

Department of Community Services and Development

Low-Income Weatherization Program

Program Guidelines

FISCAL YEAR 2017-18 APPROPRIATION PROCUREMENT:

SINGLE-FAMILY ENERGY EFFICIENCY
AND SOLAR PHOTOVOLTAICS PROGRAM:
FARMWORKER HOUSING

January 22, 2019



CONTENTS

I.	Introduction	2
II.	California Climate Investments & LIWP Mandates	3
III.	Program Goals	4
a.	Goal #1: Reduce GHG Emissions.....	4
b.	Goal #2: Provide Co-Benefits.....	4
IV.	Farmworker Housing Administrator Procurement	5
a.	Eligibility for The Farmworker Housing Administrators	5
b.	Procurement Process	6
c.	Scope of Procurement.....	6
V.	Service Delivery Model	7
VI.	Service Territories	7
a.	Regions and Allocations	7
b.	Allocations to priority populations	8
VII.	Household and Property Eligibility	9
a.	Dwelling Types.....	9
b.	Farmworker Verification	9
c.	Income or Categorical Eligibility Verification.....	10
VIII.	Eligible Measures.....	11
IX.	Reporting and Record Retention	12
X.	Quantification of Outcomes	13
a.	Approach and Method for Quantifying Energy Savings and GHG Emission reductions	13
b.	Approach and Method for Quantifying Household Savings	14
c.	Approach and Method for Quantifying Project Outcomes	14
d.	Approach and Method for Quantifying Workforce Development and Other Co-Benefits	14
XI.	Monitoring and Quality Assurance	15
XII.	LIWP Future	15
	Exhibit I: Map of Building Climate Zones	16
	Exhibit II: Eligible Measures.....	17

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT

LOW-INCOME WEATHERIZATION PROGRAM (LIWP) PROGRAM GUIDELINES

Fiscal Year 2017-18 Appropriation Procurements:
Single-Family Energy Efficiency and Solar Photovoltaics Program
Farmworker Housing

I. INTRODUCTION

These Fiscal Year (FY) 2017-18 Program Guidelines for the Low-Income Weatherization Program (LIWP), part of California Climate Investments, establish the framework for a new subcomponent of LIWP's Single-Family Energy Efficiency Program and Solar Photovoltaics (PV) Program component focused solely on farmworker housing.

The Department of Community Services and Development (CSD) has been serving low-income communities for more than 50 years. A State department under the California Health and Human Services Agency, CSD has traditionally partnered with a network of private non-profit and local government organizations, dedicated to reducing poverty by helping low-income individuals and families achieve and maintain self-sufficiency, meet their home energy needs, and reduce their utility costs through energy efficiency upgrades and access to clean renewable energy.

In addition to LIWP, CSD administers the following federal programs intended to reduce poverty and improve the lives of low-income Californians:

- U.S. Department of Health & Human Services Community Services Block Grant (CSBG)
- U.S. Department of Health & Human Services Low-Income Home Energy Assistance Program (LIHEAP)
- U.S. Department of Energy Weatherization Assistance Program (DOE WAP)

For LIWP service providers who received prior funding from CSD's various FY appropriations, the following Program Guidelines apply:

- FY 2014-15 awardees offered services as outlined in the 2014-15 Single-Family Program Guidelines.
- FY 2015-16 awardees (Regional Administrators selected through a competitive procurement process to administer and implement the combined Single-Family Energy Efficiency and Solar PV Program components) offer services as outlined in the 2015-16 Single-Family Program Guidelines.

Services under LIWP's Multi-Family Energy Efficiency and Renewables Program, which also includes a focus on farmworker housing, are outlined in Multi-Family Program Guidelines. All LIWP Program Guidelines are available at:

<http://www.csd.ca.gov/Resources/ProgramGuidelines.aspx>

With program oversight and direction provided by the California Air Resources Board (CARB)¹, CSD and competitively procured Farmworker Housing Administrators will offer services to reduce greenhouse gas (GHG) emissions and provide specified co-benefits to qualifying low-income farmworker households, unless otherwise authorized or required by law.

Program Guidelines are prepared in accordance with Government Code Section 12087.5 through a public process to establish principles, guidelines, policies and procedures for the program. All program awardees must adhere to Program Guidelines as established and as amended throughout the life of the project.

II. CALIFORNIA CLIMATE INVESTMENTS & LIWP MANDATES

California Climate Investments is a statewide program that puts billions of Cap-and-Trade dollars from the Greenhouse Gas Reduction Fund (GGRF) to work reducing GHG emissions, strengthening the economy, and improving public health and the environment—particularly in disadvantaged communities. The Cap-and-Trade Program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investment projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling and much more. At least 35 percent of these investments are located within and benefiting residents of disadvantaged communities, low-income communities, and low-income households across California. For more information, visit the California Climate Investments website at: www.caclimateinvestments.ca.gov

In 2012, the Legislature passed and Governor Brown signed into law three related bills: Assembly Bill (AB) 1532 (Perez, Chapter 807); Senate Bill (SB) 535 (De Leon, Chapter 830); and SB 1018 (Budget and Fiscal Review Committee, Chapter 39). These bills established the GGRF to receive cap-and-trade auction proceeds and to provide the framework for how the auction proceeds will be administered to support programs that further the purposes of AB 32. Every three years, the California Department of Finance (DOF) submits a plan to the Legislature, identifying priority investments (California Climate Investments) that will help achieve GHG reduction goals. The Legislature appropriates monies from the GGRF in accordance with this 3-year investment plan. The plan applying to the program subcomponent outlined in these Program Guidelines is the “Cap and Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19”.

To date, \$202 million has been appropriated to CSD for the implementation of LIWP. AB 109, Chapter 249, Statutes of 2017, provided \$18 million for FY 2017-18, and Senate Bill (SB) 856 (Chapter 30, Statutes of 2018), provided \$10 million for FY 2018-19. The legislative provisions also required CSD to focus funding on low-income multifamily, solar and farmworker programs. This program subcomponent has been developed in response to this legislative mandate and the amount of available funding is approximately \$10.52 million.

SB 89, Chapter 24, Statutes of 2017, requires CSD, for any appropriation to the department for LIWP in FY 2017-18, or any fiscal year thereafter, to develop new program processes and solicitations in its contract procurement processes for single-family energy efficiency and renewable energy services, that:

¹ Agencies administering California Climate Investments and awarded funding recipients are required to follow provisions of CARB’s Funding Guidelines. 2018 Funding Guidelines are available at: <https://ww2.arb.ca.gov/resources/documents/cci-funding-guidelines-administering-agencies>

- Give weight and priority to applicants that can demonstrate that they have existing ties to the local communities they would be servicing, among the other factors considered. This applies to both regional administrators and direct service providers.
- Give preference to organizations with demonstrated performance and outcomes related to low-income energy efficiency and renewable energy services.
- Take appropriate measures to ensure that all potential applicants are aware of changes in procurement process pursuant to SB 89.

SB 89 also requires CSD to consult with community stakeholders, including, but not limited to, legislative staff, in the development, design, and goals of these procurements for at least three months prior to the release of a request for applications that would commence the procurement cycle. A Request for Information (RFI) was issued on March 27, 2018 to commence this engagement with stakeholders and to assist in identifying interested, qualified parties who could administer this program subcomponent.

III. PROGRAM GOALS

a. GOAL #1: REDUCE GHG EMISSIONS

The primary goal of LIWP's Single-Family Energy Efficiency and Solar PV Program is to reduce GHG emissions through the installation of cost-effective energy efficiency measures and solar PV for qualifying households.

b. GOAL #2: PROVIDE CO-BENEFITS

Incidental to this primary goal, LIWP's Single-Family Energy Efficiency and Solar PV Program provides co-benefits, such as reducing household energy bills, reducing air pollution and helping to achieve air quality standards, improving public health, creating jobs and job training opportunities, and stimulating the economy.

Farmworkers are one of the most vulnerable, impoverished population groups in the state because of seasonal employment and low wages. Low-income families in general, and farmworker families specifically, pay a disproportionate amount of their annual income on home energy and often cut back on other necessities to pay their energy bills. LIWP investments and services in this program subcomponent will increase the energy efficiency of eligible dwellings owned or occupied by farmworker families; provide access to clean, renewable energy; reduce their total expenditures on energy; and provide health and safety improvements to homes to further optimize greenhouse gas emission reductions and benefit households.

In addition, CSD envisions this program subcomponent to be conducted in coordination with other assistance programs to enhance economic and social impacts of LIWP service offerings and achieve efficiencies in program administration. Evaluation of proposals will include the partnerships and leveraged dollars brought to the program subcomponent to help extend the use of limited LIWP funding and enhance service to the farmworker population. Farmworker programs offering the potential to enhance services may have goals such as:

- Stabilization of incomes
- Safe housing
- Pathway to homeownership
- Occupational Safety Programs
- Access to Childcare/education programs
- Adult education programs
- English-speaking courses

- Legal Services
- Health Care/Insurance
- Food security
- Financial literacy/education
- Access to transit options

Fund and program leveraging can also have a multiplying effect in stimulating the local economy.

By allocating funding to projects in disadvantaged and low-income communities, LIWP also provides opportunities for job creation, job training and related economic benefits in these communities. LIWP providers are encouraged to maximize these benefits through a variety of methods that vary based on the demographics and needs of their local communities. Methods may include:

- Partnering with local Workforce Investment Boards to offer internships/hands-on training to individuals who have received classroom or other training elsewhere.
- Directly hiring workers from disadvantaged and low-income communities.
- Negotiating employment agreements with hired subcontractors to hire individuals from the community served.
- Giving preference to subcontractors from the community served.

IV. FARMWORKER HOUSING ADMINISTRATOR PROCUREMENT

a. ELIGIBILITY FOR THE FARMWORKER HOUSING ADMINISTRATORS

The Farmworker Housing component model is premised on the coordination of services at a regional level through a subvention or local assistance contract with Farmworker Housing Administrators selected on a competitive basis. Eligibility for the Farmworker Housing Administrators will be limited to private non-profit or public organizations that have qualified for and received an Internal Revenue Service determination letter confirming the organization's tax exemption under section 501 (c) (3) of the Internal Revenue Code; local government agencies or joint powers authority; or federally recognized Indian Tribal Governments. In addition, the Farmworker Housing Administrators must:

- Be eligible to receive public funds (a list of entities that have been declared ineligible to receive government funds can be found at <https://www.sam.gov/>).
- Be in good standing and currently qualified to conduct business in California per the Secretary of State. This requirement applies to both the Proposer and its Subcontractors.
- Demonstrate financial solvency through the submission the most current organization wide, Single Audit, Subpart F and the last two years of the Internal Revenue Service's Return of Organization Exempt from Income Tax Form (IRS – Form 990 and Audit).
- Have experience administering programs and providing supportive services to farmworkers and the communities in which they reside.
- Have demonstrated experience administering low-income, energy efficiency and renewable energy services of similar scale and structure.
- Have demonstrated ties to the region to be served.
- Commit to provide services in all six counties in the region.

In addition, Project Team members must, at a minimum, demonstrate previous experience performing the specific activity and/or service to be provided in this proposal within the region the Project Team member is assigned to serve, and address their experience on a county-by-county basis.

b. PROCUREMENT PROCESS

CSD plans to finalize and release a competitive RFP in early 2019. Proposals will be evaluated and points awarded in categories including Proposer and team qualifications, and details of the approach, workplan and budget outlined. The Awards are anticipated to be announced in April 2019.

Proposers will be required to provide bid costs for all eligible measures, and CSD will estimate annual GHG reductions from energy efficiency and solar measures based on costs and estimates of the frequency of installation. This will allow CSD to determine the cost-effectiveness of GHG reductions (in dollars per MTCO₂e reduced) from the proposed bid costs. To compare cost-effectiveness, the Proposal offering the most cost-effective GHG reduction will earn the maximum component points. Other applicants are awarded a percentage of the maximum points available based on a comparison of their cost-effectiveness to the bidder awarded the maximum points.

Lists of all applications received and contract awards will be posted on CSD's website, and all applicants will be notified via email regarding the Notice of Intent to Award. Proposals will be treated in accordance with the Public Records Act requirements and certain information, subject to those requirements, may be publicly disclosed. Some reported project information will also be publicly available on CSD's and/or CARB's website.

The two Farmworker Housing Administrators selected through this process will be contracted to provide services through 2020 with initial allocations of approximately \$5.26 million each from CSD's FY 2017-18 and FY 2018-19 LIWP appropriations. It is CSD's intent that the Farmworker Housing Administrators will engage additional subcontractors and pursue strategic partnerships as needed through procurement processes sanctioned by CSD. While initial allocations, contract periods, and work plans may be limited by the funds available and current expenditure deadlines, the model set forth in these Program Guidelines will afford adaptability across Investment Plan cycles, fluctuations in funding allocations, and program changes. The Farmworker Housing Administrators will develop service delivery strategies and capacities that are responsive to geographical, economic and climate conditions in regions served.

CSD's procurement policy and processes draw from the transparent, fair and competitive processes set forth in the Public Contract Code (PCC) and the State Contracting Manual (SCM). Although CSD procurements are exempt from Department of General Services (DGS) review per CSD's statutory authority, the Department shall adhere to the tenets outlined in the SCM for this procurement.

c. SCOPE OF PROCUREMENT

CSD may, at its discretion, utilize the initial solicitation for Farmworker Housing Administrators to award contracts and program allocations in subsequent years, provided the program scope, key program characteristics and supplemental funding amounts are largely consistent with the initial solicitation. If CSD determines that the programmatic and financial character of this program subcomponent, as set forth in these Guidelines, changes substantially, or that the best interests of the state require a new solicitation, then the initial solicitation shall no longer be used for subsequent contract awards and a new procurement shall be conducted.

If the RFP process fails to identify suitably qualified Farmworker Housing Administrators, CSD reserves the right to issue a new solicitation.

Information on Farmworker Housing Administrators and services will be made available at:

<http://www.csd.ca.gov/LIWP/Farmworker>

V. SERVICE DELIVERY MODEL

The administration of energy efficiency and solar PV installations will be integrated to ensure eligible households and buildings are assessed for the full complement of available LIWP measures. The Farmworker Housing Administrators' teams will assess each home or structure and make the final determination of eligibility for measures, subject to any guidelines or approvals required by CSD. Providing the deepest energy retrofits available to each household based on this assessment process will be encouraged. Proposers will be required to develop a Work Plan for serving eligible households in specific areas and identify program support and marketing and outreach budgets.

The Farmworker Housing Administrators will be responsible for coordinating program elements, either by performing them directly or overseeing other entities that are responsible for their accomplishment, including but not limited to:

- Management of subcontractors
- Assessment and identification of target areas
- Project Development and Management
- Community engagement
- Marketing and outreach (Farmworker Housing Administrators must adhere to the Media & Communications Style Guide for California Climate Investments programs)
- Intake
- Project evaluation and assessment, including health and safety considerations
- Integration of energy efficiency and solar services
- Delivering services on a cost-effective basis
- Customer education
- Oversight of subcontractor work activities including service delivery
- Quality assurance and managing warranty administration
- Service complaint resolution
- Adherence to reporting requirements and targets
- Maximizing opportunities for co-benefits to farmworker communities
- Fiscal and administrative reporting to CSD

VI. SERVICE TERRITORIES

a. REGIONS AND ALLOCATIONS

Given the limited number of homes that can be served with the initial funding allocation of approximately \$10.5 million, program services will be limited to houses and buildings occupied by eligible farmworkers within two regions, each comprised of a six-county service area. To ensure delivery of LIWP services to all counties within a region, CSD requires that at least ten percent of the established direct service budget be expended in each county. Therefore, Proposers must represent plans and capacity to serve every county within the service region being bid. Service regions and initial funding allocations are as follows:

- Region A (\$5,258,970):

Fresno, Madera, Merced, Monterey, San Joaquin, and Stanislaus counties

□ **Region B** (\$5,258,970):

Imperial, Kern, Riverside, Santa Barbara, Tulare, and Ventura counties

This approach will assist in meeting the mandate of SB 89 and will:

- Provide a focused service delivery area, while still allowing the Farmworker Housing component and the Farmworker Housing Administrators to achieve some economies of scale.
- Provide services to homes in climate zones where energy efficiency and solar measures have the potential for a greater impact on energy savings, and where heat and cooling needs are greatest.
- Provide a focus on areas with large proportions of households residing in disadvantaged communities.
- Provide services to those counties with the highest populations of farmworkers.

b. ALLOCATIONS TO PRIORITY POPULATIONS

AB 1550 (Chapter 369, Statutes of 2016) increased the percent of California Climate Investments funds for projects located in disadvantaged communities from 10 to 25 percent and added a focus on investments in low-income communities and households. These AB 1550 populations, collectively known as priority populations, include low-income communities and low-income households living within a ½ mile radius of a disadvantaged community.

CalEnviroScreen is a tool developed by the Office of Environmental Health Hazard Assessment (OEHHA) under CalEPA’s guidance to assess areas that are disproportionately affected by multiple types of pollution and areas with vulnerable populations. CalEnviroScreen 3.0 uses twenty indicators divided into two broad categories: “Pollution Burden,” which includes exposures as well as environmental effects, and “Population Characteristics,” which includes population and socioeconomic factors.

Each census tract in the state is assigned a value for each of the indicators, and, based on the final scores, census tracts are ranked relative to one another. CalEPA identifies the 25 percent of census tracts most burdened by the indicators as disadvantaged communities for the purposes of California Climate Investments. More information on CalEnviroScreen is available at: <https://oehha.ca.gov/calenviroscreen>.

The Farmworker Housing Administrators must ensure that services are implemented in accordance with the minimum targets set by CSD for investments in disadvantaged communities and households within a ½ mile radius of a disadvantaged community as follows:

LIWP Farmworker Administrator Funding Allocations

Priority Populations:	Low-Income Farmworker Households in Disadvantaged Communities	Low-Income Farmworker Households within ½ mile of a Disadvantaged Community	Low-Income Farmworker Households anywhere in the region	Total
Funding Targets:	\$1.8 M*	\$250,000*	\$3.21 M*	\$5.26 M*

* Inclusive of associated Administrative and Program Support Costs.

An interactive map to identify disadvantaged communities may be accessed at: <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm>.

The Farmworker Housing Administrators must ensure that services are implemented in accordance with the AB 1550 criteria² for these priority populations in CARB's Funding Guidelines. Proposers must address specific plans to reach or exceed these targets in their proposal. Proposers are not required to have equal targets in each county (i.e. the disadvantaged communities' requirement may be met solely in one county).

Over the course of the procurement and contracting processes, and in the event LIWP funding levels or allocations change, CSD reserves the right to make changes to the funding allocations specified.

VII. HOUSEHOLD AND PROPERTY ELIGIBILITY

All measures installed and services provided to eligible households or properties will be provided at no cost to the applicant. Households may apply for services by contacting CSD or the Farmworker Housing Administrators directly, and the Farmworker Housing Administrators will also be required to perform or coordinate marketing and outreach. The Farmworker Housing Administrators may propose targeted community-based outreach and intake programs, i.e. coordinated neighborhood approaches.

a. DWELLING TYPES

Energy efficiency services will be available to single-family homes (including mobile homes and manufactured housing) and stand-alone buildings of 2-4 units occupied by low-income farmworker families, whether owner-occupied or rentals. Not all energy efficiency measures are applicable for households residing in mobile homes. A single dwelling in a building of 2-4 units may be served with in-unit measures, but at least 50 percent of the units must be occupied by farmworkers for the building to qualify for whole building measures such as insulation, common water heating, and common heating and cooling upgrades.

LIWP's Multi-Family Energy Efficiency and Renewables Program funds energy-efficiency improvements and solar PV systems in low-income multi-family buildings. It is possible that other multi-family buildings or complexes of 5 or more units, or complexes with multiple buildings, that are deemed ineligible under the Multi-Family Energy Efficiency and Renewables Program could be referred to the Farmworker Housing Administrators for assessment.

Only single-family homes occupied by qualifying homeowners are eligible to receive Solar PV and fuel switching measures. If part of a 2-4 unit building is owner-occupied, CSD will consider eligibility for these measures on a case-by-case basis.

Owners of rental properties will be required to complete a CSD form to verify permission for installation of any measures and certify that rents will not be increased for a period of two years solely due to measures installed.

b. FARMWORKER VERIFICATION

Eligibility for all measures will be restricted to dwellings verified to be occupied by a low-income farmworker or farmworker family.

² Criteria tables are available at www.arb.ca.gov/cci-resources

To verify eligibility as a farmworker, household applicants will be required to provide documentation demonstrating a household member has worked as a farmworker that is dated within the twelve months preceding the date of the application. For verification purposes, the following definitions from the California Labor Code³ will be applied:

Farmworker or “Agricultural Employee”

One engaged in agriculture, as such term is defined [below]. However, nothing in this subdivision shall be construed to include any person other than those employees excluded from the coverage of the National Labor Relations Act, as amended, as agricultural employees, pursuant to Section 2(3) of the Labor Management Relations Act (Section 152(3), Title 29, United States Code), and Section 3(f) of the Fair Labor Standards Act (Section 203(f), Title 29, United States Code).

“Agriculture” includes the following:

[F]arming in all its branches, and, among other things, [which] includes the cultivation and tillage of the soil, dairying, the production, cultivation, growing, and harvesting of any agricultural or horticultural commodities (including commodities defined as agricultural commodities in Section 1141j(g) of Title 12 of the United States Code), the raising of livestock, bees, furbearing animals, or poultry, and any practices (including any forestry or lumbering operations) performed by a farmer or on a farm as an incident to or in conjunction with such farming operations, including preparation for market and delivery to storage or to market or to carriers for transportation to market.

Further, nothing in this part shall apply, or be construed to apply, to any employee who performs work to be done at the site of the construction, alteration, painting, or repair of a building, structure, or other work (as these terms have been construed under Section 8(e) of the Labor Management Relations Act, 29 U.S.C. Sec. 158(e)) or logging or timber-clearing operations in initial preparation of land for farming, or who does land leveling or only land surveying for any of the above.

As used in this subdivision, “land leveling” shall include only major land moving operations changing the contour of the land, but shall not include annual or seasonal tillage or preparation of land for cultivation.

Employment as a farmworker may be verified through pay stubs or confirmation from an employer, and CSD will also work with the Farmworker Housing Administrators to implement self-certification procedures.

c. INCOME OR CATEGORICAL ELIGIBILITY VERIFICATION

Household income or categorical eligibility verification must be established by the Farmworker Housing Administrators or their subcontractors. Eligibility for Solar PV and fuel switching measures is limited to owner-occupied households.

AB 1550 defines low-income households as those with: 1) a household income at or below 80 percent of the statewide median income, or 2) a household income at or below the threshold designated as low-income by the Department of Housing and Community Development’s list of 2016 State Income Limits. The list of income thresholds designated as low-income by HCD and an online tool to determine the low-income threshold by county and household size are available at:

³ Definition of Agriculture and Agricultural Employee, Agricultural Labor Relations, Cal. Labor Code 1140.4(a)-(b)

Income may be verified through pay stubs or confirmation from an employer, and CSD will also work with the Farmworker Housing Administrators to implement self-certification procedures. Categorical eligibility may be established by verifying enrollment in public assistance programs that use an income level consistent with the low-income household definitions in AB 1550. CSD will develop Eligibility and Verification Guidelines for the Farmworker Housing Administrators.

VIII. ELIGIBLE MEASURES

CSD determines measures for inclusion in LIWP based on analysis of established deemed energy savings or requiring an energy audit to establish the feasibility and cost-effectiveness of certain measures. Measures that require an energy audit or solar assessment are indicated in Exhibit II, Eligible Measures.

Eligibility for measures is based on household assessment, including feasibility of energy efficiency measures and Solar PV, health and safety considerations, and limited home repair in support of energy efficiency and Solar PV measures. CSD develops technical installation standards that apply to certain measures. Factors that affect the feasibility of LIWP measures include:

- Climate Zone (See Exhibits I and II)
- Existing levels of insulation
- Age and condition of existing systems and appliances
- The number of occupants in the home and their existing energy use patterns
- Whether conditions of the property permit the measures to be installed
- Addressing health and safety and limited home repair in support LIWP measure installations

Additional considerations apply for the assessment of Solar Water Heater (SWH) and/or Solar PV installation. Installation of SWH or Solar PV may be assessed as feasible on a percentage of homes or structures (e.g. garage or carport or other out-building) based on considerations including:

- Proper orientation of home or structure
- Available unshaded roof space

With the focus on farmworker housing, the Farmworker Housing Administrators and subcontractors will encounter various conditions within these dwelling types that can make it challenging to install energy efficiency and solar measures. These may include poor roof conditions and unsafe interior living conditions, and combustion appliance safety hazards including non-operable heating and/or cooling appliances. Home repair may be necessary to facilitate installation of energy efficiency measures and solar PV including, but not limited to: dry rot repair, installation of mobile home skirting, electrical hazards and panel upgrades, and minor roof repair. A whole house assessment, including combustion appliance and duct diagnostic testing, is also required to identify building conditions and determine potential improvements to the building shell for energy efficiency, or health and safety issues that need to be addressed.

In recognition of the challenges that may need to be overcome to provide energy efficiency and solar measures to qualified households, measures under this program subcomponent include diagnostic testing and those addressing health and safety concerns and limited home repair needs.

LIWP requires that all feasible energy efficiency measures be identified during assessment and prescribed for installation. CSD will require the Farmworker Housing Administrators to meet minimum thresholds in assessing each home for energy efficiency measures that would become

feasible if facilitated by diagnostic testing, health and safety remediation, and/or limited home repair. CSD has also developed cost caps to limit the expenditures associated with health and safety and home repair, both for individual measures and for each home.

Exhibit II includes specific details on conditions applying to each measure.

Climate Adaptation and Resilience

Climate adaptation and resilience is a co-benefit to be assessed by agencies administering California Climate Investments programs, including CSD. In addition to insulation upgrades, a new measure will be available to help address climate adaptation and resilience for mobile home residents. Mobile homes with a standard roof will be eligible for a retrofit with a cool roof measure.

Fuel Switching (Propane to Electric with Solar PV Installation)

In many communities in the regions being targeted by this program subcomponent, there is a lack of natural gas access and residents utilizing propane encounter high costs. Other initiatives in the state are also considering how these communities can be better served. The California Public Utilities Commission (CPUC) is exploring the economic feasibility of bringing affordable energy options to residents of disadvantaged communities in the San Joaquin Valley that lack access to natural gas and are reliant on propane and wood for cooking and heating. A CPUC proceeding was initiated that has identified certain communities and is investigating affordable energy options. Investor-Owned Utilities (IOUs) and non-utility parties submitted pilot project proposals.

Upgrading propane-fueled appliances in these homes provides little GHG emissions reduction or cost benefits to households. Fuel switching (from propane to electric) eliminates propane use and the associated costs and also allows highly energy efficient electric appliances to be installed.

Eligibility for this type of fuel switching will be restricted to households receiving or having solar PV, since fuel switching would provide enhanced benefits for these households.

IX. REPORTING AND RECORD RETENTION

Reporting and recordkeeping requirements will be the responsibility of both CSD and the Farmworker Housing Administrators and their subcontractors, and some project information will be publicly available. All reports must be consistent with the quantification methodologies and reporting guidance developed by CARB and the requirements established by CSD in these Program Guidelines. CARB's Funding Guidelines are available at:

<https://ww2.arb.ca.gov/resources/documents/cci-funding-guidelines-administering-agencies>

The Farmworker Housing Administrators will be required to report to CSD project level information that includes, but is not limited to, project location; project type; building characteristics; whole house assessment and energy audit results; specific services or measures installed; diagnostic testing results; historical building energy usage; and solar PV/SWH system design and specifications. The Farmworker Housing Administrators will be required to electronically report completed measures and measure information to CSD each month. From these reports, CSD quantifies outcomes.

The Farmworker Housing Administrators will also be required to track and report to CSD additional information on co-benefits, which may include, but not be limited to, workforce information in accordance with the recordkeeping and reporting guidance developed by CARB (e.g. jobs and training opportunities created, hours worked, and whether employees are residents of disadvantaged or low-income communities).

The level and duration of reporting and record retention will vary depending upon project type and will be specified in the Farmworker Housing Administrators contract. At a minimum, the Farmworker Housing Administrator will be required to report to CSD basic information for projects conducted during the contract term and maintain records for three years after contract close. CSD may also impose other reporting requirements that will allow CSD to track and manage progress towards goals, and to report, as necessary, to other agencies and organizations who seek updates on the progress of GGRF spending.

X. QUANTIFICATION OF OUTCOMES

CARB has a statutory role under SB 862 to develop guidance on a quantification methodology to estimate GHG emission reductions and other co-benefits from LIWP projects. Adoption of energy efficient and/or on-site renewable energy technologies will reduce demand for electricity, natural gas and other fossil fuels. Reduction of natural gas and other fossil fuel demand will reduce criteria pollutants which could improve local air quality in communities where projects are implemented.

For the awarded funds, GHG emission reductions from energy efficiency measures will be estimated based on average anticipated reduction per home, multiplied by the number of homes anticipated to be served. The CARB quantification methodology is used to calculate GHG emission reductions and other co-benefits from data on implemented projects. The CARB quantification methodology is developed based on a review of the available science, in close coordination with CSD, as well as academic consultants and other experts as needed. The CARB quantification methodology is available at:

<https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials>

CARB may review and update quantification methodologies periodically, based on new information or public input, to make them more robust, user-friendly, and ensure that they are appropriate for the projects being quantified.

To generate consistent data for LIWP, CSD will perform all calculations to quantify energy savings and GHG emission reductions. CSD will determine energy savings and the associated GHG emission reduction estimates using data reported to CSD during program implementation. Reported measure details combined with historical energy consumption data (either actual or estimated) will form the basis for determining per-building energy and GHG savings.

a. APPROACH AND METHOD FOR QUANTIFYING ENERGY SAVINGS AND GHG EMISSION REDUCTIONS

CSD has worked with CARB to identify methods for quantifying energy savings for LIWP measures. These methods may include a “deemed savings approach,” which uses energy industry standards and data to calculate savings averages for commonly-installed measures or utilizing energy audit tools and solar calculators. Not all measures that are eligible for funding will provide direct energy savings and will therefore not be quantified (e.g. home repairs).

For energy efficiency measures, the deemed savings approach relies on the Database for Energy Efficient Resources (DEER). DEER is a California Energy Commission (CEC) and CPUC sponsored database available at:

<http://deeresources.com>.

DEER is designed to provide well-documented estimates of energy and peak demand savings values, measure costs, and effective useful life (EUL). When individual measures are not available in

DEER, other industry standard resources may be utilized, as outlined in CARB's quantification methodology, unless the measure has no direct energy savings.

For SWH, the California Solar Initiative's (CSI) solar thermal calculator is the methodology used for estimating annual energy savings. The CSI solar thermal calculator is an online calculation tool that provides an estimate of the energy displacement for SWH systems based upon performance of the SWH system, location, and system design.

For Solar PV, the National Renewable Energy Laboratory's (NREL) PVWatts calculator is the methodology used to estimate electricity savings from LIWP solar PV installations. NREL's PVWatts Calculator is a web application that estimates the electricity production of a grid-connected roof or ground-mounted photovoltaic system based on inputs outlined in CARB's Quantification Methodology for CSD.

CSD will calculate lifetime GHG reductions from electricity savings from energy efficiency measures by multiplying deemed savings by the emission factor for electricity⁴ (Metric Tons of Carbon Dioxide equivalent [MTCO₂e] per kWh) and the EUL of the measure. Lifetime GHG reductions from natural gas savings are calculated by multiplying deemed natural gas savings for the measure by the emission factor for natural gas (MTCO₂e per therm) and the EUL of the measure.

For SWH, lifetime GHG reductions are calculated from the annual estimated energy savings from the CSI solar thermal calculator (kWh or therms) multiplied by the relevant emission factor and EUL, factoring in an annual rate of system degradation of 0.5 percent per year.

For Solar PV, lifetime GHG reductions are calculated from the PVWatts calculator's estimate of annual kWh generated, multiplied by the emission factor for electricity and the EUL, factoring in an annual rate of system degradation.

b. APPROACH AND METHOD FOR QUANTIFYING HOUSEHOLD SAVINGS

To estimate household energy cost savings (dollars saved on energy bills on an annual basis), CSD will multiply anticipated energy savings by a California average rate to arrive at an estimated, annual dollar savings per household, as outlined in CARB's Energy and Fuel Cost Savings Co-benefit Assessment Methodology.

c. APPROACH AND METHOD FOR QUANTIFYING PROJECT OUTCOMES

CARB⁵ and CSD have developed outcome reporting requirements for a subset of projects (five percent). CSD will collect and analyze utility billing data for a period of twelve months prior and twenty-four months subsequent to measures being installed for this subset of homes.

d. APPROACH AND METHOD FOR QUANTIFYING WORKFORCE DEVELOPMENT AND OTHER CO-BENEFITS

The Farmworker Housing Administrators will be encouraged to provide opportunities for employment and job training. Jobs created, all project work hours, job quality, and other information necessary to document these benefits, including for priority populations, must be reported to CSD.

⁴ Electricity emission factors are updated by CARB for the purposes of California Climate Investments GHG Quantification Methodologies. For latest available values, refer to the CARB Emission Factor Database and Documentation at: <https://ww2.arb.ca.gov/resources/documents/ci-quantification-benefits-and-reporting-materials>

⁵ <https://ww2.arb.ca.gov/resources/documents/ci-quantification-benefits-and-reporting-materials>

In an effort to enhance analysis, provide greater transparency, and assist in project level reporting, CARB has developed co-benefit assessment methodologies and is expanding the functionality of calculator tools to estimate additional co-benefit and key variable outputs. The Co-Benefit Assessment Methodologies that are applicable to this program subcomponent include:

- Asthma/Respiratory Disease Incidence;
- Air Pollutant Emissions;
- Energy and Fuel Cost Savings;
- Water Supply and Availability;
- Climate Adaptation; and
- Jobs.

These methodologies are available at: <https://ww2.arb.ca.gov/resources/documents/cci-methodologies>.

XI. MONITORING AND QUALITY ASSURANCE

Auditing: For project auditing and evaluation, the State shall have the right to inspect the work and audit any associated records at any or all reasonable times as part of program oversight. This right shall extend to any subcontracts, and awardees shall include provisions ensuring such access in all contracts or subcontracts. The State retains the right to audit any awardee.

Monitoring: CSD has field monitoring staff responsible for conducting on-site reviews of LIWP awardees. During monitoring visits, CSD Field Monitors verify adherence to contractual obligations, including: methods of procurement, providing subcontractor oversight, work quality assurance (QA), staff training, project progress, project costs, review of participant files, and more. QA may include the following:

- *Work-In-Progress Inspection:* Work-In-Progress Inspections will identify compliance and programmatic issues during the initial stages of production.
- *Post Installation Inspections:* Post Installation inspections will be performed on a percentage of households receiving energy efficiency measures and solar PV. Any jobs reported to be completed and billed must meet programmatic requirements.

Organizations that fail to adhere to contractual obligations may be in jeopardy of losing future funding or may be subject to the disallowance of expenditures and to the return of amounts paid.

XII. LIWP FUTURE

CSD may find cause to modify the program subcomponent design (e.g. measures to be assessed for installation). If such changes are necessary, and CSD determines those changes to be substantive, CSD will modify these Program Guidelines.

Changes to these Program Guidelines will be posted on CSD's website. To receive notification of LIWP updates via email, including changes to these Guidelines, sign up on the LIWP webpage at:

<http://www.csd.ca.gov/LIWP>.

EXHIBIT I: MAP OF BUILDING CLIMATE ZONES

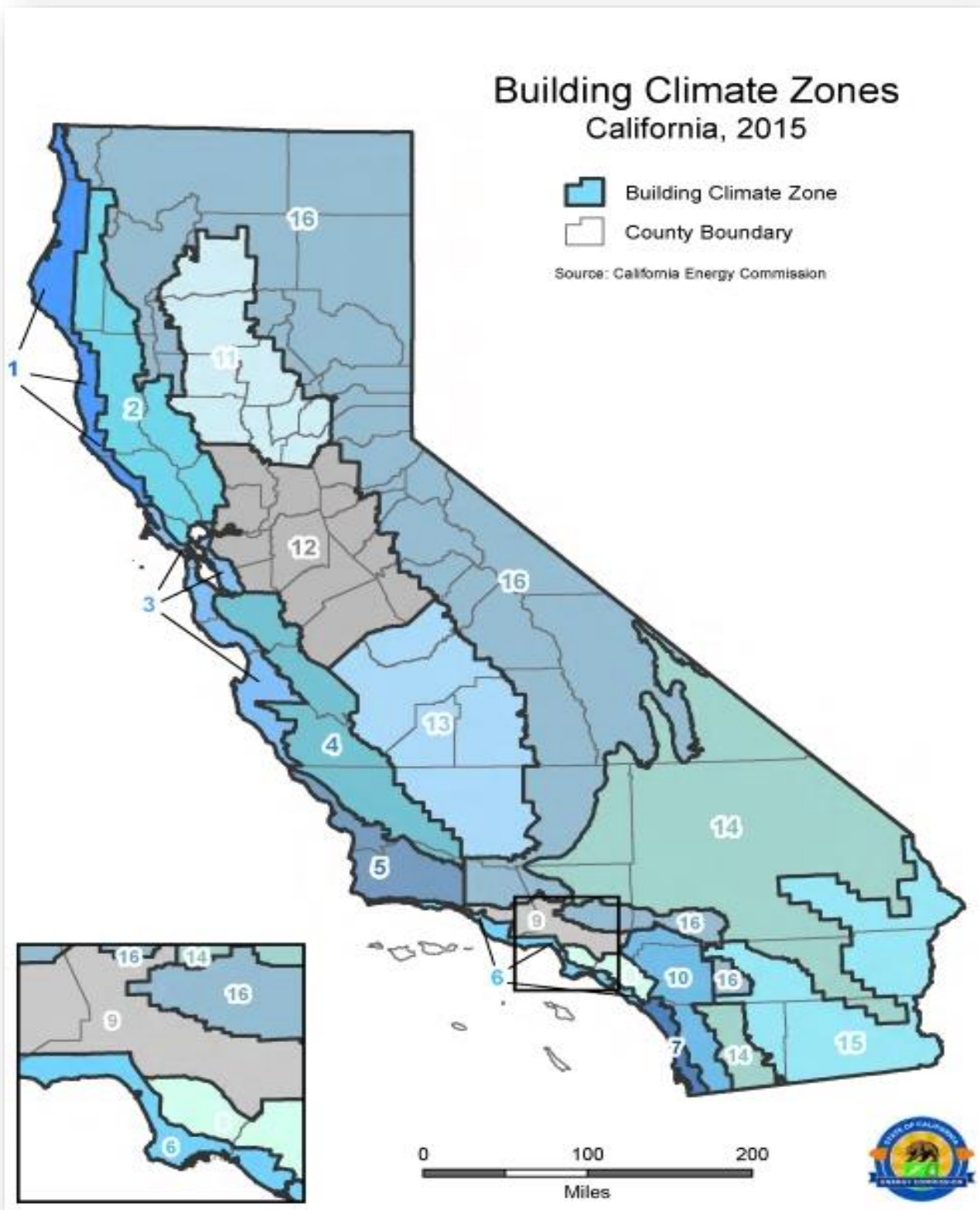


EXHIBIT II: ELIGIBLE MEASURES

The following four categories of measures will be available to households in this program subcomponent, with feasibility and eligibility limitations and other requirements described in the tables below:

- 1) Energy Efficiency and Renewables Measures
- 2) Climate Adaptation and Resilience Measure
- 3) Propane Fuel Switching Measures
- 4) Diagnostic Testing, Health and Safety Remediation, and Home Repair Measures

1) Energy Efficiency and Renewables Measures

- Some measures may have climate zone restrictions as specified below.
- Some measures require combustion appliance safety (CAS) testing and/or must be assessed for feasibility through an energy audit or solar assessment, as specified below.
- Specialty licenses are required in addition to Class-B license when installed by general contractor as specified below. All sub-contractors are required to have the applicable specialty license.
- Some measures also contribute to climate adaptation and resilience.
- Any available rebates (e.g. IOU rebates for solar water heaters) must be obtained.
- For Solar PV, eligibility is limited to owner-occupied households.

Measures	Climate Zone	CAS Test	Audit or Solar Assessment	Specialty License	Requirements
CEILING FANS	All	No	No	No	When a ceiling fan is present with incandescent bulbs and the light kit cannot be retrofitted with LED bulbs.
CEILING INSULATION	CZ 2-10	No	Optional	No	When existing insulation is R-19 or less, increase to R-30.
CEILING INSULATION	CZ 1, 11-16	No	Optional	No	When existing insulation is R-19 or less, increase to R-38.
COOLING REPLACEMENT 16 SEER (CENTRAL ONLY)	All	No	Yes	C-20	When 10 SEER or lower Central A/C is present.
DUCT INSULATION R-6	All	No	Yes	B or C-20	When duct insulation is not present (R-0), increase to R-6.
DUCT REPLACEMENT	All	Yes	Yes	B or C-20	When a ducted system is present that requires replacement (requires Diagnostic Test).

Measures	Climate Zone	CAS Test	Audit or Solar Assessment	Specialty License	Requirements
DUCT SEALING	All	Yes	Yes	B or C-20	When a ducted system is present (requires Diagnostic Test) that requires sealing.
DUCTLESS MINI-SPLIT HEAT PUMP 15 & 16 SEER AND DUCTLESS MINI-SPLIT 15-21 SEER AIR CONDITIONER	All	Yes	Yes	C-20	When 10 SEER or lower, single phase, split system air conditioning unit is present.
EFFICIENT FAN CONTROLLER	CZ 4, or 8-16	Yes	No	C-20	When the dwelling has a functional central forced air system (A/C or heat pump) with a direct drive PSC blower motor.
ELECTRONICALLY COMMUTATED BLOWER MOTOR (ECM)	CZs 9-15	Yes	No	C-20	When the dwelling has a functional central forced air system (A/C or heat pump) with a direct drive PSC blower motor.
EVAPORATIVE COOLER	All	No	Yes	C-20	When the dwelling has an inefficient wall/window air conditioning unit.
FLOOR INSULATION	All	Yes	Optional	C-20	When no insulation is present (R-0), Install R-19.
FREEZER REPLACEMENT (new ENERGY STAR freezer)	All	No	No	No	When existing freezer is not ENERGY STAR qualified.
HEAT PUMP WATER HEATER (new ENERGY STAR heat pump water heater)	All	Yes	Yes	C-20, C-36	When existing standard electric domestic hot water (DHW) heater is present.
HEATING UPGRADE 95% AFUE (CENTRAL ONLY)	All	Yes	Yes	C-20	When a central heating system is present.
HOT WATER FLOW RESTRICTOR, FAUCET RESTRICTOR	All	No	No	No	When existing faucet uses more than 2.2 gallons per minute, or no existing restrictor is present.
HOT WATER FLOW RESTRICTOR, LOW FLOW SHOWERHEAD	All	No	No	No	When existing showerhead has a flow rate greater than 2.5 gallons per minute.

Measures	Climate Zone	CAS Test	Audit or Solar Assessment	Specialty License	Requirements
INFILTRATION REDUCTION MEASURES (various)	All	Yes	No	C-17 for glass replacement.	Cracks, gaps, and holes exist from the conditioned space into the unconditioned ceiling, wall, or crawlspace cavity.
INTERIOR VACANCY SENSORS	All	No	No	No	When incandescent or halogen lights are not feasible for replacement with an LED or CFL in intermittently occupied areas.
LED BULBS	All	No	No	No	When LED bulb is replacing an existing incandescent, CFL, or halogen lamp.
LED NIGHT LIGHTS	All	No	No	No	When existing incandescent night lights are present.
MOTION SENSORS (photocell and motion, exterior)	All	No	No	No	When exterior Incandescent, High Pressure Sodium (HPS) or Metal Halide (MH) fixture without motion sensor is present.
RADIANT BARRIERS (installation of radiant barriers in an existing attic space)	All	No	Yes	Yes	When roof over residential dwelling (vented attic) has no radiant barrier.
REFRIGERANT CHARGE w/ COIL CLEANING	CZ's 8-16	Yes	No	C-20	When a functional forced air central cooling system exists; and refrigerant is above or below optimal level.
REFRIGERATOR REPLACEMENT (new ENERGY STAR refrigerator)	All	Yes	Optional	No	When a functioning refrigerator is present and manufactured pre-2000.
SMART THERMOSTATS (CENTRAL HEATING AND COOLING ONLY)	CZs 1, 11, 13, 15	No	No	No	When the existing thermostat is either a setback programmable or non-programmable thermostat.

Measures	Climate Zone	CAS Test	Audit or Solar Assessment	Specialty License	Requirements
SOLAR PV	All	No	Yes	C-10 or C-46	When the home has adequate roof space and solar assessment establishes cost-effectiveness.
SOLAR WATER HEATING	Must comply with CSI-Thermal guidelines	No	Yes	C-36	When an existing natural gas water heater is present and is not a mobile home.
THERMOSTATIC SHOWER VALVE (TSV) AND SHOWERHEAD	All	No	No	No	When no TSV is present.
TIER 2 POWER STRIPS	All	No	No	No	When a television and one or more peripheral device will be connected to the T2 power strip.
WALL INSULATION, STUCCO AND WOOD	All	No	Optional	C-2	When existing insulation is R-0 increase to R-13.
WASHER REPLACEMENT (new high efficiency clothes washer)	All	No	No	No	When the existing washer is top loading and contains an upright agitator, and 5 or more people live in the home.
WATER HEATER BLANKET	All	Yes	No	Yes	When no external insulation is present, or insulation is substantially damaged and not effectively insulating the heater.
WATER HEATER REPLACEMENT (gas only)	All	Yes	Yes	C-36	When an inefficient gas water heater is present, Install minimum: EF .63 for 30 Gallon; EF .62 for 40 Gallon; and EF .60 for 50 Gallon replacement.
WHOLE HOUSE FAN	CZs 9-13	Yes	No	C-10	Has a functional central air conditioning system. One per dwelling.

Measures	Climate Zone	CAS Test	Audit or Solar Assessment	Specialty License	Requirements
WINDOW REPLACEMENT (dual pane)	All	Yes	Yes	No	When single-pane windows are present.
WINDOW / WALL AC REPLACEMENT	All	No	Yes	C-10	When the dwelling has an inefficient window/wall air conditioning unit.

2) Climate Adaptation and Climate Resiliency Measure

- Eligibility is limited to mobile homes.
- Measure may also contribute to energy efficiency.
- Not feasible when roof repairs exceed cap on limited home repair.

Measure	Climate Zone	CAS Test	Audit	Specialty License	Requirements
COOL ROOFS (roll-on application)	All	No	No	C-39	Dwelling is a mobile home with a standard roof. Roof will be retrofitted to a cool roof with an initial solar reflectance of ≥ 0.65 and a 3-year solar reflectance of ≥ 0.50 .

3) Propane Fuel Switching Measures

- Eligibility limited to homes where propane fueled heating is present and will be replaced with electric heat pump; and all other propane fueled appliances will be replaced with electric appliances.
- Eligibility is limited to owner-occupied homes and in conjunction with Solar PV installation.

Measure	Climate Zone	CAS Test	Audit	Specialty License	Requirements
ELECTRIC COOKTOP (new ENERGY STAR qualified)	All	Yes	Yes	No	When a propane cooktop is present.
ELECTRIC DRYER (new ENERGY STAR qualified electric dryer)	All	Yes	Yes	No	When a propane dryer is present.
ELECTRIC OVEN (new ENERGY STAR qualified electric oven)	All	Yes	Yes	No	When a propane oven is present.
ELECTRIC RANGE (new ENERGY STAR qualified electric range)	All	Yes	Yes	No	When a propane range is present.

HEAT PUMP, FURNACE/AC (DUCTED) (15 or 16 SEER, 8.4 HSPF)	All	No	Yes	C-20	When a propane ducted heating unit is present.
HEAT PUMP, FURNACE/AC (NON-DUCTED) (15 or 16 SEER, 8.4 HSPF)	All	No	Yes	C-20	When a propane non-ducted heating unit is present.
HEAT PUMP WATER HEATER (new ENERGY STAR heat pump water heater)	All	Yes	Yes	C-20, C-36	When a propane water heater is present.

4) Diagnostics Testing, Health and Safety Remediation, and Home Repair required for installation of EE and PV Measures

- Appliances that cannot be repaired within established cost caps may be replaced.

Measure	Climate Zone	CAS Test	Audit	Specialty License	Requirements
Diagnostics Testing					
COMBUSTION APPLIANCE TESTING	All	Yes	No	No	When gas appliances are present and affect the living space.
DUCT TESTING (PRE AND POST)	All	Yes	Yes	No	When a ducted HVAC system is present and audit is to be performed.
WHOLE HOUSE ASSESSMENT WITH ENERGY AUDIT	All	No	Yes	No	When an eligible dwelling is identified for energy efficiency and PV services, and measures exist that would require an audit to address.
WHOLE HOUSE ASSESSMENT WITHOUT ENERGY AUDIT	All	No	No	No	When an eligible dwelling is identified for energy efficiency and PV services, and no measures exist that would require an audit to address.
Remediation of Health and Safety Issues and Home Repair					
CARBON MONOXIDE ALARMS	All	Yes	No	No	When a gas appliance is present that affects the living space, or as required as condition of permit.

Measure	Climate Zone	CAS Test	Audit	Specialty License	Requirements
CENTRAL COOLING REPAIR	All	Yes	No	C-20	When the existing cooling appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
CENTRAL HEATING FURNACE REPAIR (gas or electric)	All	Yes	No	C-20	When the existing heating appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
COOKTOP REPAIR (gas or electric)	All	Yes	No	No	When a cooktop CAS or electrical hazard exists that can be repaired.
COOKING OVEN REPAIR (gas or electric)	All	Yes	No	No	When an oven CAS or electrical hazard exists that can be repaired.
COOKING RANGE REPAIR (gas or electric)	All	Yes	No	No	When a range CAS or electrical hazard exists that can be repaired.
EVAPORATIVE COOLER (DIRECT) REPAIR	All	No	No	C-20	When the existing cooling appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
EVAPORATIVE COOLER (WINDOW) REPAIR	All	No	No	No	When the existing cooling appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
HEAT PUMP REPAIR	All	No	No	C-20	When the existing heating appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
HOME REPAIR (various with maximum individual and overall cost caps)	All	No	No	No	When required to facilitate installation of LIWP Measures.

Measure	Climate Zone	CAS Test	Audit	Specialty License	Requirements
SMOKE ALARMS	All	Yes	No	No	When a smoke alarm is not present in bedrooms, sleeping area(s), or as required as condition of permit.
WALL FURNACE REPAIR (gas)	All	Yes	No	C-20	When the existing heating appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.
WATER HEATER REPAIR	All	Yes	No	C-36	When the existing water heater poses a Health and Safety hazard or is inoperable and condition can be repaired.
WINDOW / WALL AC REPAIR	All	Yes	No	C-20	When the existing cooling appliance poses a Health and Safety hazard or is inoperable and condition can be repaired.