Low-Income Weatherization Program Guidelines

MULTI-FAMILY (MF) ENERGY EFFICIENCY AND RENEWABLES

Department of Community Services & Development
November 10, 2015 (Updated September 23, 2016; November 30, 2017; January 22, 2019; November 27, 2019; and May 20, 2022)

Table of Contents

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT LOW-INCOME WEATHERIZATION PROGRAM PROGRAM GUIDELINES

Multi-Family Energy Efficiency and Renewables

Preface

This amended version of the Program Guidelines provides updated information reflecting program developments since the release of the initial Guidelines in 2015 and subsequent amendments. Elements of CSD's Multi-Family Energy Efficiency and Renewables Program were adapted and program allocations amended during program implementation, and as a result of outreach to, and feedback from, the affordable housing community and property owners.

I. Introduction

The Department of Community Services and Development (CSD) developed the following Program Guidelines for the implementation of its Low-Income Weatherization Program (LIWP) for multi-family (MF) buildings providing housing for low-income individuals and households. The LIWP-MF Program is an integral part of the California Climate Investments that are funded by State Cap-and-Trade auction proceeds. With program oversight and direction provided by the California Air Resources Board (CARB), CSD and a network of LIWP Providers have successfully administered a variety of programs offering services to reduce greenhouse gas (GHG) emissions and provide important co-benefits to qualifying low-income households in designated disadvantaged communities, as identified by the California Environmental Protection Agency (CalEPA), and low- income households in other communities.

California Climate Investments is a statewide initiative that puts billions of cap-and-trade dollars 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 Investments 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 made in disadvantaged and low-income communities or low-income households. For more information, visit www.caclimateinvestments.ca.gov.

These Guidelines describe how and where CSD will implement the LIWP-MF Program. Though CSD's state budget appropriations for LIWP include funding for the Single-Family Energy Efficiency and Solar Photovoltaics Program Farmworker Housing Component, these Guidelines are for the Multi-Family Energy Efficiency and Renewables Program. CSD has separate Program Guidelines for other LIWP programs that are available on CSD's website at www.csd.ca.gov.

II. Guidelines Scope

The purpose of these Guidelines is to define CSD's LIWP-MF Program. The purpose of the LIWP-MF Program Administrator is to provide technical assistance, project monitoring and inspections of the energy efficiency measures and solar photovoltaics (PV) installed in multi-family dwellings at qualifying properties to reduce energy use and GHG emissions. The Administrator is also responsible for disbursing incentives to property owners (POs) upon satisfactory completion of scopes of work. In addition, LIWP-MF projects will provide other co-benefits to the state such as reducing air pollution, helping achieve air quality standards, reducing energy costs and water usage, stimulating the economy, and creating jobs.

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). Among other things, these bills mandated a portion of the funds from the California Climate Investments Initiative be invested to benefit disadvantaged communities. Every three years, the California Department of Finance (DOF) submits a plan to the Legislature, identifying priority investments that will help achieve greenhouse gas reduction goals. Each fiscal year, the Legislature appropriates monies for California Climate Investments in accordance with the 3-year investment plan. Plans applying to LIWP-MF are the "*Cap-and-Trade Auction Proceeds Investment Plan: Fiscal Years 2013-14 through 2015-16*"; the "*Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19";* and the *"Cap-and-Trade Auction Proceeds Third Investment Plan: Fiscal Years 2019-20 through 2021-22."*

In the State Fiscal Year (SFY) 2014/15 budget, a total of $832 million was appropriated from the California Climate Investments Program to 12 state agencies, including $75 million to CSD for the implementation of LIWP. CSD received additional appropriations of $78.8 million in SFY 2015/16, $20 million in SFY 2016/17, $18 million in SFY 2017/18, $10 million in SFY 2018/19, and $10 million in SFY 2019/20. An additional $23.37 million was included in appropriations through the General Fund for the LIWP Farmworker Component in SFY 2021/22.

An allocation of $63.9 million has been made to the MF Program to date. The appropriation included in this update to these Program Guidelines includes $14.2 million for SFY 2021/22 funded through the California Climate Investments Program. An additional $23.3 million for the SFY 2022/23 and $23.3 million for SFY 2023/24 is also proposed with funding provided through the General Fund. Confirmation of the additional funding for SFY 2022/23 and 2023/24 will be determined by June 15 of each program year. As work progresses on LIWP, CSD may adjust allocation categories to best meet the goals of the program.

III. Program Description and Overview

CSD has been serving low-income communities for over 50 years. Originally known as the "State Office of Economic Opportunity," the office was created as a result of the federal Economic Opportunity Act of 1964.

A state department under the California Health and Human Services Agency, CSD partners with a network of, non-profit, and local government organizations, dedicated to reducing poverty by helping low-income individuals and families achieve and maintain economic security, meet their home energy needs, and reduce their utility costs through energy efficiency upgrades and access to clean renewable energy.

CSD administers the following federal programs that are 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).
- U.S. Department of Health & Human Services Low Income Household Water Assistance Program (LIHWAP).

Beginning in SFY 2014/2015, CSD received funding to administer state programs intended to reduce greenhouse gas emissions and reduce utility costs for low-income Californians. Funds were initially allocated to the following programs:

- LIWP Single-Family Energy Efficiency, Small Multi-Family Energy Efficiency and Single-Family Solar Photovoltaics Programs, subsequently redesigned as the LIWP Single-Family Energy Efficiency and Solar Photovoltaics Program with allocations from the SFY 2015/16 appropriation, and as the Farmworker Housing Component with SFY 2017/18, 2018/19, and 2021/22 appropriations.
- LIWP Large Multi-Family Energy Efficiency and Renewables Program, subsequently renamed as the LIWP Multi-Family Energy Efficiency and Renewables Program.
- LIWP Community Solar Pilot Program with allocations from the SFY 2017/18 appropriation.

IV. Service Territories and Priority Populations

A. Disadvantaged and Low-Income Communities and Households

SB 535 (De Leon, Chapter 830, Statutes of 2012) required that at least 25 percent of funds from the California Climate Investments Program be invested to benefit disadvantaged communities and at least 10 percent be invested within disadvantaged communities. AB 1550 (Gomez, Chapter 369, Statutes of 2016), increased the percent of California Climate Investment 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 communities and households are collectively referred to as priority populations.

The California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen and the California Secretary of Environmental Protection uses CalEnviroScreen to identify the most burdened 25 percent of census tracts as “disadvantaged communities” for the purpose of California Climate Investments.

CalEnviroScreen uses a variety of indicators divided into two broad categories: “pollution indicators,” which includes exposures as well as environmental effects, and “population indicators,” which includes sensitive populations and socioeconomic factors. Each census tract in the state is assigned a value for each of the indicators relative to all other census tracts. The census tract indicator scores are totaled to determine an overall CalEnviroScreen Score - the higher the score, the greater the impact. More information on CalEnviroScreen is available at:

https://oehha.ca.gov/calenviroscreen

An online mapping application that includes an address look-up tool is available at: https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm

In addition to increasing investment requirements for disadvantaged communities, AB

1550 requires that 5 percent of funds from the California Climate Investments Program be allocated to projects located within and benefiting individuals living in low income communities or benefiting low-income households statewide, and that 5 percent be allocated to projects located within and benefiting individuals living in low income communities, or benefiting low-income households, that are within a half mile of a disadvantaged community.

CalEnviroScreen 4.0 has now replaced version 3.0. For the program component covered by these Program Guidelines, services funded by the SFY 2014/15 and SFY 2015/16 allocations were limited to disadvantaged communities as determined under CalEnviroScreen 2.0. For the SFY 2016/17 allocation, the service area transitioned to disadvantaged communities as determined under CalEnviroScreen 3.0, which also applied to subsequent allocations. A portion of the SFY 2017/18 allocation was also set aside to serve eligible properties within a half mile of these disadvantaged communities, and properties housing low-income farmworkers in these and other communities. Portions of the SFY 2019/20 allocation were dedicated to eligible properties in disadvantaged communities; eligible properties within a half mile of these disadvantaged communities; and properties serving as homeless shelters or transitional housing.

For the SFY 2021/22 allocation, the Service Areas are limited to disadvantaged communities as determined by CalEnviroScreen 4.0, eligible properties within a half mile of these disadvantaged communities, and low-income properties and households anywhere in the state. For the proposed SFY 2022/23 and 2023/24 allocation, which will be funded through the General Fund, the Service Area will be allocated to low-income properties and households anywhere in the state and are not subject to disadvantaged communities as determined by CalEnviroScreen. Table 1 below summarizes these program requirements.

For all LIWP investments that are required to benefit priority populations, administrators must ensure that their projects are implemented in accordance with the priority population criteria in CARB's Funding Guidelines[1].

[1] Priority population criteria and Investment Targets for FY 2021-22 Funds are contained in CARB's "Funding Guidelines for Agencies that Administer California Climate Investments", are available at: https://ww2.arb.ca.gov/resources/documents/cci-funding-guidelines-administering-agencies

Table 1: Summary of LIWP-MF SFY Funding Allocations and Program Requirements

State Fiscal Year	Allocation (millions)	Allocated to Disadvantaged Communities (millions)[2]	Allocated to Low-Income Properties and Households within ½ mile of Disadvantaged Communities (millions)[2]	Allocated to Low-Income Properties and Households anywhere in the State (millions)[2]	CalEnviro-Screen Version
2014/15	$17.9	$17.9	0	0	2.0
2015/16	$6.1	$6.1	0	0	2.0
2016/17	$19	$19	0	0	2.0/ 3.0
2017/18	$7.1[3]	Up to $6.1	$1	0	3.0
2018/19	$4.3	$4.3	0	0	3.0
2019/20	$9.5[4]	$5	$0.5	$4	3.0
2021/22[5]	$14.2	$7.1	$0.7	$5.7	4.0
2022/23[6] (Proposed)	$23.3			$23.3	TBD
2023/24[6] (Proposed)	$23.3			$23.3	TBD
TOTALS	$124.7	$65.5	$2.2	$56.3	

[2]Includes administrative costs associated with direct program costs for implemented projects in these areas.

[3]From the SFY 2017/18 allocation of $7.1 million, $5 million was dedicated to services for properties housing farmworkers, inclusive of administrative costs. Eligibility for low-income properties housing farmworkers outside of disadvantaged communities were considered on a case-by-case basis.

[4]From the SFY 2019/20 allocation of $9.5 million, $2 million was dedicated to services for properties serving as homeless shelters or transitional housing, inclusive of administrative costs.

[5]From the SFY 2021/22 for 14.2 million, Services to eligible low-income properties housing farmworkers may also be served. Services to homeless shelters or transitional housing, will be considered on a case-by-case basis.

[6]From the proposed SFY 2022/23 for 23.3 million, and SFY 2023/24 for 23.3 million, the estimated timeline for confirmation of funding is June 15, 2022 for SFY 2022/23 and June 15, 2023 for SFY 2023/24. Services to eligible low-income properties housing farmworkers may also be served. Services to homeless shelters or transitional housing, will be considered on a case-by-case basis.

B. Farmworker Housing Component Conditions

AB 109 (Chapter 249, Statutes of 2017) provided funding to LIWP-MF for SFY 2017/18 and required CSD to include a focus on low-income multifamily, solar and farmworker programs. In response to this legislative mandate, a carve-out of at least $5 million from the SFY 17/18 LIWP-MF allocation of $7.1 million to this program component was dedicated to providing services for properties housing farmworkers, inclusive of the administrative, consultation services, and direct program costs associated with these dedicated services. For SFY 2021/22 and the proposed SFY 2022/23 and 2023/24 funding allocations there is currently no legislative mandate for a specific allocation for MF farmworker properties, but MF farmworker properties that meet eligibility requirements may still qualify to receive incentives.

For a property to receive farmworker-specific incentives, the PO must confirm that at least 50 percent of the units are available to, and occupied by, farmworkers and their households, including retired and/or disabled farm laborers. For verification purposes, the following definitions from the California Labor Code[7] 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.

Eligibility pathways for POs include submission of Farmworker Housing Regulatory Agreements or self-certification after verification of tenant eligibility.

C. Homeless Shelters and Transitional Housing Allocation Conditions

A carve-out of at least $2 million from the SFY 19/20 allocation of $9.5 million to this program component was dedicated to providing services for homeless shelters and properties providing transitional housing, inclusive of the administrative, consultation services, and direct program costs associated with these dedicated services, and in

[7] Definition of Agriculture and Agricultural Employee, Cal. Labor Code Sec. 1140.4(a)-(b).

accordance with guidance issued by CSD. For SFY 21/22 and proposed SFY 22/23 and 23/24 services to homeless shelters and transitional housing will be considered on a case-by-case basis.

V. LIWP Goals

A. Goal #1: Maximize GHG Reductions

The reduction of GHG emissions is the primary goal of LIWP. AB 32, also known as the California Global Warming Solutions Act of 2006, mandates the return of state GHG emissions to 1990 levels by the year 2020. AB 32 established California as a global leader on reducing greenhouse gases and prescribes a comprehensive and long-term approach to addressing climate change in a way that aims to improve the environment and natural resources while maintaining a robust economy.

CSD modeled its MF Program to improve the energy efficiency of MF buildings and achieve GHG emission reductions. Each building is comprehensively assessed and evaluated both through on-site inspections and the use of diagnostic and energy audit tools to determine a suite of GHG-reducing energy efficiency and renewable energy measures for installation in living and common areas.

Leaking gas appliances, non-functioning heating and cooling systems when temperatures dramatically rise or fall, and other health and safety issues can be deadly. Remedying health and safety issues may cause a rise in energy use and GHG production, however, the importance of protecting the health, safety and well-being of occupants requires that such safety hazards be promptly mitigated and not go unaddressed. For this reason, the LIWP-MF Program Component will continue to require assessment and remediation of health and safety issues prior to initiating LIWP-MF work. These remediations require the PO's financial participation and/or the availability of leveraged funds to offset the cost of health and safety measures that do not result in GHG reductions. In addition to technical assistance provided by the Administrator to the PO's, LIWP funds will be used for incentives for the installation of energy efficiency measures, as well as for investments in renewable energy that result in energy savings and reduced GHGs. Accordingly, the financial participation of the PO will help defray the cost of services and address health and safety concerns, thereby ensuring optimal use of program funds maximizing GHG reduction.

For SFY 2021/22 funding, when replacing mechanical equipment containing refrigerants, CSD will utilize a higher incentive to encourage replacement with heating and cooling systems containing low global warming potential (GWP) refrigerants and eliminating high-GWP hydrofluorocarbon gasses that are thousands of times more potent per pound that carbon dioxide (CO_2).

B. Goal #2: Maximize Co-Benefits to Disadvantaged Communities

While GHG reduction is the primary goal of the California Climate Investments, another highly important objective of CSD's LIWP-MF Program are the "co-benefits" derived from service delivery. The Investment Plan goals include:

- Maximizing economic and environmental benefits;
- Fostering job creation; and
- Directing investment toward the most disadvantaged communities and households.

Energy efficiency measures and solar photovoltaics installed with LIWP-MF incentives are well-suited to provide direct and meaningful benefits to low-income households and properties. When energy bills are lowered, more household income is available for necessities like food, transportation, housing and medicine, as well as for discretionary spending. Reduced energy costs result in higher levels of consumer spending within communities, thereby stimulating the local economy and spurring investment and hiring. Accordingly, CSD will not only be able to determine the estimated GHG reduction resulting from each MF project, but the estimated annual savings realized by each household as well.

In addition to reducing energy costs, the MF Program will offer economic benefits in the form of employment, job training and supporting the ongoing presence of affordable housing stock. Local economies will also benefit from contractor expenditures for supplies and the retention of specialty contractor services.

CSD will work with the Administrator to determine appropriate ways to achieve these goals. It will be the responsibility of the Administrator to track and report project information to CSD in accordance with the recordkeeping and reporting guidance developed by CARB (e.g., hours trained, hours worked, individuals employed and whether employees are residents of disadvantaged communities, amount of LIWP funding used to provide job training and employment) and ensure consistency with local, state, and federal law.

The Administrator will utilize a variety of approaches to promote workforce development, to include:

- Partnering with the local Workforce Investment Board to offer internships/hands-on training to individuals who have received classroom or other training elsewhere;
- Promoting the hiring of workers from disadvantaged communities to fill existing vacancies or positions created as a result of LIWP;
- Encouraging employment agreements with installation contractors to hire individuals from disadvantaged communities;
- Giving priority to installation contractors from disadvantaged community areas; and,
- Fostering professional development in the trades and offering experience certificates and references for the long-term unemployed;
- Purchasing measure items and products from local businesses wherever possible.

The MF Program offers CSD an opportunity to encourage workforce development in areas where there is a shortage of skilled and semi-skilled labor. Interns working with experts in the field will receive valuable professional development experience. Workforce development partners, their sub-contractors and POs will also be able to recruit from this skilled workforce. The emphasis will be on creating good paying jobs, a safe work environment and a skilled workforce in disadvantaged communities.

VI. Multi-Family Administrator Procurement

A. Eligibility for the Multi-Family Administrator

The Administrator will be selected on a competitive basis. Eligibility for the Administrator will be limited to private non-profit or public organizations that have qualified for and received an Internal Revenue Service (IRS) 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 Administrator must:

- Be eligible to receive public funds (a list of entities that have been declared ineligible to receive federal 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.
- Demonstrate financial solvency through the submission of the most current organization-wide audit, and the last two years of the IRS Return of Organization

Exempt from Income Tax Form (IRS – Form 990 and Audit);

- Have experience administering programs and providing supportive services to low-income, affordable housing populations and the communities in which they reside;
- Have demonstrated experience administering low-income, energy efficient, and renewable energy services of similar scale and structure.

B. Procurement Process

CSD will release a draft competitive RFP and these Program Guidelines on or around May 20, 2022, affording interested parties to provide comments during a 12-day comment period. The Formal RFP and Program Guidelines will be released on or around June 8, 2022. Proposal responses to the RFP will be evaluated, and points awarded in categories to include Proposer qualifications, details of the approach, workplan, and the outlined budget. The Awards are anticipated to be announced on or around September 1, 2022.

Lists of all Proposals 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 website.

The Administrator selected though this process will be contracted to provide services through August 31, 2025, with initial allocations of approximately $14.2 million from CSD's FY 2021-22 LIWP appropriations. It is CSD's intent that the Administrator engages additional subcontractors and pursues 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 Administrator shall develop service delivery strategies and capacities that are responsive to geographical, economic, and climate conditions.

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). This procurement is exempt from Department of General Services (DGS) approval pursuant to SCM Chapter 4.04(A)(4), which applies to federally or state-funded grants based on opinions issued by the Attorney General.

C. Scope of Procurement

CSD may, at its discretion, utilize the 2022-RFP-83 solicitation for the Administrator 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 the MF Component, 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 a suitably qualified Administrator, CSD reserves the right not to issue any awards, and to issue a new solicitation.

Information on the Administrator and services will be made available at:

https://www.csd.ca.gov/Pages/Multi-Family-Energy-Efficiency-and-Renewables.aspx

VII. Project Types

LIWP funds will be used to incentivize the installation of energy efficiency measures and renewables such as solar photovoltaics in multi-family buildings to contribute to the reduction of GHG emissions.

Under CSD's MF Program, health and safety measures (such as the repair of unsafe combustion appliances) will be evaluated and the identified concerns will be addressed with the PO. Each owner will be responsible for the cost of health and safety remediation measures either through direct owner investment, the leveraging of other sources of funding, or a combination of both, unless mitigation can be accomplished by the installation of new, more energy efficient equipment that results in GHG reductions.

The Administrator will serve multi-family buildings that will be assessed for, and may be eligible to receive, incentives for the installation of energy efficiency measures based on the annual reduction in Metric Tons of Carbon Dioxide equivalent ($MTCO_2e$) achieved, as well as incentives for solar photovoltaic systems based on system size and leveraged dollars.

A. MF Technical Assistance

The Administrator's technical assistance on scopes of work will emphasize measures that are expected to yield significant GHG reductions and energy savings.

Factors that affect the evaluation of measures include:

- Existing levels of insulation and type of building envelope.
- Condition of existing mechanical systems, appliances and other systems that use energy on a whole building basis.
- Opportunities for electrification including evaluation of feasibility of replacement of gas fired water heating and HVAC with heat pump technology and required infrastructure including electrical service requirements.
- The number of occupants in the MF dwelling, its common area energy burden, and the apartments' energy use patterns.
- Estimates of energy savings and GHG reduction returns.
- Demonstration of benefits to tenants.

B. Solar Photovoltaics

Multi-family buildings will be assessed independently by the Administrator to determine the potential for the installation of solar photovoltaic systems.

Factors that will be evaluated include, but are not limited to:

- Suitable orientation of building.
- Available and adequate unshaded roof space.
- Roof condition.
- Access and layout of existing mechanical equipment.
- PV sizing considerations.
- Determination of feasibility of electrification.
- Property electrical metering structure and access to meters.
- Estimates of energy savings and GHG reduction returns.
- Compatibility with available rebate programs.
- Demonstration of benefits to tenants.

VIII. Allocation of Dollars

LIWP funding of $63.9 million to date has been allocated to LIWP-MF, in addition $14.2 million GGRF funding has been allocated for SFY 2021/22, and an additional proposed allocation of $23.3 million for SFY 2022/23 and $ 23.3 million for SFY 2023/24 funded through the General Fund, which will be determined by approximately June 15th of each calendar year as part of the state budgeting process. This does not include funding leveraged from other potential sources.

Project applications will be evaluated on their merits, and the Administrator will attempt to target MF buildings with the greatest energy waste while factoring funding allocation and other program targeting considerations. As part of the initial assessment, a building's energy usage data will be analyzed to develop a scope of work that will prioritize the efficiency and renewable measures with the greatest potential for GHG reductions. POs must be prepared to install upgrades that achieve at least 15 percent energy savings above current property conditions. If other funding sources are being leveraged for the upgrades, a higher level of energy savings is required to be achieved, based on the level of funding.

The percentage of the total project cost that the LIWP incentive will cover will vary from project to project depending on variables including the age of the property and existing systems, feasibility of measure installation, and financial resources of the PO. Based on an initial analysis of a sample set of projects, it is estimated incentives will fund an average of 70 percent of energy efficiency project costs, and up to 80 percent of solar PV costs.

The incentives will be reserved on a first-come-first-served basis with agreed upon completion times. In addition to formal incentive reservations, the Administrator may also enter into a provisional reservation agreement with properties that are placed on the waiting list when current funding is no longer available. This will enable some level of technical assistance to be offered to those property owners to ensure that the reservation process continues to move efficiently for all parties involved. Provisional reservations from previous funding allocations shall be re-evaluated to determine if they are still eligible for the program and may be converted to a formal reservation agreement at such a time that new funding is available. When sufficient interested projects are identified to be program eligible, projects may be prioritized based on the intensity of existing building energy use and the associated potential for energy and GHG savings, project construction timelines, and overall project feasibility, including construction and financing details. Funds may become unavailable without notice. It is the intent of the Program to honor incentives for any project that signs a formal Incentive Reservation and Participation Agreement form and is in compliance with all other program requirements.

Additional funding may be available through leveraging with other energy assistance programs, and with the Energy Saving Assistance Program, which is provided through the California Public Utilities Commission and offered through California Investor-Owned Utilities. This IOU-leveraged funding may include ESA approved measures for "in-unit" weatherization including but not limited to:

- Attic insulation
- Energy-efficiency refrigerators
- Energy-efficient furnaces
- Weatherstripping
- Caulking
- Low-flow showerheads
- Water heater blankets
- Door and building envelope repairs which reduce air infiltration

CSD and the Administrator shall take appropriate measures to structure contracts and participation agreements to ensure anti-displacement and affordability provisions are considered.

The Administrator shall meet the following program funding allocation targets:

1. Administrative Expenses - Maximum 5 percent
    a. “Administration” is defined as general administration and general expenses such as the director’s office, accounting, personnel, library expenses and all other types of expenditures not listed specifically under one of the subcategories of ‘Facilities’.
2. Consultation Services - Maximum 18 percent
    a. Administrator Program/Project Support Costs

Services rendered by the Administrator shall be reimbursed on the basis of an hourly “loaded” rate which will include the base labor costs and fringe benefit labor costs, exclusive of profit. The hourly rate scale shall be set out in the Service Delivery Plan (SDP) to be provided by the Administrator after contract execution and approved by CSD and shall include rates for key personnel and shall be consistent with comparable industry standard rates for similar activities.

b. Contracted Consultant/Subcontractor Costs

Expenses incurred by the Administrator to pay for services rendered by consultants and sub-contractors for purposes of program/ project support shall be tracked and reported on an actual cost basis (per invoice) of all allowable expenses incurred, delineated by type of activity and project, if applicable.

c. Misc. Consultation Operating Costs

Costs incurred by Administrator that are immediately and directly associated with the provision of consultation services such as travel costs, support materials and supplies shall be tracked and reported on an actual cost basis.

3. Direct Program Costs - Minimum 77 percent

These expenses encompass Project Incentive Payments, inclusive of Energy Efficiency and Solar PV installations.

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.

IX. LIWP-MF Design

The Administrator shall be selected and procured under the policies and procedures established within Public Contracting Code and as clarified in the State Contracting Manual. The Administrator shall facilitate installation of energy efficiency measures and renewable energy systems, for the purpose of reducing GHG emissions from MF residential dwellings located in the Service Area as described in Section IV, pursuant to the California Global Warming Solutions Act of 2006, AB 1550, AB 1532, SB 1018, the California Budget Act, as well as Program Guidance issued by CSD.

The Administrator’s services include, but are not limited to, subcontractor procurement assistance, site assessment, energy modeling and customized work scope development, construction management assistance, and post-construction quality assurance, verification, and training support, along with energy education and training to tenants and POs. Services will only be available to properties enrolled in the program for energy efficiency upgrades and solar installations funded in part by LIWP MF incentives.

In summary, the following steps apply to PO participation in the LIWP-MF Program:

- The PO completes an online interest form to the Administrator.
- The Administrator will screen properties for eligibility and review properties' energy use intensity with a benchmarking and analysis tool.
- The Administrator will contact qualified POs to discuss property needs and existing conditions, financing sources, timeline, and potential upgrade opportunities.
- Qualified POs receive free technical support, with the Administrator performing preliminary savings and financial analysis and recommending potential upgrade scope.
- The PO completes the Intent to Proceed form and submits a good faith deposit
- An energy audit is scheduled at the property. It is anticipated the Administrator's Technical Analysts will perform all energy audits but a technical assistance subcontractor may be utilized if additional capacity is needed.
- The PO completes an Incentive Reservation and Participation Agreement Form. The Administrator and PO refine the scope of work and funding package, with incentives reserved for the property based on the final agreed upon scope of work and GHG reduction to be achieved.
- The PO and their contractor(s) install the upgrades and provide the Administrator with a construction schedule so that 50 percent and 100 percent construction completion inspections can be performed, in addition to other more intermittent inspections as needed. All contractors must follow the Administrator's requirements to maintain good Program standing.
- Once post-installation site visit inspections are completed by the Administrator and measures are verified and appropriate testing performed, and the owner and their contractor(s) have submitted necessary documentation to the Administrator, the good faith deposit will be returned and the incentives may be issued.

The Administrator shall incorporate industry best practices, along with operations and maintenance improvements, to develop plans for carbon-effective energy retrofits that maximize energy savings. The Administrator will help the PO determine the best value and mix of measures for the property. The options shall include energy efficiency retrofits, general improvements and innovations that will provide significant GHG reductions.

The Administrator shall perform whole building energy audits and analysis to assess the installation of eligible energy efficiency measures. Each property shall have a whole building performance target based upon energy modeling software that documents the building's existing conditions, prospective efficiency upgrades and expected post-retrofit conditions. If similar buildings exist within a complex, a reasonable representative sample of buildings will be sufficient to meet this requirement for the complex. Based upon the audit analysis, the Administrator shall develop a proposed scope of work. Examples of potential measures are outlined in Exhibit A. However this list should not be considered finite. Where other funding sources exist, the PO will be encouraged to utilize these resources to the extent possible to leverage with LIWP incentives and any PO project co-investment. The Administrator shall serve as a single point of contact for the coordination of leveraged rebates and incentives.

For each multi-family project, the Administrator shall assist in developing the project scope of work and measure installation specifications. Bulk purchasing resources and installation contractor bidding support may be provided to assist the PO with cost controls and to optimize project cost effectiveness. The Administrator shall provide technical support, as needed by PO, for the procurement of appropriate installation contractors to complete the work. Training opportunities shall also be provided for installation contractors to ensure they understand energy efficiency installation best practices and program requirements.

The Administrator shall ensure the application of relevant state and federal standards, policies, laws and local ordinances, and assist CSD and multi-family property representatives in understanding and implementing relevant new standards and technologies. Any installation contractors hired must possess all required licenses and certifications to perform the applicable installation work.

Additionally, the Administrator shall also provide construction oversight at all critical phases and perform quality assurance testing and verification that measures were installed correctly so that the projected energy savings will be realized. Post-installation site visits, including inspections of common areas and a representative sample of apartments and combustion safety testing, will be completed prior to issuing incentive payments to POs. Further, energy modeling true-up shall be performed at the conclusion of the construction phase, to ensure that incentives reflect actual final measure performance. The Administrator shall generate periodic reports to CSD and closeout reports for each MF project served under the LIWP-MF Program. The project report for each property will identify the GHG reductions, energy savings (common area and in unit), and measures installed. Furthermore, ongoing "utility use" monitoring shall be provided for the duration of the contract term. A project close-out report shall be provided to the PO and technical assistance regarding installed measures offered to the property operation staff.

A. Marketing and Outreach Activities

The Administrator shall be responsible for a number of marketing and outreach activities, including but not limited to:

- Developing a statewide marketing and outreach plan to educate the public, POs in the multifamily building sector, target population, and internal stakeholders about CSD's LIWP MF Program
- Preparing marketing materials to present to target communities, at public hearings, and to local agencies, and maintaining a customer service function for lead generation
- Advising CSD on the strategic development of outreach to affordable housing properties located in the qualified Service Areas
- Maintaining a prioritized list of all potential projects and applicants, including benchmarking of MF buildings and clusters of multi-unit dwellings, in specified low-income communities

B. Project Selection

The Administrator shall be responsible for the development of a Service Delivery Plan (SDP) at contract execution which shall specify the process by which MF projects are selected, planned, and prepared for construction. The elements of the process include, but are not limited to the following:

- Outreach to prospective POs;
- Process initial entrance (application) form;
- Perform whole building energy audits or analysis using energy modeling software, with provisions made for POs financial participation;
- Conduct site assessment;
- Develop whole building performance target;

- Conduct negotiations with POs;
- Upon agreement, issue notice to proceed and accept good faith deposit;
- Develop project proposal (energy report); and
- Develop and refine scope of work, as reflected in the Project Workplan.

C. Project Workplan (PWP) Execution

For each project, the Administrator shall develop a PWP that is consistent with program design, goals and priorities, that reflects the scope of work, and that is feasible, given level of PO financial participation and to ensure that project incentives shall not exceed the total cost of completed measures. The Administrator shall submit each proposed PWP to CSD for review and provide portal access for CSD to review each PWP online. All projects are subject to CSD's written approval, in accordance with a procedure developed and agreed upon by the parties. The PWP should utilize a baseline approach with a package of energy efficiency measures (EE), energy conservation measures (ECM), and renewable energy measures, selected from categories that include but are not limited to:

- Space heating – major fuels;
- Air conditioning;
- Water heating/ Domestic Hot Water;
- Refrigerator/ refrigeration;
- Common area appliances, vending machines;
- Whole building lighting retrofits –interior, exterior, parking lots, pool areas, maintenance and Service Areas;
- Water use;
- Solar water heating; and
- Solar photovoltaics.

The PWP should address possibilities for customized solutions with deep retrofit emphasis on measures with significant GHG impacts. In addition to the proposed package of measures, the PWP should include analysis of health and safety conditions, options for addressing problems identified, and recommendations for resolution.

Health and safety problems must be addressed and rectified prior to commencement of weatherization/construction activity. Health and safety measures that meet Program energy savings criteria and objectives may be installed with Program funds, PO capital contributions, and/or PO rebates. The use of Program funds for other health and safety measures may be considered and authorized by CSD on a case-by-case or pilot basis.

The Administrator shall ensure that energy efficiency and renewable energy measures are installed in accordance with Program requirements, whether work is conducted under agreements between POs and the Administrator's network of contractors or between POs and independent contractors. The Administrator also shall verify that all Contractors and subcontractors have the appropriate credentials and levels of competence needed for installations.

D. Project Budget

A Project Budget shall accompany each PWP for review by CSD and shall, in accordance with the SDP, reflect the following elements:

- Anticipated energy savings and reduction in GHG emissions derived from the energy efficiency and Solar Thermal measures to be installed, as specified in the

PWP, utilizing the ARB-defined GHG conversion factors stated in ARB's LIWP Multi-Family Quantification Methodology documents applying to the FY allocation funding the project.

- Anticipated energy generated and potential GHG emissions reduced from Solar PV, to be installed, as specified in the PWP, utilizing the CSI-defined methods to estimate net energy savings to be converted to GHG reduced using ARB's GHG conversion factors.
- Anticipated Project Payments (EE Incentives) based on the reduction in GHG emissions to be attained by the measures scheduled for installation, as provided in the PWP, to include common area measures and benefits to tenants.
- Anticipated Project Payments (PV Incentives) based on system size, leveraged dollars, and solar design factor as provided in the PWP, to include common area benefits and benefit to tenants.

The Administrator shall be responsible for Project Payments to POs upon satisfactory completion of approved projects. The Administrator may withhold payments to POs who fail to fulfill program requirements and/or are out of compliance with the Participation Agreement.

E. Participation Agreement

The Administrator is responsible for developing a Participation Agreement (PA) to ensure project completion. The SDP and standard PA form shall be submitted to CSD for review, comment, and approval. The PA shall reflect the scope of work, terms and conditions, final PWP, and budget and anticipated project payments for each project. All executed PAs shall be maintained in the project file and be available for CSD's review.

The PA shall state that the PO's compliance with the agreement is a prerequisite to provision of any program funds or project payments, and that appropriate contract provisions shall be included in PO agreements with vendors and installers. The PA may allow progress payments to POs, provided no portion is paid for measures that are incomplete or inoperable. All project payments, including progress payments, may not exceed the total cost of the complete measures.

Pursuant to the PA, POs shall permit CSD, or its third-party designee, and the Administrator, to inspect the project for the purposed of onsite monitoring and inspection.

X. Quantification of Benefits and Co-Benefits

A. Approach and Method of Quantifying GHG Reduction

CSD has worked with CARB and industry stakeholders to establish GHG reduction methodologies that provide guidance on data collection and describe how GHG reductions will be quantified for LIWP-MF projects. Quantification Methodologies are available at:

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

In order to generate consistent data for LIWP-MF, CSD will perform all calculations to quantify energy savings and GHG emission reductions. CSD will determine energy savings and the associated GHG reduction estimates using data reported to CSD by the Administrator during program implementation.

For example, the Administrator is required each month to electronically report completed measures and measure information to CSD with status updates on GHG reduction goals for each project. 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.

Section XIII contains a preliminary list of data reporting expectations. Energy savings and GHG reduction estimation approaches are identified below.

B. Determining Energy Savings

The methodology for quantifying energy savings for LIWP measures may include a “deemed savings approach,” which uses energy industry standards and data to calculate saving averages for commonly installed measures, or an energy modeling approach using actual utility billing data (to the extent available) to quantify energy efficiency over a defined period of time (e.g., the preceding twelve months and twelve months post project completion), or a combination of both. CSD and CARB may utilize both approaches due to the challenges in obtaining actual utility billing data, the highly mobile nature of many low-income households, and variances which impact residential energy consumption such as changes in the climate, household composition, and consumer behavior.

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 California Public Utilities Commission (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 Low-Income Weatherization Program Quantification Methodology. Home energy audit software approved by the California Energy Commission, or approved by Energy Upgrade California, is used by CSD’s administrators to estimate energy savings for various energy efficiency measures available under LIWP.

For Solar Water Heaters (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. CSI solar thermal calculator inputs are outlined in

CARB's Quantification Methodology for CSD.

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.

Utility billing data would be used if an energy audit tool required billing data to establish a baseline and predict future energy savings. Utility bills could also potentially be used for verifying the energy savings estimates.

C. Determining GHG Emissions Reductions from Energy Savings

CSD will calculate lifetime GHG reductions from electricity savings from energy efficiency measures by multiplying deemed savings by the relevant emission factor in the Quantification Methodology for electricity or gas[8] and the EUL of the measure.

For SWH systems, 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 the length of the manufacturer's warranty, 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 length of the manufacturer's warranty, factoring in an annual rate of system degradation of 0.5 percent per year.

D. Approach and Method for Quantifying Workforce Development

The participating Administrator and project installation contractors will provide opportunities for employment, job-training and professional development benefits. The methods the MF Program uses will vary based on the demographics and needs of local communities associated with the participating upgrade projects.

CSD shall work with the Administrator to identify target goals and the best options for workforce development in connection with GHG reduction activities, in each phase of the multi- family program. Once the goals and best options are determined, the Administrator will be required to report full-time jobs created, training hours provided and other information necessary to document benefits to disadvantaged communities.

E. Approach and Method for Quantifying Household Savings

To estimate individual household and building's energy cost savings (dollars saved on energy bills on an annual basis), CSD will multiply anticipated energy savings by the blended utility rates to arrive at an estimated, annual dollar savings per apartment and per building.

F. Approach and Method for Quantifying Other Co-Benefits

CSD and the Administrator will produce a narrative description of any additional co-benefits to tenants identified in project implementation (e.g., energy efficiency education).

[8] Electricity emission factors are updated by CARB for the purposes of California Climate Investments GHG Quantification Methodologies.

XI. Household Eligibility for Multi-Family Dwellings

Owners of buildings that meet the eligibility requirements outlined in this section and specifically the income qualifications can apply for services by contacting the Administrator.

Buildings may be prioritized for services based on low-income qualification and level of energy usage.

Eligibility Requirements:

- All LIWP-MF projects must reduce GHG emissions and reduce energy consumption.
- Located in a qualified Service Area as defined in Section IV.
- Property shall be capable of achieving a minimum of 15 percent energy reduction, unless otherwise authorized by CSD in writing, through the installation of weatherization/ energy efficiency (EEM and ECM) retrofits, exclusive of the application of renewable energy measures, such as Solar-PV, with priority given, whenever feasible and practicable, to those properties, relative to the broader market, experiencing high energy wastage or inefficiency or inefficient mechanical systems, based on Energy Use Intensity (EUI) data.
- A minimum of between 15 and 25 percent energy reduction shall be attained for projects involving only EEM and ECM that also receive funding from other leveraged sources, depending on the per unit amount received from these sources, as outlined in the approved Service Delivery Plan (SDP) referenced in Section VIII B, and a minimum of 40 percent for leveraged projects involving EEM, ECM and Solar PV. The 15 percent minimum energy reduction shall be deemed a threshold criterion only.
- Unless otherwise authorized by CSD in writing, only multi-family buildings with 20 or more residential units, whether or not served by a central hot water, heating and/or cooling system, as well as multi-building complexes with at least one building of 20 or more units, shall be eligible for funding. As of July 1, 2017, multi-family buildings with five or more residential units, whether or not served by a central hot water, heating and/or cooling system, are now eligible to enter into Participation Agreements for funding without authorization by CSD. For projects with multiple buildings on site, buildings with less than five residential units may participate in the Program. Properties with less than five units shall be subject to review and approval by CSD. Both residential and non-residential spaces that directly serve or are used by the residents, such as laundry facilities, garages, community rooms, and community kitchens are eligible for improvements and incentives under the Program.
- Income Qualification: Buildings may qualify for MF services and incentives as follows:
    - All otherwise eligible U.S. Department of Housing and Urban Development (HUD) Section 8 housing
    - Affordable housing properties in which no less than 66 percent of the units are occupied by households with an income of 80 percent or less of the Area Median Income (AMI) as established by HUD for its Home and Community Development Block Grant (CDBG) Programs
    - Categorical eligibility may be used in lieu of income eligibility (80 percent of AMI or less) to determine eligibility of occupant households. Qualifying programs for categorical household eligibility are those programs approved in writing by CSD.
- Provides demonstrable benefits to tenants.

The Administrator shall not provide LIWP-MF services to the following types of buildings or projects:

- Buildings requiring significant environmental review, mitigation of fire hazards or electrification and/or environmental decontamination;
- Buildings with significant energy efficiency upgrades installed within the previous five years, unless LIWP energy savings goals can be attained at a reasonable cost through the implementation of additional measures;
- New buildings or buildings rebuilt or remodeled or retrofitted to meet Title 24 standards;
- Buildings that are structurally unsound or condemned;
- Buildings likely to be sold as evidenced by position in the market and refinancing cycle;
- Buildings under a legal cloud or importuned by illegal activity; and
- Projects under single ownership, including closely held affiliates that, in the aggregate, total more than 1,500 dwelling units receiving Program services. CSD may, at the Administrator's request, and for good and sufficient reason, waive this restriction in writing, with respect to a specified project or projects.

XII. Monitoring and Quality Assurance

The Administrator shall be accountable for providing monitoring compliance of all projects. CSD will conduct various compliance monitoring reviews such as, but not limited to, in-house and on-site compliance monitoring to ensure the Administrator adheres to the program requirements and contractual obligations.

The Administrator that fails to adhere to contractual obligations may be subject to the disallowance of expenditures and to the return of amounts paid and/or may potentially disqualify them from future funding opportunities.

XIII. Reporting and Auditing

Reporting and recordkeeping requirements will be the responsibility of both CSD and the Administrator. All reports must be consistent with the quantification methodologies and reporting guidance[9] developed by CARB and the requirements established by CSD in these Guidelines. The level and duration of reporting and record retention will vary depending upon project type and will be specified in the Administrator contract. At a minimum, the Administrator will be required to report to CSD basic project information for all properties receiving incentives during the funding or contract term and maintain records for three years after contract close.

The Administrator will also be required to report to CSD project information that demonstrates the energy and GHG savings achieved, priority population benefits, other implementation metrics, and other quantification data determined by CSD and CARB.

Project level information would include, but is not limited to project location, project type, building characteristics, specific measures installed per project, diagnostics performed, historical building energy usage, estimated and actual energy savings, estimated project savings calculation method, and solar photovoltaic system design and specifications.

[9] Detailed reporting requirements are contained in CARB's "Funding Guidelines for Agencies that Administer California Climate Investments", available at: https://ww2.arb.ca.gov/resources/documents/cci-funding-guidelines-administering-agencies

To support the program's priority population and California Climate Investments goals, the Administrator shall track and report additional aggregate information, including but not limited to, LIWP dollars benefiting priority populations, whether installation contractors and their employees are residents within a disadvantaged community, the number of personnel trained, and the amount of LIWP funding used for job training or employment.

CSD may also impose other reporting requirements that will track and manage progress toward goals, and to report, as necessary, to other agencies and organizations that seek updates on the progress of California Climate Investments spending.

For project auditing, the state shall have the right to inspect the work and associated records at any and all reasonable times as part of LIWP-MF oversight. This right shall extend to any subcontracts, and the Administrator shall include provisions ensuring such access in all its contracts or subcontracts.

XIV. LIWP Future

The LIWP–MF Program was a new sub-program component in 2015. This will be the second contract for the Multi-Family program since that time. It is the only whole building program that includes incentives for energy efficiency measures and solar photovoltaics, allows "in-unit" and common area measures, and is available to affordable housing properties housing low-income residents.

Key highlights include working to benefit low-income priority populations, requiring that all projects reduce GHG emissions, and leveraging funding sources.

CSD may find cause to modify the program design to make program implementation more effective and efficient. Such changes could include adjustments in oversight, quality assurance and verification inspections, measures to be installed, reporting requirements, processes for stakeholder engagement and collaboration with advisory forums, etc. 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 at Multi-Family Energy Efficiency and Renewables (ca.gov). To receive notification of any changes to the LIWP-MF Program, including changes to these Guidelines, sign up on the following page to receive LIWP-MF updates via email: https://www.csd.ca.gov/Pages/Contact-Us.aspx.

EXHIBIT A: LIST OF LIWP-MF MEASURES

Possible LIWP-MF measures include, but are not limited to:

Measure: Measure Name	Measure Type
High Efficiency Clothes Washer - In-Unit	Appliances
High Efficiency Clothes Washer - Common	Appliances
High Efficiency Laundry Dryer - In-Unit	Appliances
High Efficiency Laundry Dryer - Common	Appliances
ENERGY STAR® Dishwasher	Appliances
ENERGY STAR® Refrigerator	Appliances
Vending Machine Controller	Appliances
Floor Insulation	Building Envelope
Wall Insulation	Building Envelope
Title 24 Compliant Windows	Building Envelope
Window Shading	Building Envelope
Cool Roof	Building Envelope
Air Sealing	Building Envelope
Unit Lighting	Lighting
Common Area Lighting	Lighting
Exterior Lighting	Lighting
Pool/Spa Heater	Pool
Pool Cover	Pool
Variable Speed Pool Pump	Pool
In-Unit FAU (with or without split A/C)	Space Heating & Cooling
Rooftop FAU (with or without A/C)	Space Heating & Cooling
Terminal A/C or HP	Space Heating & Cooling
Ductless Heat Pump	Space Heating & Cooling
Central Hydronic Boiler	Space Heating & Cooling
Central Steam Boiler/Burner	Space Heating & Cooling
Hydronic/Steam/Chilled Water Pipe Insulation	Space Heating & Cooling
Refrigerant Charge Verification	Space Heating & Cooling
Central Cooling Equipment	Space Heating & Cooling
Variable Speed Pumps and Fans	Space Heating & Cooling
Attic Insulation	Building Envelope
Steam/Hydronic Distribution Upgrades (Balancing, TRV, etc.)	Space Heating & Cooling
Central HVAC Control Upgrade (WWSD, Outdoor Reset)	Space Heating & Cooling

Duct Sealing/Insulation	Space Heating & Cooling
Residential Water Heater	Water Heating
Central Water Heater	Water Heating
Recirculation Pump Temperature Controls	Water Heating
Recirculation Pump Demand Controls	Water Heating
DHW Pipe Insulation	Water Heating
Low Flow Aerators and/or Showerheads	Water Heating
Solar PV System	Solar
Solar Thermal (Central)	Solar
Solar Thermal (In-Unit)	Solar
Energy Education	Education[10]
Other	Other[11]

[10] Energy education is only eligible for LIWP funding if it is a component of a larger project that achieves quantifiable GHG reductions.
[11] Other measures must achieve quantifiable GHG reductions, in accordance with CARB's quantification methodology for CSD.