

Low Income Weatherization Program (LIWP)

Large Multi-Family (LMF) Dwellings and Small Multifamily (SMF) Renewables

September 9, 2015 – Webinar at Sacramento, CA
September 16, 2015 – Fresno, CA
September 16, 2015 - Los Angeles, CA

Funded from the State of California's
Greenhouse Gas Reduction Fund



Welcome!

- Welcome to the Department of Community Services and Development's (CSD) public workshop on the Low-Income Weatherization Program (LIWP) for Large Multifamily (LMF) Buildings.
- Today, we will:
 - Provide an overview of CSD
 - Provide an overview of the State's "Cap and Trade" program, and the funding CSD will receive to serve California's most vulnerable communities
 - Listen to and discuss your comments and suggestions on the proposed program design for the LIWP-LMF Program



Comment Cards

- Our presentation today should take less than an hour, and then we'll have an opportunity for those in attendance to make comments.
- When we open up the meeting for comments, whether you choose to speak publicly or provide written comments only, please be sure to leave your comment card with us today.
- You may also offer comments by emailing us at LIWP.LMF@csd.ca.gov before **COB 9/21/2015**.



- We want to be sure to capture your comments as accurately as possible. Thank you.



Department of Community Services and Development (CSD)

As a Department under the California Health and Human Services Agency, CSD partners with a network of private, non-profit and public community-based organizations commonly referred to as Community Action Agencies or Local Service Providers covering all 58 counties of the state dedicated to helping low-income families and individuals achieve and maintain self-sufficiency, manage their home energy needs and reside in housing free from the dangers of lead hazards.

CSD is responsible for the effective administration and allocation of funding to enhance energy and community service programs that result in an improved quality of life and greater self-sufficiency for low-income Californians.



Current CSD Programs

CSD administers California's share of these federal programs:

U.S. Department of Health and Human Services

- Community Services Block Grant (CSBG)
- Low-Income Home Energy Assistance Program (LIHEAP)

U.S. Department of Housing and Urban Development

- Lead-Based Paint Hazard Control Program (Lead)

U.S. Department of Energy

- Weatherization Assistance Program (WAP)

CSD received
GGRF dollars to
expand its
Weatherization
Program.



CSBG Program Objectives

- CSBG funds locally determined efforts to alleviate the causes and conditions of poverty with the goal of helping people improve their lives and achieve self-sufficiency. Examples of CSBG supported services and activities include programs to address:
 - Employment
 - Education
 - Asset Building
 - Housing and Shelter
 - Nutrition
 - Emergency Services
- In addition, services are provided to local communities for the revitalization of low-income communities, reduction of poverty, and to help local agencies build capacity and develop linkages to other service providers.



Energy Program Objectives

CSD's Energy Programs assist low-income households in meeting their immediate and long term home energy needs through financial assistance, energy conservation, and weatherization services.

- LIHEAP provides financial assistance to eligible low-income households to offset the costs of heating/cooling residential dwellings, for energy-related emergencies, and weatherization services to improve the energy-efficiency of homes.
- WAP provides weatherization to improve the energy-efficiency of low-income homes and safeguard the health and safety of the household residing in the homes.
- LEAD provides for the remediation of lead-based paint in low-income homes with young children.





Because of CSD's experience serving the low-income community and weatherizing single-family and multi-family dwellings, the Department was chosen to receive Greenhouse Gas Reduction Funds to continue this important work.



So Far . . .

- Introduced CSD and its existing Federal Programs

Up Next . . .

- SB535
- Greenhouse Gas Reduction Fund (GGRF) - Funding and Allocations statewide
- Cap and Trade (C & T) Overview
- Disadvantaged Communities (DAC)
- Low Income Weatherization Program – Large Multifamily (LIWP-LMF) Funding Allocation
- CSD's LIWP-LMF goals for the GGRF money



The Greenhouse Gas Reduction Fund (GGRF)

- California's Cap & Trade Program which emerged from AB 32 requires California to return to 1990 levels of greenhouse gas emissions by 2020.
- The program aims to reduce harmful greenhouse gases (GHG) by putting a limit or 'Cap' on the production of these gases.
- To enforce the Cap, oil refineries, power plants and large factories must purchase an allowance from the State for every ton of GHG they produce.
- The State auctions these allowances and deposits the proceeds into the Greenhouse Gas Reduction Fund (GGRF).
- The State will use these proceeds to promote programs that continue to reduce GHG.



Distributing Proceeds from the GGRF

- The California Legislature approved the first 3-year Investment Plan that identified priorities for Cap and Trade Funds.
- This Investment Plan outlined the goals to invest these funds in programs that reduce Greenhouse Gases and promote other co-benefits.
- Eleven State agencies who could contribute to those goals were identified, and the Legislature appropriated a total of \$832M to these agencies.
- CSD received an appropriation of \$75M to provide energy efficiency and renewable energy benefits to Disadvantaged Communities.



How the Money was Allocated

**Table 1: FY 2014-15 Expenditure Plan -
Appropriations from the Greenhouse Gas
Reduction Fund for Investment in Projects**
(Dollars in Millions)

Investment Category	Agency	Program	Amount
Sustainable Communities and Clean Transportation	California State Transportation Agency (CalSTA) and Local Transit Agencies	Low Carbon Transit Operations Program	\$25
	California Department of Transportation (Caltrans)/ California Transportation Commission (CTC)	Transit and Intercity Rail Capital Program	\$25
	Strategic Growth Council (SGC)	Affordable Housing and Sustainable Communities Program	\$130
	High-Speed Rail Authority (HSRA)	High-Speed Rail Project	\$250
	Air Resources Board (ARB)	Low Carbon Transportation	\$200
Energy Efficiency and Clean Energy	Department of Community Services and Development (CSD)	Energy Efficiency Upgrades/ Weatherization	\$75
	California Energy Commission (CEC)	Energy Efficiency for Public Buildings	\$20
	California Department of Food and Agriculture (CDFA)	Agricultural Energy and Operational Efficiency	\$15
Natural Resources and Waste Diversion	Department of Fish and Wildlife (DFW)	Wetlands and Watershed Restoration	\$25
	Department of Forestry and Fire Protection (CAL FIRE)	Fire Prevention and Urban Forestry Projects	\$42
	Department of Resources Recycling and Recovery (CalRecycle)	Waste Diversion	\$25
Total FY 2014-15			\$832



The Greenhouse Gas Reduction Fund (GGRF)

Special consideration for the use of these funds in Disadvantaged Communities was given with the passage of Senate Bill 535, which says . . .



SB (Senate Bill) 535

Senate Bill 535 (De Leon, 2012) stated that:

- At least 25 percent of GGRF moneys shall be allocated to projects that benefit Disadvantaged Communities.
- At least 10 percent of these moneys shall be allocated to projects located in Disadvantaged Communities.
- The California Environmental Protection Agency has identified Disadvantaged Communities “based on geographic, socioeconomic, public health and environmental hazard criteria.”

CSD will spend
100% of its LIWP-
LMF funding in
Disadvantaged
Communities!



What is a “Disadvantaged Community”?

- The California Environmental Protection Agency (CalEPA) developed a tool which “grades” each of the 8,000 census tracts in California, and assigns a “score” to each based on 19 indicators of pollution and population.
- The mapping tool is called CalEnviroScreen2.0 and it ranks each census tract based on its score.
- LIWP has 1,993 individual tracts, containing 9.4 million people that are distributed amongst 29 California counties. Maps of disadvantaged community census tracts and other related information can be viewed at:
<http://www.calepa.ca.gov/EnvJustice/GHGInvest/default.htm>.



What is a “Disadvantaged Community”?

The tool is called
CalEnviroScreen 2.0.

For more information visit:

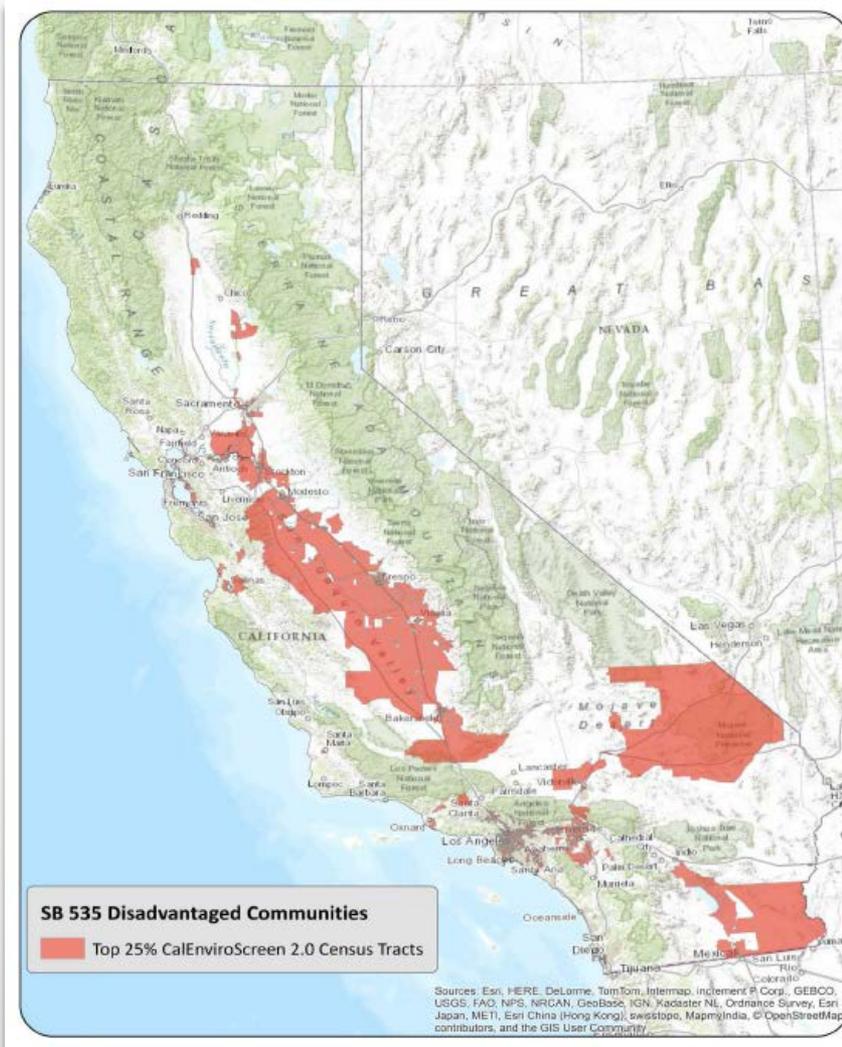
ARB:

[http://www.arb.ca.gov/cc/capandtrade.c
apandtrade.htm](http://www.arb.ca.gov/cc/capandtrade.c
apandtrade.htm)

CalEPA:

<http://www.oehha.ca.gov/ej/ces2.htm>

CSD will spend 100% of its direct
program dollars in Disadvantaged
Communities!



LIWP: Proposed Expenditures

Task	Allocation
State Operations	\$5M
Weatherization	
Single-Family Weatherization	\$13.6M
Small Multi-Family Weatherization	\$10.5M
Large Multi-Family Weatherization	\$10.5M
Solar Water Heating	
Single-Family Solar Water Heating	\$5.7M
Small Multi-Family Solar Water Heating	\$2.4M
Large Multi-Family Solar Water Heating	\$2.4M
Solar Photovoltaics (PV)	
Single-Family Solar PV	\$16.4M
Small Multi-Family Solar PV	\$4.3M
Large Multi-Family Solar PV	\$4.3M
Total	\$75M

Items highlighted in green are part of today's public workshop.

Additional public workshops were held previously to receive input on SF & SMF and Single Family Solar renewables.



CSD's Goals for LIWP

In Disadvantaged Communities:

1. Reduce Greenhouse Gases (GHG)
2. Create Jobs and Stimulate the Local Economy
3. Maximize energy savings (and, therefore, dollar savings) to low-income households.



Goal #1: Reduce GHG

- Energy Savings and Greenhouse Gas reduction go hand and hand - the less energy used, the less GHG is produced.
- Under the LIWP, funds from the GGRF will be used primarily to pay for projects that reduce GHG. Other measures (such as Health and Safety), will be paid by the Property Owner to meet any outstanding code compliance requirements.
- CSD has developed a methodology, in conjunction with the ARB, to quantify GHG reductions.
- Reductions in GHG are measured in MTCO_{2e} in emissions.
- Energy efficiency is quantified in simple Savings to Investment Ratio (SIR) terms to ensure optimization of Cap and Trade dollars.



Goal #2: Produce Jobs and Local Economic Benefits

- An important focus of the LIWP will be to create jobs and training opportunities in Disadvantaged Communities.
- CSD will not hire directly, but we will set goals for our LMF Provider to both hire and train.
 - Direct hires
 - Subcontractors
 - Working with local Workforce Investment Boards and others to provide training opportunities
- CSD will be working with an economist to help us quantify local economic benefits.

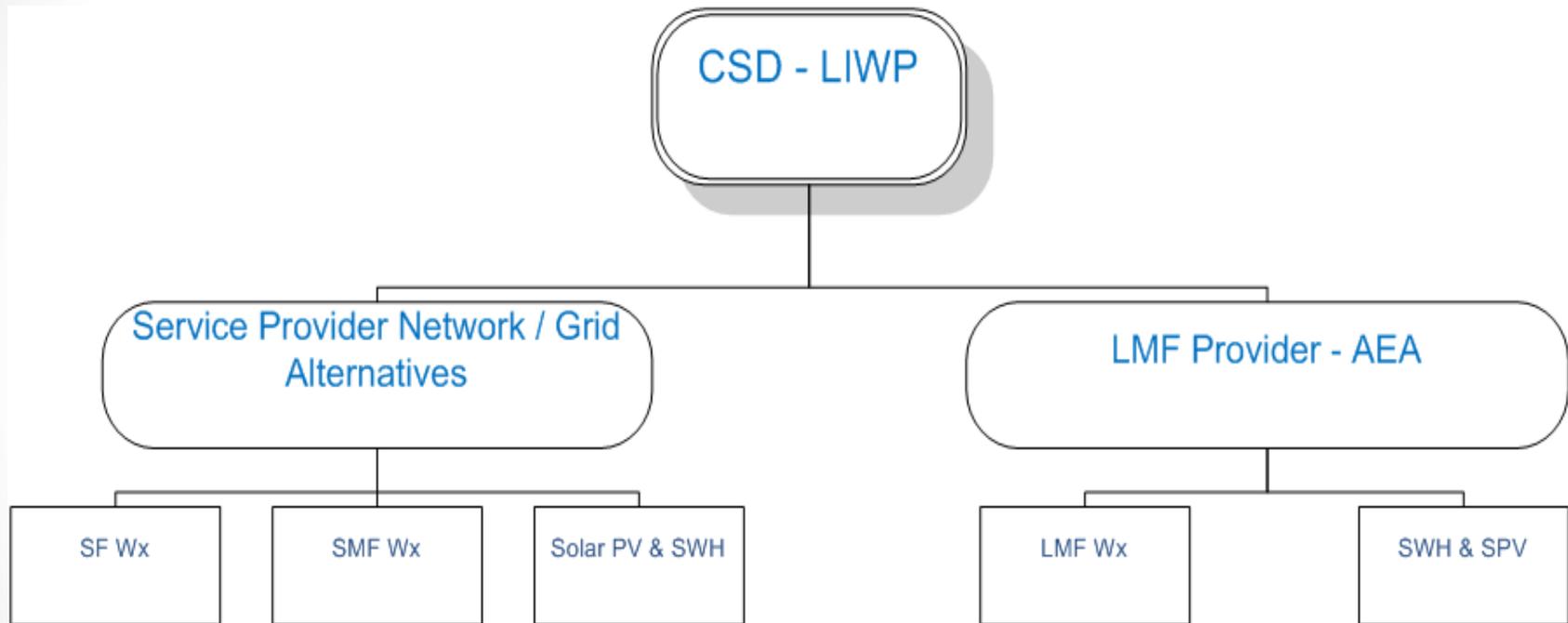


Goal #3: Maximize Household Savings

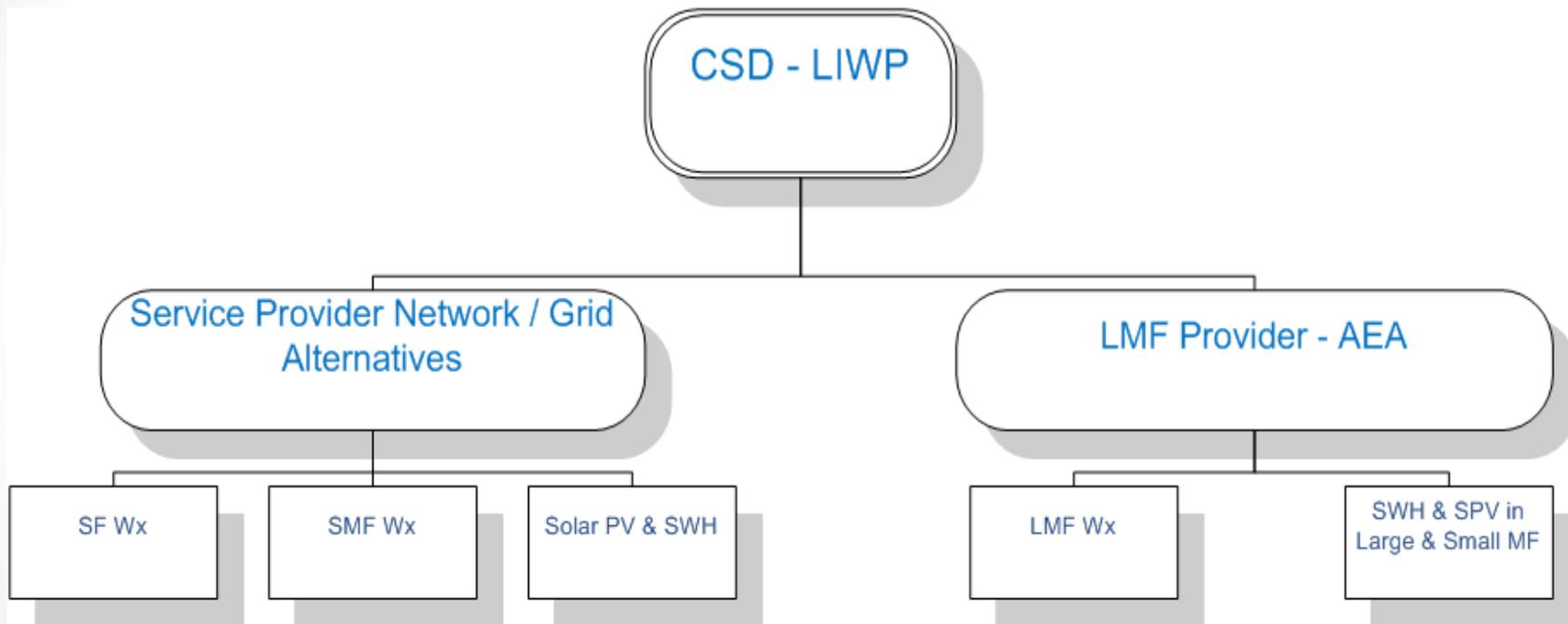
- Goal #3 is closely related to Goal #1 (to reduce GHG emissions)
- As mentioned, GHG reduction and energy efficiency go hand in hand.
- Energy efficiency measures also mean the household will use less energy and, therefore, pay less on their utility bill.
- Low cost measures, deep retrofits and renewables will be installed.
- CSD will seek to maximize energy and dollar savings to the low-income households.
- CSD is developing a methodology, in conjunction with the ARB, to quantify GHG reductions and energy savings.



CSD's Administration of LIWP Programs



CSD's Administration of LIWP Programs



Overall LIWP Model



- **CSD's existing Network of Local Service Providers will assess and, when feasible, install:**
 - Single Family Weatherization measures
 - Small Multi-Family Weatherization measures
 - Solar Water Heating
(not discussed in this webinar)
- **CSD has selected a LIWP - LMF Service Provider for:**
 - Large Multi-Family Weatherization
 - Solar PV in SMF & LMF
 - Solar Water Heaters in SMF and LMF

The rest of this webinar will now focus on the Large Multifamily (LMF) Program.



Who Will Provide LIWP -LMF Services?



- **Large Multi-Family Weatherization and Renewables -**
 - Weatherization will be a stand-alone program.
 - Opportunities for local leveraging and property owner financial participation.
- **Association for Energy Affordability (AEA)** will provide services in qualified Disadvantaged Communities.



CSD's Administration of LIWP-LMF

CSD will work closely with its LMF provider to ensure they comply with all state requirements, and perform weatherization work to high standards.

- Supervise process and work flows, including screening and prioritization of projects
- Fiscal monitoring
- Project –level monitoring



So Far . . .

- What is C & T
- SB 535
- Where work will be accomplished (DACs)
- LIWP Goals 1-3
- CSD's Administration of LIWP Programs

Up Next . . .

- What is traditional CSD Wx.
- What is a Large Multifamily Dwelling?
- Large Multi Family weatherization
- Approach to LMF
- Examples of LMF measures
- How is H&S handled under LIWP-LMF?
- LIWP-LMF highlights



What is Weatherization?

- Generally speaking, weatherization involves the installation of cost effective measures to achieve energy efficiency and reduction in overall energy waste.
- Common weatherization efforts include :
 - Sealing the building's shell.
 - Repairing and/or Replacing its heating and cooling systems, water heaters or other appliances.
 - Installing measures that reduce the net amount of energy used example: CFLs and LEDs.



What are some benefits of Weatherization?

Weatherization services are designed to:

- Increase energy efficiency
- Reduce total energy expenditures
- Resolve any Health & Safety issues
- Provide Energy Education
- LMF – All the above, plus economies of scale

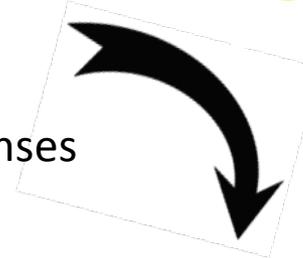
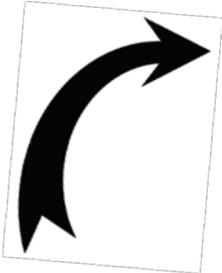
The next slide demonstrates how weatherization can prevent conditioned (heated or cooled) air from being wasted, and by doing so indirectly reduces poverty.





Why Weatherization Works

Energy wastage reduced
More money for household expenses



Reduces poverty

Lower Energy Bills



Energy Education

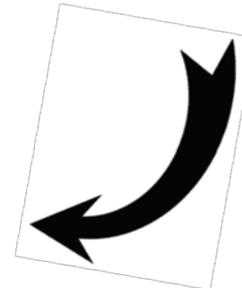


More energy savings



A new dynamic established to reduce poverty

- ✓ Reduce Energy Waste
- ✓ Reduce Operating Expenses
- ✓ Improve Condition of Building



What is an LMF Building?



LMF is an acronym for Large Multifamily or Multi-Unit Building

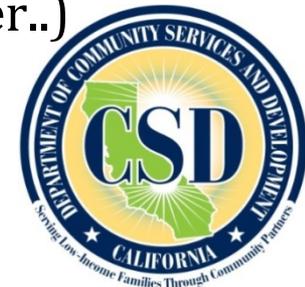
For the purposes of the LIWP-LMF Program, this typically means:

- Buildings with 20+ units and
- Buildings with centralized mechanical systems

Note: Other key LIWP-LMF qualification criteria are described on the next slide.

Examples:

- Single resident occupancy (SRO) buildings
- Affordable Residential Housing (TCAC, HUD, HCD, Other..)
- Market-Rate Residential Housing
- Studio apartments, etc.



LIWP-LMF Qualifiers

- Must be located within qualified DACs
- Access to building's Energy Use Intensity (EUI) data for a period of 12-18 months
- Building's income qualification - 66% of residents at 80% Area Median Income (AMI)
- Property owner must be willing to :
 - Co-Invest in a whole building energy audit
 - Participate financially for Health & Safety
 - Potentially invest in energy efficiency measures and renewables
 - Preserve the long-term affordability of the building



LIWP-LMF Approach

- Maximize GHG reductions by optimizing energy savings
- Large Multifamily dwellings will be targeted in DACs in geographic project clusters for greater economies of scale.
- Focus on areas with largest LMF concentrations as project timeframes are relatively longer.
- Target buildings with highest energy waste and energy burden
- Create a customized Work Plan for each building
- Further LMF cost efficiencies through bulk purchasing and centralized sub-contracting options where possible.



LIWP-LMF Measures

The LMF Program will focus mainly on Energy Efficiency measures in large multifamily buildings.

Improvements may be made in these main areas:

- Space Heating (Major Fuels)
- Air Conditioning
- Water Heating
- Appliances
- Plug Loads
- Building Envelope
- Water conservation measures
- Solar water heaters (solar thermal)
- Solar photovoltaics (PV)
- Solar passive measures
- Cool Roofs

There could be others...



Health and Safety Measures under LIWP-LMF Program

- Under the Large Multifamily Program (LMF), all required and standard code compliance for Health and Safety, Title 24 and Energy Code will be paid for by the Property Owner.
- However, system improvements that offer increased energy efficiency and lower GHG emissions may be co-sponsored by LIWP-LMF funding .



LIWP-LMF Highlights

- Combines Weatherization with Renewables
- Whole building weatherization
- Customized solutions to achieve significant energy savings at every dwelling weatherized
- Generous terms to qualify individual buildings
- Weatherization can occur in project clusters under same property management
- Solar renewables whenever feasible
- Opportunity for work force development/ hiring from DACs
- Supports rental affordability of properties in DAC.



So Far . . .

- Large Multi family Wx
- LIWP-LMF overview
- LIWP-LMF highlights

Up Next . . .

- LIWP Project Design
- Income Guidelines
- Owner Agreement
- Work Force Development (WFD)
- Timeline



Proposed LIWP Model: LMF

- CSD will employ a “whole building” approach, weatherizing all common areas in qualified large multi-family (LMF) buildings.
- LMFs will be benchmarked to target the buildings that are the lowest energy performers (i.e. the buildings that present the greatest opportunity to maximize GHG reductions).
- The LMF Provider will assess buildings and utilize an ASHRAE Level II or III energy audit in order to assess for all feasible energy efficiency measures.
- Energy Modeling will be used to develop a customized Package of Measures.
- Building owners are expected to participate in the Energy Audit, H&S and possibly in the buy-down of certain measures.
- All buildings will be assessed for the potential for Solar Water Heating and Photovoltaics (PV)



Owner Agreement

Agreement:

- AEA will be single point source for processing all rebates
- Will share benefits derived from resident dependent rebates
- Provide rental affordability to low-income residents for 5 -15 years
- Utilize AEA's cost control measures to complete projects in 4-6 months.

Property owner financial participation in:

- Energy Audit
- Weatherization costs of energy conservation measures and energy efficiency measures
- Solar Thermal project
- Solar Photovoltaics project
- Solar Passive project
- Health and Safety Measures
- Buy down of measures feasible with remaining funds



Owner Agreement (Cont.)

We would like to hear from those in the audience regarding the Property Owners Participation levels for the following:

- Energy Audit
- Weatherization
- Solar Thermal
- Solar Photovoltaics
- Passive Solar Measures
- Health and Safety Measures
- Buy down of measures

Please e-mail your responses to LIWP.LMF@csd.ca.gov



Workforce Development

- One of CSD's goals is to promote Workforce Development and increase local economic benefits to the Disadvantaged Communities (DACs).
- New hires will be provided certificates of experience, training; and reference letters will be provided to the long-term unemployed.
- Although CSD will not hire directly, our contract with the LMF provider will encourage hiring directly from local DACs.

Examples:

- Property Owners, LMF Provider and sub contractors may hire from DACs
- Hire sub-contractors from the Disadvantaged Communities; require their subs hire new employees from DACs
- They may work with their local Workforce Investment Boards to provide hands-on training.



LIWP-LMF Timeline

- **First Quarter 2015:** Large MUD Program Development
- **Second Quarter 2015:** Large MUD Program Development and launch LIWP-MUD - Service Provider RFQ, LIWP-LMF Award
- **Third Quarter, 2015:** Ramp up of LIWP-LMF Program. Assessment and installation begins for large multi-family buildings, including any Solar Water Heater and Photovoltaic referrals from Small Multifamily dwellings. Each project is expected to last 4-6 months.
- Projects may be comprised of 4-5 Large Multifamily dwellings on each property for even greater economies of scale in order to further reduce carbon footprint.
- CSD intends to complete all LIWP- LMF projects for large Multifamily dwellings by the **2nd Quarter, 2017.**



Finally...what you've been
waiting for!



IT'S TIME FOR YOUR IDEAS.

Reminder: If you choose to present your comments or ideas verbally, please document your major questions / concerns / ideas on a green Comment Card so that CSD has a record.

You may also email a copy of your comments to us at LIWP.LMF@csd.ca.gov before COB 9/21/2015

Thank you.

