

Welcome!



We will get started around 8:30am. There is no audio right now.

Please ensure your mic is muted when you are not speaking, in order to preserve audio quality – video is welcome!

Feel free to introduce yourself in the chat and share any questions there!



Nevada Contractor Roundtable

Doug Presley, AnnDyl Policy Group

November 14, 2024

Agenda

- 🍃 Programs Overview (8:30-9:45am)
 - 🍃 Tax Credits
 - 🍃 Utility Incentives
 - 🍃 Financing
 - 🍃 Home Energy Rebates

- 🍃 Discussion (9:45-10:30am)
 - 🍃 Rebate Program Design
 - 🍃 Workforce Training
 - 🍃 Additional Questions

- 🍃 Closing Remarks and Wrap-up

Welcome!

Goal for this Roundtable: Discuss the development and implementation of the Inflation Reduction Act rebates and other incentives. **Your feedback is important to ensure program success.**

- Provide input on streamlining the pre- and post-work processes and program requirements
- Provide data to the U.S. Department of Energy and Governor's Office of Energy on the state of the industry to inform ongoing programs and activities.



The Building Performance Association is a membership-driven 501(c)6 industry association dedicated to advancing the home and building performance industry. Built upon three decades of experience, the Association is well-positioned to provide industry support through key areas including advocacy, education, programs, networking, publications, and community.

BPA reaches more than 20,000 individuals and organizations working in contracting services, weatherization, product manufacturing and distribution, program administration, building science, and nonprofits through our various programs and events.

www.Building-Performance.org



AnnDyl Policy Group is a Washington, DC-based policy strategy firm that focuses on energy efficiency, renewable energy, and climate change policy, programs, financing, and technology.

We represent clients from across the energy efficiency and clean energy industries, including technology and financial sector companies, energy trade associations, and non-profit organizations.

www.anndyl.com



Programs Overview

Federal Residential Tax Credits: *Available now!*

Existing Homes: 25C Energy Efficient Home Improvement Credit, 25D Residential Clean Energy Credit

25C: <https://www.irs.gov/pub/irs-pdf/p5967.pdf>

25D: <https://www.irs.gov/pub/irs-pdf/p5968.pdf>

25C: 30% for residential energy efficiency upgrades, electric heat pumps and heat pump water heaters

- **Stackable** with state and federal incentives
- **Renters can qualify** for HVAC equipment and energy audits (but NOT insulation, air sealing, windows, doors)
- **\$3,200 maximum allowable annual credit**
 - Up to \$1,200 for efficiency upgrades; up to \$2,000 for heat pumps and HPWHs
- **Audits:** Requires written report of measures/savings
 - As of Jan. 1, 2024, requires "qualified" auditor certification (AEE, ASHRAE, BPI, BSI, or RESNET)



25D: 30% for the costs of solar panels, geothermal heat pumps, and other clean energy systems.

New Homes: 45L New Energy Efficient Home Credit

\$2,500 for ENERGY STAR New Homes

\$5,000 for DOE Zero Energy Ready Home (ZERH)

Multi-family residences must meet prevailing wage standards for full credit

Existing Nevada Utility Program Alignment



	25C Tax Credit	IRA Rebates	Utility Programs
Heat Pumps [Fuel switching requirements vary]	CEE Tier 1/2 (South Region) for ducted/non-ducted [SEER2 15.2-16.0 EER 11.7-12.0 HSPF2 7.2, 7.8, 9.0] <i>Includes labor</i>	ENERGY STAR [SEER 15.2, EER 10.6-11.7, HSPF 7.2-7.8]	<u>NV Energy (Currently Unavailable):</u> SEER2: 15.2 (Tier 1), 17.2 (Tier 2), 19.1 (Tier 3), 18.0 (Ductless) HSPF2: 7.8 (Tier 1), 8.0 (Tier 2), 9.0 (Tier 3), 9.0 (Ductless)
Envelope/Weatherization	Windows & skylights: ESTAR “most efficient” Doors: ENERGY STAR [South-Central, North-Central, Northern] Other: IECC standard 2-years prior <i>Labor not included</i>	No specified eligibility requirement HOMES: whole-home HEAR: specific upgrades	<u>NV Energy:</u> Limits on pre-existing insulation R-values, minimum R-values <u>Mt. Wheeler Power:</u> <i>Windows:</i> U-value of .35 or less, <i>Insulation:</i> increase R-value by 11 or more
Energy Audits	Requires auditor certification: AEE, ASHRAE, BPI, BSI, or RESNET	<i>Maybe included in project costs (state decision)</i>	<u>NV Energy:</u> free in-home assessment (may not qualify for 25C or rebates) State/local options may also be available

About the Nevada Clean Energy Fund

The Nevada Clean Energy Fund (NCEF) is a 501(c)3 nonprofit organization.

THE MISSION

Support a thriving, affordable, and accessible clean energy economy in Nevada



THE NEED

Nevadans lack the resources necessary to access clean energy opportunities, reduce energy costs, and live in a healthy environment and climate

THE SOLUTION

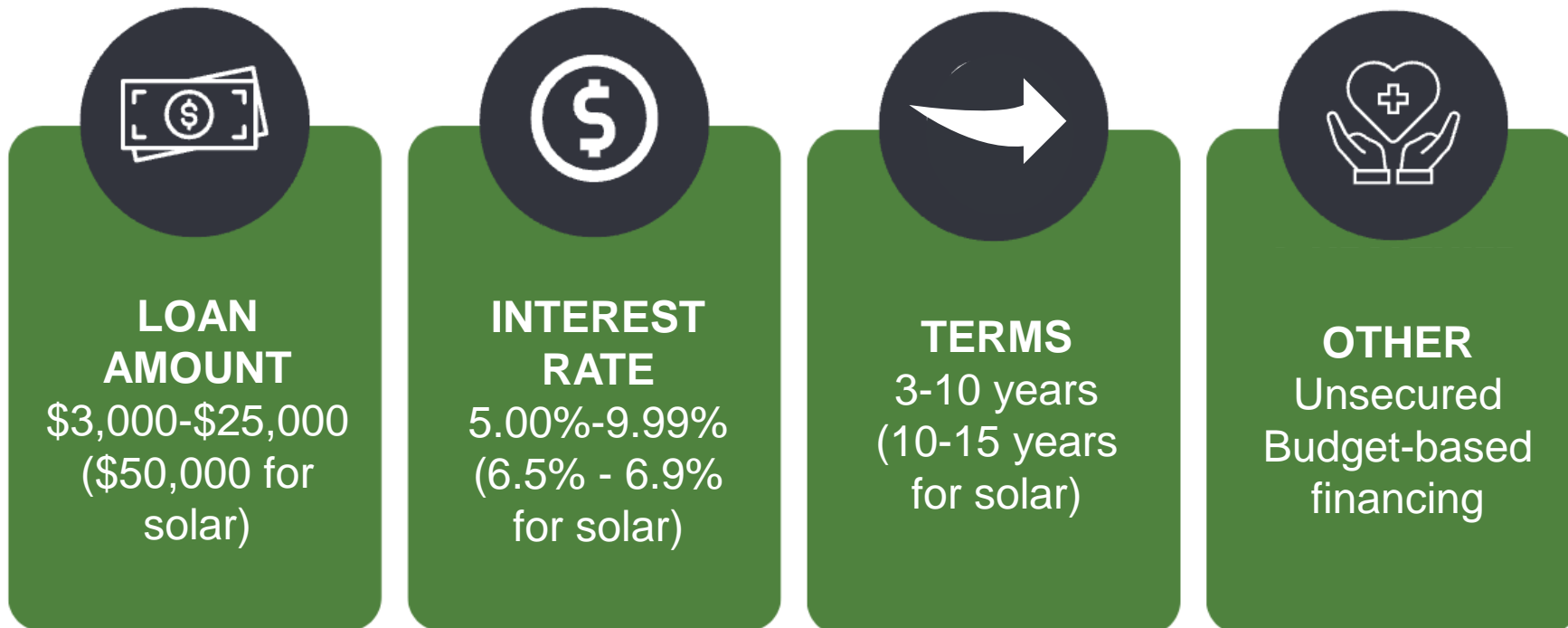
Provide access to capital and technical assistance to residents, affordable housing, schools, local businesses, nonprofits, and others in Nevada for building efficiency and electrification, clean vehicles, renewable energy, and storage

THE IMPACT

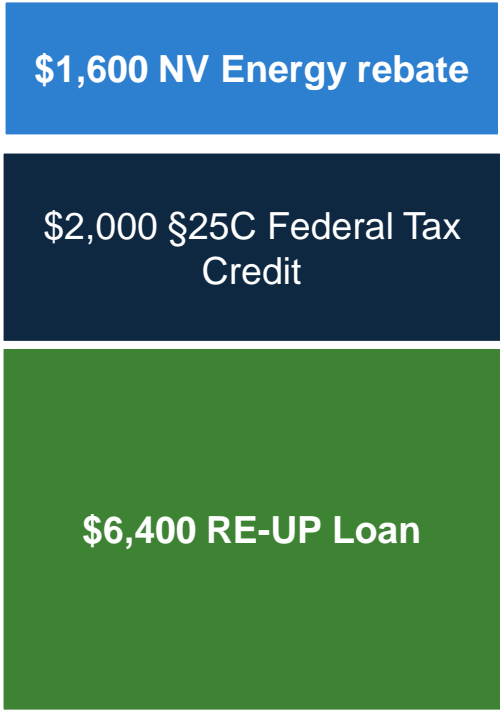
Tackle climate change
Reduce energy insecurity
Advance energy justice
Improve air quality & health
Create quality jobs

NCEF's Residential Energy Upgrade Program (RE-UP)

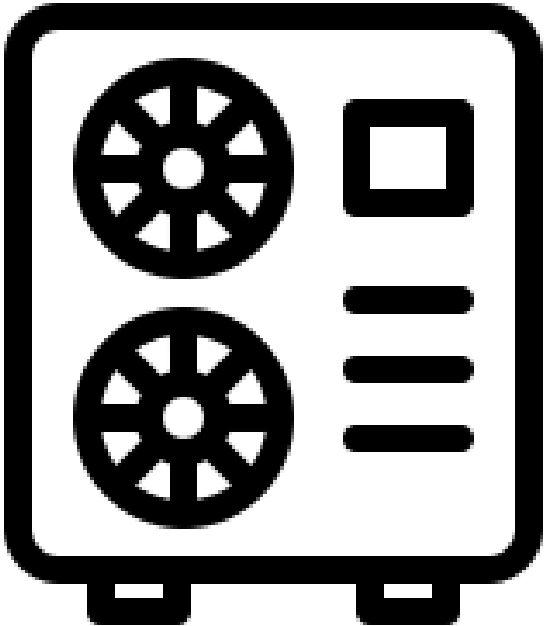
- RE-UP connects Nevada homeowners with financial and technical assistance for energy efficiency and clean energy upgrades in their homes.
- RE-UP provides affordable loans on the basis of ability to pay rather than credit score; no property encumbrance.
- As part of RE-UP, NCEF vets licensed contractors who perform the work.
- NCEF also provides education and support to homeowners in accessing federal and utility incentives.



Example Ductless Heat Pump Installation Cost



\$10,000 Ductless Heat Pump



The above is intended to provide illustrative upfront economics for selected residential energy measures with certain federal tax credits. It should not be interpreted as tax or legal advice. For tax credits and utility rebates, the incentive is delivered after expenditures are made so the RE-UP loan may need to initially be for the full amount of the project. The Rooftop Solar example does not include potential future federal Solar for All incentives.

IRA: Key EE and Workforce Development Programs



Signed into law on **August 16, 2022**

Nearly **\$370 billion** in support of clean energy and energy efficiency

Program	Funding	Status
HEAR: Home Electrification & Appliance Rebate Program	\$4.5B	States working on applications, anticipate mid-2024 program availability
HOMES: Home Energy Performance-Based, Whole-House Rebates	\$4.3B	States working on applications, anticipate mid-2024 program availability
TREC: Training for Residential Energy Contractors	\$200M	\$1.6M available for Nevada; applications were due January 31, 2024. \$40M in competitive funding, due Jan 15, 2025.
GGRF: Greenhouse Gas Reduction Fund	\$27B	Solar4All: \$7B NCIF: \$14B CCIA: \$6B
25C Tax Credit (30% of cost)	\$12.4B <i>CBO estimate</i>	Available now; capped at \$1,200 for envelope + \$2,000 for heat pump or HPWH

Residential Rebate Programs: HOMES & HEAR

HOMES Energy Rebates

Projects must achieve a certain amount of **energy savings** to qualify for rebates.


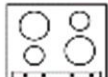




Rebates **double** for low- and moderate-income individuals.

Larger rebates are available for retrofits that **save more energy**.

Two approaches: **modeled** savings and **measured** savings

HOMES NV Allocation: \$48.1 million

HEAR Program

Appliance	Rebate Amount (Maximum)
 Heat Pump (for space heating and cooling)	\$8,000
 Electric Stove, Cooktop, Range, or Oven, or Clothes Dryer	\$840
 Heat Pump Water Heater	\$1,750
 Electric Wiring	\$2,500
 Electric Load Service Center (Breaker Box)	\$4,000
 Insulation, Air Sealing, and Ventilation	\$1,600

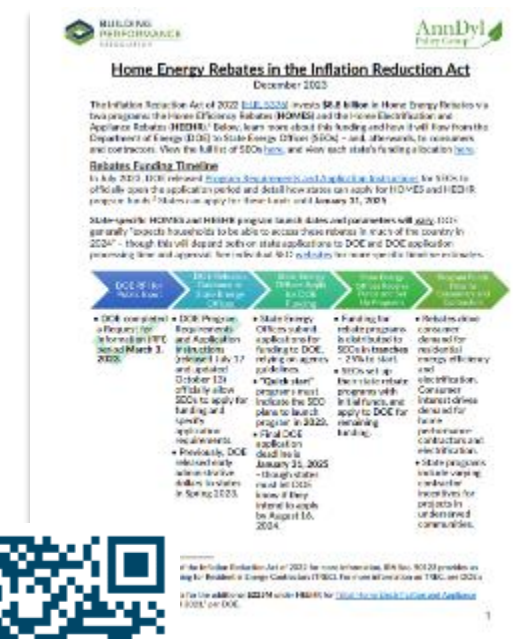
HEAR NV Allocation: \$47.9 million

HEAR Allocation for Tribes within NV: \$5.6 million

HEAR requires rebates be applied with income verification at the “**point of sale**”

DOE Requirements for State Rebate Programs

- ▶ Low-income funding allocations
 - ▶ Low-Income (39.8%)
 - ▶ Low-Income Multifamily (10%)
 - ▶ States ***may*** choose to increase these allocations
- ▶ Multifamily buildings can combine funds for larger projects
 - ▶ At least 50% of residents must meet income requirements
- ▶ Audit and cost estimate requirements
- ▶ Stackable with tax credits and utility rebate programs



Home Energy Rebates in the Inflation Reduction Act
December 2023

The Inflation Reduction Act of 2022 (IRA) invests \$14 billion in Home Energy Rebates via two programs: the Home Efficiency Rebates (HERES) and the Home Electrification and Appliance Rebates (HEAR). Below, learn more about this funding and how it will flow from the Department of Energy (DOE) to State Energy Offices (SEOs) – and, ultimately, to consumers and contractors. View the full list of SEOs [here](#), and view each state's funding allocation [here](#).

Rebate Funding Timeline

In July 2023, DOE released [Request for Proposals and Application Instructions](#) for SEOs to offer all areas the application period and detail how states can apply for HERES and HEAR projects. See the timeline on applying for these funds until January 31, 2024.

State-specific HERES and HEAR programs to which states and parameters will apply (DOE generally targets households to be able to access these rebates in each of the country in 2024* – though this will depend on state applications to DOE and DOE application processing time and approval). See the full list of SEOs [here](#) and specific timeline instructions.

DOE 2023 | **DOE 2024** | **2024** | **2024** | **2024**

- DOE will publish Request for Proposals and Application Instructions in the Federal Register on March 3, 2023.
- DOE Program Requirements and Application Instructions released on July 17 and updated October 12. SEOs to apply for funding and provide information.
- Potentially, DOE will release information on the program in Spring 2023.
- State Energy Offices will submit applications for funding to DOE, review and agree on guidelines.
- "Quick start" program must include the SEO plans to launch program in 2023.
- Final DOE application deadline is January 31, 2024 – though all states know if they intend to apply by August 16, 2024.
- Funding for rebates will be distributed to SEOs in tranches. SEOs will agree on a rebates program with DOE and apply to DOE for rebates.
- Rebates will be distributed to consumers based on their energy efficiency and electric bills. Some rebates will be distributed for high performance buildings and other programs.
- State programs will be implemented by August 16, 2024.

*If the Inflation Reduction Act of 2022 for more information, see the IRA, Section 3023 provides an application period for Energy Code updates (1750). For more information on 1750, see 1750 and 1750a. For the additional 2023M under HEAR, see [DOE's Home Energy Rebates and Guidelines](#) (1750) on DOE.



HEAR/HOMES Rebates: What is included?

▶ **Eligible measures:**

- ▶ **HEAR:** Specified electric appliances, including: heat pumps, HPWH, electric stoves, ranges, and ovens, air sealing, insulation, electric wiring, and electric panel upgrades
- ▶ **HOMES:** Technology-neutral, primary categories of improvements:
 - ▶ Weatherization, e.g. attic/wall insulation, air sealing, duct sealing
 - ▶ HVAC, e.g. higher-efficiency AC, heat pump, or furnace

▶ **Not eligible:**

- ▶ Health and safety remediation (e.g. mold, asbestos)
- ▶ Solar panels / battery storage
- ▶ EV charging

HOMES: Modeled Savings Pathway

Contractors use approved BPI-2400 software to model homes using past utility data, assess potential improvements, and predict energy savings

Energy Savings	Single-Family	Multifamily
20 – 34 percent	\$ 2,000 or 50 percent of the project cost (whichever is less).	\$ 2,000 per dwelling unit, with a maximum of \$200,000 per multifamily building.
	DOUBLE for low-income households: \$ 4,000 or 80 percent of the project cost (whichever is less).	
35 percent and over	\$ 4,000 or 50 percent of the project cost (whichever is less).	\$ 4,000 per dwelling unit, with a maximum of \$400,000 per multifamily building.
	DOUBLE for low-income households: \$ 8,000 or 80 percent of the project cost (whichever is less).	

SnuggPro and OptiMiser approved for BPI-2400

States may increase the low-income cap to 100% of project costs

HOMES: Measured Savings Pathway

Aggregators use approved software to measure home energy usage post-installation, providing rebates based on actual achieved energy savings

Energy Savings	Single-Family & Multifamily
15 percent and over (portfolio level)	<p>\$2,000 payment rate per kilowatt hour saved equal to a 20 percent reduction for the average home in the state, or 50 percent of project cost.</p> <p>DOUBLE for LMI individuals, \$4,000 payment rate per kilowatt hour saved equal to a 20 percent reduction per home or dwelling unit, or 80 percent of project cost. For multifamily buildings to qualify, at least 50 percent of residents must be LMI.</p>

Potentially **higher rebates** for leaky & poorly insulated homes.



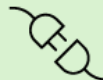


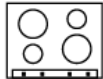


Aggregators can provide up-front payments to building owners, avoids waiting for rebate payments.

HOMES: Key Points

- HOMES Energy Audit Requirements
 - ▶ DOE removed BPI-1100 requirements, full data collection recommended for Modeled projects
- HOMES Energy Modeling Requirements – **BPI-2400**
- States will be required to set and issue third-party certifications.
- **ENERGY STAR certification required** for heating, cooling, and water heating products
- **\$200 Contractor/Aggregator Installer Benefit** for work in **underserved** households (per dwelling unit)

HEAR: Electrification Rebates

- ▶ Low- to Moderate-Income households are eligible for rebates **up to a total of \$14,000** for electric systems/appliances.
- ▶ Income qualified at point of sale.
 - ▶ <150% AMI = 50% of project cost
 - ▶ <80% AMI = 100% of project cost
- ▶ Fuel-Switching or First-Time Installation
- ▶ Home Assessments
 - ▶ On-site/virtual (Heat Pumps) + QA inspections
 - ▶ Geolocated Photos (all other projects)

Appliance/Product	Rebate Amount (Maximum)	Contractor Incentive (Maximum)
 Installation of one or more Heat Pumps for space heating and cooling	\$8,000	\$300 (ducted) \$200 (nonducted)
 Installation of one or more Heat Pump Water Heaters	\$1,750	\$150
 Installation of Electric Wiring (per dwelling unit)	\$2,500	\$250
 Installation of one or more Electric Load Service Center (Breaker Box)	\$4,000	\$150
 Insulation, Air Sealing, and Ventilation	\$1,600	\$250
 Installation of one Electric Stove, Cooktop, Range, or Oven	\$840	\$0
 Installation of one Heat Pump Clothes Dryer	\$840	\$0
 Installation Located within a Disadvantaged Community (excludes electric stove and electric heat pump dryer installation)	-	\$200

Qualified Contractor Lists

- ▶ States will need to determine qualification(s) that contractors will be held to, potentially including (but not limited to):
 - ▶ Home performance industry credentials
 - ▶ Training requirements
 - ▶ Business insurance and licensure
 - ▶ Skills standards
 - ▶ Labor standards
- ▶ States will also need to plan out delisting processes to protect against fraud and abuse.

Data Submission Requirements

- ▶ Household details and income verification
- ▶ Project scope and invoice, including rebate amount and date of service
- ▶ Pre-installation
 - ▶ Project details: equipment/upgrade, model number/AHRI number/UPC
 - ▶ HOMES Assessments: HPXML/BuildingSync, prior utility data
 - ▶ HEAR assessments: prior system details, including photos
 - ▶ Utility bill impact estimates
- ▶ Post-installation
 - ▶ Geo-located installation photos
 - ▶ Commissioning and combustion/safety test results

Quality Installation Requirements

- ▶ All HOMES projects / all HEAR space heating projects:
 - ▶ QA inspection on first 5 projects then 5% of projects for each contractor, includes diagnostic testing; may be virtual
- ▶ Data review of all projects: review modeling, data inputs, HVAC commissioning and combustion testing as applicable
- ▶ States are considering quality installation requirements such as:
 - ▶ Manual J, Manual S, Manual D, blower door testing, external static pressure testing, refrigerant charge testing, equipment AHRI matching, ACCA quality install certifications

Nevada Rebates Timeline

- ▶ Governor's Office of Energy issued RFP for program implementer in September 2024, select implementer by November 2024
- ▶ GOE continuing to work on program design; implementer will support final application development for GOE
 - ▶ Contractor feedback is an important part of the process
- ▶ Application will be submitted by January 2025 deadline
- ▶ Likely program start by mid-2025

Topic Areas for Discussion

Workforce
Development
& Support

Licensing &
Certification
Requirements

Weatherization
Prerequisites

Support for
Low-Income
Households

Braiding &
Stacking

What we've heard:

- You have to get **creative** when combining funding.
- Customers want **simplicity** in their projects, *now*.
- **Emergency preparedness** is key – emergency install needs and support during weather events.
- Quality installations are **essential** for health, safety, and efficiency.
- A lot of homes are **not ready for heat pumps**.
- Low-income households **cannot afford** to make upgrades if they have to pay out of pocket.

What we recommend:

- Form **partnerships** with other firms to expand capacity without having to hire and train new people.
- **Cross-train all your staff** on program and measure eligibility.
- Leverage **existing** materials and tools wherever you can.
- **Engage** your state program decisionmakers.
- Emphasize **operation procedures and maintenance** for heat pumps.
- Prepare for **barrier mitigation** needs.
- Develop **replicable project scopes** for similar homes.
- Get **creative** – about everything!

What do you think?

- Do these recommendations make sense and seem doable? Why or why not?
- What would you recommend to other firms interested in stacking funding?
 - What programs have you stacked here in Nevada?
- What makes a funding source easy for you to use?

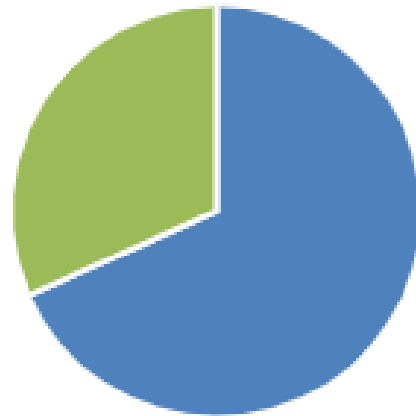
Discussion: Rebate Programs

HOMES: Program Design

- Should states **require envelope improvements** (weatherization) before the installation of a HVAC system under the HOMES program?

National Results - Envelope improvements before HOMES installations

No, states should not
require
weatherization/envelope
improvements to preserve
flexibility for homeowners
and contractors.
32%



Yes,
weatherization/envelope
improvements should be a
prerequisite to be eligible
for including an HVAC
installation in a HOMES
program project.
68%

Comment themes:

- *Maximize efficiency of HVAC*
- *Creates a backlog*
- *Current standards are low*
- *Summer high heat may make wait times unsafe*
- *Replacement on failure challenges*

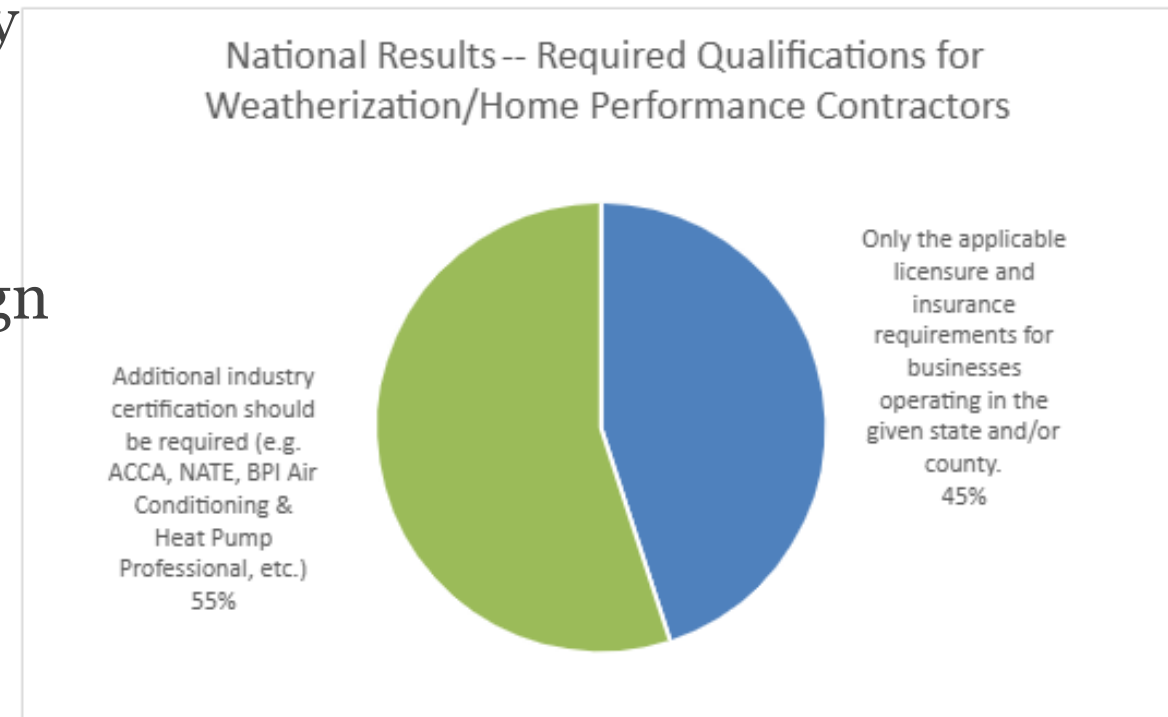
HEAR – Program Design

What products are you/your customers most interested in installing under this program?

- Heat pumps
- Heat pump water heaters
- Induction stoves
- Heat pump dryers
- Insulation/air sealing/ventilation
- Electric wiring/electric load service center

Contractor Qualifications

- **What qualifications, including industry credentials, training requirements, and licenses, should be required of a contractor to be included on the qualified contractor list?** Do these align with and/or exceed state license requirements?
 - HVAC?
 - Envelope/weatherization?
 - Domestic hot water?
 - Quality assurance inspectors?



Similar split in responses for HVAC

90% support BPI for QA inspectors

Note: preliminary results.

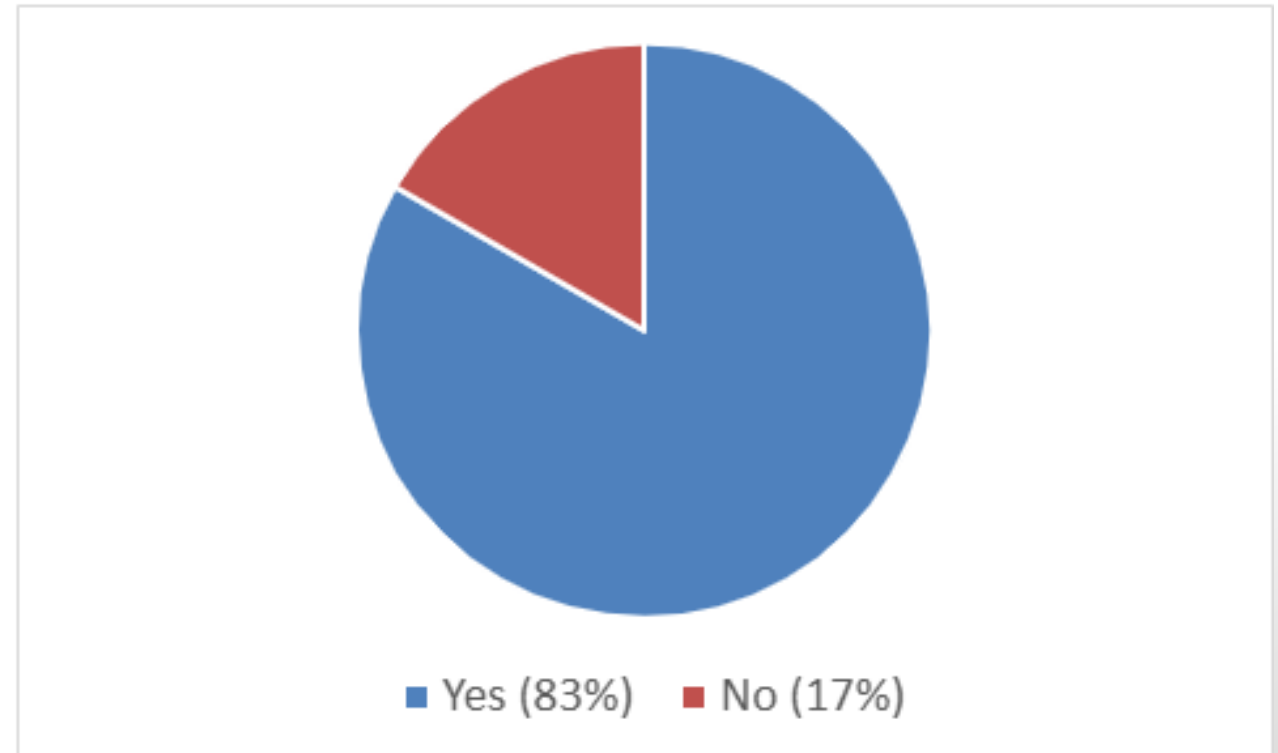
Low-Income, Disadvantaged, Rural, & Tribal Communities



- What is the **appropriate role for contractors to support income-verification**?
- Are there **specific steps** states should take to make the rebates more accessible to low-income, disadvantaged, rural, and Tribal communities?
- Are there specific market segments to prioritize? (e.g. renters and landlords)

Customer Financing

Would you be interested in **offering low-interest or below-market-rate loans to customers** if they were offered by Green Banks or other entities?



What are the **friction points in the customer financing process?**

Survey Inputs – We Welcome Feedback!



BPA and AnnDyl are conducting a survey to address many of these questions to complement our discussions today.



<https://www.surveymonkey.com/r/HKYMTM5>

Nevada's \$156 Million Solar for All Award

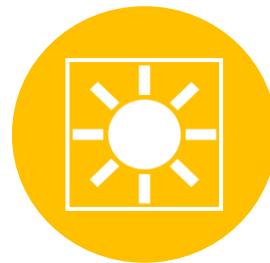
- Solar for All is a \$7 billion federal grant program administered by the Environmental Protection Agency (EPA) to support solar programs that benefit low-income households.
- NCEF was awarded \$156 million to launch Solar for All programs in Nevada.
- EPA made 60 awards, including one for almost every state and territory.
- Nevada received the highest award amount per capita of any state in terms of eligible (disadvantaged) population.
- Goal: benefit over 20,000 Nevada households



Single-Family
Homes



Affordable
Housing

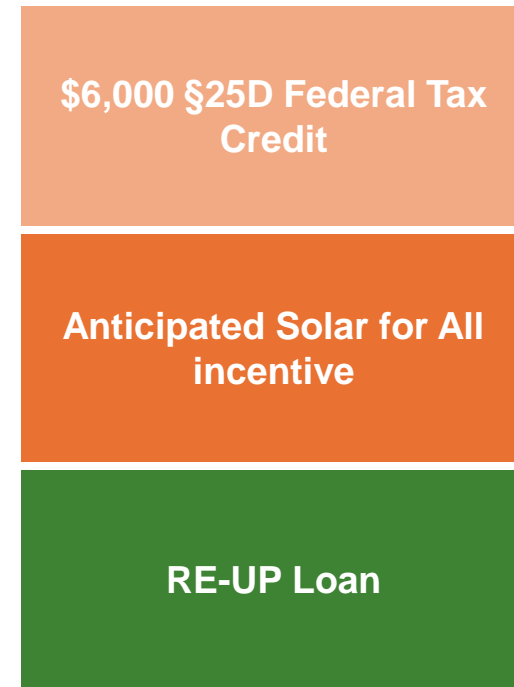


Community
Solar

GOALS

Involve & Benefit Communities
Reduce Energy Burdens
Build Diverse Workforce
Catalyze Private Capital
Transform Markets

Example Rooftop Solar Project with Solar for All Incentives



\$20,000 Rooftop Solar

The above is intended to provide illustrative upfront economics for selected residential energy measures with certain federal tax credits. It should not be interpreted as tax or legal advice. For tax credits, the incentive is delivered after expenditures are made so the RE-UP loan may need to initially be for the full amount of the project.