



**California
Housing
Partnership**

*California's Experts on Affordable
Housing Finance, Advocacy & Policy*

Resources for Bill Savings, Resiliency, and Building Electrification

California Housing Partnership | chpc.net

Presenters

California Housing Partnership

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Association for Energy Affordability

- Maya Gantley, mgantley@aea.us.org

The Partnership's Mission

The California Housing Partnership creates and preserves affordable and sustainable homes for Californians with low incomes by providing expert financial and policy solutions to nonprofit and public partners.

- chpc.net
- [@CHPCnews](https://twitter.com/CHPCnews)



Sustainability Team

Affordable Energy and Water Programs



California Climate Investment Programs

Sustainable Housing Technical Assistance



GREEN Network

Trainings





ASSOCIATION FOR ENERGY AFFORDABILITY INC.

Energy Efficiency is our Specialty, Affordable Housing is our Priority

The Association for Energy Affordability, Inc. is dedicated to achieving energy efficiency and clean energy in new and existing buildings in order to foster and maintain affordable and healthy housing and communities, especially those of low-income.

- Energy Efficiency Program Design and Implementation
- Energy Research & Demonstration Projects
- Energy Audits and Green Building Design for New Construction and Existing Buildings
- Currently provide 4 California MF Electrification Programs, as well as direct consulting to buildings on electrification best practices



For more information, visit us at aea.us.org

AGENDA

1. Introductions and Welcome
2. Equitable Building Decarbonization
3. Landscape of Clean Energy Resources
4. LADWP Program Updates
5. Additional Resources & Upcoming Trainings
6. Q & A



Poll #1



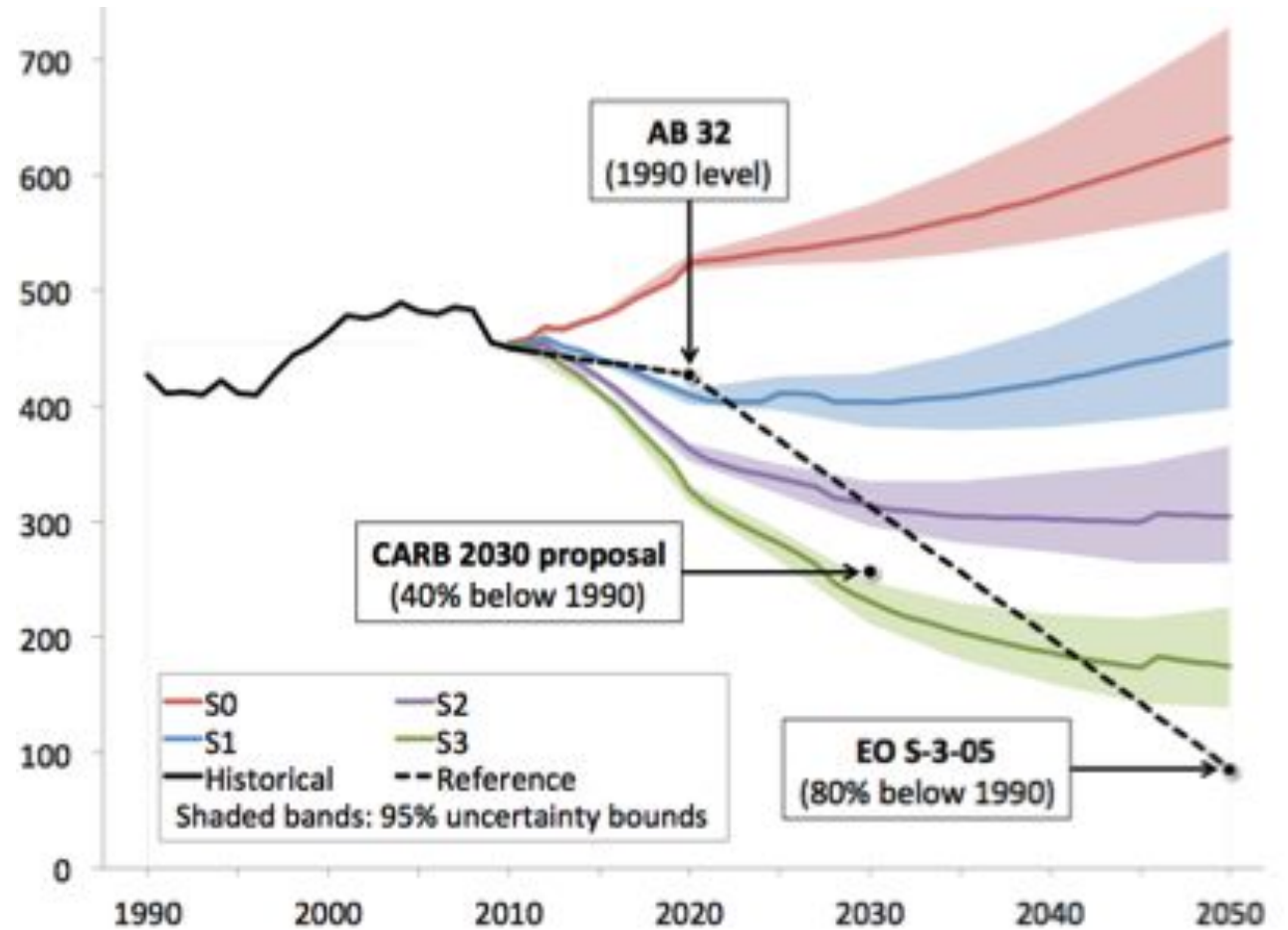
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Equitable Building Decarbonization

Why electrify affordable housing?

- To reach carbon neutrality by 2045, **all buildings** will need to be all-electric
- City of LA is considering new construction and existing building decarbonization ordinance
- Low-income families especially Black and Brown households report difficulties paying rent and utilities
- Communities with increased exposure to pollution are at higher risk of comorbidities for COVID19



Equitable Building Electrification

**Reduce
Energy
Burden**

Long-term benefits to
owner and tenants they
serve

**Improve
Energy
Efficiency**

High efficiency upgrades
& technologies

**Add Clean
Electricity
Generation**

Solar PV where feasible

**Eliminate or
Reduce
Gas Usage**

Shift to all-electric
systems and appliances
overtime as feasible

**Improve
Health &
Safety**

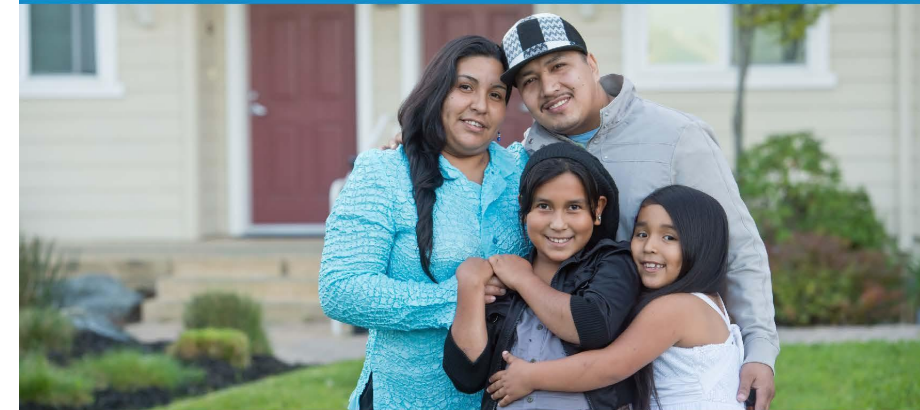
Indoor air quality &
health outcomes

REPORT: Affordable Housing Building Decarbonization Summit

In late 2020, the Partnership hosted the first **Affordable Housing Building Decarbonization Summit** to inform state policies. Full report: chpc.net/resources



Prioritizing California's Affordable Housing in the Transition Towards Equitable Building Decarbonization



MARCH 2021

chpc.net

Poll #2



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Landscape of Clean Energy Programs

Programs Supporting Equitable Building Electrification: Energy Efficiency and Decarbonization

	LIWP	MAHEP*	CAMR*
Enrollment	Waitlist, except homeless carveout	Summer 2021	Summer 2021
Measures	Solar PV, solar hot water, building envelope, HVAC, DHW, appliances, water, & lighting	All fuel-switching measures that eliminate NOx emissions	Solar PV, solar hot water, building envelope, HVAC, DHW, appliances, and lighting
Incentive Range	-50-100% of PV installation -30-80% of energy efficiency upgrades	50-90% of electrification measure cost	TBD
Free Technical Assistance	Energy audit and comprehensive TA	Energy audit and comprehensive TA	Energy audit and comprehensive TA

Programs Supporting Equitable Building Electrification: Solar and Storage

	SOMAH	SGIP	FiT Plus
Enrollment	Open	Open	Opens end of April
Measures	Solar PV	Battery storage, hot water heat pumps	Solar PV, energy storage
Incentive Range	-50-100% of PV installation	Initial incentives between \$.20-\$.80/Wh with a max incentive of \$1.00Wh for most technologies	N/A (SGIP through SoCalGas)
Free Technical Assistance	Upfront TA, including referral to other resources, bidding tool	N/A	N/A



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Low-Income Weatherization Program for Multifamily (LIWVP)

**LOW INCOME
WEATHERIZATION
PROGRAM**

The logo is a circular emblem with a white center containing the text 'LOW INCOME WEATHERIZATION PROGRAM' in blue, all enclosed within a thick orange border.

LIWP Program Overview

- Whole building energy efficiency, solar thermal, and solar PV for multifamily properties under a single program
- All measures that result in GHG reductions are eligible
- Energy efficiency incentives (including solar thermal) are based on amount of GHG reductions, includes electrification
- Free, comprehensive technical assistance

LIWP Program Eligibility

- Multifamily properties with 5 units or more
- Located in a CalEPA Disadvantaged Community (DAC) - limited amount of funding for properties outside of DACs
- At least 66% of tenants with incomes at or below 80% AMI
- Able to achieve minimum modeled energy savings $\geq 15\%$
- Incentives cannot exceed net project costs
- Funding carveout for housing for people experiencing homelessness

LIWP Case Study 1: Deep Energy Efficiency

Florence Avenue Villas - Los Angeles, CA

Leveraged Incentives Summary	
Total Project Cost	\$578,639
CSI Solar Thermal Rebate	\$44,404
SoCalGas EUC	\$19,200
Federal ITC	\$46,901
LIWP Incentive	\$117,533
Owner Portion	\$350,692



Scope of work

- Envelope upgrades – Cool roof & dual pane windows
- High efficiency heat pumps & duct sealing
- Solar thermal system for domestic hot water (DHW)
- DHW pipe installation & low flow fixtures
- Comprehensive LED lighting
- ENERGY STAR refrigerators

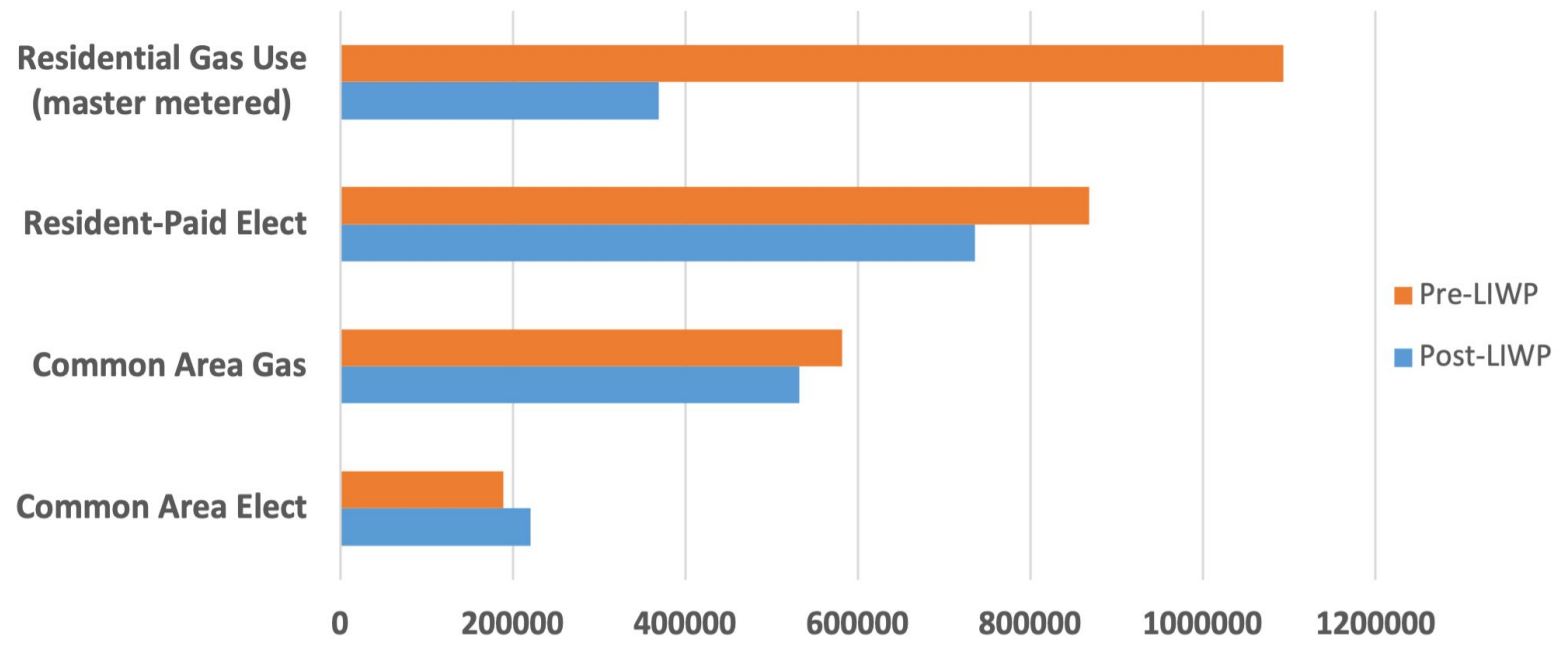
LIWP Case Study 2: Building Electrification

Seasons at Ontario - Ontario, CA

Scope of work

- Solar PV system
- Cool roof and attic insulation
- Dual-pane windows
- Heat pump for HVAC
- Condensing tankless water heater
- VSD pool pump & condensing pool heater
- Comprehensive LED lighting
- ENERGY STAR appliances

PRE VS. POST LIWP (KBTU)



27%
Cost savings:
\$18,338.77

53%
Energy savings:
1,439,157 kBTU



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Solar on Multifamily Affordable Housing (SOMAH)



SOMAH

SOMAH Program Overview

- Provides solar access for tenants of qualifying affordable housing
- Solar financial benefits to reduce tenant energy cost burden and owner operating costs
- One-stop-shop program model

SOMAH Program Eligibility

- Existing deed-restricted buildings with at least 5 units
- Regulatory agreement with at least 10 years remaining on term
- 80% of residents must have incomes at or below 60% AMI, or located in a DAC
- Individually metered units where tenants pay electricity bills
- Virtual Net Energy Metering (VNEM)
- Customer of an Investor Owned Utility (IOU) or Community Choice Aggregator (CCA)

SOMAH Tenant Benefit

SOMAH tenant benefits and protections include:

- At least 51% of the system's electric output must offset tenant load
- Tenants of qualifying SOMAH projects can apply to gain solar experience
- Project costs cannot be passed on to tenants over time to diminish the savings they receive from solar credits



SOMAH Program's COVID-19 Response

- Launched a [Progress Payment Pathway](#)
- Webpage for resources and updates – calsomah.org/COVID19
- Issuing [as-needed application extensions](#) for application corrections
- Energy Efficiency Compliance Milestone [Postponement Request](#) Process

SOMAH Program Technical Assistance

Two options to receive Technical Assistance:

- Upfront Technical Assistance (Track A):
 - Interested property owners of eligible properties can receive help
 - Understand the property's solar potential, the associated installation costs, and benefits of SOMAH before moving forward with a reservation application (Track B)
- Standard Technical Assistance (Track A & B):
 - Enrolled property owners and/or their contractors
 - Energy efficiency, general project management, and construction support

SOMAH Application Tracks

Track A: Upfront Technical Assistance selected – 21 months



Track B: Upfront Technical Assistance NOT selected – 18 months



Applying for Upfront TA

Four steps to submit an Upfront TA application:

1. Create PowerClerk Account
2. Apply separately for each property and to IOU provider
3. Upload three documents
 - Regulatory agreement or HAP contract
 - List of tenant addresses
 - Signed *Letter of Authorization to Receive Customer Information*
4. Complete online Cover Sheet for Multifamily Low-Income Housing

For more application information, visit CalSOMAH.org/apply

SOMAH - Current Funding Update

Utility	Available Budget	Waitlist Status
SCE	\$147,857,639	No Waitlist
SDG&E	\$25,802,514	No Waitlist
PG&E	\$76,160,068	No Waitlist
PacifiCorp	\$3,806,819	No Waitlist
Liberty Utilities	\$948,545	No Waitlist

SOMAH funding status updated weekly at CalSOMAH.org/waitlist

SOMAH Incentive Step Down

- Current SOMAH incentive rates are as follows:

ITC	LIHTC	Tenant	Common
		2020-2021	2020-2021
No	No	\$3.04	\$1.04
Yes	No	\$2.14	\$0.76
No	Yes	\$2.14	\$0.76
Yes	Yes	\$1.52	\$0.57



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Multifamily Affordable Housing Electrification Program (MAHEP)

Multifamily Affordable Housing Electrification Program (MAHEP) Details

- **FUNDING:** South Coast AQMD NOx mitigation funds
- **INCENTIVES:** Incentives will fund replacing natural gas equipment with high-efficiency electric heat pump equipment
 - Allows single-measure or whole-building electrification
- **TECHNICAL ASSISTANCE:** Program includes TA for project scope development
- **TIMELINE:** Anticipated launch of June 2021 through September 2023



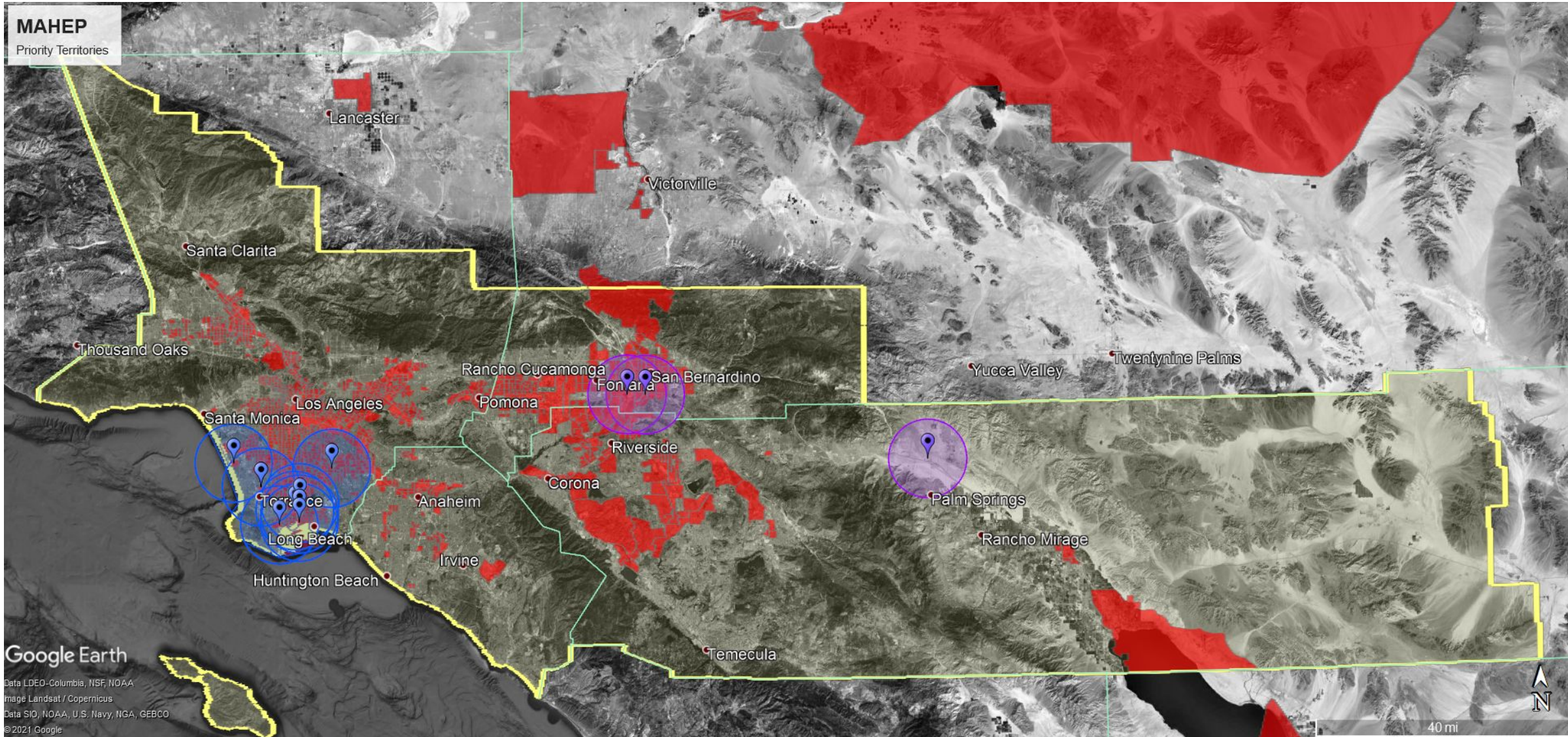
MAHEP Eligibility

- Multifamily Properties with 5+ units
- Income Eligibility: 66% of units at or below 80% AMI
 - Deed Restricted or Naturally Occurring AH
- Geographic Requirements
 - Located in a CalEPA Disadvantaged Community (DAC)
 - SCAQMD territory
 - 60% of program incentives dedicated to projects within 6 miles of a Refinery
 - 7% of program incentives to projects within 6 miles of a Peaker Power Plant



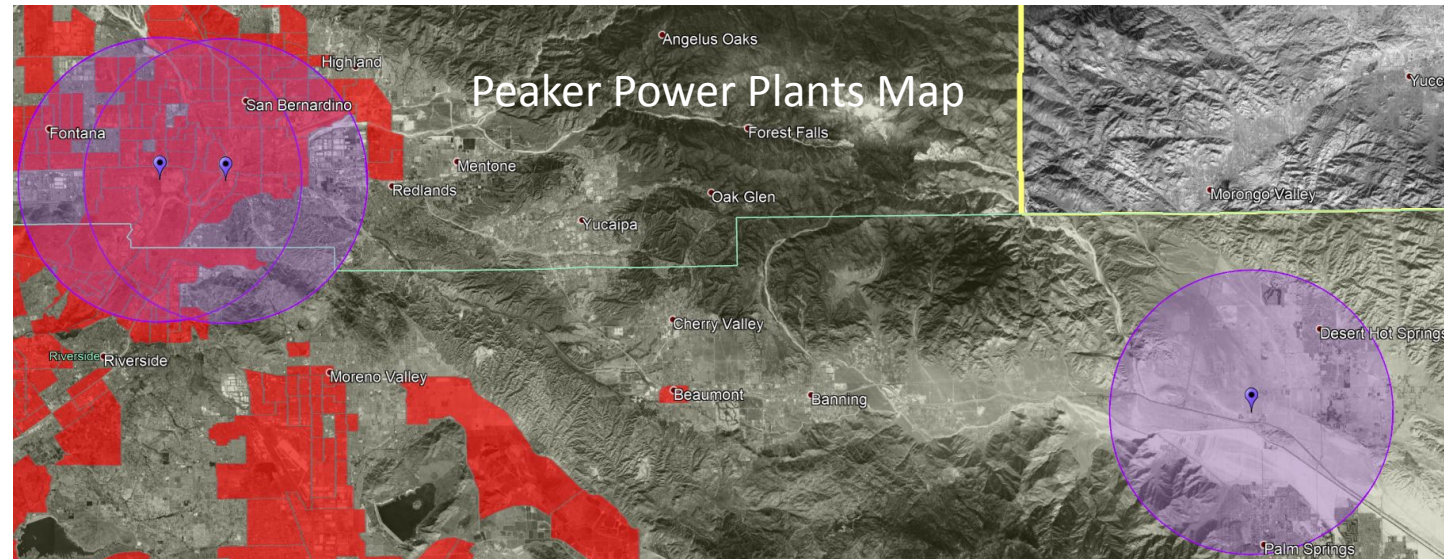
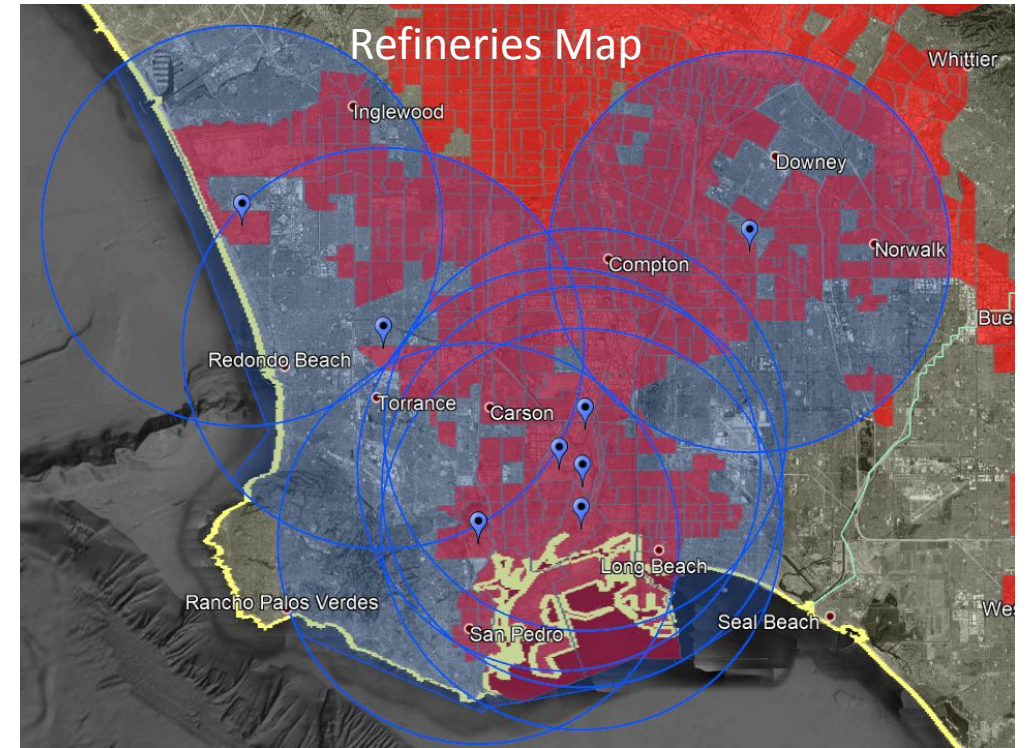
MAHEP Eligible Territory:

South Coast AQMD, DAC, Refineries and Peaker Power Plants



MAHEP Eligibility

- 60% of program incentives → properties within 6 miles of a refinery.
- 7% of program incentives → properties within 6 miles of a peaker power plant
- Remaining 33% of program incentives → SCAQMD and DAC



MAHEP Eligible Measures

Electrification Category	Electrification Measures*	Incentive Unit Type
Hot Water Heating	Central HPWH (DHW or Hydronic)	Per apt Served
	Dwelling Unit or Unitary HPWH	Per each
	Pool/Spa HPWH	Per each
Space Heating	Ductless or Ducted Inverter-Driven Heat Pump	Per each
	Inverter-Driven Package Terminal Heat Pump	Per each
	Package Terminal Heat Pump	Per each
	Ducted Split Heat Pump	Per each
	Rooftop Packaged Heat Pump	Per each
Clothes Drying	Heat Pump Dryer	Per each
Cooking	Induction Cooking Appliances	Per each
*Gas hybrid systems not allowed under MAHEP		

- Allows for single-system electrification upgrade
- Incentives cover 50-90% of total measure cost
- Higher incentives available for properties within 6 mile radius of a Program-identified Peaker Power Plant or Refinery
- Incentives on a first-come first-served basis



MAHEP will launch early summer 2021

Email mgantley@aea.us.org for more information

Thank you!





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LADWP Program Updates

LADWP Program Update

Proposed CAMR Program

Energy Efficiency
& Solar PV

VNEM Pilot Program

Tenant Solar PV

FiT Plus Program

Local Solar
Generation &
Energy Storage

LADWP – Proposed CAMR Program

- **Comprehensive Affordable Multifamily Retrofit (CAMR)**
- Incentive budget of \$75 M over 5 years
- Approval by LADWP Board of Commissioners approval anticipated for May 2021
- Proposed launch is Summer 2021
- Implemented by the Association for Energy Affordability (AEA) for LADWP
- GHG emissions reduction through energy efficiency upgrades, and solar PV installations for common areas and tenants

LADWP – Proposed CAMR Program

Key program features

- Single point of contact assigned to each participant
- Free energy audit
- Free comprehensive technical assistance
- Optional referrals to complementary programs
- Owner selects contractor
- Payment at project completion

Draft CAMR Program Eligibility

- Existing multifamily low-income properties, including deed-restricted and naturally occurring affordable housing (NOAH)
- Properties must be at least 5 units in size
- $\geq 66\%$ of units serving households earning $\leq 80\%$ AMI
- Located within LADWP service territory

LADWP – Proposed CAMR Program

Incentives	Energy Efficiency*	Solar PV*
Tenant meter	\$6,750/MTCO ₂ e	\$3.00/W-DC
Common Area meter	\$5,400/MTCO ₂ e	\$1.30/W-DC
Notes:	<ul style="list-style-type: none"> ● Highly benefits building electrification ● Gas-to-gas upgrades not covered ● Offsets prevailing wage costs 	<ul style="list-style-type: none"> ● Solar PV is optional ● Tenant solar currently limited to 5 properties through LADWP VNEM pilot

* Program is under development and incentives may be adjusted.

Proposed CAMR Program

Labor requirements for CAMR scope of work:

- Use prevailing wages
- Skilled and trained workforce requirements for all 65+ units properties
- C-10 license required for all electrical contractors employed

LADWP – VNEM Pilot Program

VIRTUAL NET METERING (VNEM) is the mechanism that allows for multifamily housing providers to deliver solar financial benefits directly to their residents from a single solar PV system installed onsite. The solar benefits are allocated among common area and unit meters.

OVERVIEW

- Limited to 5 multifamily properties
- Energy produced is sold to LADWP
- LADWP issues individual monthly checks based on energy produced
- At least 40% of proceeds from project must benefit residents

RESOURCES

- VNEM@ladwp.com
- [VNEM Program Website](#)
- [VNEM Pilot Program Guidelines](#)

LADWP – FiT Plus Pilot Program

FEED-IN TARIFF (FiT) PLUS expands local developments of solar PV and combines the deployment of energy storage projects. Promotes resilience during grid outages.

OVERVIEW

- LADWP buys local solar energy including from energy storage
- Seeks to co-leverage SGIP for energy storage through SoCalGas
- Competitive bidding process
- Priority enrollment in parts of South and West LA and East Valley

Upcoming trainings: Solar 101 Institute

The Solar 101 Institute will consist of two one-and-a-half hour sessions focused on the strategy and logistics of solar photovoltaics (PV) on multifamily apartment buildings.

Part I

Intro to Solar PV for Multifamily will focus on the basics of solar PV and break down considerations for the predevelopment, installation, and post-installation phases.

- Date: Tuesday, May 4, 2021
- Register: bit.ly/solar101-1

Part II

Solar Resources for Multifamily Affordable Housing will provide an overview of the landscape of solar funding and resources for multifamily affordable housing in California.

- Date : Tuesday, May 11, 2021
- Register: bit.ly/Solar101-2

Equitable Building Decarbonization

City of Los Angeles Building Decarbonization Stakeholder Process

- TBD 2021
- Contact Michael Claproth mclaproth@chpc.net to stay engaged
- Join the GREEN Network at chpc.net

2nd Affordable Housing Building Decarbonization

- Fall 2021
- Contact Srinidhi Sampath Kumar at ssampath@chpc.net about summit or report.
- Join the GREEN Network at chpc.net

Get Started!

SOMAH	<ul style="list-style-type: none">● Rachael Diaz, rdiaz@chpc.net● Questions, set an interest call or request a portfolio review.● Summit an Upfront Technical Assistance request and email signup for updates.
LIWP & CAMR	<ul style="list-style-type: none">● Michael Claproth, mclaproth@chpc.net● Questions, set up interest call or request a portfolio review.● Get on queue for CAMR or submit a LIWP Interest Form
MAHEP	<ul style="list-style-type: none">● Maya Gantley, mgantley@aea.us.org● Email for more information.

Poll #3

Poll #4



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QUESTIONS?



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THANK YOU!

Questions?

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