to provide accessible resources. Trusted and established organizational partners allow Climate Careers to reach its target populations in many areas of the region.



Three Climate Careers youth participants standing outside on a sunny day.

Workforce Development Programs

Climate Careers recruits youth to deliver Green House Calls through partnerships with high schools, community colleges, universities, organizations serving foster youth, community-based organizations, local workforce development boards and social services agencies. Given that the program targets opportunity youth—those who are not employed or engaged in school—partnerships with high schools and community organizations have been particularly effective in reaching this population.

Future Opportunities

Climate Careers is excited to keep youth at the forefront of the building decarbonization movement while ensuring low-to moderate family households are not left out of the building electrification movement. In 2025, Green House Calls assessments will include electrification readiness questions to jumpstart the electrification journey for low-to-moderate income households and provide resources and recommendations. Additionally, youth staff will conduct a pilot to measure indoor air quality during the peak summer season in the Fruitvale community of Oakland.

Energy efficiency kits, which were introduced in 2021, will be offered year-round in 2025, which is a shift from the previous seasonal offering. This shift will help residents begin their energy efficiency journey as soon as possible. For the first time, energy efficiency kits will offer a single burner induction cooktop to expand offerings to residents while educating youth on the benefits of switching from gas to induction. Induction cooktops will go out to fifty residents per county for a total of 400 residents in the Bay Area. Follow-up calls and surveys will be conducted to ensure quality of delivery and answer questions.

Water Upgrades Save

Program Overview

In California, the pumping, heating and treatment of water accounts for 20 percent of electricity and 30 percent of non-power-plant natural gas demand. Known as the *water-energy nexus*, this combined resource opportunity is addressed by the BayREN Water Upgrades Save program. This innovative water-energy nexus program provides turnkey utility investment and project installation services to Bay Area municipal water utilities seeking to offer their customers easy access to water-related utility bill savings. It is the first Inclusive Utility Investment program in California.

The program enables municipal water customers to install water efficient upgrades with little-to-no upfront cost — using a utility-approved on-bill charge that is lower than the estimated savings. Indoor upgrades include high-efficiency toilets, showerheads and aerators and outdoor upgrades include drip irrigation system components. The program's water-efficient upgrades deliver ongoing savings every time a fixture is used, comply with State building code and help participants manage their water use and costs.

Water Upgrades Save, a Cross Cutting program, provides two greenhouse gas reduction benefits for Partner Utilities and their customers. First, through direct customer energy savings from high-efficiency showerheads that enable participants to use less hot water. Second, through indirect utility energy savings, known as *embedded energy*, needed to move and treat water for public use. Every unused gallon also delivers non-energy benefits. Utilities have fewer delinquent accounts and need less rebate funding and customers can control water-related costs while improving their property and increasing their water security. Designed to provide centralized utility investment capital and program administration for participating water utilities, the program serves single-family, multi-family and business water customers, including property owners and renters.



Mother and child washing their hands together at the kitchen sink.

Activities & Achievements

The program conducted several activities to drive programmatic goals. In 2024 the program met with seven prospective utilities to discuss program services and enrollment. These meetings included two large utilities, four medium utilities and one small utility, whose combined housing stock is approximately 650,000 single family and multifamily units. The program began the enrollment process with one medium and one large utility.

At the request of water utilities, the program developed a new outdoor offer that enables water customers seeking to convert a well-watered lawn to low-water use landscape to put most, if not all, the cost of the drip irrigation system on-bill through Water Upgrades Save. This offer helps water utilities reduce outdoor water use in accordance with State water conservation priorities.

The program expanded sewer service and outdoor rebate data for its utility analysis tool, which enables the program to evaluate prospective municipal water utilities based on data such as water-sewer rates, housing stock size, rebate availability and volumetric and fixed rate structures.

Partnerships & Outreach

Partnering with municipal water utilities is crucial to deliver the program's services. Partner Utilities identify eligible customers, advise on customer outreach, participate in co-branded "trusted messenger" promotion, provide mailing lists and set water reduction goals. The partner utility determines goals for customer participation and water demand reduction to align with its utility and climate goals.

Future Opportunities

In 2025, Water Upgrades Save will continue utility enrollment activities using in-depth analysis to identify utilities with favorable conditions for program success. The program will also launch outdoor services for residential customers; indoor services for multifamily properties; and indoor services for business, municipal and institutional customers.

2024 Water Upgrades Save Achievements

Developed a residential drip irrigation system offering

Integrated utility rebate options

Updated utility analysis tool



BayREN Business

Program Overview

BayREN Business is a resource acquisition program with an equity focus on serving small and medium HTR businesses, filling a gap in commercial energy-saving programs. The program uses an innovative pay-for-performance approach that pays installation contractors, or “aggregators,” for energy savings as measured at the meters. Once a project is installed and approved, the aggregator receives an advance payment of 20% of the total reserved incentive. The project’s energy savings are then measured over a period of twelve months, and the aggregator receives incentive payments on a quarterly basis, based on the project’s performance. The program is technology agnostic and allows a range of aggregator business models and energy efficiency measures.

Aggregators offer flexible solutions that ensure customers receive the most effective energy efficiency interventions. Participating businesses benefit from energy savings with low or no upfront costs and the energy efficiency upgrades result in ongoing reductions in utility bills. To maximize their incentives during performance tracking periods, aggregators are committed to sustaining peak equipment performance throughout the 12-month monitoring period. The program engages with multiple aggregators to deliver projects tailored to HTR businesses, representing a fresh approach that is scaling beyond BayREN.

BayREN Business has several goals. As a resource acquisition program, its primary goal is delivering cost-effective energy savings. Additionally, the program aims to increase the number of HTR businesses that participate in energy efficiency programs and foster a competitive, diverse market of aggregators serving these businesses.



Storefront of Thai Food Express, a BayREN upgraded restaurant.

The program only serves businesses that meet BayREN’s definition of HTR.^{7,8} Specifically, a business is considered HTR if it is geographically located in a disadvantaged community (DAC) and meets one of the criteria below:⁹

- Language: Primary language spoken is other than English
- Size: Less than 25 employees and/or classified as “Very Small” (customers whose annual electric demand is less than 20 kW or whose annual gas consumption is less than 10,000 therms)
- Leased or rented facilities: Investments in improvements to a facility rented or leased by a participating business customer.

Alternately, if a business is located outside of a DAC, it must meet all three criteria above to be qualified as a HTR business. Businesses located in the Bay Area’s tribal lands automatically qualify as HTR.

The BayREN Business team allocates the budget to prioritize HTR businesses that directly support community welfare, such as grocery

7 The HTR definition was expanded to increase number of employees and to include California Tribal Lands in [CPUC Decision 23-06-055](#).

8 CPUC (2020). [Energy Efficiency Policy Manual, Version 6, April 2020, P.21](#).

9 The HTR definition was revised to include DACs in [CPUC Decision 18-05-041](#).

and retail stores, auto repair and smog stations and professional offices. BayREN Business applies industry classification criteria to determine eligibility. As a result, industrial and manufacturing businesses, multifamily common areas, agricultural production and stand-alone parking garages are deemed ineligible for participation.

Activities & Achievements

In 2024, the BayREN Business program scaled up rapidly to deliver energy savings and benefits to more customers. BayREN Business received 259 project applications; completed 218 HTR projects, of which 74 were in DACs and one was a “legacy” project from before the program’s re-launch¹⁰; saving an estimated 1,453,012 kWh; and reserving about \$3,288,000 in incentives. These numbers represent a 212% increase in project applications, a 257% increase in completed projects and a 27% increase in forecasted kWh savings in 2024 from 2023¹¹. In 2024, the program more than doubled the number of completed projects, while the total amount of incentives paid remained the same as in 2023. This indicates significant gains in cost effectiveness.

BayREN Business is improving affordability for small- and medium-sized HTR businesses. The program forecasts meaningful utility bill savings for participating small businesses, with businesses expected to save an average of \$3,000 annually. Some projects are expected to save as much as \$13,400 annually on utility bills based on projected energy savings. This demonstrates the program’s ability to provide tangible value to its target customers.

In 2024, six aggregators submitted projects, all of which are small businesses, including one Women-owned Business Enterprise. The three most active aggregators in 2023 continued their participation in 2024, while a new aggregator focused on projects in Sonoma County,

¹⁰ The BayREN Business program underwent a redesign and re-launched in June 2023 to focus only on serving HTR businesses. Legacy projects are from before June 2023.

¹¹ While the 2023 program year was shorter compared to the 2024 program year, BayREN Business still demonstrated increased growth overall.



Obasi Obasi, owner of Obanke Beauty Supply in San Pablo, stands outside his BayREN upgraded business.

contributing to an increase in the number of completed projects in the county compared to the previous year.

In 2024, the diversity of measures increased as aggregators offered a mix of lighting and refrigeration upgrades to businesses. As a result, more than 40% of project applications were for restaurants/bars and more than a quarter were for grocery/ market/liquor stores. Refrigeration upgrades help reduce load especially during peak periods, which can also significantly reduce their utility bills.

In 2024, the BayREN Business team focused on refining the program processes through continuous learning and improvement, including a process evaluation with Grounded Research. Drawing from 2023 program data and insights, the team will implement several

lessons learned in 2025, such as refining the non-routine event (NRE) screening process. This approach underscores the program's commitment to ongoing iteration and improving its efficiency and cost-effectiveness over time.

To those ends, in 2024, the BayREN Business team also developed key performance indicators (KPIs) to improve processes and reduce implementation costs. By comparing KPIs for 2024 against 2023, the team can identify areas where internal processes can be further streamlined and set better expectations. KPIs include the time on-task for completing application reviews, post-installation project close-out reviews, issuing advance payments and issuing quarterly performance incentive payments. Project review timelines are taking slightly longer than the goal, highlighting a need to train aggregators on how to submit more complete paperwork. Advance payments are being issued 56% faster than the goal and performance payments are being issued 24% faster than the goal. Quick payments help aggregators with cash flow during their twelve-month performance payments.

In addition, the BayREN Business team addressed a pattern of fewer project applications from Marin, Napa and Sonoma. Due to these counties having few or no DACs, it is more challenging for aggregators to serve local HTR businesses. In mid-2024, the program instituted an incentive budget for counties with limited or no DACs to drive focused marketing and outreach. This strategy motivated a new aggregator to submit nine projects for one affected county.

Lastly, the twelve-month performance tracking period for 2023 projects is nearly complete, making them the first cohort to finish their performance period. The realization rate of actual kWh savings to forecasted kWh savings

is 89% for HTR projects and 254% for legacy projects, with an overall 2023 portfolio kWh realization rate of 168%¹². To date, more than 1,800,000 kWh in savings has been delivered, more than 6,600 metric tons of carbon dioxide avoided and about \$2,600,000 paid in incentives.

2024 Business Achievements

218 HTR projects completed

74 projects in disadvantaged communities

1,453,012 kWh in estimated savings

¹² These numbers will change as the last batch of approved 2023 projects, installed in early 2024, completes tracking by mid-2025.



Niral Patel, owner of NK Gas in Antioch, CA, poses in front of his business, which received BayREN upgrades.

Partnerships & Outreach

Marketing and outreach efforts led by BayREN members, who comprise of local government representatives and county partners, boosted leads for aggregators. For instance, the Solano Economic Development Corporation (EDC) helped drive projects in Solano County by using existing business lists for targeted outreach, partnering with the Hispanic Chamber of Commerce to connect with likely HTR businesses and “stacking” projects in a geographic area to reduce aggregator costs. These efforts resulted in 92 applications and 85 completed projects in Solano County.

In addition, BayREN Business staff met regularly with PG&E and MCE and the Normalized Metered Energy Consumption (NMEC) Project Coordination Group to coordinate, discuss program challenges and share updates on marketing and outreach efforts to maximize benefits for all ratepayers.

Future Opportunities

As aforementioned, the BayREN Business program underwent a process evaluation by Grounded Research in 2024 to help identify areas for improvement. The program is revisiting the NRE process and plans to remove the self-reported NRE approach in the next program cycle. To improve transparency and accountability, the program is also formalizing the process for aggregators to request a policy exemption.

In 2024, the program collected non-energy benefit information from customers but did not report these metrics. In 2025, BayREN Business plans to report on non-energy benefits to show the full value of the program.

In 2025, BayREN Business will transition to a new implementer responsible for managing aggregators and verifying energy savings. This presents an opportunity to recruit new aggregators with broader measure offerings and re-visit the types of training and resources provided to aggregators. For example, the program will focus on educating aggregators on the importance of saving energy during the peak period (4 – 9pm daily) and the impact of these savings on incentives.

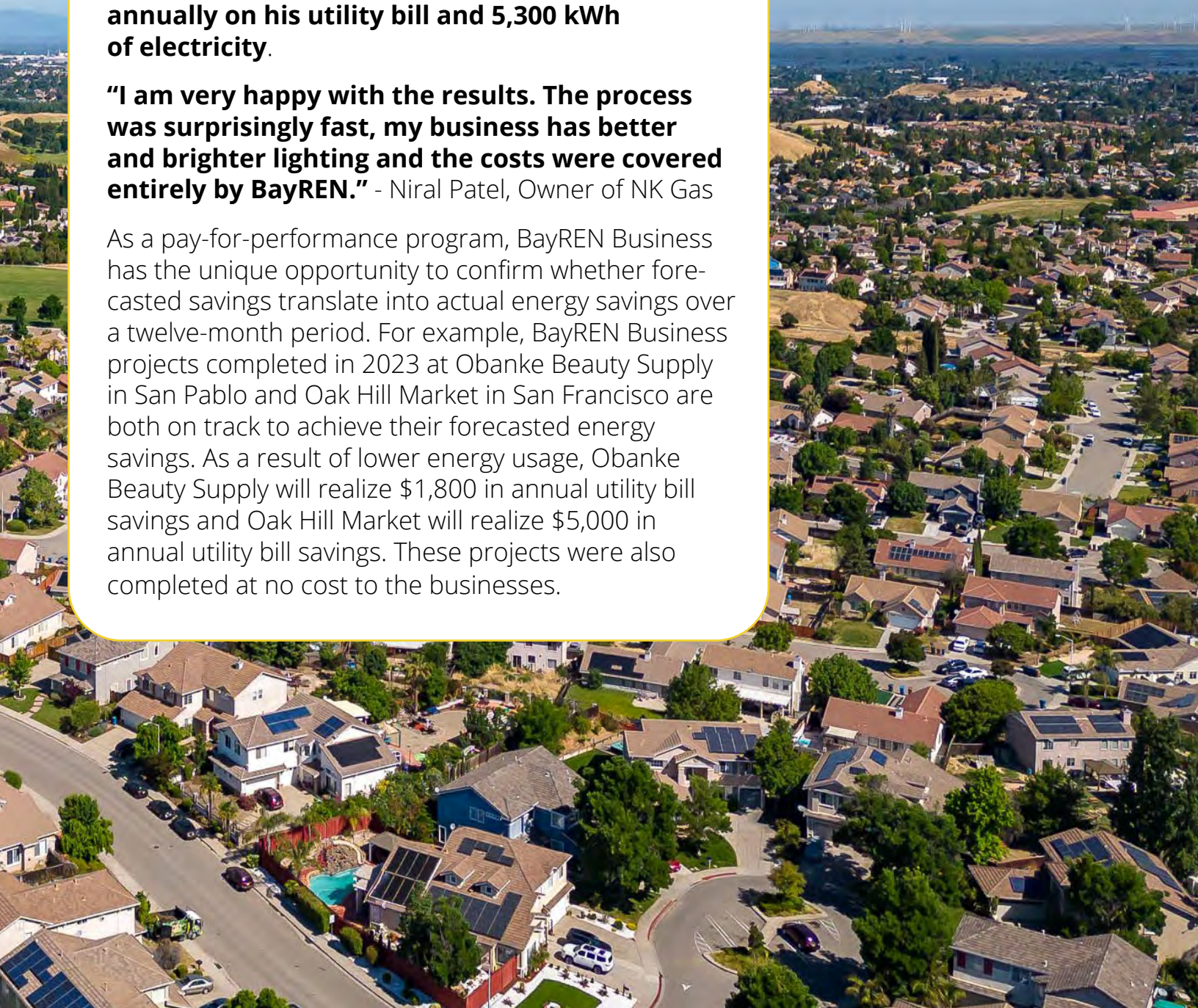
The program will continue exploring ways to increase projects in the North Bay. For Marin and Napa counties, this could mean targeted marketing and outreach campaigns. Sonoma County was identified as outside of the Bay Area Statistical Metro Area, allowing the county to meet a different HTR geographical criteria, which should result in more projects in the future.

Cutting Electricity Costs for NK Gas

For gas stations, which are open around the clock, energy efficiency upgrades can significantly lower operations costs. Niral Patel has owned and operated NK Gas since 2017 in Antioch, providing a vital resource for many commuters. Through the BayREN Business program, Niral cut energy costs by upgrading the overhead and refrigeration unit lighting to more energy-efficient LED lighting. With \$10,698 in incentives, the upgrades were completed at no cost to the business. **Niral is projected to save over \$2,200 annually on his utility bill and 5,300 kWh of electricity.**

“I am very happy with the results. The process was surprisingly fast, my business has better and brighter lighting and the costs were covered entirely by BayREN.” - Niral Patel, Owner of NK Gas

As a pay-for-performance program, BayREN Business has the unique opportunity to confirm whether forecasted savings translate into actual energy savings over a twelve-month period. For example, BayREN Business projects completed in 2023 at Obanke Beauty Supply in San Pablo and Oak Hill Market in San Francisco are both on track to achieve their forecasted energy savings. As a result of lower energy usage, Obanke Beauty Supply will realize \$1,800 in annual utility bill savings and Oak Hill Market will realize \$5,000 in annual utility bill savings. These projects were also completed at no cost to the businesses.



BayREN Refrigerant Replacement

Program Overview

The Bay Area's food economy, valued at approximately \$113 billion¹³ and employing nearly half a million people, faces significant challenges, including rising overhead costs and staffing shortages. Amidst these pressures, energy efficiency often takes a back seat for business owners focusing on more immediate concerns.

Refrigeration systems, essential to many food businesses, are often outdated, sometimes over 15 years old and suffer from deferred maintenance. This results in prolonged refrigerant leaks, excessive energy consumption and reduced system performance, which can lead to system failures, lost inventory and even business closures. Furthermore, deferred maintenance hinders energy efficiency, as contractors are hesitant to install retrofits on neglected systems due to concerns about future liabilities and unrealized energy savings.

Many of the refrigerants commonly used in these systems have a global warming potential (GWP) thousands of times higher than carbon dioxide, contributing to climate change. However, small businesses often lack the resources to upgrade their equipment and risk falling behind in this transition.

The BayREN Refrigeration Replacement (BRRR) program, an Equity sector program, addresses these challenges by replacing harmful refrigerants with more environmentally friendly alternatives, repairing refrigerant leaks, optimizing refrigeration systems to reduce electricity use and lowering operational costs for businesses. BRRR also educates business owners, managers and employees on how to maintain their refrigeration systems. The program teaches simple, do-it-yourself maintenance tasks, such as cleaning coils and inspecting door gaskets

for damage, empowering business owners to extend the life and reliability of their equipment through preventative care.

This equity-focused program serves food service, food retail, food warehousing and floral businesses in low-income and disadvantaged communities, as well as those that are often overlooked by traditional incentive programs. Convenience stores, for example, play a vital role in providing food to underserved communities, often in areas considered food deserts. By optimizing refrigeration systems and addressing refrigerant leaks, BRRR helps ensure that fresh, safe food remains accessible while reducing environmental impact.

Activities & Achievements

In 2024, the BRRR team conducted market research and program design activities to inform decision-making and affirm market-readiness prior to the pilot phase. The team began by completing a market potential analysis to identify the number of food and floral sector businesses in low-income or disadvantaged Bay Area communities, as well as those that meet HTR criteria. The analysis, which covered 22,231 businesses, revealed that 40% were likely eligible, with an additional 41% potentially eligible for the program. BRRR is now well-positioned to begin targeted marketing and outreach efforts, using the list of businesses identified in the study.

Additionally, the BRRR team also conducted a regulatory and legislative analysis to assess recent federal and state laws related to refrigerants. This analysis ensures that BRRR will remain compliant with applicable laws and regulations.

13 Sustainable Agriculture Education, American Farmland Trust, Coastal Conservancy (2017). [*The Bay Area Food Economy: Existing Conditions and Strategies for Resilience*](#).

The year 2024 marked the initiation of the program's pilot phase, which tested the program's design, processes and incentive structure. To support this, the BRRR team issued a competitive solicitation to select a refrigeration contractor. This contractor conducted equipment assessments, submitted project proposals and scheduled installations for early 2025. Additionally, the contractor provided valuable feedback on the program's design, particularly regarding the incentive rates, structure and the enrollment process.

The BRRR team also successfully recruited three San Francisco food sector businesses to participate: Frank's Haight and Cole St. Liquor, Mission Food Center and Other Avenues Grocery Cooperative. Two of these businesses are in low-income communities and one is considered HTR. All three businesses received equipment assessments, which identified the need for lower-GWP refrigerants, the repair of refrigerant leaks and energy efficiency upgrades—such as replacing a failing condenser and adding suction line insulation. Business owners also expressed interest in addressing equipment-related noise.

Regional Energy Networks (RENs) are tasked with developing innovative approaches with the potential to scale. Traditionally, energy efficiency programs have only claimed electricity savings (kWh) from refrigeration system retrofits, which has led to an undervaluation of greenhouse gas emission reductions and their broader impact. This is especially true for refrigerant exchanges. By tracking the greenhouse gas emission reductions from recharging refrigeration systems with lower-GWP refrigerants, the BRRR program will be able to accurately quantify these benefits. This innovative approach allows for a more comprehensive accounting of project benefits under the Total System Benefit metric.

2024 Refrigerant Replacement Achievements

**Implementation Plan
and Program Manual
were developed and
published**

**3 business site
assessments
conducted during the
pilot phase**

Partnerships & Outreach

The BRRR team partnered with the California Department of Food and Agriculture (CDFA), which had recently completed its "Healthy Refrigeration Grant Program" to generate leads. This program was successful in assisting businesses, particularly in the food sector, in transitioning to environmentally friendly and energy-efficient refrigeration systems but could not serve all applicants. CDFA shared this waitlist of interested applicants with the BRRR team, allowing the BRRR team to use it for marketing and outreach.

Future Opportunities

Based on lessons learned from the pilot phase, the BRRR team will update its program design, processes and incentives. In March 2025, BRRR will transition from the pilot phase into an intermediate phase: regional soft launch to up to twenty projects to test final changes. By the end of the 2025, the BRRR program will launch to all counties in the Bay Area.

Codes and Standards

Program Overview

BayREN's Codes and Standards program, a Cross Cutting sector program, works in three arenas: supporting the development of local reach codes and related energy policies; improving implementation and compliance with state and local energy codes; and closing the gap between the state and local governments on future energy codes and related efforts. Because BayREN is run by local governments, the program focuses on supporting local government staff—particularly building department staff and sustainability staff, in these three areas.

The program carries out its work through a variety of activities, including providing training and resources for building departments, offering quarterly regional forums on reach code and policy-related topics, providing support through its open reach code working group, carrying out pilot projects, developing tools and more. All this work helps to ensure that new buildings are constructed to code or above and that existing buildings are improved, saving residents money and making the buildings more comfortable.

Activities & Achievements

One key achievement of 2024 was the launch of BayREN's Existing Building Study. The first part of the project, which was completed in 2024, produced a digital dashboard which provides all 109 Bay Area local governments with data about the existing buildings in their jurisdictions, together with estimated energy use and greenhouse gas emissions. In 2025, the project will provide more detailed information about existing buildings and add information to the dashboard on pathways to decarbonize existing buildings by 2045.

BayREN continued to develop and offer quarterly Regional Forums on energy-related topics of interest to local government staff, with the



Speakers and attendees at the Heat Pump Water Heating Permitting Regional Forum.

following topics covered in 2024:

- The Confluence of Water, Energy and Climate
- Commercial Conundrums and Successes in Building Decarbonization
- Heat Pump Water Heater Permitting: Preparing for a Decarbonized Future
- It's Not Easy Being Green: Workforce Development, Codes and Decarbonization

Three of those forums were online-only events and one (the Heat Pump Water Heater Permitting Forum in September) was an in-person only event. Approximately 60 people attended the in-person forum and were able to talk individually and in groups with people working on various approaches to improve permitting for heat pump water heaters. The group also heard from a homeowner, a contractor and a building official about their experiences with and perspectives on permitting for this important technology. Attendance at the online Forums ranged from 125 to 150 and this year's Forums were more highly rated by attendees than ever before, with a 4.38 rating out of 5.

BayREN also continued to organize quarterly Reach Code Working Group calls for local government staff. These calls often spotlight work occurring at Bay Area jurisdictions and provide opportunities for participants to share their experiences and ask questions of their colleagues in other jurisdictions throughout the Bay Area. In 2024, staff from 41 Bay Area jurisdictions attended one or more of these calls.

The BayREN Codes and Standards Program also continued its work to support local building department staff in their enforcement of the Energy Code. This included managing a new procurement for training services, which brought on an expanded consultant team who provided 24 training sessions during the year and will be able to offer additional topics and trainings in 2025. The program continued to offer permit guides, technical assistance sheets and the CodeCycle commercial lighting tool for interested local governments. This year, there were 539 attendees at the training sessions, representing 56 Bay Area jurisdictions.

2024 Codes & Standards Achievements

79 Bay Area jurisdictions supported

539 attendees at 24 trainings

Launch of the Existing Building Study Dashboard

Partnerships & Outreach

BayREN's Codes and Standards program works closely with and complements the work of key partners, including the California Energy Commission, Energy Code Ace, the IOU Reach Code Team, the Community Choice Aggregators in the Bay Area and the nine Bay Area counties. For example, our trainings complement those offered by Energy Code Ace because of our focus on local building department staff and our recognition of their constraints. Each BayREN training is relatively short (no more than 90 minutes) and discusses best practices and approaches that attendees can use to make the most of their available time. BayREN also continues to offer a joint training with Energy Code Ace on Accessory Dwelling Units and leverages Energy Code Ace materials for training handouts.

Future Opportunities

For 2025, the Codes and Standards program will build on the existing accomplishments in several ways:

- Completing the Existing Building Study in the first half of the year and publicizing the availability of the tool and reports to Bay Area local governments;
- Offering 30 trainings and developing training curriculums on at least two new topics, including one on CALGreen and one on Solar PV and Battery Storage;
- Updating all trainings and materials for the 2025 Energy Code; and
- Updating reach code resources to ensure they are current and relevant.

One significant new effort that will launch in 2025 is a pilot project in San Mateo County on heat pump water heater permitting. The project will involve gathering information about current permitting processes throughout the county and then working with 10 jurisdictions to develop and implement a consistent process across jurisdictions. This could then serve as a model for other jurisdictions in the region.

BayREN's Existing Buildings Dashboard: A New Tool for Local Governments

Over 75% of California's building stock was built before the adoption of the first Energy Code in 1978. As new buildings have become much more energy efficient, attention of Bay Area local governments has increasingly turned to improving the energy use and reducing greenhouse gas emissions from existing buildings. **To support these efforts, BayREN is carrying out an Existing Building Study of the Bay Area.** In 2024, this project produced a digital dashboard that uses data from county assessors, energy incentive programs, national databases and more to provide information about the existing building stock to all 109 jurisdictions in the Bay Area. The dashboard also estimates energy use and greenhouse gas emissions for each jurisdiction.

In 2025, the project will produce a report on detailed characteristics of existing buildings and a set of "Explainer" studies that explore the specific challenges related to common building types. The digital dashboard will also be expanded to allow local governments to explore the pathways to achieving decarbonization of existing buildings. Local governments will be able to use these **resources to develop policies to reduce energy use and greenhouse gas emissions from the existing buildings in their jurisdictions**, leading to decreased energy costs and progress towards climate goals.



Integrated Energy Services

Program Overview

The Integrated Energy Services (IES) program, a Market Support sector program, was developed based on local government needs that were identified when BayREN developed its 2024-2031 Business Plan. Specifically, several Bay Area city and county staff voiced their challenges with limited staff capacity, lack of specialized expertise and low awareness of available programs to support energy efficiency, electrification and resilience upgrades of their public buildings. The primary goal of the IES program is to support local governments and special districts so they can make full use of energy efficiency products and services to achieve their energy goals for their public facilities and community resilience centers (CRCs). The program addresses the challenges that local government staff are facing when attempting to upgrade their public buildings by providing the information, resources and technical support they need to develop and implement energy projects. In doing so, the program will also help build, enable and maintain demand for integrated building energy upgrades and operations. The IES program offers two distinct services: Energy Concierge and Energy Roadmapping.

Energy Concierge

The Energy Concierge service provides local government staff with a single and objective point of contact to help them access technical assistance, financing and incentive programs for energy and resilience upgrades of their public buildings. Jurisdiction staff receive tailored recommendations aligned with their specific needs and goals, connecting them to the right regional, state and federal programs. When staff are ready to apply for these programs, the service offers high-level application support. Monthly office hours provide additional guidance, giving local government staff

the opportunity to ask questions about their public building projects. Overall, this service saves staff countless hours navigating complex energy programs and determining eligibility for specific building projects. It reduces administrative burdens for program administrators and improves the cost-effectiveness of other ratepayer-funded programs by increasing participation and directing leads into those programs.

Energy Roadmapping

The Energy Roadmapping service provides local government staff with engineering and technical support to create a customized energy roadmap for their public buildings or CRCs. First, a comprehensive energy audit is conducted to evaluate current energy usage and identify potential improvements. The roadmap then guides jurisdictions through energy-saving measures, electrification options and strategies to enhance building resilience. A key benefit of the roadmap is the phased energy measure recommendations, which help local governments identify the best strategies for each facility and implement projects cost-effectively while working toward their long-term energy goals. Jurisdiction staff are paired with a dedicated project manager who assists them through each step in the roadmapping process and provides ongoing support once staff begin implementation. When staff receive their roadmap, they can be connected with the Energy Concierge service to identify programs that can support the implementation of recommended measures.

Activities & Achievements

The majority of 2024 was spent designing the IES program including hiring a program lead and selecting implementers for the Energy Concierge and Energy Roadmapping services. A comprehensive database of existing energy programs offered by CCAs, PG&E and regional, state and federal agencies that Bay Area local governments are eligible for was developed for the Energy Concierge service. This database is utilized for making appropriate program referrals when a local government or special district participates in the Energy Concierge service.

With just under two months of operation prior to the end of the year, the Energy Concierge service was able to support a total of 10 local governments and special districts with seven of those serving Equity Priority Communities.¹⁴ The Energy Concierge team provided 65 program recommendations to participating local government staff as well as other valuable resources and information. The first monthly office hours event for local government staff was also hosted by the Energy Concierge team.

The Energy Roadmapping service launched in mid-December and the Energy Roadmapping team began receiving applications from local governments in early 2025. That milestone marked the full launch of the IES program.

Finally, significant outreach was conducted through presentations, emails and social media to promote the new IES program to Bay Area local government and special district staff.

2024 Integrated Energy Services Achievements

10 jurisdictions served by the Energy Concierge service

65 recommendations made through the Energy Concierge

First monthly office hours held for local government staff

¹⁴ See Appendix B.



Partnerships & Outreach

BayREN county members helped shape the IES program to effectively address challenges local governments face with public building energy upgrades. They provided input on the design of the Energy Concierge and Energy Roadmapping services and helped select program implementers. Now in the implementation phase, county members play a key role in promoting the program to jurisdiction staff and leveraging their established relationships.

Additionally, BayREN established partnerships with other public sector program administrators to ensure programs included in the Energy Concierge database are accurate and regularly updated to reflect changes and new program offerings. As part of this effort, BayREN collaborated with the PG&E Local Government Partnerships (LGPs) in Marin, Sonoma and San Mateo to avoid duplication of services and refer jurisdiction staff from those counties to their respective LGP if they contact the Energy Concierge service.

Future Opportunities

In 2025, the Energy Concierge Service will continue to support local governments and expand upon the existing resources it provides. For example, BayREN's *Resource Guide for Reducing Energy Use and Carbon Emissions from Municipal Buildings* will be updated to include new programs and any changes to existing programs that are covered in the Energy Concierge database. Updates to both this document and the Energy Concierge database will be made on a quarterly basis.

The Energy Roadmapping service will begin supporting jurisdictions that submitted applications to participate in the service and set a target to provide at least 10 roadmaps per year.

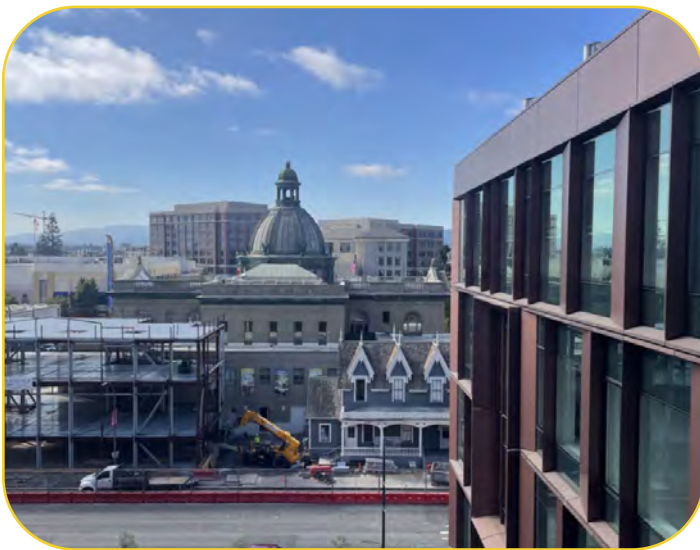


Boy biking at the Viva CalleSJ event, with local vendors showcased in San Jose, California.

Targeted Decarbonization Services

Program Overview

Like IES, the Targeted Decarbonization Services (TDS) program, a Market Support sector program, was created to address local government needs identified during the development of BayREN's 2024-31 Business Plan. Local government staff cited two main barriers to adopting decarbonization technologies in public buildings: limited familiarity with decarbonization equipment and higher costs and complexity. Over the past year, the TDS program was designed to tackle these challenges and fill gaps in existing public sector offerings. Its goal is to empower local governments to deploy decarbonization technologies by providing technical assistance, resources, actionable data and scalable, equitable solutions. The TDS program offers two distinct services: Decarbonization Showcase and Decarbonization Education and Financing.



View from a San Mateo County building overlooking historic structures and a construction zone.

Decarbonization Showcase

The Decarbonization Showcase will demonstrate real-world approaches to building decarbonization in a small selection of public buildings throughout the Bay Area. This service provides both funding for enrolled

decarbonization projects and the ongoing technical and engineering support needed for successful implementation. Showcase projects will implement a range of energy-related measures, including electrification, energy efficiency, distributed energy resources and demand response. Detailed data on design, costs and performance will be collected for Showcase projects to produce shareable case studies that will allow local governments to better assess the risks and benefits of such projects. Additionally, the Showcase will develop and test appropriate metrics to assist government staff in presenting decarbonization solutions to decision-makers. Through these efforts, the service aims to make decarbonization more accessible, replicable and impactful across the region.

Decarbonization Education & Financing

The Decarbonization Education and Financing service supports local government staff by providing education and resources about decarbonization technologies and financing, while exploring funding opportunities and incentive structures to support the widespread adoption of these solutions in the public sector. The service provides training on decarbonization equipment operations and maintenance to better equip staff in transitioning to new technologies. It also provides training on financial strategies to help local governments understand how to monetize energy improvements and secure funding for their projects. Further, the service will document available incentives and funding opportunities for decarbonization technologies, explore additional non-ratepayer funding sources and test new incentive structures to accelerate the adoption of decarbonization solutions in public buildings.

Through targeted technical assistance, strategic funding and knowledge-sharing, the TDS program is helping local governments overcome barriers to building decarbonization.

By demonstrating practical solutions through real-world projects and equipping staff with the skills and financial tools needed to scale these efforts, the program supports a shared vision for a cleaner, more resilient Bay Area.

Activities & Achievements

The vast majority of 2024 was spent designing and launching the TDS program, including hiring a program lead and selecting implementers for the Decarbonization Showcase and Decarbonization Education and Financing services.

In 2024, the Decarbonization Showcase service focused on program development, including establishing eligibility criteria and application and outreach materials. However, the application period and project implementation will commence in 2025. To build awareness of existing Bay Area public sector decarbonization efforts and provide inspiration for potential applicants, the service compiled a public list of public building projects that have already implemented decarbonization measures or are actively pursuing them. This phased approach ensures that local governments have the information and resources needed to develop strong project proposals and successfully carry out decarbonization projects.

The Decarbonization Education and Financing service launched in December 2024, offering its first training: *Heat Pump HVAC for Facilities Staff*. The training focused on familiarizing local government facilities and public works staff to key concepts, equipment, troubleshooting and maintenance needs of heat pump HVAC systems used in both small and large public sector buildings. Fifty-two attendees joined, including local government facilities and public works staff.

To ensure that the training offered by TDS effectively addressed local government needs, BayREN administered two surveys for local government staff - one for staff involved in facilities, building operations and maintenance and another for staff involved in finance,

procurement and capital projects. BayREN County representatives helped to compile contact information for facility and finance staff across the nine counties. Survey results reflect 48 facility staff participated, representing 23 unique local governments and 17 special districts, while 31 finance staff participated, representing 15 unique local governments and 14 special districts. Survey responses provided insights into public sector building decarbonization training needs and preferences, including familiarity with decarbonization equipment and financing options, preferred training formats and priority topics. In combination with research on existing regional decarbonization training offerings, these findings shaped the development of the first TDS training topic.

In addition, significant outreach was conducted through presentations, emails and social media to promote the TDS program to local government and special district staff across the region. These activities helped raise awareness of available services and encouraged participation.

2024 Targeted Decarbonization Services Achievements

52 attendees at the first TDS training

79 facilities and finance staff provided feedback on training needs and preferences



Historic Martinez Courthouse in Contra Costa County.

Partnerships & Outreach

BayREN county members played a key role in shaping the program by providing input during the design phase and identifying gaps in existing public sector decarbonization offerings. They are instrumental in promoting the program to their local government networks, ensuring that staff across all nine Bay Area counties are aware of and can access TDS services. Additionally, program staff collaborate with other program administrators to avoid duplication of services and ensure the TDS program provides unique, value-added support to local governments. By coordinating with complementary initiatives, the TDS program efficiently fills gaps in available resources while accelerating regional decarbonization efforts.

To further enhance its offerings, the TDS program worked with professional associations, including the Building Operator Certification and International Facilities Management Association, to offer continuing education units for its training for facilities staff. These partnerships help encourage participation in TDS training while reinforcing the importance of decarbonization as a critical component of public sector facility management and planning.

Future Opportunities

In 2025, the TDS program will take key steps to help local governments move from planning to action on building decarbonization. A major focus will be selecting and launching Decarbonization Showcase projects, which will serve as real-world applications of decarbonization technologies used in public buildings. These projects will generate valuable insights and data, helping to accelerate broader adoption across the region. The program will also expand its public inventory of decarbonized public buildings, creating a valuable resource for local governments seeking guidance and inspiration for their own projects.

To further support local governments with the knowledge and tools needed for success, the TDS program will introduce new training offers, including one for facility staff and two tailored for finance staff. The program will also roll out additional decarbonization financing support services, offering guidance on available incentives and testing incentive structures that best meet the needs of Bay Area local governments. Recognizing that upfront costs to decarbonization equipment remain a key barrier for local governments, the TDS program will seek external, non-ratepayer funding to help scale its incentive offerings and increase the accessibility of decarbonization solutions. Through these efforts, the TDS program will not only build on BayREN's history of advancing energy efficiency and greenhouse gas reductions but will also lay the foundation for a more sustainable and financially viable path to widespread decarbonization in the public sector.



Savings and Expenditures

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In 2024, BayREN administered two resource programs within the Residential Sector (the Home+ and BAMBE programs) and one resource program within Commercial Sector (BayREN Business) that have reported energy savings. The Home+ program is a deemed program utilizing approved Statewide workpapers for all savings values. The BAMBE program is a hybrid custom and deemed program utilizing EnergyPro Lite (EPL) to model custom project energy savings and deemed values when

applicable. The BayREN Business program is a P4P program utilizing CalTRACK 2.0 protocols for population-based NMEC to calculate savings based on metered data.

Both Residential Sector programs reported fuel substitution savings as reported by the CPUC-approved Cost Effectiveness Tool (CET). BayREN Business did not report fuel substitution savings.

Table 1: Electricity and Natural Gas Savings and Demand Reduction (Net)¹⁵

Program	Annual Energy Savings - kWh	Lifecycle Energy Savings - kWh	Peak Demand Savings - kW	Annual Natural Gas Savings - Therms	Lifecycle Natural Gas Savings - Therms
Home+	-1,016,891.26	-12,653,164.59	171.00	152,018.87	2,524,811.87
Climate Careers	40,843.68	303,324.15	5.90	9,123.85	67,476.06
BAMBE	-611,568.05	-6,572,871.81	11.01	107,705.43	1,152,878.82
BayREN Business	2,101,829.37	25,221,952.48	283.97	0	0
Total Portfolio Savings	514,213.75	6,299,240.23	471.88	268,848.15	3,745,166.76

Table 2: Net Energy Savings and Adopted Goals (Portfolio, Non-Codes & Standards)

Savings Metric	GWh	MW	Millions of Therms
2024 Total Installed Portfolio Savings	0.5	0.47	0.269
2024 Budget Filing Forecast	1.5	0.44	0.217
Percentage of Forecast	33%	107%	124%

¹⁵ Negative kWh savings can be explained by fuel substitution changes made through residential sector programs.

Savings by End-Use

Table 3: 2024 Annual Net Savings by End-Use

End-Use Category	kWh	Percentage of Total kWh	Therms	Percentage of Total Therms
Appliance or Plug Load	-145,205.336	-28%	9,117.51	3%
Building Envelope	68,737.98081	13%	30,180.11	11%
HVAC	-574,527.2862	-112%	93,854.67	35%
Lighting	2,101,829.373	409%	0	0%
Service and Domestic Hot Water	-936,620.9856	-182%	135,695.87	50%
Total Portfolio Savings	514,213.75	100%	268,848.15	100%

Environmental Impacts

Environmental Impacts¹⁶ are shown in Table 4, displayed in carbon dioxide (CO₂) and nitrogen oxides (NOx) emissions. These results are generated by the CET. The CET is designed to calculate energy efficiency program cost-effectiveness. Although emissions data are available through the CET, CPUC D.12-11-015 does not direct BayREN to track emissions.

Table 4: Environmental Impact (Net Metric Tons of Avoided Emissions)

Annual Results	Annual CO ₂	Lifecycle CO ₂	Annual NOx	Lifecycle NOx
Total Portfolio	1,563.38	21,230.83	1.13	15.67

¹⁶ Environmental Impacts are Net Annual and Lifecycle Tons of Avoided Emissions

Expenditures and Commitments

Note: column or row totals may not sum exactly due to rounding to the nearest integer.

Table 5: 2024 Budget and Program Expenditures

Program	Filing Program Budget	Operating Program Budget	Percent of Portfolio Budget	2024 Program Expenditures
Home+	\$8,320,642	\$8,419,661	21%	\$5,244,970
Green Labeling	\$1,648,952	\$1,838,100	5%	\$2,402,631
BAMBE	\$8,180,556	\$9,995,948	25%	\$5,490,323
BayREN Business	\$4,576,889	\$6,053,586	15%	\$3,865,991
Codes & Standards	\$1,873,713	\$2,312,996	6%	\$1,723,300
Water Upgrades Save	\$1,806,969	\$1,894,316	5%	\$1,388,236
Climate Careers	\$2,797,251	\$2,797,251	7%	2,721,462
Refrigerant Replacement	\$3,468,064	\$3,468,064	9%	\$574,952
Integrated Energy Services	\$755,358	\$755,358	2%	\$485,489
Targeted Decarbonization Services	\$703,588	\$703,588	2%	\$412,533
PA EM&V	\$420,670	\$420,670	1%	\$343,648
Portfolio Support (combined)	\$1,929,709	\$1,929,708	5%	\$1,681,370
Portfolio Total ¹⁷	\$36,482,361	\$40,589,246	100%	\$26,334,907

¹⁷ Does not include IDSM sub-programs, which were inactive in 2024.

Table 6: 2024 Program Expenditures by Category

Program	Administration	Marketing & Outreach	Direct Implementation Non-incentive	Incentives	Total Program Expenditures
Home+	\$240,372	\$1,096,121	\$1,387,656	\$2,520,822	\$5,244,970
Green Labeling	\$152,820	\$266,805	\$859,006	\$1,124,000	\$2,402,631
BAMBE	\$226,858	\$334,983	\$2,240,027	\$2,688,455	\$5,490,323
BayREN Business	\$185,804	\$219,524	\$1,465,860	\$1,994,803	\$3,865,991
Codes & Standards	\$166,262	\$17,298	\$1,539,740	\$0	\$1,723,300
Water Upgrades Save	\$114,010	\$343,308	\$930,919	\$0	\$1,388,236
Climate Careers	\$282,309	\$334,085	\$2,105,068	\$0	\$2,721,462
Refrigerant Replacement	\$31,674	\$72,902	\$470,376	\$0	\$574,952
Integrated Energy Services	\$71,607	\$61,823	\$352,060	\$0	\$485,489
Targeted Decarbonization Services	\$58,544	\$88,071	\$265,918	\$0	\$412,533
PA EM&V					\$343,648
Portfolio Support (combined)	\$1,681,370				
Portfolio Total ¹⁸	\$3,211,630	\$2,834,919	\$11,616,629	\$8,328,080	\$26,334,907

¹⁸ Does not include IDSM sub-programs, which were inactive in 2024.

Table 7: 2024 Committed and Unspent Uncommitted Funds

Program	Operating Program Budget	2024 Program Expenditures	2024 Committed Funds	2024 Unspent Committed Funds
Home+	\$8,419,661	\$5,244,970		\$3,174,691
Green Labeling	\$1,838,100	\$2,402,631		-\$564,531
BAMBE	\$9,995,948	\$5,490,323		\$4,505,625
BayREN Business	\$6,053,586	\$3,865,991		\$2,187,595
Codes & Standards	\$2,312,996	\$1,723,300	\$320,533	\$589,696
Water Upgrades Save	\$1,894,316	\$1,388,236		\$506,080
Climate Careers	\$2,797,251	\$2,721,426		\$75,789
Refrigerant Replacement	\$3,468,064	\$574,952	\$709,475	\$2,893,112
Integrated Energy Services	\$755,358	\$485,489		\$269,869
Targeted Decarbonization Services	\$703,588	\$412,533		\$291,055
PA EM&V	\$420,670	\$343,648		\$77,022
Portfolio Support (combined)	\$1,929,708			\$248,338
Portfolio Total ¹⁹	\$40,589,246	\$26,334,907	\$1,030,028	\$14,254,340

¹⁹ Does not include IDSM sub-programs, which were inactive in 2024.

Metrics



Value Metrics

In D.19-12-021, the CPUC requested that RENS demonstrate the value they provide. Specifically, on pages 30-31, the Decision states that “Existing or prospective RENS will be required to show how their program offerings supplement those of overlapping REN, utility and CCA program administrators or implementers. [...] The RENS shall also propose savings goals and metrics associated with their unique value, as well as a methodology for measuring progress toward their metrics, in their business plans and ABALs.” BayREN first proposed value metrics in its 2021 Annual Budget Advice Letter (ABAL) and as the programs have evolved, so have these metrics. In 2024, BayREN continues to align the value metrics with the reporting requirements of D.18-05-041 and are provided in the Annual Report Microsoft Excel file (Appendix C).

These metrics provide a framework for quantifying BayREN’s impact beyond energy savings, highlighting contributions across economic, environmental and community dimensions – all in support of Better Buildings and a Brighter Tomorrow.

D.18-05-041 Metrics

BayREN’s 2024 D.18-05-041 Metrics (known as Common Metrics) are provided in the Annual Report Microsoft Excel file (Appendix C). BayREN provides values for relevant metrics (e.g., BayREN has no industrial programs so there are no values for any industrial metrics) and approaches specific to a metric or indicator.

Appendices



Appendix A: BayREN Programs for 2024

CEDARS ID	Program Name	Date Added	Date Removed
BAY_CS_PortfolioSupport	PORTFOLIO ADMIN-CODES & STANDARDS	10/9/2023	
BAY_Equity_PortfolioSupport	PORTFOLIO ADMIN-EQUITY	10/9/2023	
BAY_MS_PortfolioSupport	PORTFOLIO ADMIN-MARKET SUPPORT	10/9/2023	
BAY_RA_PortfolioSupport	PORTFOLIO ADMIN-RESOURCE ACQUISITION	10/9/2023	
BayREN02	Multifamily Building Enhancements Program	1/1/2013	
BayREN03	Codes and Standards Program	1/1/2013	
BayREN04	Water Upgrades Save	1/1/2013	
BayREN05-A	Evaluation, Measurement & Verification (EM&V)	1/1/2017	
BayREN06	SMB Commercial Program	1/1/2019	
BayREN07	Green Labeling Program	1/1/2019	
BayREN08	Single Family Home+ Program	1/1/2019	
BayREN09	Climate Careers	3/1/2022	
BayREN10	Refrigerant Replacement	2/23/2022	
BayREN11	Integrated Energy Services	2/23/2022	
BayREN12	Targeted Decarbonization Services	2/23/2022	
BayREN01	Single Family Home Upgrade	1/1/2013	12/31/2018
BayREN04-1	Multifamily Capital Advance	1/1/2013	12/31/2018
BayREN04-2	Commercial PACE	1/1/2013	12/31/2018

Appendix B: BayREN’s Integration of Additional Underserved Communities and Groups

Decision 23-06-055 allows Program Administrators (PAs) to propose the inclusion of additional underserved groups. Beginning in 2025—unless the CPUC explicitly indicates otherwise before July 2025—BayREN plans to incorporate the following groups into its definition of “underserved” within BayREN programs:

- Single-family moderate-income households
- Buildings located within MTC’s Equity Priority Communities²⁰
- Underserved multifamily buildings, as defined below
- Vulnerable populations served by Climate Careers, including youth, seniors, low-to-moderate income households, and renters in targeted underserved areas

- Ownership structures such as Homeowners Associations (HOAs) or co-ops located in Disadvantaged Communities (DAC)

Since then, the program has shifted to using the term underserved and refined its focus to include:

- Buildings with fewer than 50 units
- Properties owned by a Community Land Trust or limited equity housing cooperatives, which typically ensure long-term affordability
- Continued inclusion of deed-restricted or naturally occurring affordable housing

Underserved Multifamily Buildings

In 2024, the BayREN Multifamily program refined its target audience to focus specifically on underserved communities. Previously, the program catered to underresourced communities within Local Difficult to Serve (LDTs) areas—defined as areas underserved by Bay Area local governments.

As of 2020, the LDTs definition for the Multifamily program included buildings with:

- Fewer than 100 units
- Deed-restricted or naturally occurring affordable housing (as defined by LIWP, demonstrating low-income eligibility without a regulatory agreement)

²⁰ The Metropolitan Transportation Commission’s (MTC) Equity Priority Communities are part of MTC’s Plan Bay Area 2050 Initiative. MTC Equity Priority Communities identify which Bay Area communities are or have historically been underserved so that MTC can direct funding toward projects that enable more equitable access to transportation, housing and services. More information about MTC Equity Priority Communities can be found on the [MTC EPC page](#).

Appendix C: CEDARS Annual Report

BayREN's 2024 CEDARS Annual Report and associated Excel file is available publicly online via:

- [CEDARS](#)
- [BayREN](#)