Single Family Residential Program Update

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EmPower +
Residential Energy Assessments (REA)
Comfort Home

June 21, 2024

NEW YORK STATE | NYSERDA

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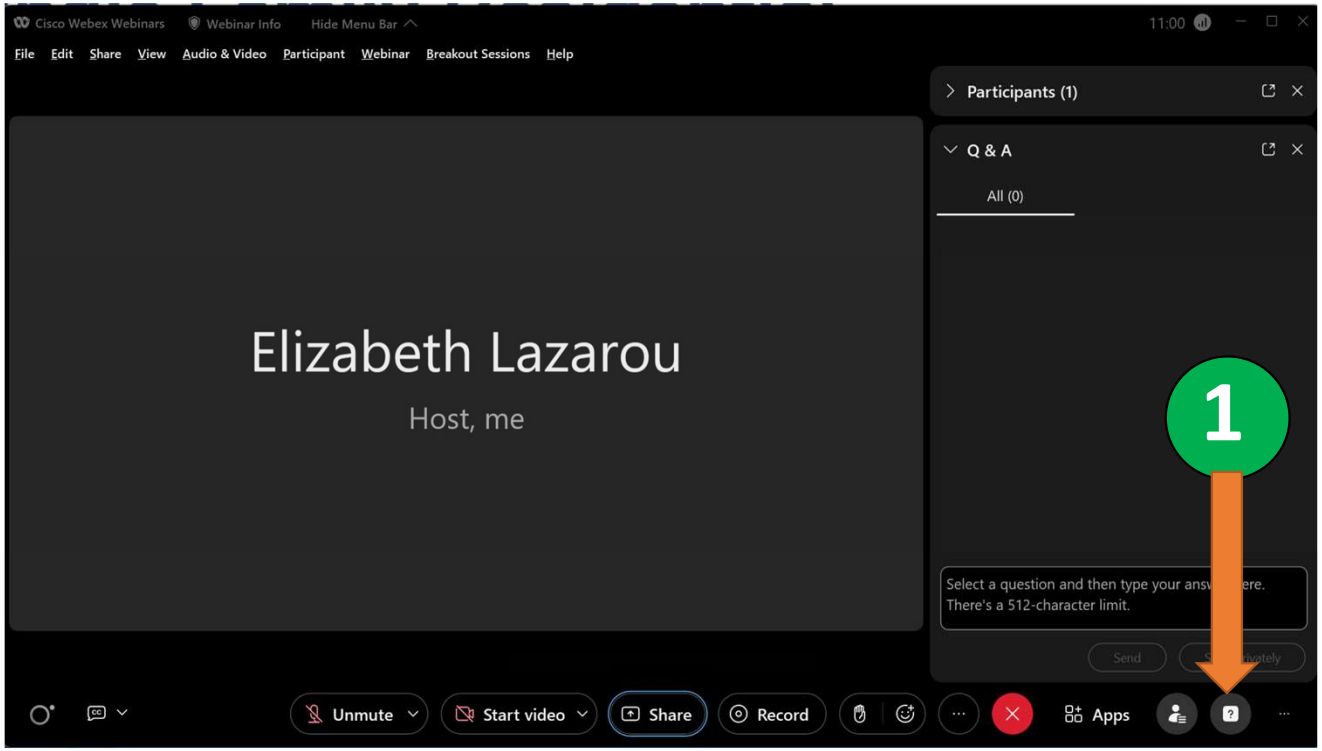

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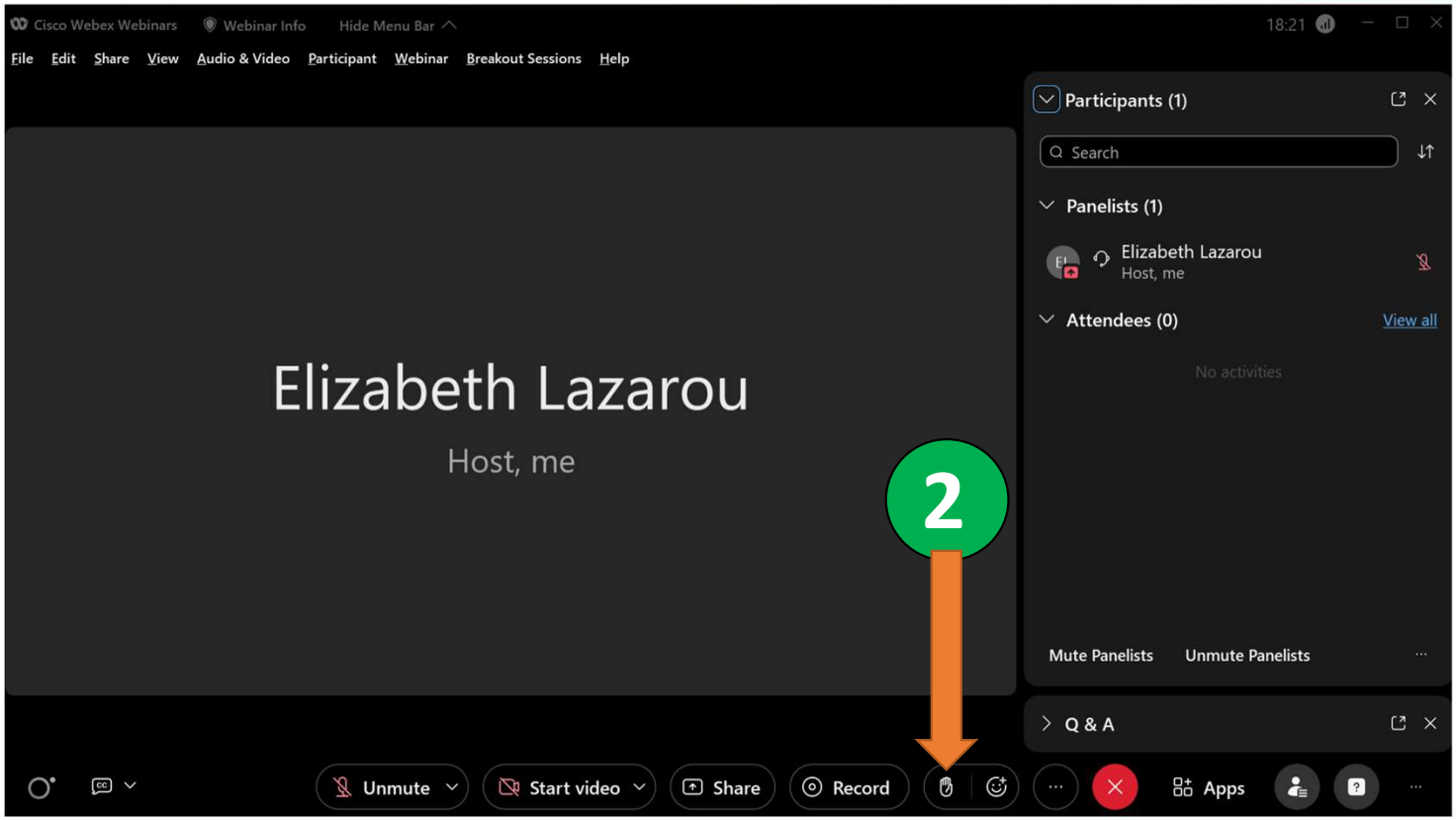

Agenda

- EmPower+ Updates
  - EmPower+ IRA HEAR Heat Pump Projects Overview (Susanne DesRoches)
  - EmPower+ IRA HEAR Heat Pump Projects Details
    - Questions

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EmPower+ IRA HEAR
Heat Pump Projects Overview

EmPower+ IRA HEAR Overview

December 2023: NYSERDA submitted a "partial-scope" application for funding under the DOE IRA HEAR program to rapidly deliver a first phase of rebates to NYS residents by leveraging the existing EmPower+ program infrastructure for <80% AMI households

April 2024: DOE approved NYSERDA's partial-scope application, making an initial tranche of funding available to NYSERDA for program development and deployment

June 2024: NYSERDA to make first phase of HEAR rebates available for 1-4 unit buildings with households <80% AMI under the partial-scope application approved by DOE

Mid-June 2024: NYSERDA submitted full scope applications to DOE for both HEAR and HER IRA programs, including for income levels >80% AMI (up to 150%), multifamily buildings, and a retail point of sale channel for some HEAR rebates

Mid-July 2024 – NYSERDA to submit full scope implementation plans for both HEAR and HER programs

July-Sept 2024 – NYSERDA to conduct summer stakeholder engagement sessions

Fall 2024 – HEAR/HER rebates for 5+ unit multifamily buildings and 1-4 family households with income >80% AMI (up to 150% only for HEAR) will be rolled out in phases beginning in the Fall of 2024. The details of these phases will be forthcoming over the summer of 2024.

EmPower+ IRA HEAR Heat Pump Projects Eligibility: Summer 2024

- Starting Monday, June 24, the EmPower+ program will begin to accept work scope submissions with heat pumps with the below parameters for Summer 2024. These new rules for heat pumps go into effect for all work scopes submitted on and after 6/24. Program rules will be made available on Monday, June 24.
- **To prioritize projects that advance energy affordability**, for this initial rollout, HEAR heat pump rebates will be available for the conversion of homes that heat with delivered fuels such as oil and propane as well as electric resistance heating.
    - Opportunities to introduce HEAR heat pump rebates for existing gas heating customers will be assessed over the summer with stakeholder input. Updated program rules are expected to be introduced in early Fall 2024.
    - State agencies will work over the next several months to assess opportunities to mitigate energy burden impacts for additional lower-income New Yorkers when converting to heat pumps and conduct robust stakeholder engagement to assist with this assessment.

EmPower+ IRA HEAR Heat Pump Projects Eligibility: Summer 2024

To assess a project's energy affordability, **all heat pump projects must provide energy cost savings:**

- All projects with air source and/or ground source heat pumps must meet a **20% total project energy cost savings requirement** (compared to existing energy costs).
  - NYHEP will use utility use and pricing to determine existing utility costs.
  - Existing costs will be compared against first year estimated savings from NYHEP to determine the savings percentage.
  - If the project does not meet 20% savings it will undergo further review to determine eligibility.

EmPower+ IRA HEAR Heat Pump Projects Eligibility: Summer 2024

Additional Eligibility Requirements:

- **The building envelope must meet NYSERDA's "heat pump ready" specification** (EmPower+ Program Manual, Sec 5.10) prior to or concurrent with installing the heat pump through insulation and air sealing work completed (or proof of sufficient existing levels).
- The existing **primary HVAC system must be older than 5 years.**
- The existing primary fossil fuel heating system (e.g., natural gas, oil, propane) **must be permanently taken out of service** (decommissioned)
- Program funding is for the **first instance of a heat pump being installed in an existing home** and not for updating or replacing existing heat pumps and heat pump water heaters.

EmPower+ IRA HEAR Heat Pump Projects Eligibility: Affordability Context

- There are 1.9 M LMI 1-4 family housing units in New York State (1.2 million low income and .75 million moderate income).
- NYSERDA estimates that 300-400 electrification projects will be supported during this initial phase.
- To date LMI electrification has been minimal and there are limited insights available on the extent to which the electrification of space and water heating will impact energy burden/energy affordability for lower-income households.
- NYSERDA is looking to prioritize how limited funding can be directed to have the greatest impact while having consumer protections in mind.
- Data tells us that low-income households that heat with delivered fuels (oil, kerosene and propane), have the highest energy burdens and, for these customers converting to an efficient electric heat pump will more than likely help to reduce a household's heating cost. However, heating with natural gas is currently less expensive than heating with electricity and could result in higher heating costs for households that make this shift under current conditions.

EmPower+ IRA HEAR Heat Pump Projects: Incentives Available

NYSERDA will be combining HEAR funding with current EmPower+ funding through the NYHEP system for a single program offering through EmPower+. NYHEP will calculate incentives for contractors. EmPower+ funding sources such as NENY, RGGI, and CEF will be prioritized before HEAR funding. After the project is complete the customer will receive a post installation report informing them of the exact amount of HEAR funding they received.

Current EmPower+

- **< 60% SMI (Tier 1)- $10,000**
- **60-80% AMI (Tier 3)- $5,000**

HEAR- maximum per unit measure incentive

- Heat Pumps- $8,000
- Heat Pump Water Heaters- $1,750
- Electrical Service Upgrade (panel box)- $4,000
- Electrical Wiring Upgrade- $2,500
- Air Sealing, Insulation and Ventilation- $1,600

Maximum Incentive $14,000

Additional Heat Pump Incentive by demonstrating that the system design has been value-engineered (while funds are available)

Total maximum possible EmPower+ Funding

Tier 1- $29,000

Tier 3- $24,000

(total eligible amount is project-dependent based on the combination of measures)

Questions?

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EmPower+ IRA HEAR
Heat Pump Projects Details

Air Source and Ground Source requirements

- Participating contractor must perform a Manual J or other ACCA approved sizing software designed to the ACCA weather station closest to the project with house drawings that show detailed measurements of windows, doors, walls. Refer to the Residential Heating and Cooling Load Analysis Quality Control Checklist as a best practice. At the end of the project, the Participating Contractor attests on the Heat Pump Form, they followed this guidance for the installation.
- Proposed heat pump should cover 100-120% of the building load. Participating Contractor must perform Manual S showing % of heating that is covered by the unit is required plus the NEEP/AHRI spec sheet for unit.
- The existing primary heating system (oil, propane, etc.) must be decommissioned. If equipment is left in the home, it must be rendered inoperable per decommissioning check list. AHRI certificate for GSHP's and NEEP certificate for ASHP's. Products must be AHRI and NEEP listed.
- Documentation showing the project meets manufacturers specification for appropriate weather protection and sound dampening.
- Photos showing where the proposed installation of indoor and outdoor equipment as and ensure it follows NEEP Guide To Installing Air-Source Heat Pumps in Cold Climates.
- Photos of the existing system
- Copies of the utility bills including delivered fuels

Post Installation requirements

- Fully completed manufacturer's commissioning form with dates.
- Photo of the unit installed and photo of the name plate with clear view of the model and serial numbers.
- Heat Pump Equipment Invoice(s) if using a subcontractor for heat pump installation
- NYSERDA will be sharing information on names and addresses that receive subsidies from Empower+ with the Clean Heat program to prevent duplicate incentives.
- CLEAResult will develop a review process to review project submissions from each contractor so that all work scopes will be reviewed regardless of the quantity submitted by one contractor. Contractors who plan submit large quantities of projects with heat pumps should submit their projects in order of priority to make sure highest priority projects are reviewed first.

Additional Incentive Requirements

This incentive offer is dependent upon the availability of funds and rules may be modified or incentives reduced with short notice.

Combined heat pump measure incentives may not exceed 100% of the total cost of the heat pump system installation, inclusive of all ancillary components, equipment, and installation costs required to support proper installation and operation of the heat pump system.

Examples of ancillary costs that may be included in the total measure cost for a heat pump installation include but are but not limited to:

a) Distribution system installation, modification, and repair
b) Controls and control systems
c) Racking, mounting, and shielding components necessary to meet code and manufacturer's installation requirements
d) Line set insulation and conduit
e) Electrical upgrade costs not already covered by other incentives

Additional Incentive Requirements

To be eligible for the additional up to $5,000 in EmPower+ incentives, heat pump projects must meet all standard program requirements (Section 5.10) and demonstrate that the system design has been value-engineered to minimize the total project cost without compromising the expected performance of the installed system.

Value engineering strategies include:

a) Right sizing the heat pump system to the heating and cooling loads of the home after weatherization measures have been installed to make the home's envelope "heat pump ready"
b) Optimizing the system design to deliver heating and cooling comfort conditions using a minimal amount of equipment
c) Locating installed equipment to deliver heating and cooling efficiently while minimizing distances needed to run line set and wiring
d) Selecting least cost available equipment meeting sizing and design specifications

Additional Incentive Requirements

To be eligible for the additional $5,000 in EmPower+ incentives the following documents are required:

a. Manual D as per ANSI/ACCA 1 Manual D 2016. (If installing new ductwork and/or additional ductwork on existing systems)
b. Static pressure test for existing ductwork as per ANSIRESNETACCA_310-2020_v7.1.pdf. (For existing ductwork)
c. Floorplan showing Internal Head placement for Mini split systems as per Manufacturing specifications. (If installing mini-splits)

The program will review the submitted documents to determine that the scope of the design of the project has been value engineered in a manner that necessitates expanded incentives to complete a project in the most efficient and effective manner possible.

If the project is value engineered so that when NYSERDA reviews the projects, they determine the project has been appropriately designed to contain costs and cannot move forward if additional funding (not to exceed 100% of the project cost) is not provided, the program will approve.

Heat Pump Water Heaters

Heat Pump Hot Water Heaters should be installed in accordance with manufacturer's installation guidelines and contractors should use their professional discretion when citing them. The following are conditions for determining suitability of a project for a heat pump water heater:

1. Electrical capacity present in the current panel box or the panel box can be upgraded to this capacity when the HPWH is installed.
2. Adequate ceiling height in the basement for a HPWH

The Empower+ program will be increasing the incentive cap for HPWHs to $4,000 for low-income customers and $2,000 for moderate-income customers.

Projects cannot receive both EmPower+ and NY Clean Heat Funding . Participating Contractors must inform the program if ANY additional funding (outside of funding via Empower+) is being utilized on the project.

NYSERDA will be sharing information on names and addresses that receive subsidies from Empower+ with the Clean Heat program to prevent duplicate incentives.

Certifications

EPA regulations (40 CFR Part 82, Subpart F) under Section 608 of the Clean Air Act require that technicians who maintain, service, repair, or dispose of equipment that could release refrigerants into the atmosphere must be certified in accordance with 40 CFR 82.161.

Heat Pumps Certification Section has been updated to now read as follows:

Air Source Heat Pump- Installation Technician Must be Certified Per the Below

1. Technician Certification in accordance with 40 CFR 82.161 and
2. Manufacturer heat pump installation training certificate and
   - BPI AC/Heat Pump or
   - NATE Heat Pump or
   - Approved Installer in NYS Clean Heat

Questions?

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