

DOCKETED

Docket Number:	22-DECARB-03
Project Title:	Equitable Building Decarbonization Program
TN #:	249992
Document Title:	Equitable Building Decarbonization Direct Install Program Draft Guidelines
Description:	Draft Guidelines for the Equitable Building Decarbonization Direct Install Program
Filer:	Diana Maneta
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	5/4/2023 7:53:20 AM
Docketed Date:	5/4/2023



**CALIFORNIA
ENERGY COMMISSION**



California Energy Commission

PROGRAM GUIDELINES

Equitable Building Decarbonization Direct Install Program: Draft Guidelines

Gavin Newsom, Governor
April 2023 | CEC-400-2023-003-D

California Energy Commission

David Hochschild
Chair

Siva Gunda
Vice Chair

Commissioners

J. Andrew McAllister, Ph.D.
Patty Monahan
Noemí Otilia Osuna Gallardo, J.D.

Diana Maneta
Primary Author

Jennifer Nelson
Project Manager

Jennifer Nelson
Branch Manager
EXISTING BUILDING BRANCH

Michael J. Sokol
Director
EFFICIENCY DIVISION

Deana Carrillo
Director
**RELIABILITY, RENEWABLE ENERGY, AND DECARBONIZATION
INITIATIVES DIVISION**

Drew Bohan
Executive Director

DISCLAIMER

Staff members of the California Energy Commission (CEC) prepared this draft report. As such, it does not necessarily represent the views of the CEC, its employees, or the State of California. The information contained in the draft is not the official policy of the CEC. The CEC makes no claims, promises or guarantees about the accuracy, completeness, or adequacy of its contents and expressly disclaims legal liability for the contents in this report. This draft is not intended to be construed as legal advice, nor does any party represent that the uses of this information will not infringe upon privately owned rights.

ABSTRACT

These draft guidelines for the Equitable Building Decarbonization Direct Install Program propose the initial rules and requirements for the program, including funding allocations, household and property eligibility requirements, and eligible measures. Assembly Bill 209 (Committee on Budget, Chapter 251, Statutes of 2022) directed the California Energy Commission to develop the Equitable Building Decarbonization Program. The program will include a direct install program for low- and moderate-income households, which is a type of program that provides and installs energy efficient electric appliances, energy efficiency measures, and related upgrades directly to consumers at minimal or no cost. The Equitable Building Decarbonization Program will also include a statewide incentive program to accelerate deployment of low-carbon building technologies. The primary goals of the program are to reduce greenhouse gas emissions and advance energy equity. The direct install program, which is the focus of these guidelines, will include a statewide direct install program and a tribal direct install program. The statewide direct install program will be administered separately in Northern, Central, and Southern California by competitively selected program administrators who will partner with community-based organizations for culturally appropriate outreach, education, and support for participating households and communities.

Keywords: Equitable Building Decarbonization Program, decarbonization, buildings, equity, underresourced community, direct install, low-income, moderate-income, energy efficiency, electrification

Please use the following citation for this report:

Maneta, Diana. 2023. *Equitable Building Decarbonization Direct Install Program: Draft Guidelines*. California Energy Commission. Publication Number: CEC-400-2023-003-D.

TABLE OF CONTENTS

	Page
Abstract	i
Table of Contents.....	ii
List of Figures.....	iii
List of Tables.....	iii
CHAPTER 1: Program Overview	1
A. Background	1
B. Program Goals.....	2
C. Program Components.....	2
D. Budget.....	3
CHAPTER 2: Statewide Direct Install Program.....	5
A. Regional Funding Allocation.....	5
B. Selection of Administrators	7
C. Community Eligibility.....	7
D. Initial Community Focus Areas.....	8
E. Household/Property Eligibility	9
F. Household/Property Targeting	11
G. Outreach and Engagement.....	11
H. Set-Aside for Manufactured Homes	11
I. Eligible Measures	12
J. Pricing and Cost Caps.....	16
CHAPTER 3: Tribal Direct Install Program	17
CHAPTER 4: Administration	18
A. Program Coordination and Incentive Layering.....	18
B. Metrics and Data Collection	18
C. Tenant Protection	21
D. Workforce Standards and Requirements.....	22
E. Guidelines Authority.....	23
F. Effective Date of Guidelines.....	23
G. Interpretation	23
H. Changes to Guidelines.....	23
I. California Environmental Quality Act.....	24
Glossary	25

LIST OF FIGURES

Figure 1: Map of Northern, Central, and Southern California Regions6

LIST OF TABLES

Table 1: Equitable Building Decarbonization Program Budget.....3
Table 2: Equitable Building Decarbonization Program Budget Breakdown4
Table 3: Regional Funding Allocation.....6
Table 4: Eligible Measures12
Table 5: Electrical and Remediation Cost Caps.....16
Table 6: Primary Goals and Metrics19
Table 7: Secondary Goals and Metrics20

CHAPTER 1:

Program Overview

A. Background

The State of California is committed to a just and equitable transition to carbon neutrality by 2045.¹ Residential and commercial buildings account for about 25 percent of California’s greenhouse gas emissions,² so the decarbonization of buildings is essential to achieving the state’s carbon neutrality goal. Building decarbonization must prioritize low-income, disadvantaged, and tribal communities, who bear the highest energy burden and have suffered the most from historical environmental injustices, economic disparities, and the current climate crisis.³ The participation of all California communities will be needed for the state to achieve its climate and energy goals.

The California Energy Commission (CEC) advances building decarbonization through numerous programs, including building energy efficiency standards, energy and water efficiency appliance standards, flexible demand appliance standards, and load management standards; advancing innovation and research that supports building decarbonization; implementing incentive programs; and developing data-informed policy recommendations. Based on the results of the *California Building Decarbonization Assessment*, the *2021 Integrated Energy Policy Report* recommended the state adopt a goal of 6 million heat pump installations by 2030 and direct funding toward building decarbonization retrofits in low-income and disadvantaged communities.⁴ The goal of 6 million heat pumps by 2030 was endorsed by Governor Gavin Newsom in July 2022.⁵

In September 2022, Governor Newsom signed Assembly Bill 209 (Committee on Budget, Chapter 251, Statutes of 2022), which directs the CEC to develop and implement an Equitable

1 [Executive Order B-55-18 To Achieve Carbon Neutrality](https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf), signed by Governor Edmund G. Brown Jr. on September 10, 2018, <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>.

2 Kenney, Michael, Nicholas Janusch, Ingrid Neumann, and Mike Jaske. 2021. [California Building Decarbonization Assessment](https://www.energy.ca.gov/data-reports/reports/building-decarbonization-assessment). California Energy Commission. Publication Number: CEC-400-2021-006-CMF, <https://www.energy.ca.gov/data-reports/reports/building-decarbonization-assessment>.

3 Bailey, Stephanie, Jane Berner, David Erne, Noemí Gallardo, Quentin Gee, Akriti Gupta, Heidi Javanbakht, Hilary Poore, John Reid, and Kristen Widdifield. 2023. [Final 2022 Integrated Energy Policy Report Update](https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update). California Energy Commission. Publication Number: CEC-100-2022-01-CMF, <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2022-integrated-energy-policy-report-update>.

4 Kenney, Michael, Jacob Wahlgren, Kristina Duloglo, Tiffany Mateo, Danuta Drozdowicz, and Stephanie Bailey. 2022. [Final 2021 Integrated Energy Policy Report, Volume I: Building Decarbonization](https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report). California Energy Commission. Publication Number: CEC-100-2021-001-V1, <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>.

5 Letter from Governor Newsom to Chair Liane Randolph, California Air Resources Board. July 22, 2022, <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf>.

Building Decarbonization Program that will install retrofit measures in single-family and multifamily homes. The program will include two components: a direct install program focused on low-income and moderate-income households and a statewide incentive program to accelerate deployment of low-carbon building technologies.

In December 2022, the CEC released a Request for Information and held a public workshop to solicit input on key topics related to the design of the Equitable Building Decarbonization Program. These draft guidelines were informed by public comments received at the workshop and in writing.

These guidelines address the direct install program. Separate guidelines will be developed through a public process for the statewide incentive program.

B. Program Goals

The primary goals of the Equitable Building Decarbonization Program are to reduce greenhouse gas emissions from existing buildings and advance energy equity.

The Equitable Building Decarbonization Program will also encourage resiliency to extreme heat, indoor air-quality improvements, energy affordability, grid reliability, and local workforce opportunities. In addition, the program will advance the state's goals of 6 million heat pump installations by 2030, 3 million climate-ready and climate-friendly homes by 2030, and 7 million climate-ready and climate-friendly homes by 2035.⁶

The CEC is required to report progress toward these goals annually to the Legislature.⁷ See Chapter 4 for information about metrics that will be used to track progress.

C. Program Components

The Equitable Building Decarbonization Program may include the following components.

- **Statewide Direct Install Program:** The Statewide Direct Install Program will provide building decarbonization upgrades for low-income and moderate-income households in single-family, multifamily, and manufactured homes in underresourced communities. The program will be administered separately in Northern, Central, and Southern California (Chapter 2).
- **Tribal Direct Install Program:** Recognizing the unique needs of tribes and tribal communities and consistent with Assembly Bill 209, the CEC has set aside funding for a separately administered component of the direct install program to serve residential buildings owned or managed by California Native American tribes and California tribal organizations and buildings owned by members of California Native American tribes.

⁶ These goals were established in a [letter](https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf) from Governor Newsom to Chair Liane Randolph, California Air Resources Board. July 22, 2022, <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf>.

⁷ Public Resources Code Section 25660.2.

Program details will be developed through consultation and engagement with tribes and included in a future update to these guidelines (Chapter 3).

- **Support for Existing Programs:** To begin achieving program goals in the more immediate future while other components are under development, the CEC is evaluating directing a portion of initial funding to bolster existing state programs that provide building decarbonization upgrades for low-income California households.
- **Statewide Incentive Program:** The Statewide Incentive Program will provide incentives for low-carbon building technologies and may be implemented in concert with new federal incentive funds authorized by the Inflation Reduction Act. Separate guidelines will be developed for this program through a public process.

D. Budget

California has allocated up to \$922 million to the Equitable Building Decarbonization Program from Fiscal Years 2022–23 through 2025–26 (Table 1).⁸

Table 1: Equitable Building Decarbonization Program Budget

2022–23	2023–24	2024–25	2025–26	Total
\$112 million	\$665 million	\$53 million	\$92 million	\$922 million

Source: 2022-23 California State Budget Addendum

The expected budget breakdown among Equitable Building Decarbonization Program activities is shown in Table 2. This breakdown does not include program administration (including third-party administrators, CEC administration, and technical assistance), which will not exceed 15 percent of total funds as authorized by Assembly Bill 209.

The proposed budget breakdown is subject to change based on the amount of funding authorized by the state over the lifetime of the program.

⁸ The program budget shown here is consistent with the 2022-23 California State Budget passed by the Legislature and signed by the Governor in 2022. The program budget may change if modified by the Governor and Legislature in future years.

Table 2: Equitable Building Decarbonization Program Budget Breakdown

Program Investments	Estimated Funding over Program Lifetime
Statewide Direct Install Program, including 5% set-aside for manufactured housing	\$643,700,000
Tribal Direct Install Program	\$30,000,000
Support for Existing Programs	\$30,000,000
Statewide Incentive Program	\$80,000,000
Total	\$783,700,000

Source: CEC staff

CHAPTER 2:

Statewide Direct Install Program

Three administrators will be competitively selected to implement the Statewide Direct Install Program in Northern, Central, and Southern California. Because program funds are insufficient to decarbonize all underresourced communities in the state, the program will initially focus on a subset of underresourced communities, as described in this chapter.

A. Regional Funding Allocation

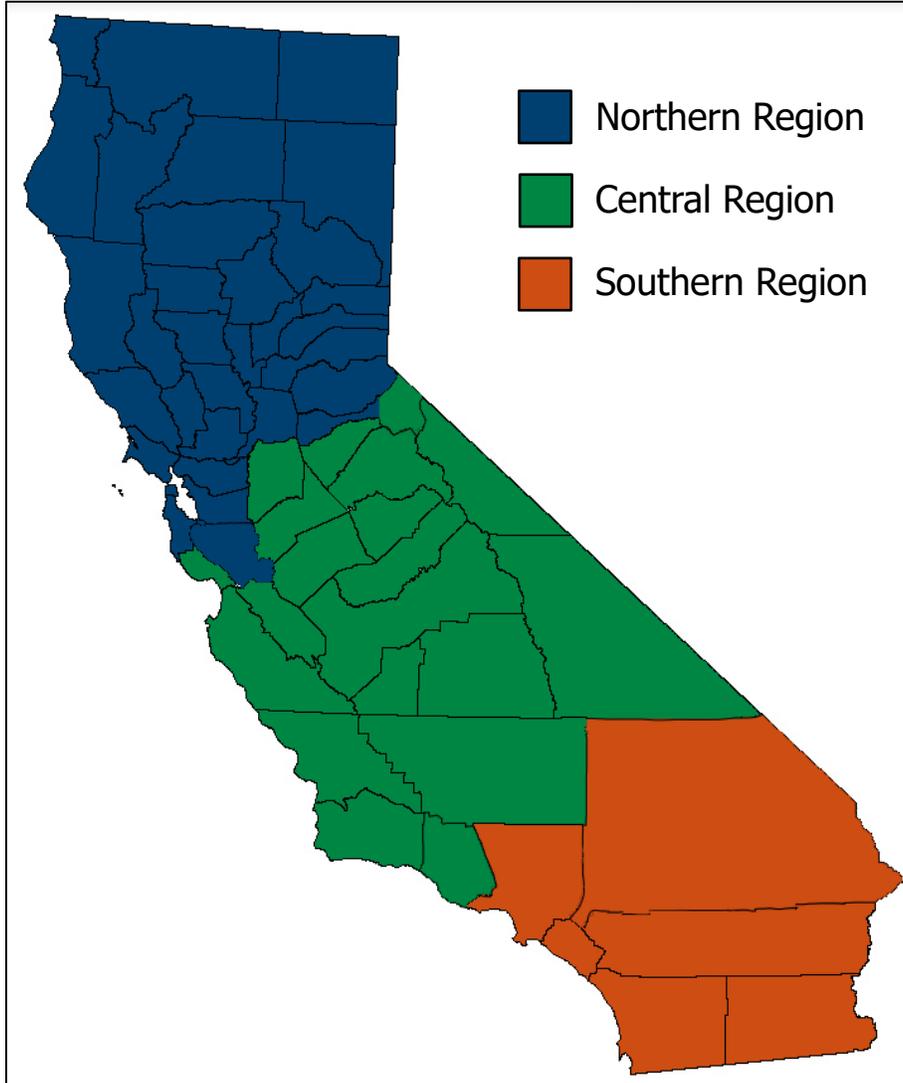
The program will be administered separately in Northern, Central, and Southern California to better ensure a broad distribution of funds. Counties included in each region are listed below and shown in Figure 1.

Northern Region: Alameda, Amador, Butte, Colusa, Contra Costa, Del Norte, El Dorado, Glenn, Humboldt, Lake, Lassen, Marin, Mendocino, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Francisco, San Mateo, Santa Clara, Shasta, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Yolo, Yuba

Central Region: Alpine, Calaveras, Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, Monterey, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Santa Cruz, Stanislaus, Tulare, Tuolumne, Ventura

Southern Region: Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego

Figure 1: Map of Northern, Central, and Southern California Regions



Source: CEC staff

Funding allocations for the three regions are shown in Table 3. Allocations are based on the relative population of underresourced communities in each region. See Section C for the definition of an underresourced community for the purpose of this program.

Table 3: Regional Funding Allocation

Region	Population of Underresourced Communities	Percentage of Statewide Direct Install Program Funds
Northern Region	5.3 million	23%
Central Region	4.3 million	19%
Southern Region	13.6 million	58%

Source: CEC staff

B. Selection of Administrators

The CEC will release a competitive solicitation to select administrators for the three regions. Administrator selection criteria will be outlined in the competitive solicitation request for proposals, which will be developed through a public process.

Applicant teams will be required to include one or more community-based organizations (CBOs) for culturally appropriate outreach, education, and support for participating households and communities.⁹ Proposals may be led by CBOs or include CBOs as subcontractors or both. For this program, CBOs include nonprofit organizations, tribal, or governmental entities that have demonstrated effectiveness representing underresourced or tribal communities and providing support and services to individuals in those communities.

C. Community Eligibility

All households served by the program must be in an underresourced community, as defined in statute.¹⁰ For this program, an underresourced community is defined as a community located in one or more of the following geographic areas:

- Disadvantaged Communities designated by the California Environmental Protection Agency for purposes of Senate Bill 535 (De León, Chapter 830, Statutes of 2012)¹¹ (required for at least 50 percent of households served in each of the Northern, Central, and Southern regions)
- Census tracts with median household incomes at or below 80 percent of the statewide median income
- Census tracts with median household incomes at or below the threshold designated as low-income by the California Department of Housing and Community Development¹²

These three geographic areas are shown on the California Air Resources Board's [Climate Investments Priority Populations Map](https://webmaps.arb.ca.gov/PriorityPopulations/) at <https://webmaps.arb.ca.gov/PriorityPopulations/>.¹³

9 Public Resources Code Section 25665.3 states: "In selecting third-party implementers, the commission shall prioritize applications from entities that include at least one community-based organization in order to ensure for the provision of culturally-appropriate outreach, education, and support to households participating in the direct install program, and from entities that employ workers from local communities." Priority for local workers is addressed in the Workforce section in Chapter 4.

10 Public Resources Code Section 25665 states that an underresourced community is "defined by Public Resources Section 71130," which "means a community identified pursuant to Section 39711 of the Health and Safety Code, subdivision (d) of Section 39713 of the Health and Safety Code, or subdivision (g) of Section 75005."

11 The SB 535 Disadvantaged Communities Map developed pursuant to Health and Safety Code Section 39711 is available at <https://oehha.ca.gov/calenviroscreen/sb535>.

12 Low-income thresholds by county and household size are established annually by the California Department of Housing and Community Development and posted at <https://www.hcd.ca.gov/grants-and-funding/income-limits>.

13 Areas shaded purple, orange, or blue on the map are underresourced communities as defined in this section.

D. Initial Community Focus Areas

The competitive solicitation request for proposals will require administrators to recommend specific underresourced communities to be served in the initial phase of the program, pursuant to requirements and scoring criteria established by the CEC.

Administrators should strive for diversity among initial focus areas. In this context, “diversity” includes geographic diversity, inclusion of urban and rural communities, inclusion of communities with different types of housing stock (prevalence of single-family, multifamily, and manufactured homes), communities in several climate zones,¹⁴ and diversity in other equity-related characteristics.

Program administrators should also consider the following criteria when recommending initial focus areas. Not all initial focus areas are expected to meet all criteria.

- The presence of a local organization with which the program can partner for culturally appropriate outreach and engagement with community residents. As described in Section B, administrators are required to partner with one or more CBOs.
- Communities in which households are most likely to experience bill savings as a result of decarbonization, based on climate zone, utility rates, and other factors.
- Communities vulnerable to extreme heat, high fire risk, or other climate risks.
- Communities underserved by existing programs that fund building decarbonization, weatherization, and related measures.

In recommending initial focus areas, administrators may also consider areas that have been identified as strong candidates for gas decommissioning, such as through the CEC-funded Tactical Gas Decommissioning Project.¹⁵

Within initial focus areas, the program will target households/properties most likely to benefit from decarbonization retrofits, as described in Section F.

The CEC will work with administrators to expand the program to additional focus areas in subsequent phases. This will include an opportunity for communities not identified as initial focus areas to be considered for inclusion.

¹⁴ California is divided into 16 climate zones for the purpose of the California Energy Code. Details are available at <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/climate-zone-tool-maps-and>.

¹⁵ For details about the Tactical Gas Decommissioning Project, see Gridworks’ [Tactical Gas Decommissioning Project Overview](https://gridworks.org/2022/06/tactical-gas-decommissioning-project-overview/) at <https://gridworks.org/2022/06/tactical-gas-decommissioning-project-overview/>.

E. Household/Property Eligibility

Households and properties must meet the following criteria to be eligible for funding through the program.

1. Eligible Building Types

The program is limited to residential buildings constructed prior to 2020. New construction is not eligible. A building may not participate in the Equitable Building Decarbonization Direct Install Program more than once. Eligible building types include:

- Single-family homes.
- Multifamily residential buildings of two or more units.
- Residential buildings such as assisted living facilities, transitional housing, and group homes. This does not include nonresidential buildings used as emergency makeshift shelters.
- Mixed-use buildings that include residential units. Only the residential portion, including common areas, is eligible for the program.
- Manufactured homes, mobile homes, and multifamily manufactured homes, as defined in Health and Safety Code Section 18007 et seq.

Eligible buildings may be either owner-occupied or rented.

2. Eligible Fuel Types

To be eligible, a building must use natural gas, propane, or another fossil fuel as the primary fuel for space heating or water heating.

3. Income Eligibility for Single-Family Homes

To be eligible, single-family homes must be occupied by low-income or moderate-income households,¹⁶ as defined below. In the case of rented properties, the income requirement applies to the building occupant, not the building owner.

- Low-income: households earning up to 80 percent of the local area median income (AMI)
- Moderate-income: households earning 80 percent to 120 percent of AMI

Low-income and moderate-income thresholds by county and household size are available from the [California Department of Housing and Community Development](https://www.hcd.ca.gov/grants-and-funding/income-limits/state-and-federal-income-rent-and-loan-value-limits) at <https://www.hcd.ca.gov/grants-and-funding/income-limits/state-and-federal-income-rent-and-loan-value-limits>.

¹⁶ Under Public Resources Code Section 25665, “[L]ow-to-moderate income’ has the same meaning as ‘persons and families of low or moderate income’ as defined in Section 50093 of the Health and Safety Code.”

Income eligibility may be demonstrated through a variety of methods, including but not limited to one of the following:

- Federal tax returns for all household members over the age of 18
- Recent pay stubs for all working household members
- Proof of enrollment in an income-qualified program that requires an income less than or equal to the income threshold for this program. Such programs include but are not limited to:
 - California Alternative Rates for Energy (CARE)
 - Family Electric Rate Assistance Program (FERA)
 - Low Income Home Energy Assistance Program (LIHEAP)
 - Low-Income Weatherization Program (LIWP)
 - Disadvantaged Communities — Single-Family Solar Homes Program (DAC-SASH)
 - Women, Infants, and Children (WIC)
 - CalFresh/Supplemental Nutritional Assistance Program (SNAP)
 - CalWORKs/Temporary Assistance for Needy Families (TANF)/Tribal TANF
 - Supplemental Security Income (SSI)
 - Medicaid/Medi-Cal

4. Income Eligibility for Multifamily Buildings

A multifamily building is eligible for the program if at least 66 percent of households earn less than or equal to 80 percent of AMI, or if rent for at least 66 percent of units is affordable to such households. If a multifamily building is eligible, then all units in the building, as well as common areas, may receive upgrades.

Multifamily income eligibility may be demonstrated through a variety of methods, which may include:

- Documentation of a rent regulatory agreement with federal, state, or local agencies identifying that at least 66 percent of households earn less than or equal to 80 percent of AMI.
- Pay stubs or annual tax returns showing that at least 66 percent of households earn less than or equal to 80 percent of AMI.
- Documentation showing that at least 66 percent of households are enrolled in income-qualified programs that are available primarily to those with income levels less than or equal to 80 percent of AMI, such as those listed in Section 3 above.
- Documentation showing that rent for at least 66 percent of units is affordable to households with income equal to 80 percent of AMI, where affordability is defined as rent plus utilities that does not exceed 30 percent of household income.

F. Household/Property Targeting

The CEC is exploring engaging a technical support contractor to develop a programwide analytical tool based on household-level energy utility interval meter data and other factors. Program administrators will use this tool or similar analytical resources to target specific households and properties that are most likely to benefit from the program according to the criteria listed below. Targeted households will be a subset of eligible households within the communities served by the program and will receive targeted outreach (Section G).

Targeting criteria may include, but are not limited to, the following. Criteria will depend in part on data availability.

- Likelihood of favorable bill impacts from decarbonization, based on such factors as primary space and water heating fuel type, energy utility meter data, electricity and gas rates, local propane rates (if available), climate zone, building age, age of existing appliances, and benchmarking program data
- Higher vulnerability to extreme heat (for example, homes in hot regions that lack cooling)
- Higher potential for avoided greenhouse gas emissions
- Proximity to other targeted low-income or moderate-income households, for economies of scale in outreach, implementation, and direct install retrofit

The targeting tool will also be used to help identify the eligible measure(s) most appropriate for each targeted household and associated projected bill impacts. See Section I for more information about eligible measures.

Households need not be targeted to participate in the program. Income-eligible households that are within a community served by the program and not targeted may express interest and be evaluated for inclusion by the program administrator.

G. Outreach and Engagement

Program administrators will be required to partner with CBOs to develop outreach materials and conduct culturally appropriate outreach in participating communities. Outreach will include direct outreach to owners and occupants of targeted households (Section F) as well as communitywide outreach.

H. Set-Aside for Manufactured Homes

Manufactured homes and mobile homes face unique challenges to decarbonization, including low electrical capacity, limited space availability for decarbonization measures, and higher remediation needs. In addition, retrofits of manufactured homes must comply with the National Manufactured Home Construction and Safety Standards rather than state and local building codes.

To address these challenges, administrators of the Statewide Direct Install Program will be required to propose an intentional approach to serve manufactured homes and mobile homes, and direct at least 5 percent of their budgets to these housing types.

I. Eligible Measures

1. Required Measures

All building retrofits conducted by the program will, at a minimum, include the following elements.

- a) Replace existing gas-fired heating equipment with a heat pump for space heating and cooling, or replace an existing gas-fired water heater with a heat pump water heater.
- b) At the conclusion of the retrofit, at least two of the following four end uses in the building must be electric: space heating, water heating, cooking, and clothes drying. Full building electrification is encouraged but not required.

2. Eligible Measures

Table 4 lists all measures that are eligible for funding through the program. All work funded by the program must comply with applicable standards and obtain required permits.

Table 4: Eligible Measures

Category	Measure	Details
Heating and Cooling	Heat pump for space heating and cooling	Only eligible as a replacement for gas-fired heating equipment Must meet the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency (CEE) ¹⁷
Heating and Cooling	Duct testing/sealing	Required in conjunction with installation of a heat pump for space heating and cooling, if applicable
Heating and Cooling	Occupant controlled smart thermostat	Required in buildings with central heating/cooling system, if not already present Must be certified compliant with Joint Appendix 5 (JA5) of the California Energy Code
Heating and Cooling	Ceiling fan or whole-house fan	Ceiling fans must be ENERGY STAR-certified

¹⁷ Residential products meeting CEE's Highest Tier (not Advanced Tier) are listed at <https://www.ahrinet.org/certification/cee-directory>.

Category	Measure	Details
Building Envelope	Air sealing	
Building Envelope	Insulation	
Water Heating	Heat pump water heater (unitary)	<p>Only eligible as a replacement for a gas-fired water heater</p> <p>Northwest Energy Efficiency Alliance (NEEA) Advanced Water Heater Specification Tier 3 or higher</p> <p>Certified compliant with Joint Appendix 13 (JA13) of the California Energy Code</p> <p>Must meet the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency (CEE)¹⁸</p> <p>Includes cost of a thermostatic mixing valve and ducting where necessary.</p>
Water Heating	Heat pump water heater (central)	<p>Only eligible as a replacement for gas-fired water heating system</p> <p>Must appear on CEC's Central Heat Pump Water Heater Performance Map Certification List,¹⁹ or use carbon dioxide (CO₂) as a refrigerant</p>
Water Heating	Low-flow showerheads and faucets	<p>Showerheads required in conjunction with heat pump water heater installation, if not already present</p> <p>Must be WaterSense certified and comply with California Title 20 standard for water efficiency</p>

¹⁸ Residential products meeting CEE's Highest Tier (not Advanced Tier) are listed at <https://www.ahrinet.org/certification/cee-directory>.

¹⁹ [CEC Central Heat Pump Water Heater Performance Map Certification List](https://www.energy.ca.gov/rules-and-regulations/building-energy-efficiency/manufacture-certification-building-equipment-8) is available at <https://www.energy.ca.gov/rules-and-regulations/building-energy-efficiency/manufacture-certification-building-equipment-8>.

Category	Measure	Details
Cooking	Induction range or cooktop	Only eligible as a replacement for a gas range or cooktop Provide gift card for purchase of compatible cookware
Laundry	Electric clothes dryer (heat pump or electric resistance)	Only eligible as a replacement for a gas clothes dryer Must be ENERGY STAR-certified
Lighting	Light-emitting diode (LED) bulbs and fixtures	Replace interior and exterior incandescent, compact fluorescent, halogen, and T12 linear fluorescent lights with LED Must be certified compliant with Joint Appendix 8 (JA8) of the California Energy Code
Indoor air quality	Air filtration	Replace existing air filter with a Minimum Efficiency Reporting Value (MERV) 13-rated filter, and associated modifications needed to comply with pressure drop requirements in 2022 California Energy Code
Electrical	Electrical wiring and panel/capacity upsizing	Upgrades and new wiring needed to enable full electrification of the building Subject to cost caps (see Table 5)
Remediation and safety	May include construction needed to create physical space for decarbonization measures, repair of roof or envelope leaks/damage, remediation of galvanized pipe, lead paint, asbestos, and/or mold, installation of smoke and carbon monoxide alarms, and other work needed to bring property up to code.	Subject to cost caps (see Table 5)

Source: CEC staff

3. Ineligible Measures

The following measures are not eligible for funding through this program. However, administrators are encouraged to coordinate with complementary programs that offer these measures.

- Solar photovoltaic systems
- Battery storage not directly integrated into one of the four key appliances identified in Section 1 above.
- Window replacement (other than for remediation/safety)

The following measures are not eligible for funding through this program.

- Any new system or equipment that uses natural gas, propane, or any other fossil fuel.
- Installation of electric resistance heating to serve as the primary heat source for a home.

4. Packages of Measures

Program administrators will be responsible for developing a set of packages of eligible measures to be applied to participating buildings. Packages should be designed to achieve bill savings and greenhouse gas emission reductions in participating households while improving indoor air quality, resiliency, and grid reliability, where possible. The intent of packages is to simplify and streamline the program for participants and contractors with highly replicable activity, and avoid the need for a custom solution to be developed for each building. Packages should consider variations in appropriate measures based on property attributes such as building type and characteristics (including packages appropriate for manufactured homes), age and condition of existing appliances, climate zone, utility service territory, and site conditions.

Program participants should be provided with choices among packages for which they are eligible whenever possible. Administrators and contractors shall maintain flexibility to modify packages on a case-by-case basis as required to meet the needs and preferences of participating households.

5. Equipment Removal

Replaced equipment must be removed from the site and properly recycled or disposed of in accordance with federal, state, and local regulations. Removal and disposal of appliances containing refrigerant with global warming potential (GWP) greater than 150 must follow appropriate refrigerant recovery procedures to avoid release of refrigerant to the environment (California Code of Regulations Section 95390).

6. Eligible Costs

In addition to the costs of eligible measures listed above, Equitable Building Decarbonization Program funds may be used to cover associated costs including installation labor, permitting, Home Energy Rating System (HERS) field verification and diagnostic testing, equipment removal and recycling/disposal, and engineering design services for multifamily buildings.

J. Pricing and Cost Caps

Administrators will be required to implement mechanisms to control costs, such as cost analysis, competitive bidding, and standard pricing for eligible measures. The program will cover 100 percent of the net cost of eligible measures for participating households after applying other applicable incentives, subject to the cost caps in Table 5.

The average per-home cost of remediation and safety measures, including wiring and electrical capacity upgrades, shall not exceed the caps listed in Table 5. These average cost caps apply to single-family homes, manufactured homes, and per-unit in multifamily buildings. Capping the average, rather than per-home, remediation cost will allow the program to serve homes with a range of remediation needs. Administrators will be expected to collect detailed information on actual remediation measures and costs, and cost caps may be adjusted based on this information.

Table 5: Electrical and Remediation Cost Caps

Household Income	Average Per-Home/Unit Cost Cap for Electrical and Remediation Measures
Low Income ($\leq 80\%$ AMI)	\$5,000
Moderate Income (80-120% AMI)	\$3,000

Source: CEC staff

CHAPTER 3:

Tribal Direct Install Program

Recognizing the unique needs of tribes and tribal communities, CEC has set aside funds for a separately administered component of the direct install program to serve buildings owned or managed by California Native American tribes and California tribal organizations, and buildings owned by members of California Native American tribes. Program details will be developed through consultation and engagement with tribes and will be included in a future update to these guidelines.

CHAPTER 4:

Administration

A. Program Coordination and Incentive Layering

Numerous federal, state, utility, regional, and local programs offer direct installation or incentives to advance energy efficiency, weatherization, electrification, and decarbonization in California homes. Administrators will be responsible for coordinating with other programs, where possible, to maximize the benefits of the Equitable Building Decarbonization Program.

Program coordination may include:

- Coordination with programs that provide funding for one or more measures that are also eligible through the Equitable Building Decarbonization Program, such as smoke alarms, smart thermostats, electrical panel upgrades, or heat pumps. Leveraging other funding sources will allow more homes to be reached by the Equitable Building Decarbonization Program.
- Coordination with programs that provide funding for complementary measures that are not eligible for Equitable Building Decarbonization Program funding, such as solar photovoltaic panels, electric vehicle charging, shade trees, and battery storage.

To maximize the number of California households that benefit from the Equitable Building Decarbonization Program, complementary funding sources should be applied to a project prior to Equitable Building Decarbonization Program funds whenever possible.

Program coordination should be designed to reduce greenhouse gas emissions and advance energy equity, in alignment with Equitable Building Decarbonization Program goals. In addition, program coordination should consider the following principles:

- Minimize complexity for program participants and contractors.
- Comply with legal and regulatory requirements of each funding source.
- Ensure that the total amount of funding applied to a project does not exceed the actual project cost.

B. Metrics and Data Collection

Administrators will be required to collect and report specified data from program activities, analyze data on a regular basis, and present results to CEC to help determine the need for adjustments to the program. This data will also be used to inform the CEC's annual reporting to the Legislature as required by Public Resources Code Section 25660.2.

Table 6 and Table 7 list the goals of the program, direction from the program's authorizing legislation (AB 209, Chapter 251, Statutes of 2022) that underlies the goals, and metrics that CEC anticipates will be used to track progress toward the goals. These metrics will be refined during program development and implementation and used to inform data collection

requirements. Data will be collected at the time of the project and for up to 12-24 months post-project.

Table 6: Primary Goals and Metrics

Goal	Direction From Authorizing Statute ²⁰	Possible Metrics
Reduce greenhouse gas emissions	The direct install program shall reduce the emissions of greenhouse gases	<ul style="list-style-type: none"> • Greenhouse gas emissions avoided • Cost of avoided greenhouse gas emissions
Advance energy equity	<ul style="list-style-type: none"> • Participation shall be at minimal or no cost for low-to-moderate-income residents • Encourage energy affordability where feasible • Preference for buildings located in underresourced communities • Preference for buildings owned or managed by a California Native American tribe or a California tribal organization • Preference for buildings owned by a member of a California Native American tribe • May include tenant protections for participating rental properties 	<ul style="list-style-type: none"> • Number of homes retrofitted • Number of occupants in retrofitted homes • Locations of retrofitted households (zip code, climate zone, utility service territory) • Participants opt-out rate • Participant satisfaction • Average reduction in utility bills due to program • Number of homes with increased/reduced bills • Funds directed to low-income households • Funds directed to moderate-income households • Funds directed to underresourced communities • Funds directed to Disadvantaged Communities designed by CalEPA • Funds directed to tribes, tribal organizations, and tribal members • Average duration of tenant displacement due to project • Average change in rent before/after participation • Number of landlord violations of tenant protection provisions

Source: CEC staff

²⁰ Public Resources Code Section 25665.3.

Table 7: Secondary Goals and Metrics

Goal	Direction From Authorizing Statute ²¹	Possible Metrics
Improve resiliency to extreme heat	Encourage resiliency to extreme heat where feasible	<ul style="list-style-type: none"> • Number of homes with cooling, insulation, and air-sealing upgrades • Participants’ thermal comfort before and after retrofit
Improve indoor air quality	Encourage indoor air quality improvements where feasible	<ul style="list-style-type: none"> • Number of homes with gas stove and gas wall furnace removed • Change in indoor pollutants in sample homes
Support grid reliability	Encourage grid reliability support where feasible	<ul style="list-style-type: none"> • Change in household average coincident peak load • Number of smart thermostats installed • Number of JA13-compliant heat-pump water heaters installed • Households signed up for load-flexibility programs
Support local workforce	<ul style="list-style-type: none"> • Projects shall be performed by workers paid prevailing wage where possible and when applicable • Prioritize applications from implementers that employ workers from local communities 	<ul style="list-style-type: none"> • Proportion of workers that are paid prevailing wages • Local workers employed by participating contractors • Licenses and certifications held by participating contractors and workers • Participant assessment of contractor professionalism • Participant assessment of job quality
Ensure that program funds are being spent to achieve the purposes of the program	<ul style="list-style-type: none"> • Publish annual report to the Legislature that describes expenditures, retrofit locations, estimated reductions of greenhouse gases, criteria air pollutants, and peak load, and whether program purposes are being achieved. 	<ul style="list-style-type: none"> • Expenditures by category • Expenditures by location • Completeness of data collection • Completeness of reporting of metrics • Estimated onsite reductions in greenhouse gases and criteria air pollutants • Coincident peak load impacts

21 Public Resources Code Sections 25660.2 and 25665.3.

Goal	Direction From Authorizing Statute ²¹	Possible Metrics
Support the Governor’s goal of 6 million heat pumps installed by 2030	None ²²	<ul style="list-style-type: none"> • Number and type of heat pumps installed • Propane and gas heating/cooling and water heating technologies replaced with heat pumps
Support the Governor’s goal of 3 million climate-ready and climate-friendly homes by 2030 and 7 million by 2035	None ²³	<ul style="list-style-type: none"> • Number of homes made climate-ready and climate-friendly through the program • Number of homes made all-electric through the program

Source: CEC staff

C. Tenant Protection

Administrators will be responsible for developing tenant protections, which should include the following elements. Property owners shall also be subject to all applicable state and local laws regarding tenant displacement, eviction, and rent increases.

1. Tenant Information

Administrators will be responsible for ensuring that project information is available in the predominant languages spoken in the community and is communicated clearly to both building owners and tenants. Such information should include:

- Measures to be installed.
- Expected duration of construction and construction hours.
- Whether temporary displacement is required.
- Tenant rights related to displacement, rent increases, and eviction (see below).

22 Goal established in letter from Governor Gavin Newsom to Chair Liane Randolph, California Air Resources Board. July 22, 2022, <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf>.

23 Goal established in letter from Governor Gavin Newsom to Chair Liane Randolph, California Air Resources Board. July 22, 2022, <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf>.

2. Temporary Displacement

Projects should be designed to avoid the need for temporary displacement if possible and reduce the duration of displacement if it is necessary. If displacement is needed, tenants shall have the right to return to the same unit once construction is complete.

3. Eviction

Property owner must commit in writing not to evict the tenant before, during, or after the project without just cause as defined in California Civil Code Section 1946.2. The property owner must also commit in writing that the building retrofits conducted pursuant to the Equitable Building Decarbonization Program shall not be the basis for just cause for eviction.

4. Rent Increases

Property owner must commit in writing not to increase rent as a result of improvements funded by the Equitable Building Decarbonization Program.

D. Workforce Standards and Requirements

1. Prevailing Wage

Pursuant to Public Resources Code section 25665.3(f), "Projects funded pursuant to the direct install program shall be performed by workers paid prevailing wage where possible and when applicable." Building retrofits conducted using Equitable Building Decarbonization Direct Install Program funds will likely trigger public works laws (California Labor Code Section 1720, et seq.), a requirement of which is to pay prevailing wages. Administrators will be responsible for complying with all applicable laws, which can include public works requirements. Only the California Department of Industrial Relations (DIR) and courts of competent jurisdiction may issue legally binding determinations that a project is or is not a public works project.

Administrators should assume their projects are public works, and that prevailing wage requirements apply, unless they obtain a determination to the contrary from DIR or an appropriate court. Administrators are also responsible for ensuring their subcontractors comply with applicable prevailing wage requirements. California law provides for substantial damages and financial penalties for failure to pay prevailing wages when such payment is required. Invoices submitted to the CEC for payment will require a certification of compliance with prevailing wage laws.

2. Workforce Requirements

Administrators will be expected to propose, implement, and measure results of a workforce plan with the goal of ensuring high-quality installations and creating local, good-paying jobs in the communities served. Workforce plans may include the following elements.

Contractor Preference

Administrators shall perform outreach to a diverse set of licensed contractors to participate in the program, with a focus on local contractors in participating underresourced communities. Administrators shall provide preference for local contractors and for contractors that meet

specified criteria, such as participation in a state-approved apprenticeship program, compliance with “skilled and trained workforce” standards as defined in California Public Contracts Code Section 2600, et seq., and advancement of supplier diversity.

Training

Administrators are encouraged to leverage training opportunities for contractors and workers, including hands-on training to install equipment and appliances eligible for the program, with preference for training programs that compensate contractors for participation.

Bundling

Administrators are encouraged to group projects per contractor for economies of scale and to encourage contractor participation.

3. Quality Control

Administrators will be responsible for providing a Quality Assurance Plan, ensuring the quality of contractors’ work for a minimum of 12 months, and promptly addressing any deficiencies that arise.

E. Guidelines Authority

These program guidelines are adopted under Public Resources Code Division 15, Chapter 7.6 added by Assembly Bill 209 (Committee on Budget, Chapter 251, Statutes of 2022), which directs the CEC to establish the Equitable Building Decarbonization Program. Under Public Resources Section 25665.6, the Administrative Procedure Act (Chapter 3.5 [commencing with Section 11340] of Part 1 of Division 3 of Title 2 of the Government Code) does not apply to the adoption of these guidelines.

F. Effective Date of Guidelines

The Equitable Building Decarbonization Direct Install Program guidelines will take effect only after they have been adopted by the California Energy Commission at a CEC business meeting. Once finalized, the CEC will post the adopted guidelines on the [Equitable Building Decarbonization Program webpage](https://www.energy.ca.gov/programs-and-topics/programs/equitable-building-decarbonization-program) (<https://www.energy.ca.gov/programs-and-topics/programs/equitable-building-decarbonization-program>).

G. Interpretation

Nothing in these guidelines shall be construed to abridge the powers or authority of the CEC or any CEC-designated committee as specified in Division 15 of the Public Resources Code, commencing with Section 25000, or Division 2 of Title 20 of the California Code of Regulations, commencing with Section 1001.

H. Changes to Guidelines

1. Substantive Changes

After adoption, substantive changes to the adopted program guidelines may be made with the approval of the CEC at a publicly noticed meeting. Before adopting any revisions to the

guidelines, CEC staff will provide an opportunity for public comment and host one or more staff workshops to discuss the proposed changes. Unless stated otherwise in the resolution approving substantive changes, such changes shall take effect upon adoption by the CEC.

2. Nonsubstantive Changes

If the program guidelines require nonsubstantive changes, such as reorganization of text, grammatical corrections, or other changes that do not materially affect the program, CEC staff will provide a notice of the changes to the associated CEC subscription lists, the CEC website, and the program docket.

I. California Environmental Quality Act

In general, the CEC must comply with California Environmental Quality Act (CEQA),²⁴ which requires public agencies to identify and consider potential environmental impacts of proposed projects when the CEC supports proposed projects with grants or other subsidies.²⁵ The CEC has made an initial determination that the development of these guidelines is not a project for purposes of CEQA. However, if the guidelines are a project, the CEC has made an initial finding that they are exempt from CEQA under California Code of Regulations, Title 14, Sections 15307 and 15308. These provisions exempt actions taken by a regulatory agency pursuant to state law to “assure the maintenance, restoration, or enhancement of a natural resource” and actions taken to “assure the maintenance, restoration, enhancement, or protection of the environment” where the action involves procedures for protection of the environment. The CEC has also made an initial determination that the guidelines are exempt from CEQA under the common-sense exemption, California Code of Regulations, Title 14, Section 15061(b)(3), because there is no possibility that the guidelines may have a significant effect on the environment, as defined by CEQA.

²⁴ Public Resources Code Section 21000 et seq.; see also California Code of Regulations, Title 14, Section 15000 et seq.

²⁵ Public Resources Code Section 21065(b).

GLOSSARY

Term	Definition
Area median income (AMI)	Median household income based on household size of a geographic area of the state, as annually updated by the California Department of Housing and Community Development.
California Energy Commission (CEC)	California's primary energy policy and planning agency.
Carbon neutrality	A state of net-zero greenhouse gas emissions, in which greenhouse gases emitted to the atmosphere are balanced in equal measure by greenhouse gases removed from the atmosphere.
Community-based organization (CBO)	A nonprofit organization or a tribal or governmental entity with demonstrated effectiveness representing an underresourced or tribal community and providing support and services to individuals in the community.
Decarbonization	Activities that reduce or eliminate greenhouse gas emissions, such as by replacing the use of fossil fuels (in buildings, vehicles, industry, and electric power generation) with clean and renewable technologies.
ENERGY STAR®	A program run by the U.S. Environmental Protection Agency and the U.S. Department of Energy that promotes energy efficiency by certifying and labeling energy-efficient products.
Global warming potential (GWP)	A measure of how much energy the emissions of 1 ton of a greenhouse gas will absorb over a given period of time (usually 100 years), relative to the emissions of 1 ton of carbon dioxide.
Greenhouse gas (GHG)	Gases that trap heat in the atmosphere, such as carbon dioxide (CO ₂), methane (CH ₄), and nitrous oxide (N ₂ O).
Heat pump	An appliance that uses electricity to transfer heat from a cool space to a warm space, providing an energy-efficient way to heat and cool buildings or to heat water.
Underresourced community	A community located in one of the following geographic areas: (1) communities identified in the SB 535 (Chapter 830, Statutes of 2012) Disadvantaged Communities map developed by the California Environmental Protection Agency, (2) census tracts with median household incomes at or below 80 percent of the statewide median income, and (3) census tracts with median household incomes at or below the threshold designated as low-income by the California Department of Housing and Community Development.