



# EEPS TECHNICAL WORKING GROUP

June 26, 2024  
1:00 p.m. to 3:00 p.m.

Hawai'i Energy Offices with Teams Web conference option

# REMINDERS

- Remote participants, please mute your lines when you aren't speaking – we'd like to keep the lines open so you can easily join the conversation
  - You may also use the “raise hand” or chat functions
- Please identify yourself and your organization when speaking
- We encourage participants to ask questions and contribute their constructive comments
  - Silence during a discussion implies agreement

# COMMISSION WELCOME

# AGENDA & INTRODUCTIONS

JENNIFER BARNES

ENERGY EFFICIENCY MANAGER TEAM

# AGENDA

- 1:00 – Agenda & Introductions
- 1:10 – EEPS Extension Legislation Debrief and Planning
- 2:10 – Naturally Occurring Savings and EEPS
- 2:35 – IRA Funding Update
- 2:55 – Wrap up & adjourn



# INTRODUCTIONS BY ORGANIZATION

# EEPS LEGISLATION DEBRIEF & PLANNING

JENNIFER BARNES, ENERGY EFFICIENCY  
MANAGER TEAM

JODI ROBINSON, BLUE PLANET FOUNDATION



# EEPS POLICY UPDATE:

LESSONS FROM THE 2024 LEGISLATIVE SESSION





blue  
planet

**Hawaii** as a model of  
clean energy  
progress that inspires  
climate solutions  
globally



## 2024 EEPS BILLS:

- **HB 1828**- Drafted by Representative Lowen and introduced by Speaker Saiki, this bill was included in the House Majority Caucus package. Bill died in conference committee.
- **SB 2122**- Introduced by Senator Keohokalole, who introduced a similar EEPS bill in 2023. Bill died in conference committee.
- **HB 2389**- Introduced by request by Speaker Saiki, this bill was included in the Governor's package. Bill was never heard.
- **SB 3089**- Introduced by Senate President Kouchi, this bill was included in the Governor's package. Bill was never heard.

All would have extended the EEPS goal to 6,000 GWh of cumulative savings by 2045

# PREPARING FOR NEXT SESSION:



## DETERMINE BILL DRAFT LANGUAGE

- Get clear on 6,000 GWh numbers and data
- TWG to revisit cumulative persisting vs. first year savings



## GAIN EARLY SUPPORT FROM MONEY COMMITTEES

- Bills did not get final FIN/WAM approval in conference committee
- Address concerns on EEPS attainability & program budget



## IDENTIFY LAWMAKER CHAMPIONS

- Still focus on relevant committee chairs
- Need to engage key decision-makers in House and Senate



## LEVERAGE TWG AND BUILD PUBLIC SUPPORT

- Develop sign-on letter on behalf of TWG for bill testimony
- Increase education around the net savings/benefits to extending EEPS to 2045

# EEPS BILL LANGUAGE - 2024

- The bill language from the 2023 & 2024 legislative sessions is on the right
- Propose to:
  - Remove cumulative persisting savings (CPS) metric, maintaining the original, non-specific language
  - Maintain the 4,300 GWh value as an interim 2030 target

"(b) The energy-efficiency portfolio standards shall be designed to achieve [~~four thousand three hundred~~] six thousand gigawatt hours of [~~electricity use reductions~~] cumulative persisting electricity savings statewide by [~~2030;~~] 2045; provided that the commission shall establish interim goals for electricity use reduction to be achieved by 2015, 2020, [~~and~~] 2025, 2030, 2035, and 2040, and may also adjust the [~~2030 standard~~] 2045 and interim standards by rule or order to maximize cost-effective energy-efficiency programs and technologies.

For the purposes of this subsection, "cumulative persisting electricity savings" means the total electric energy savings in a given year from measures installed in that year or in previous years, but no earlier than January 1, 2009, that are still operational and providing savings in that year because the measures have not yet reached the end of their useful lives.

# EEPS BILL LANGUAGE – DRAFT 2025

(b) The energy-efficiency portfolio standards shall be designed to achieve four thousand three hundred gigawatt hours of electricity use reductions statewide by 2030 and six thousand gigawatt hours of electricity use reductions statewide by 2045; provided that the commission shall establish interim goals for electricity use reduction to be achieved by 2015, 2020, [~~and~~] 2025, 2030, 2035, and 2040, and may also adjust the [~~2030 standard~~] 2045 and interim standards by rule or order to maximize cost-effective energy-efficiency programs and technologies.

- Draft language for 2025 legislative session is to the left
- Discussion:
  - 6,000 GWh target is undefined – the value was developed to be in cumulative persisting savings (CPS) but if a different metric is ultimately used, the the value should be different
    - For instance, the first-year equivalent to 6,000 GWh CPS is lower than 6,000 GWh
  - Maintaining the 4,300 GWh value for 2030 alleviates one legislator concern but is this a good solution?

# 2045 EEPS TARGET

- The 2045 EEPS target of 6,000 GWh CPS was estimated by manually extending the value streams from the 2020 Market Potential Study (MPS)
  - The modification was made to the MPS output values and not within the underlying model; the underlying inputs or assumptions were not updated
- Other considerations:
  - 6,000 GWh 2045 target is "valued" in CPS but we're looking to maintain flexibility in the legislation by removing the "CPS" metric references. Ideally, the target value should align with the target metric
    - We've been tracking and reporting the 2030 4,300 GWh target in both first-year and CPS, but that's not ideal as the target values should be different for first-year and CPS
  - The revised target will be developed as part of the MPS update but that won't be ready in time for the 2025 legislative session
    - The proposed bill language allows for future updates but is this sufficient? Is there a way to enhance or strengthen the language? Is there a risk of this flexibility being eliminated during the legislative process?

# NEXT STEPS AND ASSIGNMENTS

	<b>July-Sept</b>	<b>October TWG</b>	<b>Nov 2024 - Jan2025</b>	<b>2025 Leg Session</b>
<b>Activity</b>				
<b>Lead</b>				
<b>Contributors</b>				
<b>Deliverable/Outcome</b>				
<b>Timing</b>				



# NATURALLY OCCURRING SAVINGS & EEPS

JENNIFER BARNES

ENERGY EFFICIENCY MANAGER TEAM

# BACKGROUND

## EEPS savings may include several contributing categories:

- Direct savings based on installed measures:
  - ☑ Hawai'i Energy verified savings
  - ☑ Other – KIUC, other contributing entities, solar PV (until 2015)
- Indirect market impacts:
  - ☑ Codes and standards influencing purchases => market impacts
  - ☑ Hawai'i Energy longer term market impacts (e.g., 2019 – 2022 lighting market effects)

Customer adoption of EE equipment that is above code / standard outside of the program

- ☑ Included in 2024 EEPS report
- ✗ Not included in 2024 EEPS report

# MARKET EFFECTS

- **Market effects are the savings that is estimated to have occurred as a result of Hawai'i Energy program efforts to transform lighting and water heater markets**
  - These savings are not already counted as program savings (e.g., high efficiency product purchases that were not rebated, but occurred as a result of program promotions to retailers / customers)
  - These savings are also not already counted towards Codes and Standards savings (market effects are only counted until the applicable code or standard goes into effect)

## LIGHTING MARKET EFFECTS (LME)

- **LME was included in EEPS savings for 2019 – 2022 based on specific program efforts that led to savings that are not already counted in the Program and Codes and Standards savings categories**
  - For example, stores may have begun to phase out inefficient lamp types ahead of EISA taking effect as a result of years of upstream program incentives and promotions
  - Similarly, businesses and households may have chosen to buy higher efficient lamps ahead of EISA taking effect as a result of years of program incentives and promotions that were reflected in lower prices and promotions of high efficiency lighting products at retail stores

LME was estimated based on an update to the 2020 MPS to reflect EISA taking effect in July 2023

# NATURALLY OCCURRING SAVINGS

- **Naturally occurring savings** includes longer term market effects (including LME estimated to have occurred between 2019 – 2022) and customer adoption of EE equipment that is above code / standard outside of the program
- The MPS typically estimates a single value for all types of naturally occurring (NO) savings
  - 2023 was an exception due to the huge impact of EISA, allowing us to break out LME from all other NO

## Indirect market impacts:

### Naturally occurring savings

- ☑ Codes and standards influencing purchases => market impacts
- ☑ Hawai'i Energy longer term market impacts (e.g., 2019 – 2022 lighting market effects)
- ✗ Hawai'i Energy longer term market impacts (in markets besides lighting)
- ✗ Other customer adoption of EE equipment that is above code / standard outside of the program

# NATURALLY OCCURRING SAVINGS – *TO COUNT OR NOT TO COUNT?*

## Pros and Cons:



EEPS framework specifies that gross savings is what counts, implying that all electricity savings that occurs counts, not just savings that is influenced by programs



Focusing on program influenced savings makes sure that EEPS is having the most direct influence on discretionary program spending and efforts

# IRA FUNDING UPDATE

CLAUDIA RAPKOCH

HAWAII STATE ENERGY OFFICE

# Hawai'i State Energy Office

## Inflation Reduction Act Home Energy Rebate Programs



# Overview

Home Energy Rebates Program

# Home Energy Rebates

## Home Efficiency Rebate Program (HER or HOMES)

- Existing single-family and multifamily buildings are eligible
- Retrofits to achieve significant energy savings
- Rebates available to individuals/aggregators that perform upgrades
- States can narrow program eligibility, conditions, and/or technologies than those articulated in law

## Home Electrification and Appliance Rebate Program (HEAR)

- Entirely income qualified
- May cover up to 100% of total qualified project cost for households with a total annual income less than 80% Average Median Income (AMI)
- States may decide if new construction projects are eligible
- States can narrow program eligibility, conditions, and/or technologies than those articulated in law

# Funding Allocations

- Hawai'i's total award allocation is **\$69.8 Million** (split between programs)
- At a minimum, each state must adhere to low-income eligibility considerations for both programs:
  - Allocate a percentage of its rebate funding for each program in line with its percentage of low-income households
    - Hawai'i % of low-income (<80% AMI): 39.8%
    - Minimum allocation: \$10.8 million/per program (**\$21.6 million**)
  - An additional 10% is allocated to serve low-income multifamily buildings
    - Minimum allocation for LI multifamily: \$2.7 million/per program (**\$5.4 million**)



# Area Median Income

- Calculated annually by the Department of Housing and Urban Development
  - Differs by state and county
  - Accounts for household income relative to number of people in the household
- For example, AMI for a 4-person household/family in Hawai'i based on 2023 figures
  - 80% AMI (low-income limit) \$90,550
  - 150% AMI (moderate-income limit) \$169,800
  - Actual amounts will adjust annually based on county calculations
- Categorical eligibility for enrollment in existing federal assistance programs within statutory limits

# Home Efficiency Rebate (HOMES) Program

- Retrofit improvements aimed at reducing energy use
  - Provides rebates for projects initiated on or after August 16, 2022 (limitations may apply)
- Rebate amount is based on the amount of energy savings created
  - Projects may be either modeled or measured energy savings with higher rebates available to households below 80% AMI
  - Requirements include energy audit/assessment of existing residence (prior to work), access to utility data, and post-installation inspection/verification

# Home Electrification Appliance Rebate (HEAR)

- Rebates for specific ENERGY STAR appliances
  - HI program focusing on heat pump water heating and split AC units
  - Solar products are not eligible
  - Certain types of building materials and electric upgrades also qualify
- Only available to low and moderate income-qualified households
  - 80% AMI and below
  - 150% AMI – 81% AMI
- Meet thresholds for single- and multi-family housing, disadvantaged communities, and Justice40

# Additional Elements

- Braiding and stacking with other federal and state programs and incentives is encouraged
  - Limitations may apply
- Total rebates can not exceed cost of the measure or appliance
- DOE continues to develop guidance materials for fund braiding

# Program Requirements

- HSEO must submit implementation plans to DOE for approval 60 days prior to program launch
  - Community Benefits Plan
    - Community and labor
    - Skilled and quality workforce
    - Incorporating Diversity, Equity, Inclusion, and Accessibility (DEIA)
    - Address Justice40 Initiative
  - Education and Outreach Strategy
    - Trade partners (retailers, contractors, and distributors)
    - Consumers
    - Multi-family building owners
  - Consumer Protection Plan
    - Dispute resolution
    - Determining qualified contractors
    - Develop and enforce installation standards



# Program Requirements

- HSEO must submit implementation plans to DOE for approval 60 days prior to program launch
  - Utility Data Access Plan
    - Program evaluation
  - Privacy and Security Risk Assessment
    - Cybersecurity protocols
    - Comply with DOE Data & Tools requirements guides
    - Independent review of security and privacy controls
  - Market Transformation Plan (due after program launch)

# As of Today...

- Hawai'i is one of four states to submit early applications for HEAR program
  - Funding approved June 2024
- HOMES program application is underway
- Developing the implementation plans
- Seeking program “implementer” through a competitive solicitation (request for proposal) with anticipated contract signed by September 2024.

# HEAR Program

Overview

# HEAR Program Highlights

- “Rapid Rollout” of point-of-sale limited rebates beginning late 2024
  - ENERGY STAR certified heat pump water heaters
  - ENERGY STAR recognized induction cooktops
- Rollout date depends on availability of DOE tools still in development and completion of implementation plans
- Implementation and delivery of coordinated HOMES and HEAR incentives in early 2025
- Outreach in each county and tailored for hard-to-reach customers, disadvantaged communities and Native Hawaiian homestead associations

# HEAR Application

- Allocation and distribution of rebates:
  - Point Of Sale rebates up to 150 AMI: 15%
  - 80AMI or lower: 45%
  - Multifamily\*: 10%
  - Native Hawaiian\*: 10%
  - Admin: 20%
- All program design features are subject to change pending DOE approval

\* = *income requirements apply*

# Hawai'i Proposed Rebates

Qualified Project	Proposed Limit for AMI 81-150	Proposed Limit for AMI 80 or lower
Electric Heat Pump Water Heater (HPWH)	<p>\$1,750* for ENERGY STAR Connected Products</p> <p>\$1,000 for other ENERGY STAR certified HPWH</p>	<p>100% of qualified project cost up to the statutory maximum for ENERGY STAR Connected Products</p> <p>90% of qualified project cost for other ENERGY STAR certified HPWH</p>
Electric Heat Pump for Space Cooling/Heating	<p>\$8,000* for ENERGY STAR Most Efficient</p> <p>\$4,000 for ENERGY STAR certified with SEER 2 rating over 22</p>	<p>100% of qualified project cost to the statutory maximum for ENERGY STAR Most Efficient</p> <p>50% of qualified project cost for ENERGY STAR certified SEER2 rating over 22</p>

\* = statutory limit

# Hawai'i Proposed Rebates cont'd.

Qualified Project	Proposed Limit for AMI 81-50	Proposed Limit for AMI 80 or lower
Electric Stove, Cooktop, Range, Oven	\$840 for ENERGY STAR recognized induction ranges and cooktops	100% of qualified project cost to the statutory maximum for ENERGY STAR certified induction ranges and cooktops
Electric Heat Pump Clothes Dryer	\$0	\$0
Electric Load Service Center	\$4,000*	100% of qualified project cost up to the statutory maximum
Insulation, Air Sealing, and Ventilation	\$1,600*	100% of qualified project cost up to the statutory maximum
Electric Wiring	\$2,500*	100% of qualified project cost up to the statutory maximum

\* = statutory limit

# Hawai'i Proposed Rebates cont'd.

Qualified Project	Proposed Limit for AMI 81-50	Proposed Limit for AMI 80 or lower
Maximum Rebate	50% of qualified project cost up to a maximum of \$14,000	100% of qualified project cost up to the statutory maximum

Note that for multifamily buildings, in the case of rebates claimed by an eligible entity representative on behalf of multiple households, the per-household maximum limits can be combined. For example, 10 low-income households claiming a rebate through an eligible entity representative could combine their heat pump allocations of \$8,000 each to provide \$80,000 for an eligible ENERGY STAR central heat pump system.



# Additional Information

- DOE Rebate Tracking System safeguards against duplicative rebates for same product and household
  - API tools in development by Pacific Northwest National Lab
  - Anticipated delivery of coupon tools in September 2024
- The state will use the DOE's Energy Justice Dashboard and CJEST tool initially and will provide tools to help contractors identify disadvantaged communities for targeted outreach

# City and County Honolulu



## Legend

CJEST Disadvantaged



US DOE DAC



0

Disadvantaged Community

DHHL Lands

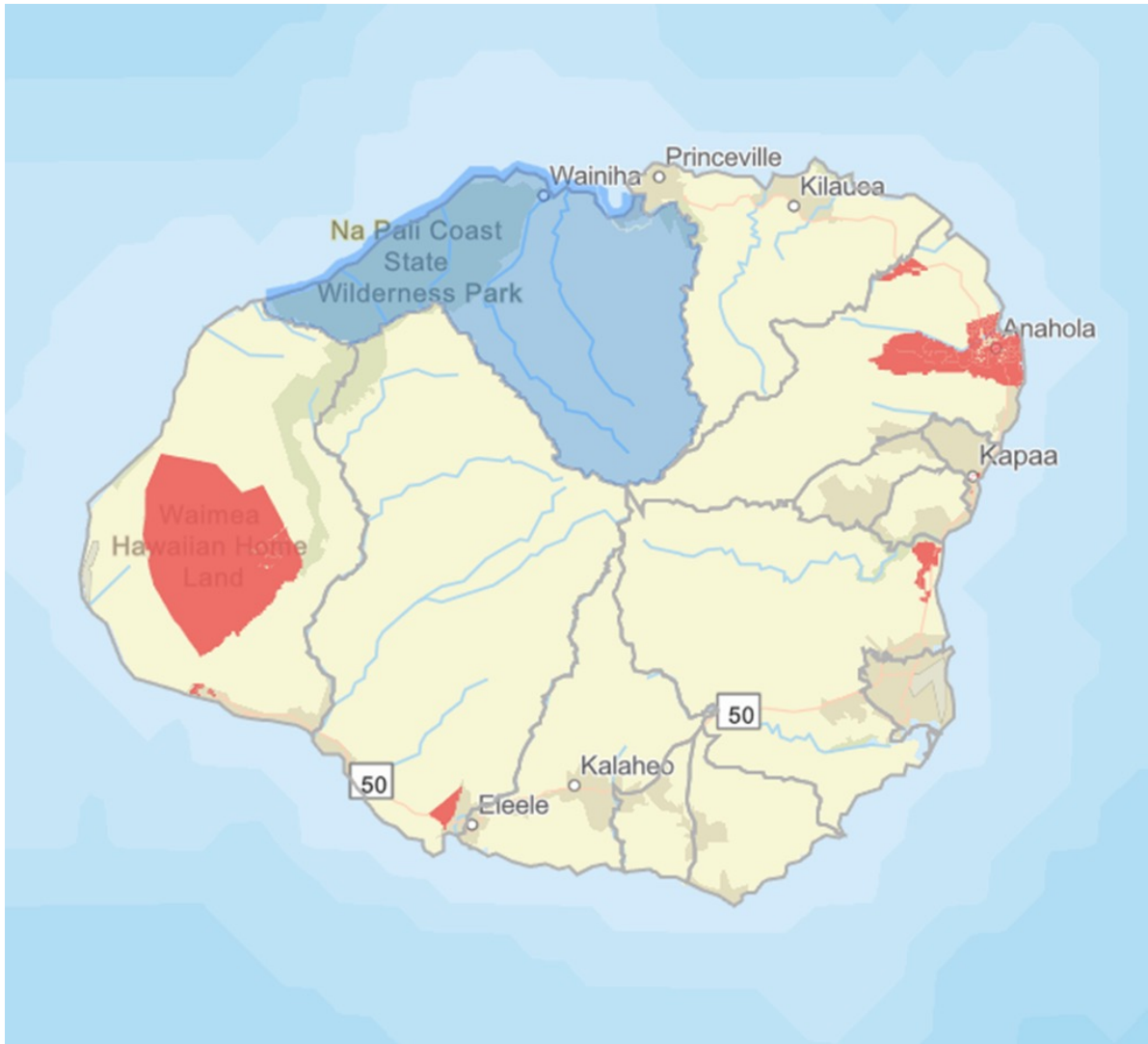


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# Kaua'i County



## Legend

CJEST Disadvantaged



US DOE DAC



Disadvantaged Community

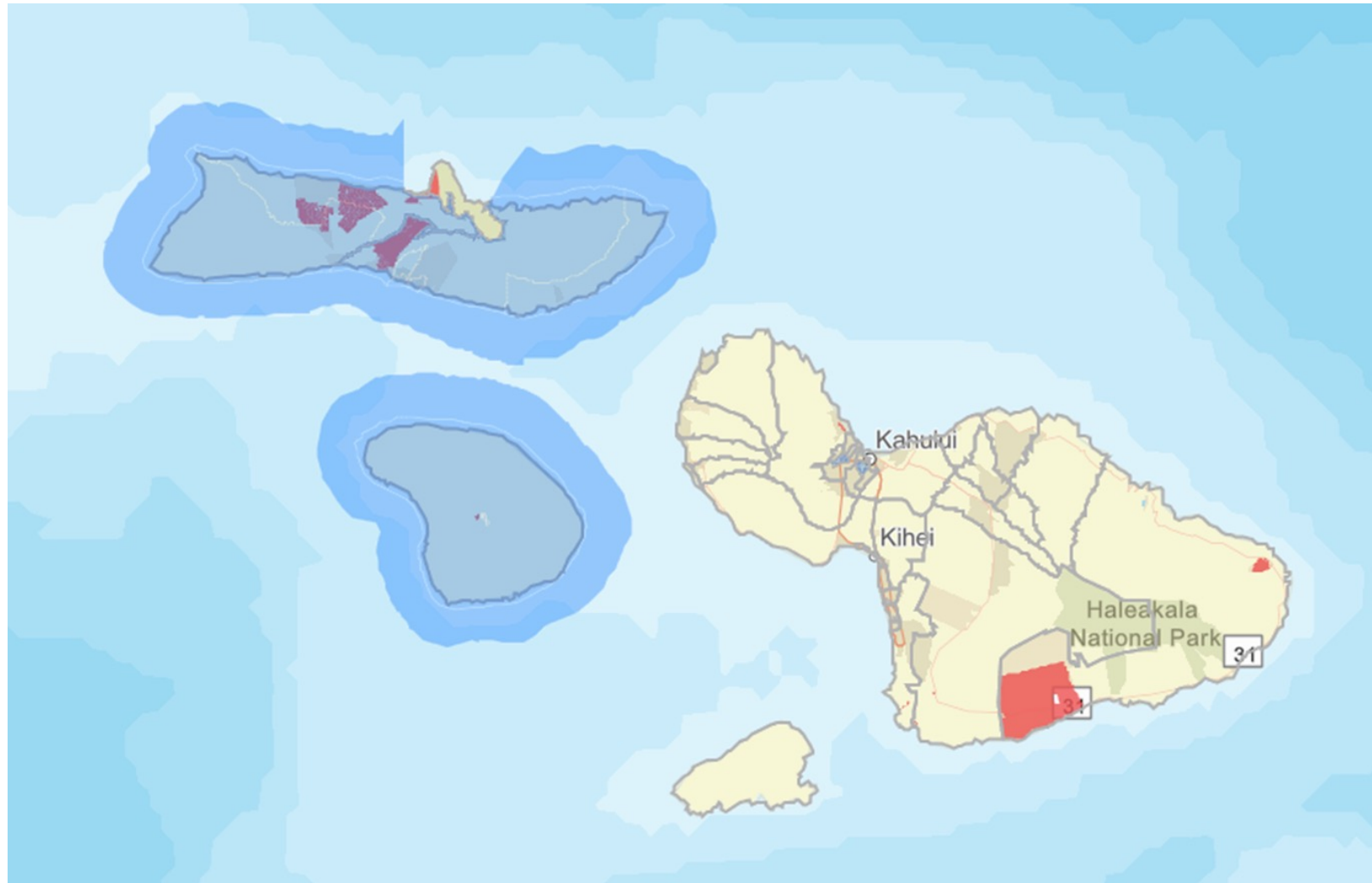
DHHL Lands

Govt. State DHHL



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# Maui County



## Legend

CJEST Disadvantaged



US DOE DAC



Disadvantaged Community



DHHL Lands

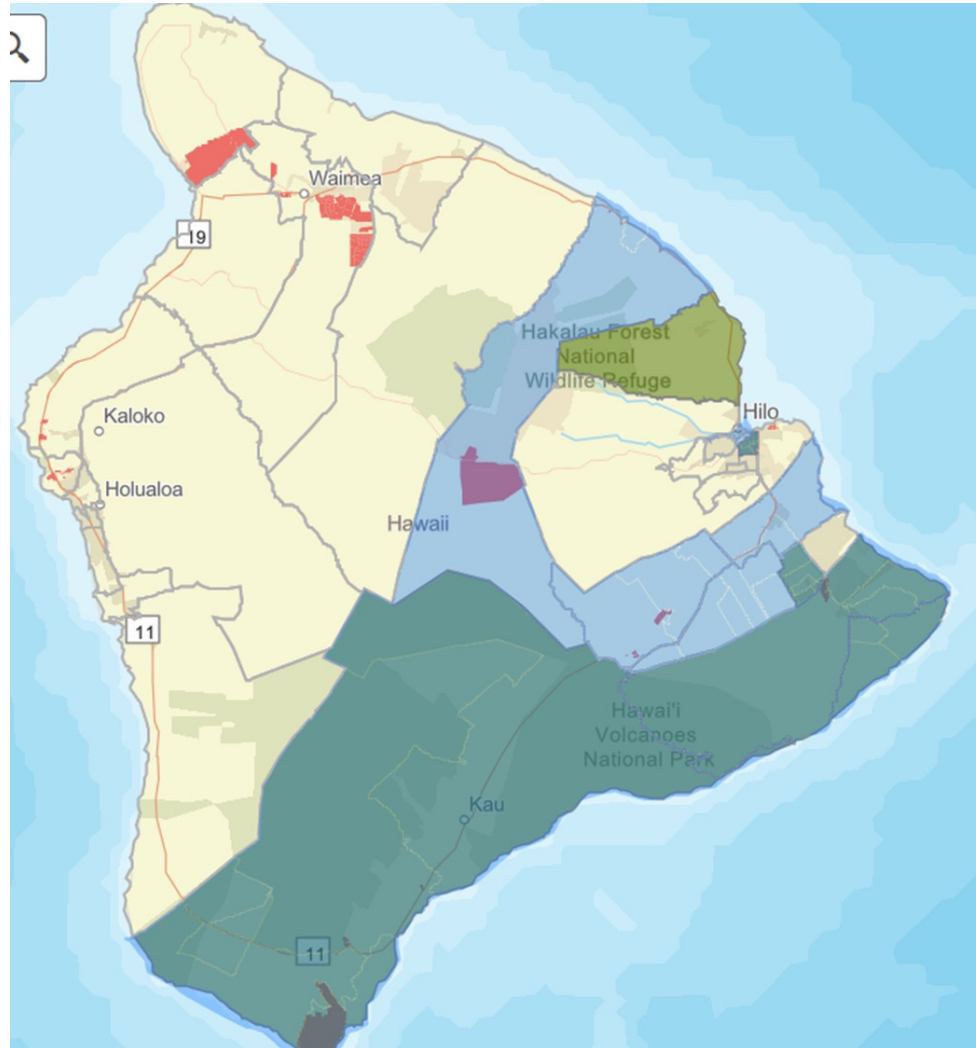


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# Hawai'i County



## Legend

CJEST Disadvantaged



US DOE DAC



Disadvantaged Community

DHHL Lands



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# Multifamily

- Multifamily building owners and tenants are eligible for rebates
  - Owner authorization required
- Rebates attributed to dwelling units and equipment/appliances remain with the unit
- Determination of rebate amount for multifamily buildings depends on initial determination if it qualifies as a low-income building
  - At least 50% of households have incomes less than 80% AMI

# Tenant-Occupied Properties

- For all tenant-occupied properties that receive higher rebate amounts available only to households with incomes less than 80% AMI, the state will require the building owner to sign a statement acknowledging the following:
  - The owner agrees to rent the dwelling unit to a low-income tenant for at least two years.
  - The owner agrees not to evict a tenant to obtain higher rent tenants based upon the improvements.
  - The owner agrees not to increase the rent of any tenant of the building as a result of the energy improvements with exception of increases to recover actual increases in property taxes and/or specified operating expenses and maintenance costs.
  - The owner agrees that if the property is sold within two years of receipt of the rebates, the aforementioned conditions apply to the new owner and must be part of the purchase agreement.
  - In the event the owner does not comply, the owner must refund the rebate.
  - The owner will provide written notice to tenants explaining their rights and the building owner's obligations (e.g., add an addendum to the lease).
  - The owner will be subject to penalties commensurate to their actions with a penalty under Hawai'i Revised Statutes Chapter 708 and/or 710.
  - The state will provide contact information for tenants to notify the state of breaches to this agreement. The State will also include this information in the consumer education campaign, so tenants are aware of their rights under the applicable state law.

# Contractors



# Contractor Incentives

- Contractors and Eligible Entity Representatives (EER) are essential to success of program
  - Marketing and installation
- Responsibilities
  - Compliance with all laws and regulations embedded in implementation plans
  - Excellent record keeping and invoicing, including:
    - Line-item costs of rebated equipment and materials, including any related audits, inspections, testing, and/or modeling
    - Labor costs of the work related to any rebate
    - Geo-coded photos of installed equipment relevant to the rebate, which can be taken with most smartphones

# Proposed Contractor/EER Incentives

Qualifying Activity	Maximum Incentive
Installation of one induction stove, cooktop, range, or oven	\$0
Installation of one or more electric heat pump water heaters	\$150
Installation of one or more electric heat pumps for space heating and cooling per dwelling unit - ducted	\$50
Installation of one more electric heat pumps for space heating and cooling per dwelling unit – unducted	\$150
Installation of insulation per dwelling unit	\$150

# Proposed Contractor/EER Incentives cont'd.

Qualifying Activity	Maximum Incentive
Installation of air sealing and materials to improve ventilation per dwelling unit	\$150
Bonus for combined installation of a heat pump product and insulation or air sealing in a dwelling unit* located within a disadvantaged community, an 80 AMI household, or a low-income multifamily building*	\$150
Installation of one or more electric load service center(s)	\$0
Installation of electric wiring per dwelling unit	\$0
<i>*Maximum total incentive per dwelling unit</i>	<b>\$500</b>
<i>*Maximum total incentive per multifamily building (i.e., incentives for larger buildings will be capped so that larger buildings do not absorb the entire incentive budget)</i>	\$10,000

# Training for Residential Energy Contractors

- HSEO to develop new training program for Home Energy Rebates workforce in 2024
- HSEO will need to identify “qualified contractors” approved to install the rebate-eligible technologies
  - May include performance industry credentials, training requirements, business insurance and licensure, skills standards, and labor standards
- HSEO must publish the list of qualified contractors
- Contractors interested in becoming state-approved contractors should contact HSEO

# Key take-aways

- The rebate programs are legally required to benefit low- and moderate-income households who have been left behind in other programs. This population does not have the tax liability or income required to use tax credits.
- These measures (and more) are eligible for federal tax credits for higher income households.
- The programs will be available for six years or until funding is extinguished.
- Other programs are in development for LMI solar installation, building performance standards, and commercial energy efficiency.

# Want to learn more?

- Energy Efficiency Tax Credits:
  - <https://www.irs.gov/credits-deductions/energy-efficient-home-improvement-credit>
- DOE Guidance for Home Energy Rebates Program
  - <https://www.energy.gov/scep/home-energy-rebates-program-design-and-implementation>
- Hawai'i Green Infrastructure Authority: [gems.hawaii.gov](http://gems.hawaii.gov)
- Hawai'i State Energy Office website: [energy.hawaii.gov](http://energy.hawaii.gov)

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# NEXT STEPS & WRAP UP

JENNIFER BARNES

ENERGY EFFICIENCY MANAGER TEAM

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# QUESTIONS?

- 
- Please contact Jennifer Barnes at 510-756-1501 or [jenniferbarnes@2050partners.com](mailto:jenniferbarnes@2050partners.com).
  - Meeting materials will be posted on [www.HawaiiEEPS.org](http://www.HawaiiEEPS.org)