DEEP: IRA Project Update

May 16, 2024

Agenda

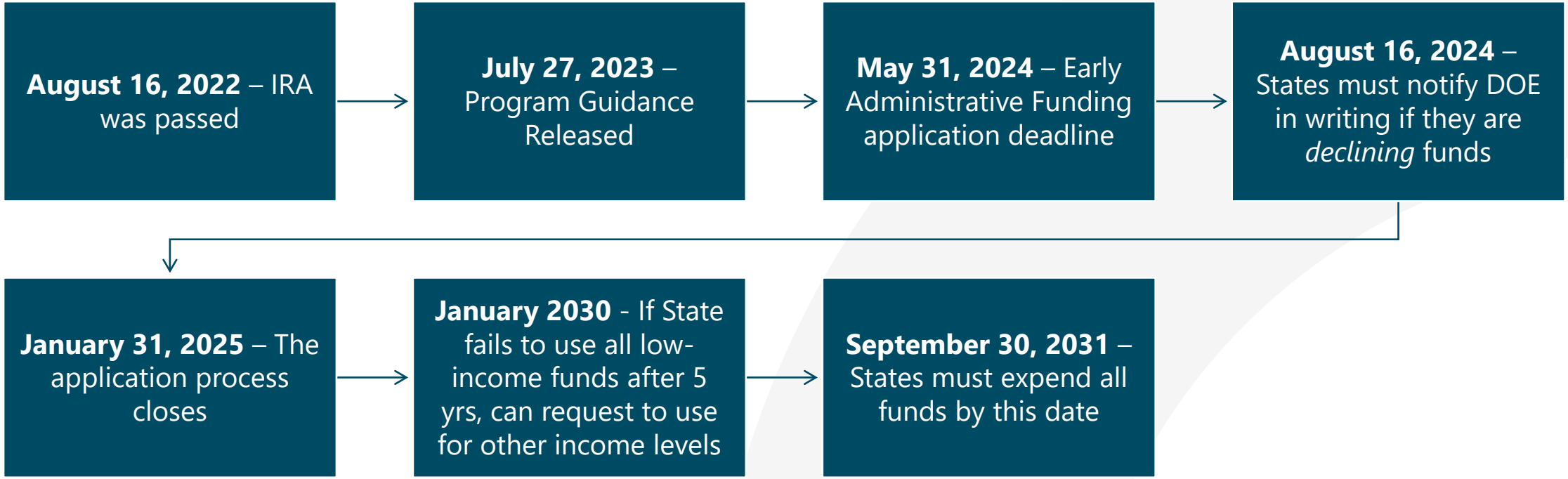
- Introduction to IRA
- High-Level Programs Overview & Guidelines
- How to Engage
- Q&A

Introduction to IRA

Key IRA Acronyms

- 50121: Home Efficiency Rebates (HER) – also originally referred to as HOMES
- 50122: Home Electrification and Appliance Rebates Program (HEAR) - originally referred to as HEEHRA
- Administrative and Legal Requirements Document (ALDR)
    - The ALRD serves as a comprehensive guide outlining the administrative procedures and legal obligations that must be adhered to within the Home Energy Rebates program application processes.
        - ❑ This includes the registration requirements, award information, eligibility, application requirements and submission, award distribution, common questions, agency contacts, reference materials, and other relevant legal and administrative information.

DOE: Key Dates for HEAR/HER



DOE: Allocation to Connecticut[1]

Allocation	HER	HEAR[3]
Total	$49,830,560	$49,541,390
Max 20% for Administration and Technical Assistance	$9,966,112	$9,908,278
Percent Required for Low-Income (<80% AMI)[2]	40.80%	40.80%
Minimum Allocation for Low-Income Households	$12,212,612	$12,141,741
Minimum Allocation for Low-Income Households = 10%	$2,989,834	$2,972,483
Max Open Efficiency Rebate Allocation	$14,695,890	$14,610,609

[1] Per DOE's Program Requirements & Application Instructions dated July 27, 2023.

[2] 80% and 150% Area Median Income (AMI). Values calculated by household size of the median income of the area in which the individual or family resides, as reported by the Department of Housing and Urban Development.

[3] Eligible is for LI household (less than 80% AMI), a moderate-income household (80%-150% AMI), or an individual or entity that owns a multifamily building not less than 50% of the residents of which are LMI.

DOE: Funding ALRD

Tranche #	Portion of awarded grant funds released	Required Deliverable(s) or Milestone(s)	LI Target*	LI Minimum†	LI MF Target*	LI MF Minimum†
1	25% funds	Negotiated and approved state grant application				
2	30% funds (55% total)	Approved Program Launch Approved State Implementation Blueprint	10-15%	5%		
3	25% funds (80% total)	Approved Market Transformation Plan	50-60%	35%	25%	5%
4	20% funds (100% total)	Approved independent privacy and security review Approved review of QA Plan Completed review of incentive implementation	80%	60%	70%	25%

90-day rule. Applicants must submit a continuation application to the DOE 90 days prior to achieving these deliverables and/or milestones for review and approval. DOE approval is required in order to move to the next tranche and for funds to be released.

* Targets indicate DOE's expected performance towards expending low-income (LI) and low-income multifamily (LI MF) allocations. Applicants should strive to achieve targets.

† Minimums must be met to receive the next tranche of funds.

Link: Home Energy Rebate Administrative and Legal Requirements Document

Connecticut's total allocation from Tranche #1 and Tranche #2 for HER is $27,406,808 and $27,247,764 for HEAR.

This includes funds for administrative costs such as software, staffing, verifying income eligibility, project QA, and project-related reporting.

A substantial portion of the non-administrative costs are rebate payments.

HEAR and HER
High-Level Program Summaries

HEAR: High-Level Summary

- Offers point-of-sale consumer rebates for qualified electrification projects (purchase and installation costs).
- Also includes rebates for improvements to electrical panels or wiring and home insulation or sealant.
- Up to 100% of costs covered for low-income.
    - All eligible recipients **must fall below** 150% of AMI.
- Can be stacked with federal tax credits and all state/utility/local incentives.
- Single household cannot receive a rebate for more than one appliance of a single type.

HEAR: Rebate Amounts

50122: HEAR Administered by States/Territories/Tribes		
Upgrade Type	**Equipment/Service**	**Maximum Amount**
Appliance Upgrades	Heat Pump Water Heater	$1,750
	Heat Pump for Space Heating or Cooling	$8,000
	Electric Stove, Cooktop, Range, Oven, or Electric Heat Pump Clothes Dryer	$840
Non-appliance Upgrades	Electric Load Service Center Upgrade	$4,000
	Insulation, Air Sealing, and Ventilation	$1,600
	Electric Wiring	$2,500
Maximum per home or unit		$14,000

HEAR Program Guidelines: Low-Income

- At **a minimum**, states must allocate a percentage of its rebate funding for each of the rebate programs in line with its percentage of low-income households (40% nationally).
- After 5 years, state can petition DOE to use low-income funds for other income levels if not fully spent.
- Allow categorical co-enrollment based on other federal programs that meet the income thresholds.
- For landlords to receive rebate, must rent to low-income tenant for at least 2 years following receipt. Owner must also agree not to evict to get higher rents.
- States are responsible for income verification.

HEAR Program Guidelines: Multifamily

- Multiple parties are eligible to claim the rebate.
    - Individual households, owner of LMI building, or an "eligible entity representative" that can assist multi-households in the same building.
- Allocate at least **10% of its rebate funding to serve low-income multifamily** buildings. This allocation **must be additional to and separate from** the low-income allocation.
- 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 a central heat pump system.

HEAR Program Guidelines: Contractor Incentives

- States must use a portion of funds for contractor incentives to serve certain populations (low-income and disadvantaged communities).

Qualifying Activity	Maximum Incentive
Substantial installation located within a disadvantaged community (excludes installations of electric stoves and electric heat pump dryers) per dwelling unit	$200
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	$300
Installation of one more electric heat pumps for space heating and cooling per dwelling unit – unducted	$200
Installation of one electric stove, cooktop, range, or oven	$0
Installation of one electric heat pump clothes dryer	$0
Installation of one or more electric load service center	$150
Installation of insulation per dwelling unit	$250
Installation of air sealing and materials to improve ventilation per dwelling unit	$250
Installation of electric wiring per dwelling unit	$250

HEAR: For Hypothetical Illustrative Purposes Only

Category	Hypothetical #1: Heat Pumps Rebates Only	Hypothetical #2: Electric Panels and Wiring Only	Hypothetical #3: Weatherization Measures Only	Hypothetical #4: Full Electrification with Panels and Wiring
Target technology	• Heat pumps	• Electric panel upgrades • Wiring	• Insulation • Air sealing • Ventilation	• Heat pumps • Heat pump water heaters • Electric stove • Heat pump clothes dryer • Panel upgrades and wiring
Maximum rebates	• Rebate: $8,000 • Installer incentive: $500 ducted OR $400 ductless	• Rebate: $4,000 (panel) plus $2,500 (wiring) • Installer incentive: $500	• Rebate: $1,600 • Installer incentive: $500	• Rebate: $14,000 (HEAR cap) • Installer incentive: $500
Number of projects supported (annual and over 2025-2031 program period)	700 heat pumps/year 5,100 rebates over the full program period	900 panel and wiring upgrades/year 6,100 over the full program period	2,700 projects/year 18,900 over the full program period	400 projects/year 2,700 over the full program period
Funding needed to get to $0 project cost for <80% AMI	Match needed: $8.7M/year	Limited match needed	Match needed: $13.2M/year	Match needed: $9.5M/year
Key item(s) to consider	States are required to conduct a limited home assessment for the installation of heat pumps	Fills gap: existing programs do not cover electrical No direct energy savings or GHG emission reductions	Without additional electric-saving measures, may not achieve high levels of GHG emission reductions	States are required to conduct a limited home assessment for the installation of heat pumps

HER: High-Level Summary

- DOE awarding grants to states to provide rebates that discount the price of energy-savings retrofits in single-family and multifamily buildings
    - Legislation passed was fuel-neutral, so the focus is on energy consumption; reporting in kWh and kWh-equivalencies
- Designed for residential air sealing, weatherization, and building envelope measures
    - Performance-based
- All income levels eligible, rebates doubled for low-to-moderate income (LMI)
    - Up to 150% Area Median Income (AMI)
- An assessment is required for every home receiving a HER rebate

HER: Rebate Amounts

50121: HER Administered by States/Territories	
Level of Savings	**Maximum Rebate Amount Greater than 80% AMI / Less than 80% AMI**
20-35% savings	• $2,000 / $4,000 • Up to 50% Cost / Up to 80% Cost
More than 35% savings	• $4,000 / $8,000 • Up to 50% Cost / Up to 80% Cost
Exception for Low-Income (<80% AMI)	• States can request to raise rebate amount
Exception for "Measured Savings" Approach	• Can begin as low as 15% savings • No maximum savings or rebate amount • Increased payment rate for low-income

HER: Measured vs. Modeled

Measured Programs

- Modeling
  - DOE-approved open-source measurement and verification methodology (M&V) to measure home energy savings **post-installation** of the upgrades
  - Provide rebates for a home or a portfolio of homes
- Aggregation
  - Can work with an aggregator for implementation
  - **Savings must be achieved across a portfolio of homes**
- Rebates
  - Must be provided to recipient **within 60 days** of submitting invoice to the State
  - State must describe how it will remit (recover) payments to contractors/aggregators after 9 – 12 months of usage data if 70% of required savings are not achieved
  - Energy savings rebates **cannot be stacked with HEEHR**
  - **Can be stacked** with IRA tax credits and all state/utility/local incentives

Modeled Programs

- Modeling
  - BPI-2400 standard to estimate energy savings or similar tool approved by DOE
  - Provide rebates for homes **predicted** (forward-looking) to achieve a minimum of 20% of energy savings
  - Must include at least one 'major upgrade'
- Aggregation
  - Can work with an aggregator for implementation
  - **Savings must be achieved at the individual home level**
- Rebates
  - Must be provided to recipient **within four weeks** of State receiving rebate application
  - State must describe how it will remit (recover) payments to contractors/aggregators after 9 – 12 months of usage data if 70% of required savings are not achieved
  - Energy savings rebates **can be stacked with HEEHR** – provided they are for a different single upgrade
  - **Can be stacked** with IRA tax credits and all state/utility/local incentives

HER Program Guidelines: Low-Income

- At **a minimum**, states must allocate a percent of its rebate funding for each of the rebate programs in line with its percentage of low-income households (40% nationally).
- Allocate at least 10% of its rebate funding to serve low-income multifamily buildings. This allocation **must be additional to and separate from** the low-income allocation.
- If a state has failed to disburse the rebate funds allocated to low-income households (single-family and multi-family) within 5 years of receipt of its total allocation, it may request that DOE authorize the state to reallocate those funds to households at other income levels.
- Allows categorical co-enrollment based on other federal programs that meet the income thresholds.
- States are responsible for income verification.

How to Engage

- Respond to the Request for Information (RFI)
  - Responses due by Friday, June 7, 2024
- Website with information, including public engagement opportunities:
  - https://portal.ct.gov/deep/energy/inflation-reduction-act-home-energy-rebate-programs
- DEEP plans for this to be an open process

Q&A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Thank you

HEAR: Hypothetical Illustrative Examples

Category	Hypothetical #1: Heat Pumps Rebates Only	Hypothetical #2: Electric Panels and Wiring Only	Hypothetical #3: Weatherization Measures Only	Hypothetical #4: Full Electrification with Panels and Wiring
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Maximum rebates	• Rebate: $8,000
	• Installer incentive:
	  • $500 ducted
	  • $400 ductless
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			• Rebate: $1,600
			• Installer incentive: $500
				• Rebate: $14,000 (HEAR cap)
				• Installer incentive: $500

Number of projects supported	700 heat pumps/year (5,100 rebates over the life of HEAR 2025-2031)	900 panel and wiring upgrades/year (6,100 over the life of HEAR 2025-2031)	2,700 projects/year (18,900 over the life of HEAR 2025-2031)	400 projects/year (2,700 over the life of HEAR 2025-2031)
Program braiding	$8.7M/year = match funds to install heat pumps at no cost to customers	• Fills gap: existing programs do not cover electrical • Limited match needed	Match needed: $13.2M/year	Match needed: $9.5M/year
Energy savings	Annual: 0.20 trillion Btu Lifetime: 3.69 trillion Btu	No direct savings	Annual: 0.21 trillion Btu Lifetime: 5.31 trillion Btu	Annual: 0.18 trillion Btu Lifetime: 3.26 trillion Btu
GHG emission reductions	Annual: 15,000 metric tons Lifetime: 223,000 metric tons	No direct reductions	Annual: 12,000 metric tons Lifetime: 243,000 metric tons	Annual: 12,000 metric tons Lifetime: 188,000 metric tons

HER: Measured Energy Savings Pathway

- Projects using the Measured energy savings pathway must use open-source advanced measurement and verification software, as approved by the DOE, to determine and document monthly and hourly (if available) weather-normalized home energy use, both before and after home efficiency retrofits.
- This pathway means potentially larger rebates for homeowners – the more energy saved, the higher the rebate.
    - Homeowner rebates could be anywhere from $2,000 to $8,000 (or more) under the measured pathway, depending on the kind of energy upgrades made to the home.

Energy Savings	Single-Family and Multi-Family
15% and over[1]	**$2,000** payment rate per kWh saved equal to 20% reduction for the average home in the State, **or 50%** of the project cost
	DOUBLE for LMI individuals: **$4,000** payment rate per kWh saved equal to a 20% reduction per home or dwelling unit, **or 80%** of project cost. For MF buildings to qualify, at least 50% of residents must be LMI.

[1] Per statute, the measured energy savings of the home or portfolio of homes must achieve 15% savings, but the calculation of the rebate is based on a 20% reduction of average home energy use in the State.

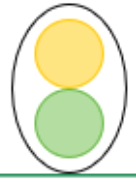
HER: Modeled Energy Savings Pathway

- Projects using the Modeled energy savings pathway must be calibrated to historical energy usage for a home consistent with BPI-2400[1].

Energy Savings	Single-Family	Multi-Family
20 – 34%	$2,000 or 50% of the project cost (whichever is less)	$2,000 per dwelling unit, with a maximum of $200,000 per MF building
	DOUBLE for LMI individuals: $4,000 or 80% of the project cost (whichever is less)	
35% and over	$4,000 or 50% of the project cost (whichever is less)	$4,000 per dwelling unit, with a maximum of $400,000 per MF building
	DOUBLE for LMI individuals: $8,000 or 80% of the project cost (whichever is less)	

[1] BPI-2400 defines a standardized process to calibrate pre-retrofit energy models to historical utility bills. In whole-house energy efficiency programs, utility bill calibration à la BPI-2400 is one of the (if not the) most important predictors of modeling accuracy. BPI-2400 serves to define a standardized process and set of requirements to calculate energy savings for whole-house energy retrofits. This standard can be applied to single-family detached dwellings and some small multi-family dwellings as defined by the standard. BPI-2400 provides a way to generate both operational savings models and asset-based savings models. An operational model predicts savings taking occupant behavior into consideration. In contrast, an asset-based model predicts savings based on standard operating conditions.

Guidelines for Combining Other Funding Sources with Rebates

Sources of Funding	Allowance	Requirements to Combine Funding Within Same Household	Examples
Other Federal Grants E.g., funding from WAP, LIHEAP	**Can Braid** 	Must "braid" and use other federal grants to fund distinct and separable measures from "single upgrades" funded by rebate.	Traditional EE measures from WAP (insulation, air sealing, LEDs), appliance measures from rebate (heat pump, HP water heater)
Federal Loans: E.g., Loan from Greenhouse Gas Reduction Fund	**Can Co-Fund** 	Can co-fund any remaining costs for the same "single upgrade" above the value of the Home Energy Rebate.	Loan from GGRF recipient covers remaining upgrade costs after rebate has been applied
Non-Federal Funding: E.g., EE Utility $, State/Local $	**Can Co-Fund** 	Can co-fund any remaining costs for the same "single upgrade" above the value of the Home Energy Rebate.	Utility incentive provides additional funding toward remaining upgrade costs after rebate has been applied
Tax Credits: E.g., 25C, 25D, 179D, 45L, LIHTC, state/ local tax credits	**Reduce Credit Basis** 	Reduce basis amount of the expenditure on which tax credit is claimed by rebate, then claim a tax credit based on the remainder of the cost. *(DOE Proposal -- pending final IRS decision)*	Tax credit claimed on remaining basis of EE measures after rebate has been applied