

# An Inflection Point for MF Energy Programs

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MULTIFAMILY HOME ENERGY RETROFIT COORDINATING  
COMMITTEE (MF HERCC)


OCTOBER 28, 2020

# Welcome – Who's in the room?

- Following the steps below, change your name in meeting to “Name – Organization”, e.g. “Ben Cooper – StopWaste”


**1**

After launching the Zoom meeting, click on the "Participants" icon at the bottom of the window.



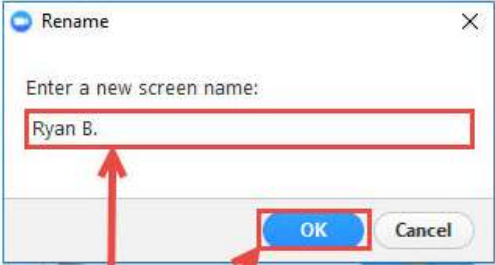
**2**

In the "Participants" list on the right side of the Zoom window, hover over your name and click on the "Rename" button.



**3**

Type in the display name you'd like to appear in the meeting and click on "OK".



# Reflections on Day 1

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- **Listen and engage**
- **Align state policy objectives**
- **Reduce administrative barriers to program participation**
- **Set consistent program evaluation goals for equity**
- **Hire POC in decision making positions**

# Agenda Day 2 (Wednesday Oct 28, 9AM-12)

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## ➤ **Presentations**

- Update on Multifamily Programs (Sarah Lerhaupt, CPUC)
- Case study on Tennant Access: Self-Generation Incentive Program–Battery storage for medical/essential needs (Tory Francisco, CPUC)
- Case study on Program Layering: BayREN/MCE BAMBE streamlining (Grace Peralta, MCE)
- Data to identify Naturally Occurring Affordable Housing (Hal Nelson, Res-Intel)

## ➤ **Facilitated breakout discussions**

## ➤ **Open Forum**

# Ground Rules

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- **Mute when not talking, i.e. when not in breakout rooms or group discussion**
- **Q&A questions will be fielded through the chat, please send to “everyone”**
- **Survey responses are anonymous**
- **If you’re having technical issues, send a private chat to “Chris Hunter - StopWaste”**
- **R-E-S-P-E-C-T**
  - “Step up and step back” to allow everyone ample time to share
- **Discussions and breakouts are a safe space to express a diversity of opinions**

**STOPWASTE** MF-HERCC Coordination Team  
at home • at work • at school

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Heather Larson



Candis Mary-Dauphin



Ben Cooper



# Addressing equity gaps in programs

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## ➤ **Coordination to meet goals**

- Program update
- Tenant access
- Program layering
- Adequate funding
- Defining and finding data
  - What do we have? What's missing? What do we target
  - Sharing and consistency

## ➤ **Write questions to presenters in chat to “Everyone”**

# Panelists

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Sarah Lerhaupt, CPUC



Grace Peralta, MCE



Tory Francisco, CPUC



Hal Nelson, Res-Intel





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# CA Multifamily Energy Efficiency Programs

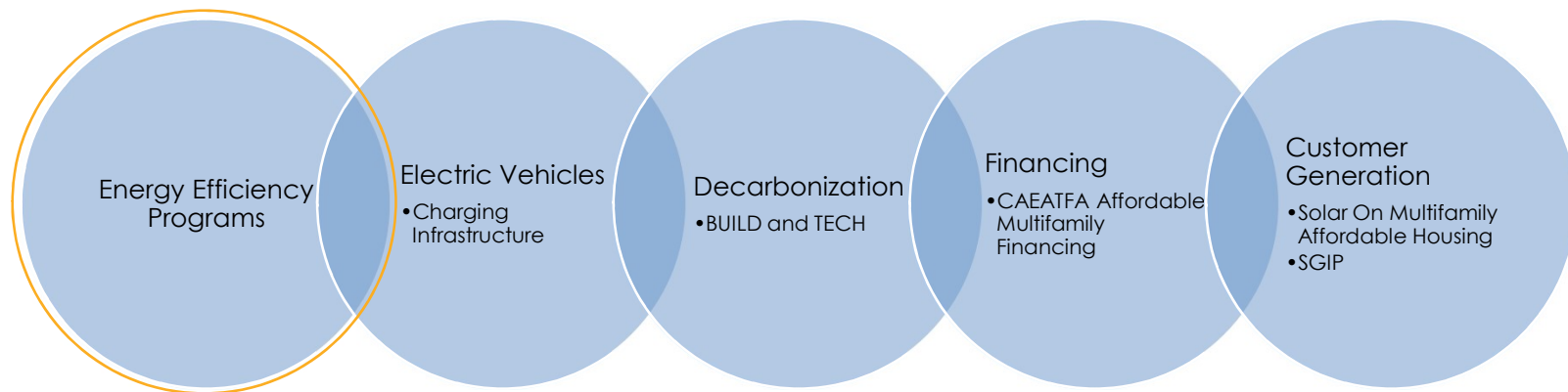
Multifamily Home Energy Retrofit Coordinating Committee  
October 28, 2020



California Public  
Utilities Commission

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# CPUC Multifamily Program Landscape



# Presentation Content

An overview of today's presentation.

1. Multifamily Sector Portfolio Metrics
2. MF EE Programs Trends
3. 2020 MF EE Programs COVID and Equity
4. Energy Savings Assistance Program PY2019



# Multifamily Sector Portfolio Metrics

This data is from Portfolio Administrator Annual Reports from the Energy Efficiency Portfolio funded by public purpose charge. The income qualified efficiency program, Energy Savings Assistance, is not included.

D.18-05-041 Attachment A

# Multifamily Sector Portfolio Metrics

Program Administrators report on key metrics for the residential multifamily sector.

- Multifamily consists of 2 units or more
- Portfolio Administrators include:
  - Pacific Gas & Electric
  - Southern California Edison
  - SoCal Gas
  - San Diego Gas & Electric
  - Marin Clean Energy
  - BayREN
  - SoCalREN
- All Energy Efficiency Program Types

Multifamily Sector Forecasted Savings Cumulative Program Year 2019				
	In-Unit	Master Meter	Common Area	Total
Lifecycle kw Net	10,432	5,110	3,860	19,402
Lifecycle kWh Net	83,936,654	40,922,512	54,732,214	179,591,380
Lifecycle therm Net	8,532,181	7,712,718	2,066,673	18,311,571

Program Year 2019 Forecasted Savings MF Sector	Per Square Foot	Per Building	Per Property
Lifecycle kW net	0.003	363	322
Lifecycle kWh net	12	27,456	263,075
Lifecycle Therm net	0.408	2,617	18,816

Source: Portfolio Administrator Annual Reports

# Multifamily Sector Portfolio Metrics Program Year 2019

Cost Effectiveness Tests:

- PAC = Program Administrator Cost Test
- TRC = Total Resource Cost Test

Large IOU PAs TRC and PAC Levelized Cost values were less than CCAs and RENS PAs in 2019.

Energy inputs utilize net values.

PA	PAC Levelized Cost (\$/kW)	PAC Levelized Cost (\$/kWh)	PAC Levelized Cost (\$/therm)	TRC Levelized Cost (\$/kW)	TRC Levelized Cost (\$/kWh)	TRC Levelized Cost (\$/therm)
BayREN	\$ 1,786.00	\$ 0.18	\$ 1.94	\$ 3,178.00	\$ 0.32	\$ 3.44
MCE	\$ 1,488.00	\$ 0.20	\$ 2.24	\$ 2,514.22	\$ 0.33	\$ 3.79
PGE	\$ 1,122.55	\$ 0.21	\$ 1.48	\$ 1,366.75	\$ 0.26	\$ 1.80
SCE	\$ 1,628.00	\$ 0.14		\$ 1,678.00	\$ 0.14	
SCG			\$ 1.03			\$ 1.10
SDGE	\$ 792.44	\$ 0.16	\$ 1.54	\$ 825.29	\$ 0.16	\$ 1.60
SCR	\$ 1,845.82	\$ 0.12	\$ 1.74	\$ 3,249.54	\$ 0.21	\$ 3.07

Source: Portfolio Administrator Annual Reports

# Multifamily Sector Portfolio Metrics Program Year 2019

- SCE had the highest eligible population treated by property
- SCG had the highest eligible treated by unit
- SCG and BayREN had the highest portion of DAC customers
- SCG had the highest portion of Hard-To-Reach

Disadvantaged Community is defined by CalEPA (D.18-05-041)

Hard-To-Reach is a combination of geography, language, household income, and/or property type (D.18-05-041)

PA	Eligible Population by Property	Eligible Population by Unit	Disadvantaged Community Participation	Hard-To-Reach Participation
	Percent of participation relative to eligible population by property	Percent of participation relative to eligible population by unit	Percent of participation in disadvantaged communities	Percent of participation by customers defined as "hard-to-reach"
BayREN	0.00%	0.68%	0.95%	
MCE	0.005%		0.02%	0.13%
PGE	0.28%	0.19%	0.00%	0.00%
SCE	3.20%	0.90%	0.80%	0.50%
SCG	0.60%	2.20%	1.00%	1.00%
SDGE	0.52%	0.46%	0.30%	0.22%
SCR	1.47%	0.01%	0.13%	

Source: Portfolio Administrator Annual Reports

# Multifamily Energy Efficiency (MF EE) Program Trends

Program Data from 2013 to 2021



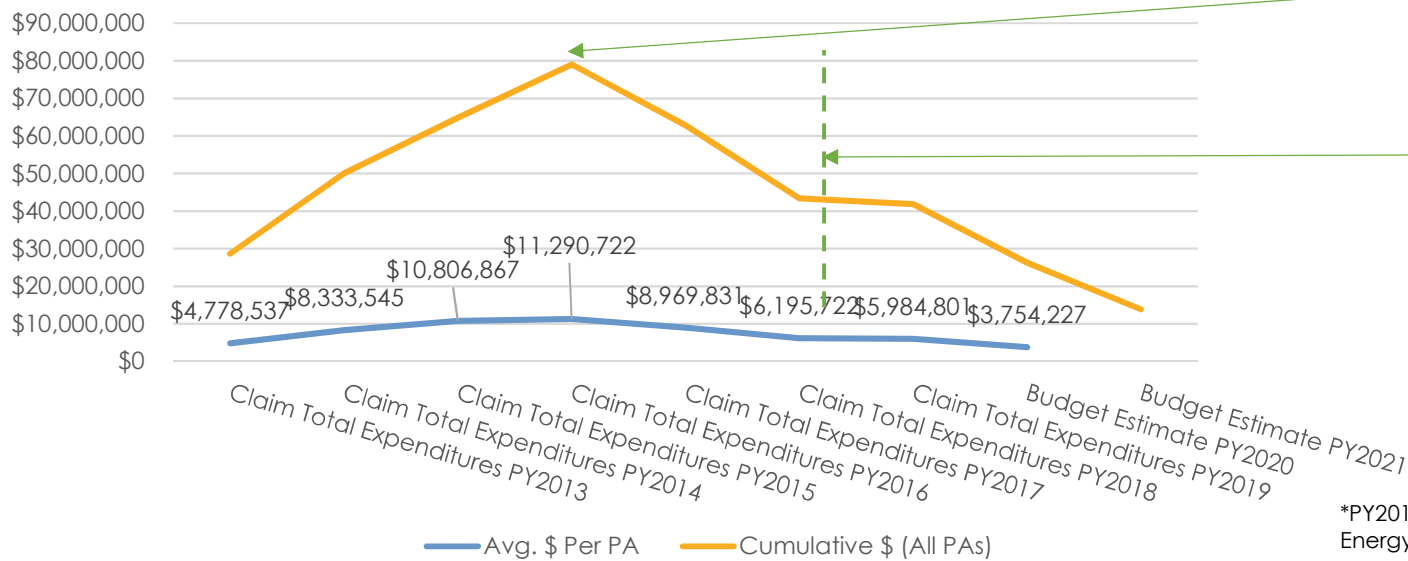
# EE Regulatory and Program History



- The Multifamily Energy Efficiency Rebate (MFEER) Program began in 2002.
  - Included in CALSPREE initiative to attain a 40 percent reduction in residential energy use by 2020 (D.09-09-047)
- PY2004-05 "Designed for Comfort" retrofit program for affordable multifamily buildings to reduce energy use by 20%
- MF-Whole Building retrofit program began as a set of pilots in 2012, then the IOUs and RENs were directed to begin a coordinated statewide program in 2013-2014 energy efficiency program cycle (D.12-05-015 and D.12-11-015)
- High Opportunity Projects and Program Pilots utilizing Normalized Metered Energy Consumption for MF Buildings (AB 802 implementation; R.13-11-005)
- D.18-01-004 adopts budget targets for IOU PA Portfolios to be designed and implemented by third-parties

# MF EE Program Budgets Over Time

Multifamily Energy Efficiency Programs - Rebates and Whole Building Retrofits  
PY 2013 - 2020



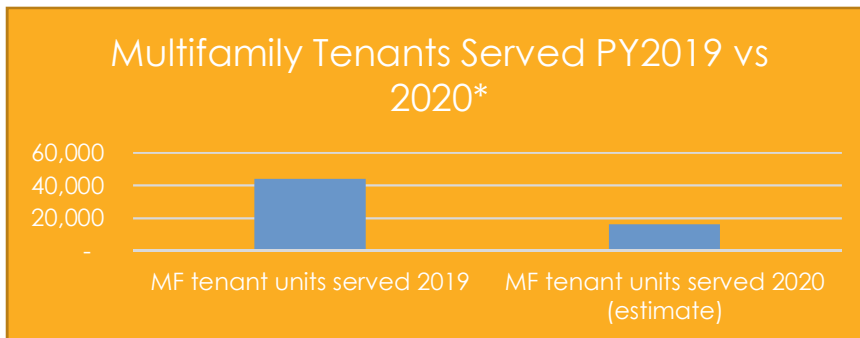
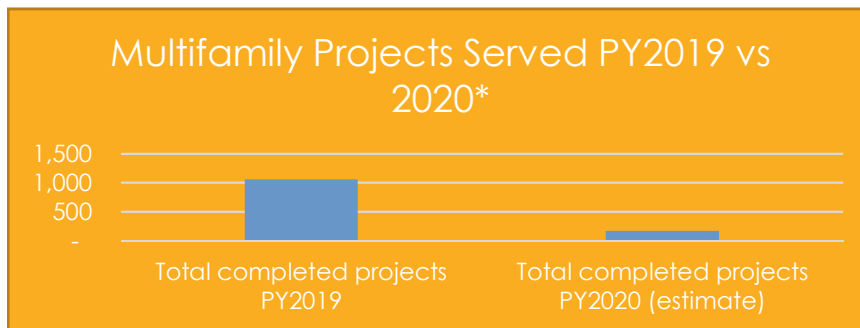
Annual Budget Peak \$79M\*

In 2018, the Commission adopts Third Party Requirements for Portfolio Budgets and minimum forecasted Total Resource Cost Value of 1.0 for PY2018-22 Portfolios

\*PY2016-2020 Budgets Include total Energy Upgrade California Budget

# MF Program Treatment Summary

In 2020 vs 2019 we see the potential impact from the COVID related slow-down on construction.



Average Projects Per Program fell an estimated 85% between 2019 and 2020, when average budgets were only reduced by an average of 37%.

# MF Program Energy Savings in kWh and therms

	Multifamily Energy Efficiency Rebate Program			Multifamily Whole Building Retrofit Program		
	Pre-2020 Cumulative	PY2019	PY2020 (Q2 Claims)	Pre-2020 Cumulative	PY2019	PY2020 (Q2 Claims)
Total Peak Demand Savings		861	74		493	85
Total Annual kWh Savings	136,469,399	12,978,610	1,164,220	26,412,293	2,590,349	703,100
Total Annual Therm Savings	3,324,132	632,705	82,635	1,955,768	256,116	193,460
Total Projects	255,361	973	54	708	82	64
Average kWh Savings Per Project PY2019		13,339			31,590	
Average Therm Savings Per Project PY2019		650			3,123	



# MF Program Customer Overview

For the referred programs,

- Majority of MF Projects included 20 units or less on one property
- PAs served approximately 32,500 Hard-To-Reach Projects since 2018
- PAs served approximately 36,769 Disadvantaged Community Projects since 2018
- Limited tracking on affordability like deed-restriction and Section 8 housing

# Overview of 3P Solicitation Process

- Third Party Program (3P) refers to a program proposed, designed, implemented, and delivered by non-utility personnel
- There is a two-phase solicitation process that each IOU is leading
- An Independent Evaluator and Peer Review Group support the Solicitation Process

More information here

<https://www.caecc.org/third-party-solicitation-process>

Recent 3P MF Advice Letters	Implementer Program Budget
PGE 4285G/5895E	TRC MF Energy Savings Program \$11.7M
SDG&E 3586E	Synergy Residential Zero Net Energy Program \$14.57M

For more information:  
<https://cedars.sound-data.com/>



**CEDARS**  
**CALIFORNIA ENERGY**  
DATA AND REPORTING SYSTEM



# 2020 COVID Impacts and Considerations for Equity

Portfolio Administrator (PA) responses to three core questions



## PA Responses to MFHERCC Questions

What are the number of projects/units you know are delayed due to COVID19?

- For whole building retrofit programs, about 50% of project pipelines were delayed
- Only one PA reported a significant number of project cancellations
- A small portion of projects had their scope reduced
- Other programs did not track delays, cancellations, or scope reduction
- Slow-down is reflected in reported savings. Q2 first year annual energy savings claims are under the initial forecasts for multifamily rebate and whole building upgrade programs
  - Q2 claims are an average of 10% of the forecasted values per PA(Source: CEDARS)

## PA Responses to MFHERCC Questions

Which phases of your programs are most effected and how by COVID19?

What modifications have you made?

- Auditing and Tenant In-Unit work were most impacted
- Virtual sessions are now used for audits, final inspections, and energy education
- Programs were halted due to shelter-in-place mandates
- Remote close-outs of projects, unless Combustion Appliance Safety Testing was required
- Restructuring of incentive triggers to help with project cashflow and flexibility on deadlines
- Implementers and vendors (contractors) created safety plans and implemented new practices to keep workers and customers safe

## PA Responses to MFHERCC Questions

How do your programs address equity?

- Focus on finding properties that are within areas that are:
  - Hard-to-Reach
  - Disadvantaged Communities
  - Satisfy other metrics like affordable housing, high % of low-income households, small properties (<100 units) etc.
- Marketing and Education in languages other English
- Layering programs to offer multiple value streams – efficiency, solar, healthy homes, etc.
- Ongoing partnerships with affordable housing organizations and similar mission-based organizations

# Energy Savings Assistance (ESA) Program

The income qualified efficiency program is funded by the public purpose charge to provide free measures to qualified households and multifamily common areas with a majority qualified tenant households.

# ESA Program Year 2019 Impacts

Large IOUs (PGE, SCG, SCE, and SDG&E) Annual Report Tables

Program Year 2019 Customer Impacts	
Multifamily Households Treated	96,557
Master-Meter Households Treated, Subtotal	36,292
MF as % of Total Households Treated in ESA	28%
MF Properties Treated with Common Area Measures	13

Program Year 2019 Annual Energy Savings				
	Household (HH) Count	kWh	MW	Therm
Multifamily HHs	96,557	20,287,000	3	172,866
kWh Per HH	210			
Therm Per HH	1.79			

For more information:  
Income Qualified Assistance Programs  
<https://www.cpuc.ca.gov/iqap/>



**California Public  
Utilities Commission**



Questions?





# California Public Utilities Commission

Sarah Lerhaupt  
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Energy Division  
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# Self-Generation Incentive Program – How can we provide resiliency benefits to access functional needs MF tenants?

*Asal Esfahani, Nora Hawkins, Tory Francisco*

October 28, 2020



California Public  
Utilities Commission

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# Background on the Self-Generation Incentive Program (SGIP)

**Established in 2001:** Assembly Bill 970 (Ducheny, 2000).

Rebates for behind the meter energy generation (100% renewable, does not include solar) and energy storage technologies. Covers cost of equipment and installation.

**Eligibility:** Any retail electric or gas distribution class of customer of PG&E, SCE, SoCalGas, or SDG&E is eligible to be the Host Customer and receive SGIP incentives.

\$830M authorized for 2020-2024. 85% allocated to energy storage budgets.



# Three relevant SGIP energy storage budgets for multifamily housing

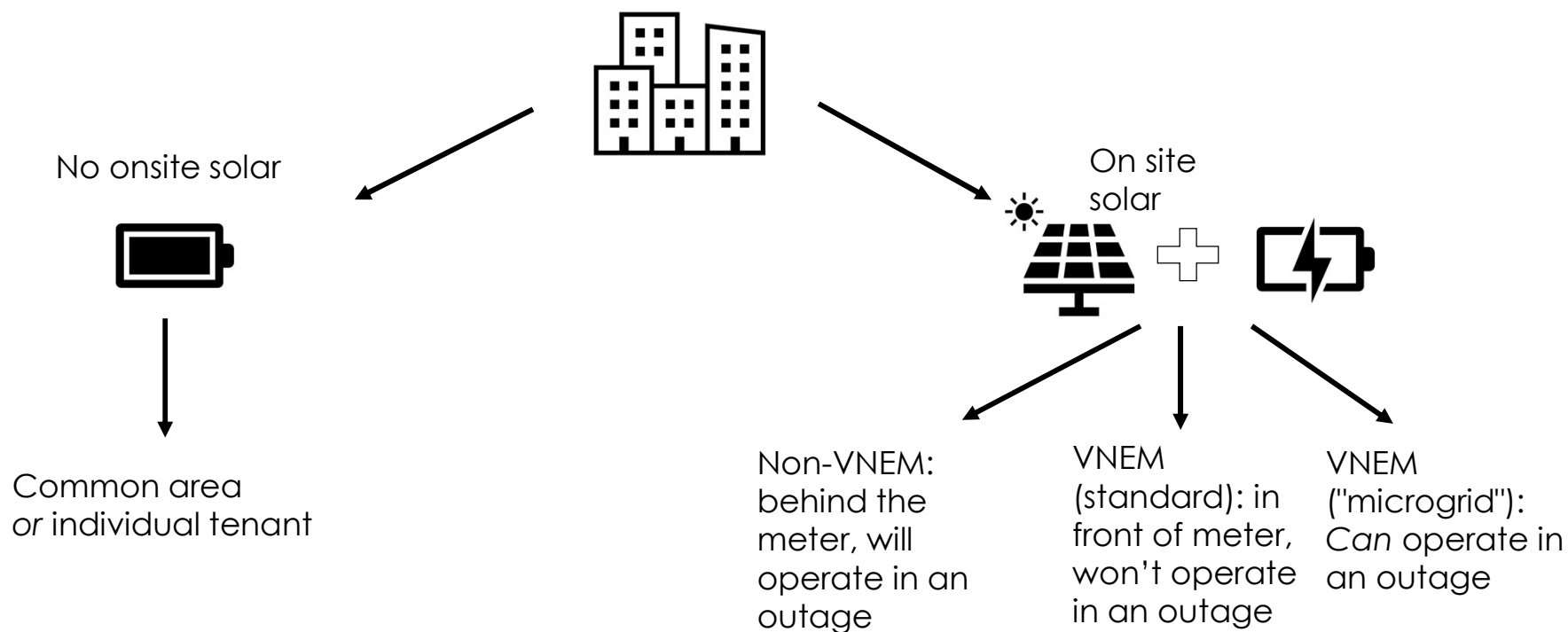
- 1) **Large Scale Storage** – general market, currently **\$0.35/Watt-hour (Wh)**. Resiliency adder of \$0.15/Wh for customers in High Fire Threat Districts (HFTD) Tier 2 or 3 or who have experienced 2+ PSPS events increases incentive to **\$0.50/Wh**.
- 2) **Residential Equity Budget** – multifamily affordable housing\*, **\$0.85/Wh**, currently waitlisted statewide except for in SoCalGas' service territory.

\*Multifamily residential building of  $\geq 5$  rental housing units operated to provide deed-restricted low-income housing (PU Code  $\S$  2852 (a)(3)(A)(i) & is either:

- 1) In a Disadvantaged Community; or
- 2) Building where  $\geq 80\%$  of the households have incomes  $\leq 60\%$  of AMI, per Health and Safety Code  $\S$  50052.5 (f). Any customer account in such buildings is eligible.

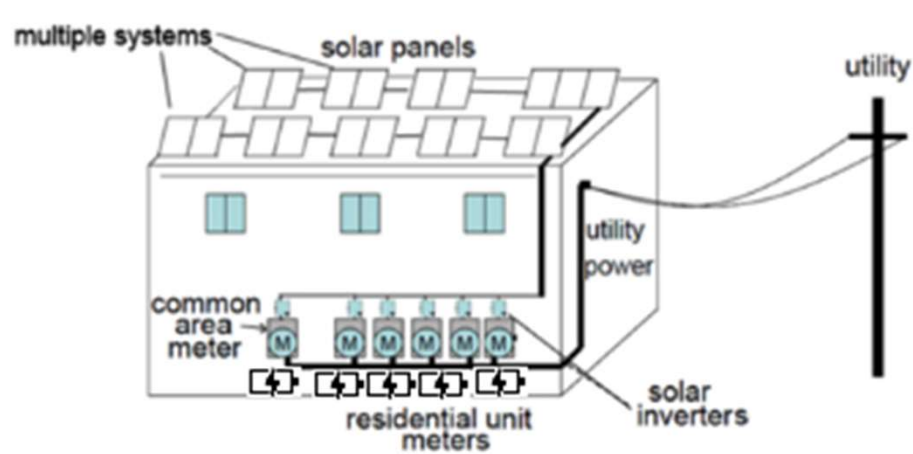
- 3) **Equity Resiliency Budget** – customers with critical resiliency needs in HFTD Tier 2 or 3 or who have experience 2+ PSPS events. Includes multifamily affordable housing and individuals on medical baseline or with medical needs that would be life threatening without electricity. **\$1.00/Wh**. Currently waitlisted in PG&E's service territory.

# Multifamily housing presents unique challenges and opportunities for energy storage

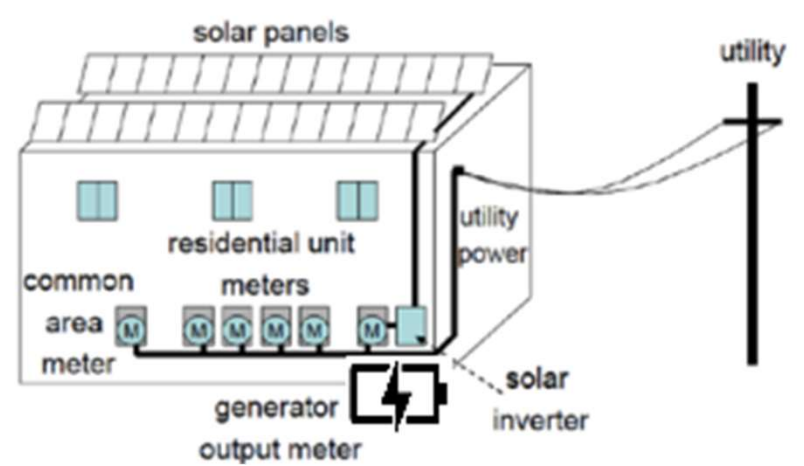


# Multifamily housing solar and storage configurations

Non-VNEM



VNEM



***Challenge statement:***

**How can SGIP enhance the resiliency of individuals with access and functional needs who reside in multifamily housing? e.g. tenant who needs to charge a wheelchair in their unit but also needs to have access to a functioning elevator**



# In-unit energy storage "solutions"

The large IOUs have programs for generators and portable batteries that target customers with access and function needs.

- PG&E's **Disability Disaster Access and Resource (DDAR) program**
  - Qualifying customers can access backup portable batteries through grant, lease-to-own, or low-interest loan options. \$5 M in funding through 12/31/20. Operated in partnership with the California Foundation for Independent Living Centers (CFILC).
  - Learn more at: [www.disabilitydisasteraccess.org](http://www.disabilitydisasteraccess.org) and [www.cfilc.org](http://www.cfilc.org)
- SCE's **Critical Care Backup Battery (CCBB) program**
  - CARE or FERA customers who live in high fire risk area and rely on critical, life sustaining medical equipment can receive portable backup battery at no cost.
  - Learn more at <https://www.sce.com/wildfire/customer-resources-and-support>
- SDG&E **Generator Grant Program (GGP)**
  - Pending approval, medical baseline customers in HFTD Tier 2 or 3 or who experienced a 2019 PSPS event can receive Portable Yeti 3000 (Solar+ Li-Ion battery) for a single appliance or medical device.
  - Learn more at <https://www.sdge.com/generator-grant-program>



# Challenge – How/Can the MF clean energy community deliver a resiliency 'package' for AFN MF properties?

- Obviously, the MF sector is a niche market, and the AFN community adds **additional complexities** (trust, access, HIPPA, etc.)
- SGIP has historically been developer driven. Those developers most familiar with the program **may not have the technical or soft skills** needed to penetrate this target market.
- PSPS programs are **siloed**. It's unclear how, at the IOU and on-the-ground level these programs will be leveraged/coordinated with other clean energy programs.

A concierge approach for multifamily properties is likely needed. For example, SGIP could be used to support installation of a **large BTM battery** while helping AFN tenants receive **portable batteries for in-unit** needs, **all while delivering other clean energy measures**.



**Questions?**

**Suggestions?**



## Next steps:

The next **SGIP Quarterly Forum** will be held on **11/17/20**. Free and open to the public. Information on how to participate will be posted here: <https://www.selfgenca.com/home/about/>

Contact: The SGIP Program Administrators:  
<https://www.selfgenca.com/home/contact/>

CPUC SGIP Team:  
Tory Francisco: [tnf@cpuc.ca.gov](mailto:tnf@cpuc.ca.gov)  
Nora Hawkins: [nhw@cpuc.ca.gov](mailto:nhw@cpuc.ca.gov)  
Asal Esfahani: [ae3@cpuc.ca.gov](mailto:ae3@cpuc.ca.gov)



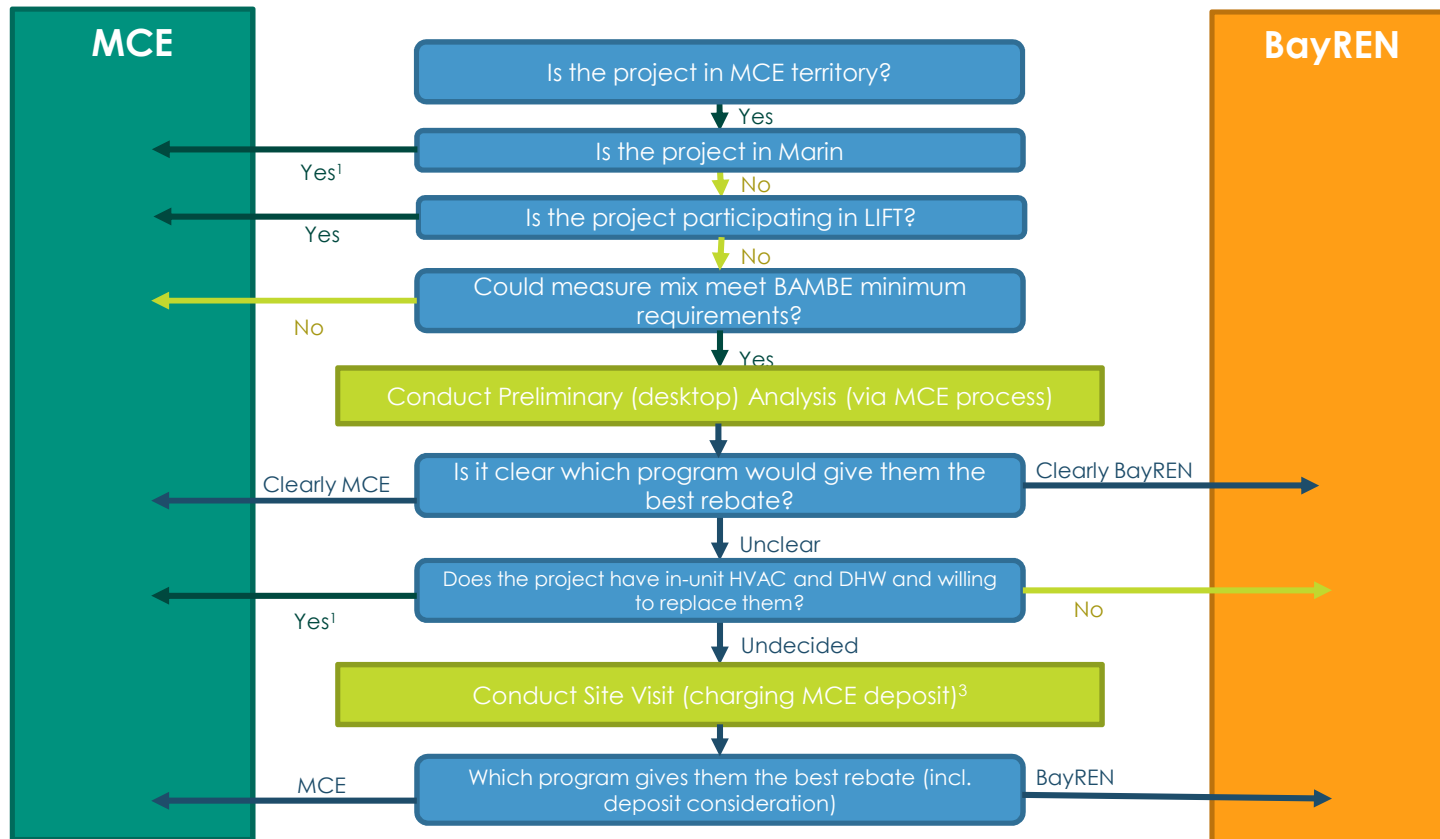
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# Program Layering for Greater Impact

Grace Peralta, MCE

# Pre-2019 Coordination



# 2 Major changes:



## MCE Territory Expands



## MCE Program Changes

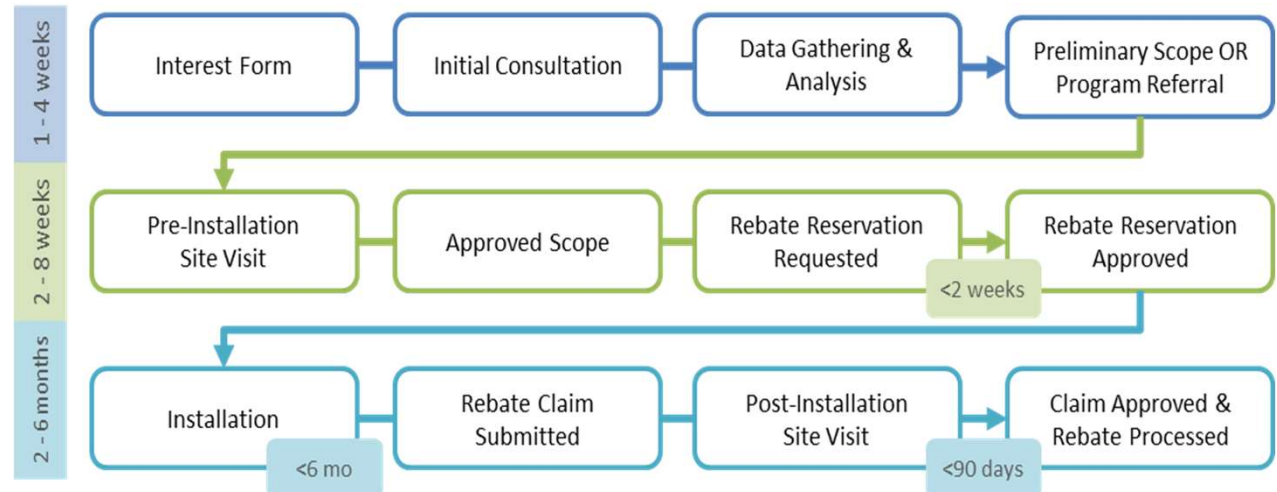
Our common concerns:

- Avoid customer confusion
- Increase participation
- Maximize customer benefit
- Responsible use of ratepayer funds
- Maintain quality of customer experience

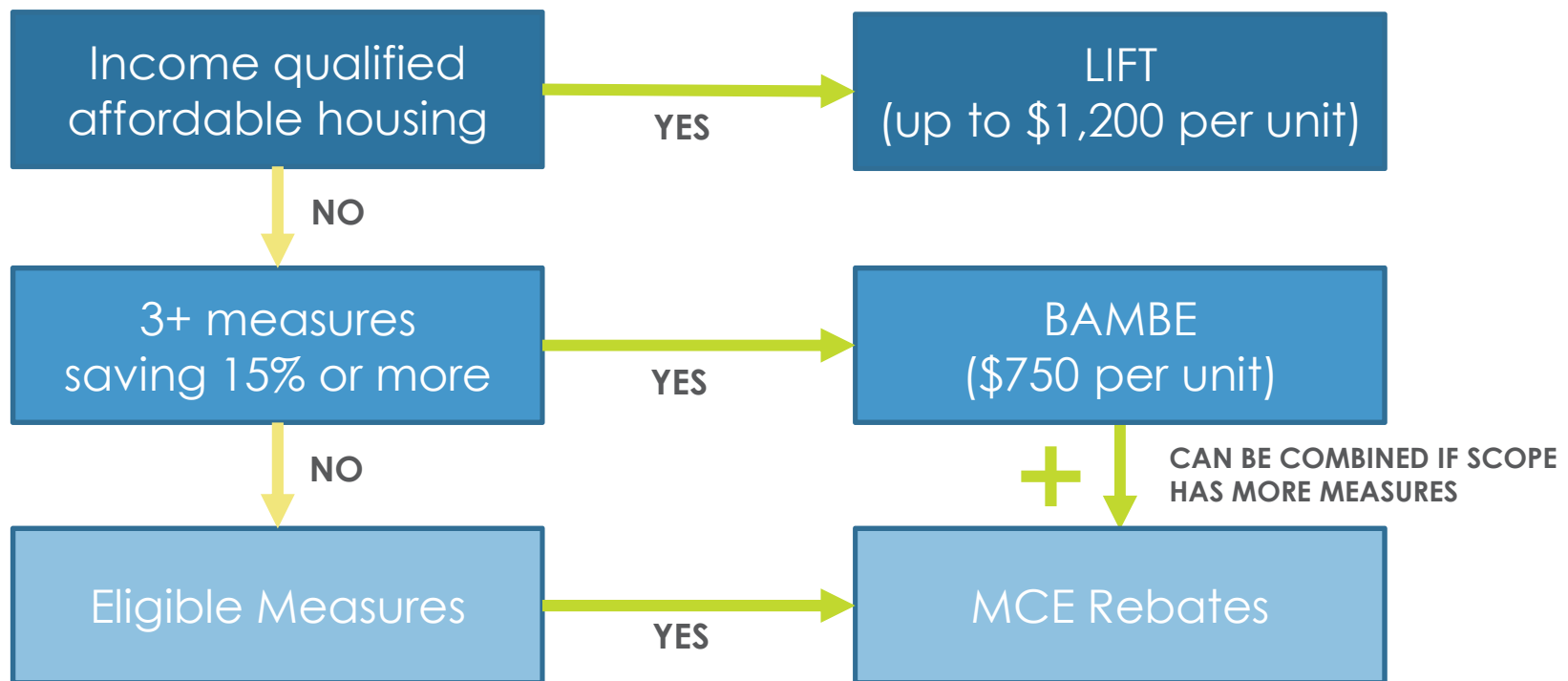
# Overlay customer experience & project flow

## Key Areas of Coordination

- Outreach & Messaging
- Intake
- Technical Assistance
- Scope Development
- Attribution of Savings



# Incentive Layering



# Example Project



## Property

- Constructed in 1962
- 12 buildings & 105 units
- 54% units qualified for LIFT (57)
- Self-certification statement

## Project

- Qualified for BayREN's BAMBE and MCE's LIFT + MFES
- Scope: windows, water heaters, refrigerators, dish washers, in-unit lighting fixtures, common area lighting, showerheads and aerators
- Doubled incentive to \$156,947.52 (\$1494.74/unit)



# Lessons Learned & Discussion Topics

- Co-design with the customer experience in mind
- Having the same implementer was crucial
- Collateral, outreach & messaging: alignment is important
- Recognize and utilize each Team's strengths
- Identify opportunities for alignment with other programs (non EE)
- What can be done to make program coordination and layering easier?



# Questions?

# Thank You



## **Grace Peralta**

Customer Programs Manager

MCE

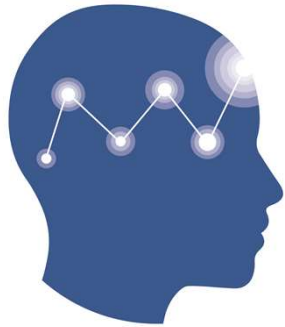
[gperalta@mceCleanEnergy.org](mailto:gperalta@mceCleanEnergy.org)

## **Candis Mary-Dauphin**

Program Manager

StopWaste

[cmary-dauphin@stopwaste.org](mailto:cmary-dauphin@stopwaste.org)



# RES-INTEL

*Residential Energy & Water Intelligence*

## *Using Data to Identify NOAH Properties*

29 October, 2020

Hal T. Nelson, Ph.D.

CEO & Co-Founder

[www.Res-Intel.com](http://www.Res-Intel.com)

# COMPANY OVERVIEW



- Owned and operated by social-equity focused data-scientists. Based in Portland, OR.
- Res-Intel is a CA Energy Commission-funded AI software company that has performed building energy benchmarking on most of California’s Multifamily Residential (MF) complexes

## Our unique analytics and data sets include:

**Communities for Conservation MFR Pilot (2015-2017)**



*SoCal Gas and SoCal Edison competition with 2,220 MFRs/90,000 meters*

**SoCal Edison MFR Characterization (2017-2018)**



*Inventory and Benchmarking of SCE’s entire MF portfolio*

**SDG&E MFR Characterization (2019)**



*Inventory and Benchmarking of SDG&E’s entire MF portfolio*

**PG&E MFR Characterization (2020)**



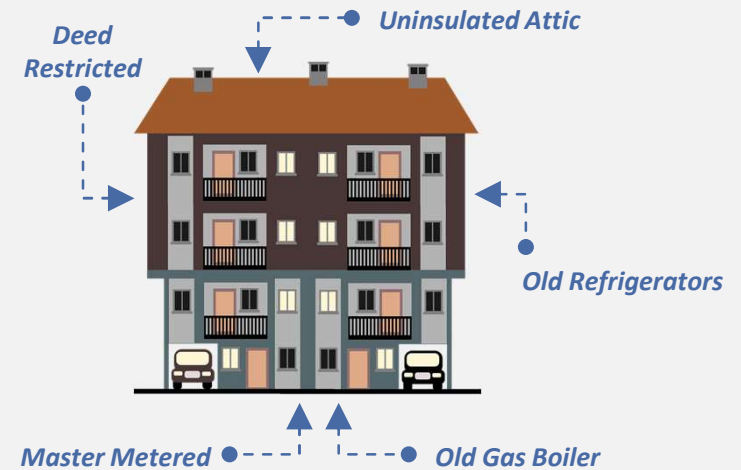
*Inventory and Benchmarking of PG&E’s entire MF portfolio*

# THE GOALS OF THE MF CHARACTERIZATION

1. Create first-ever multi-family:
  - Property inventory
  - Building inventory

2. Create advanced building attributes
  - Energy pre-assessments
  - Reduce energy efficiency customer acquisition costs

3. Building energy benchmarking
  - Energy-use disaggregation and hyper-targeted energy efficiency



## STEPS IN THE MF CHARACTERIZATION



1. Property Inventory: Real Estate Data Aggregation & Utility Meter Matching
  - CoStar + Public records + Geocoding
2. Create 1st ever building inventory
  - LiDAR (Light Detection & Ranging)
  - Predicts missing building attributes
3. Mass-scale benchmarking
  - Validated against industry benchmark at 0.5% difference in EUI
  - Reduces labor costs from \$500-\$1,100 to ¢ per MF

## THE QUESTIONS WE WERE ASKED FOR TODAY

1. How do we define NOAH?
2. Where are the gaps in building information?
  - What percentage is deed-restricted, market-rate, NOAH?
3. Who are the most underserved MF residents in a given territory and how can they be identified?
4. How do we target NOAH?
5. How do we reduce administrative burden for eligibility using data?

Naturally  
Occurring  
Affordable  
Housing





## BUT FIRST: SOME STYLIZED FACTS

- Historical information failures for MF planners & implementers
  - US Census data is measured in dwellings, not MF complexes
    - Census data is [unreliable](#) for single vs multifamily vs condo, attached vs detached
  - County assessor (tax) data is recorded at the parcel level and needs to be aggregated up to the MF-complex level
  - CoStar only contains 25-65% of MF complexes
- Most utilities have not mapped their service address to specific properties
  - Presence of a 2<sup>nd</sup> address line could be condo, duplex, or apartment
- **Thus, no information about energy-use intensity (kWh/sqft)**
  - The key metric for benchmarking and energy justice

## A NEW PARADIGM FOR PLANNING & IMPLEMENTATION


- Historical planning approach uses aggregated Census / Zip code data
- Assumes all household income = the median income
  - Marginalizes MFs in mostly Single Family tracts
- MF Characterization data amplification process:
  - Tenant + meter + energy + building + property + Census + climate data
- Creates powerful new insights for planning and outreach



A Claremont apartment complex in a tract with with \$105k / year household income



## 1. HOW DO WE DEFINE NOAH?

- Many great ideas on this yesterday & today
- Rent/sqft per property as an indicator
  - Average \$2 sqft (selected jurisdictions)
  - Needs to be imputed for vast majority of properties
  - Rent relative to county or census tract (-1.0 to 1.0 scale)
- Rent burden (rent per sqft / estimated income)
- High rent indicator (rent per sqft / estimated income) 
  - Available at the property level

## 2. WHERE ARE THE GAPS IN BUILDING INFORMATION?

- No complete, publicly-available, MF property inventory
  - Nor building inventory
- Deed restricted properties ~2-7% of total MF properties (selected jurisdictions)
  - May / Not include State or Local agency properties
- NOAH: ~40% of units, ~60% of properties
  - Heavily concentrated in 5-15 unit, older properties (selected jurisdictions)




### 3. WHO IS THE MOST UNDERSERVED?




- Property-level analysis is the gold standard
- Energy use intensity (kBTU/sqft) is the foundation
- Statistical modeling to control for climate, unit & complex size, other factors
- High energy burden indicator (estimated gas & electricity bills/estimated income)



## 4. HOW DO WE TARGET NOAH?

- Expand on who “WE” is:
  - Large policy change typically require changes to the governance network
- Use public version of data to engage stakeholders! 
- Outsource marketing & outreach to motivated partners such as:
  - Local governments
  - Energy providers
  - Community development corporations
  - Housing agencies
  - Veterans’ organizations
  - Seniors’ organizations
  - Social and environmental justice organizations
  - Financial institutions
  - Health homes advocates
  - Aggregators
- Improve programs’ total resource cost metrics

### Non-Personally Identifiable Non-Proprietary, Shareable, Property Data

1. Building Count
2. Benchmark Score
3. Heating, cooling, and baseload performance indices
4. Electric vs. gas heat
5. Master-metered
6. Summer DR potential
7. Retrofit measures list
8. High energy burden indicator
9. Electrification indicator 
10. More!

## 5. HOW DO WE REDUCE ADMINISTRATIVE BURDEN FOR ELIGIBILITY USING DATA?

- Tenant income documentation is a major program barrier
- Current ESAP practices
  - If 65% of tenant units are eligible for CARE then property qualifies for Common Area Measures (plus eligible tenant units)
  - If 80% are eligible, then entire property qualifies for ESAP
- Advanced approach
  - We roll-up tenant accounts into MF complexes
  - CARE enrollment as % of apartment units
  - We use machine learning to predict CARE eligibility as % of units

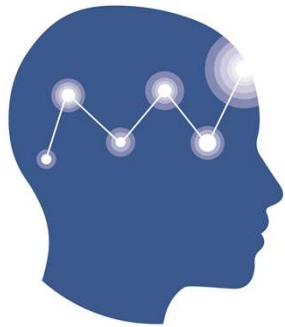


## 6. SUMMARY

- This time is different for vulnerable MF sector
  - Greater urgency: energy justice, global warming, energy resiliency, more stakeholder interest
- Program and policy changes are required to harvest the opportunities
  - Eric Arnold highlighted the need for trust in programs
  - Data amplification allows targeting at the property level using rolled up tenant CARE eligibility
  - Non-PII property data can unite stakeholders' interests for building retrofits







# RES-INTEL

**Email Me with Your Ideas or Questions**

[Hal.Nelson@Res-Intel.com](mailto:Hal.Nelson@Res-Intel.com)

**909.660.0109**

*Thank you!*

# Breakout Discussion

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➤ **Break 10:25-10:35**

➤ **SELECT QUESTION YOU MOST WANT TO DISCUSS BELOW AND TYPE ASSOCIATED GROUP NUMBER (e.g. “1”, “2”, “3”, or “4”) IN CHAT TO “EVERYONE”**

- Group #1: What data is available that can help us center equity?
- Group #2: What is the opportunity and how do we respond to shelter in place/tenants working from home?
- Group #3: How do we design programs that center tenant access?
- Group #4: What regulatory constraints are affecting which projects are eligible for incentives?

# Discussion Debrief

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- **Report backs from breakout groups**
  - What did you learn? Where did you find energy?

# Open forum – Industry Updates

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## ➤ Issues of priority from the group e.g.:

- TECH, policy - links to legislation SB1477, AB3232, & AB1232 below
  - [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180SB1477](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB1477)
  - [https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201720180AB3232](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB3232)
  - [http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201920200AB1232](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1232)
- Tax Credit Allocation Committee (TCAC) regulations
- T-24 code updates & reach codes
- CPUC Portfolio authorization for decarbonization technology
  - “As of July 1, 2020 the CPUC has either approved or is reviewing approximately \$435 million in incentives across 16 different programs for Heat Pump Water Heaters (HPWH) heat pump heating, ventilation and air conditioning (HVAC) systems, and related devices that enable these technologies to achieve full functionality”
- Fuel substitution work papers for EE programs
- CAECC Low-Income Working Group
- MFERR, EPLv4.1

# Closing

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- **Reflections on the 2-day convening**
- **Is there a role for MF-HERCC to advance equity issues moving forward?**
  - Survey - Post-Convening Coordination

# THANK YOU!

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FOLLOW UP EMAIL WITH SLIDES COMING  
FROM BEN COOPER