

NYS Clean Heat Incentives & Related Programs



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Cory Nicosia / NYSERDA

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NYS Clean Heat Incentives & Related Programs

April 27, 2023













Agenda

- Welcome, Introductions
- NYS Clean Heat
 - Overview
 - How to Participate
 - Application Process
 - Incentives
- NYS Clean Heat Con Edison Update
- PSEG Long Island Incentives
- Related Programs (NYSERDA)
 - Co-operative Advertising and Training
 - Workforce Development and Training

NYS Clean Heat Overview



Climate Leadership and Community Protection Act July 2019

New York is transforming its power grid to produce clean, zero-carbon electricity.



by 2030

CLEAN ELECTRICITY

100% zero-emission electricity

by **2040**

GHG REDUCTION

85% reduction in greenhouse gas emissions from 1990 levels

by 2050

New Efficiency: New York ("NE:NY")

The Public Service Commission set a new energy efficiency paradigm with the January 2020 NE:NY Order.

185 TBtu
end-use savings
in buildings and industrial sector
below forecasted energy use

by 2025

equivalent to fueling and powering more than 1.8 million New York homes by 2025

Clean Heat is a part of NE:NY



The January 2020 NE:NY Order created the Clean Heat Program:

- A statewide framework across utilities to offer incentives for heat pumps
- NYSERDA to complement utility programs with meaningful market-enabling development of workforce, supply chain, and consumer demand.

Clean Heat has a target of 3.5 TBtu energy savings from heat pumps by 2025

New York State Clean Heat Timeline

January 2020: NENY Order Establishes a "Statewide Heat Pump Program"

Full year 2021: 313 residential/ small business GSHP projects installed





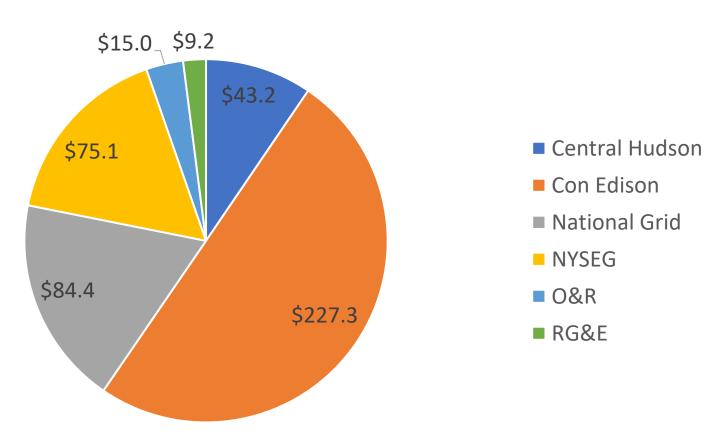




April 1, 2020: New York State Clean Heat officially launches Full year 2022: 594 residential/small business GSHP projects installed

Clean Heat Funding by Utility

Clean Heat Funding from the January 2020 NE:NY Order (\$M)



NYS Clean Heat – Joint Management Committee

The January 2020 NE:NY Order, directed NYSERDA and the Electric Utilities to form a Joint Management Committee (JMC) and file a Statewide Heat Pump Implementation Plan.

JMC Activities

- Make ongoing changes to the <u>NYS Clean Heat Program</u> to be responsive to technology and market developments and maintain market confidence and stability
 - Publishes documents including the Program Manual and Quality Policies and Procedures Manual
- > Provide periodic opportunities for market participants and other stakeholders to offer input and suggestions for improvement to the NYS Clean Heat incentive program and market development initiatives
- > File Annual Reports to document NYS Clean Heat program performance against those targets and budgets
 - The 2022 NYS Clean Heat Annual Report was filed on April 3, 2023



NYSERDA

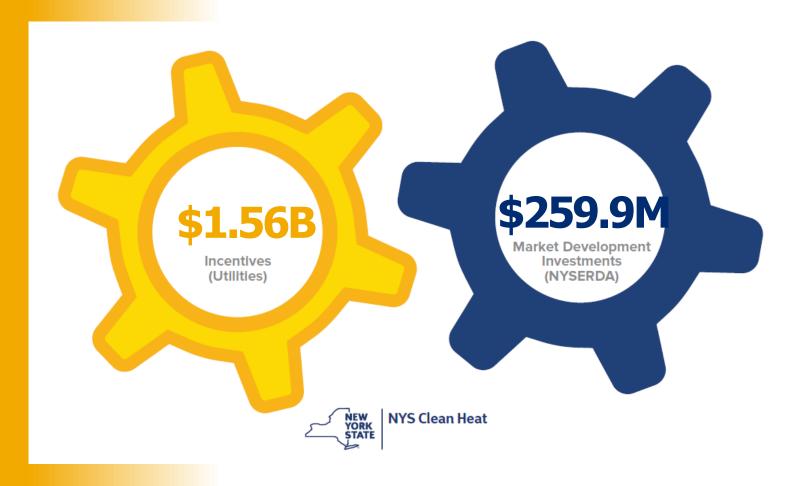
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NYS

Utilities

Budgets per the NYS Clean Heat: Statewide Heat Pump Program Implementation Plan (Version 5)

Working Together to Impact the Market



How to Become a Participating Contractor



How to participate in the Clean Heat

- GSHP designers, contractors and drillers may apply to become Participating Contractors
 - -Application includes Participating Contractor Application and a signed Contractor Participation Agreement
 - Current copy of International Ground-Source Heat Pump Association ("IGSHPA") accredited installer certificate
 - —Certificate of insurance consistent with each electric utility's Contractor Participation Agreement
- Participating Contractors submit projects for incentives via the online intake tool
 - Take advantage of the School of Clean Heat to learn the portal and best practices on submitting
- The JMC currently holds quarterly webinars for Participating Contractors and Industry Partners (PC&IP)



How to participate in the Clean Heat

Enroll online in three simple steps!



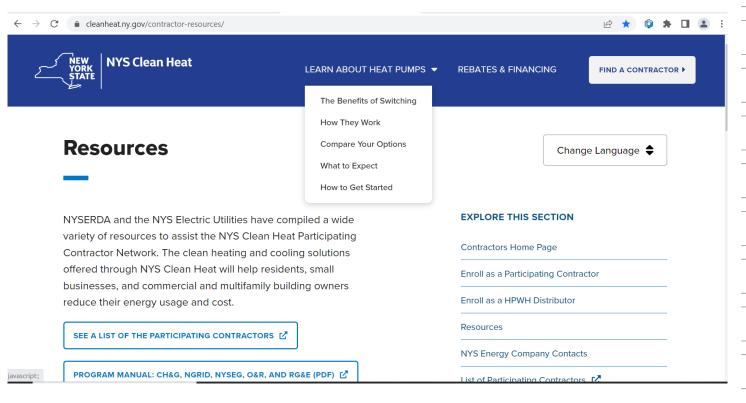
Apply Now

https://nystatewidecmp.programprocessing.com/

Program Website

Clean Heat

(https://cleanheat.ny.gov/contractor-resources/)



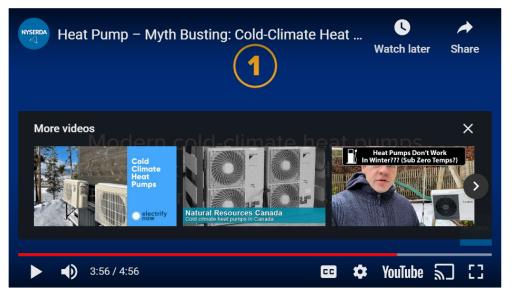
Working Group Series Training and Workforce Development Green Jobs — Green NY (GJGNY) Residential Financing **Ground Source Heat Pump (GSHP)** Air Source Heat Pump (ASHP) **Heat Pump Water Heaters (HPWH) Program Development, Approvals and Process Documents** Standards and Field Assessments **Submit Incentive Application** For Manufacturers

Contractor Education Website

Clean Heat Connect

(https://cleanheatconnect.ny.gov/)

Myth Busting: Cold-Climate Heat Pumps Work in the Winter



Key Takeaways:

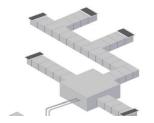
- 1. Modern cold-climate heat r. for year-round heating in co Improvements in technolog transformed the marketplace, and homeowners do not need backup heat with ccASHPs.
- 2. Trust the NEEP ratings and your Manual J. Use best practices in sizing and design for happy customers and avoiding call-backs. Remember, a tight building envelope will help your customers lower their heating costs he more comfortable and see results



Existing Duct Work Evaluation

If the answer to any of the questions below is "no" then the distribution system is not in good working order and likely needs modification or replacement to accommodate a ducted heat pump.

- » Is the duct system obviously noisy with the fan on?
- » Is the duct work sealed?
- » Is the duct work free from panned or cavity returns?
- » Does the current duct system provide adequate airflow for heating with a heat pump?



Participating Contractor Working Group and Feedback Channels

NYS Clean Heat Working Group Series

for Participating Contractors & Industry Partners

Session #8 December 16, 2021, 8:30 am-10 am

NYS Clean Heat Joint Management Committee



Now offering text updates on critical program information!

Sign Up! Never miss a program update email again.

Email NYSCleanHeat@icf.com with subject line "MOBILE NUMBER"



Subject Line: Mobile Numbe

Email Body:

- > PC&IP Webinar Series
 - Quarterly
 - Provide important information and respond to large contractor questions and issues
- > Statewide hotline and email

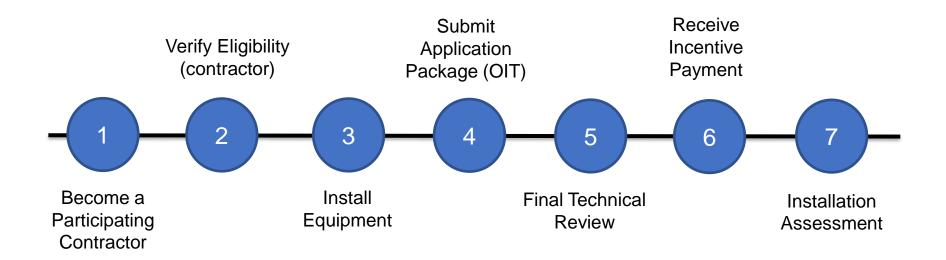
Application Process



Clean Heat Application Process Overview: Prescriptive

Project Steps

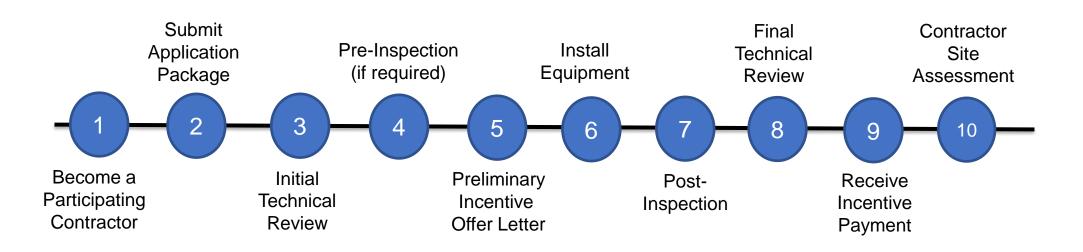
How To Apply (Prescriptive Path; Categories 1, 2, 2a, 2b, 3, 5, 7, 8, 9)



Clean Heat Application Process Overview: Custom

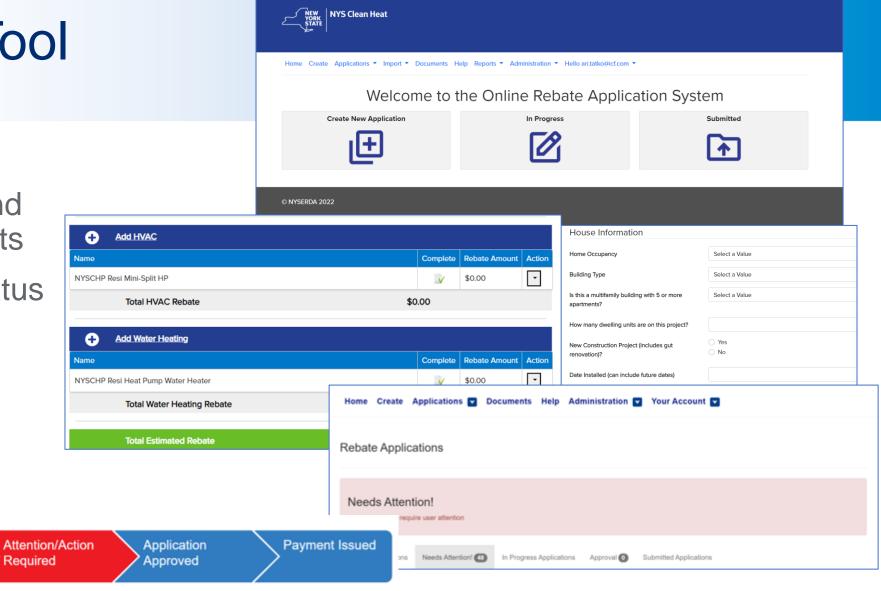
Project Steps

How To Apply (Custom Path; Categories 4, 4a, 6)



Online Intake Tool

- > Input project & equipment details and supporting documents
- > Track application status
- > Utility branded, but managed state-wide through common Implementation Contractor



Processing

Application

Processing

Application

Utility Incentives:

Central Hudson
National Grid
NYSEG
Orange & Rockland
RG&E



Eligible GSHP Equipment Types



Open-Loop Closed-Loop Direct GeoExchange Console Type **GSVRF**

^{*}The Clean Heat JMC is exploring additional technologies and project types, such as networked systems

Prescriptive (Category 3) Eligibility

- Total heat pump system heating capacity is <300,000 Btu/h
- Projects shall be for full-load heating systems; 90-120% of Building Heating Load (BHL) Each heat pump in the system must meet or exceed the ENERGY STAR Geothermal heat pump specification
- Ground loops must comply with applicable NY Department of Environmental Conservation, NYC and IGSHPA standards.

- Ground Source Heat Pumps
- Heat Pump Water Heaters for domestic and service water heating applications, including:
 - Air-to-Water HPWHs
 - Ground Source Heat Pump Desuperheaters
 - Dedicated Water-to-Water Heat Pump added to Ground Loop

Custom (Category 4 and 6) Eligibility

- Total heat pump system heating capacity is >300,000 Btu/h
- Full-load Heating systems installed in Multifamily buildings
- Projects shall be for full-load heating systems; 90-120% of Building Heating Load (BHL)

- Part Load projects can be approved case by case
 - Fossil fuel energy consumption must be reduced
 - New technology must decrease the overall annual site energy consumption
 - Technology must meet or exceed applicable minimum efficiency specifications

- Ground Source Heat Pumps
- Heat Pump Water Heaters for domestic and service water heating applications
- Non-Code Required Energy Recovery Ventilators (ERVs) and Heat Recovery Ventilators (HRVs) paired with eligible heat pumps
- Building Envelope Upgrades paired with eligible heat pumps

Incentive Structure by Category

Category	Description	Incentive
3	GSHP: Full Load Heating	\$ / 10,000 BTUH of full load heating capacity as certified by AHRI
4	Custom Space Heating Applications	\$ / MMBTU of annual energy savings
4A	Heat Pump plus Envelope	Tier 1: \$ / MMBTU of annual energy savings Tier 2: \$ / MMBTU of annual energy savings
5	Heat Pump Water Heater (< 120 gallons of tank capacity)	\$ / unit
6	Custom Hot Water Heating Applications	\$ / MMBTU of annual energy savings
7	GSHP Desuperheater	\$ / unit
8	Dedicated domestic hot water (DHW) Water- to-Water Heat Pump (WWHP)	\$ / unit

^{*}gray indicates custom categories

Incentive Levels by Incentive Category

Category	Unit	Central Hudson	National Grid	NSYEG/ RG&E	Orange & Rockland
3	\$ / 10,000 BTUH of full load heating capacity as certified by AHRI	\$1,500	\$1,500	\$1,500	\$2,000
4	\$ / MMBTU of annual energy savings	\$80	\$80	\$80	\$80
4A	Tier 1: \$ / MMBTU of annual energy savings	\$80	\$80	\$80	\$80
	Tier 2: \$ / MMBTU of annual energy savings	\$100	\$100	\$100	\$160
5	\$ / unit	\$1,000	\$700	\$700	\$1,000
6	\$ / MMBTU of annual energy savings	\$80	\$80	\$80	\$80
7	\$ / unit	\$150	\$100	\$100	\$150
8	\$ / unit	\$1,000	\$900	\$900	\$1,000

^{*}Please note incentives are subject to change. Typically, announcements are made on June 1 and Dec 1 each year.

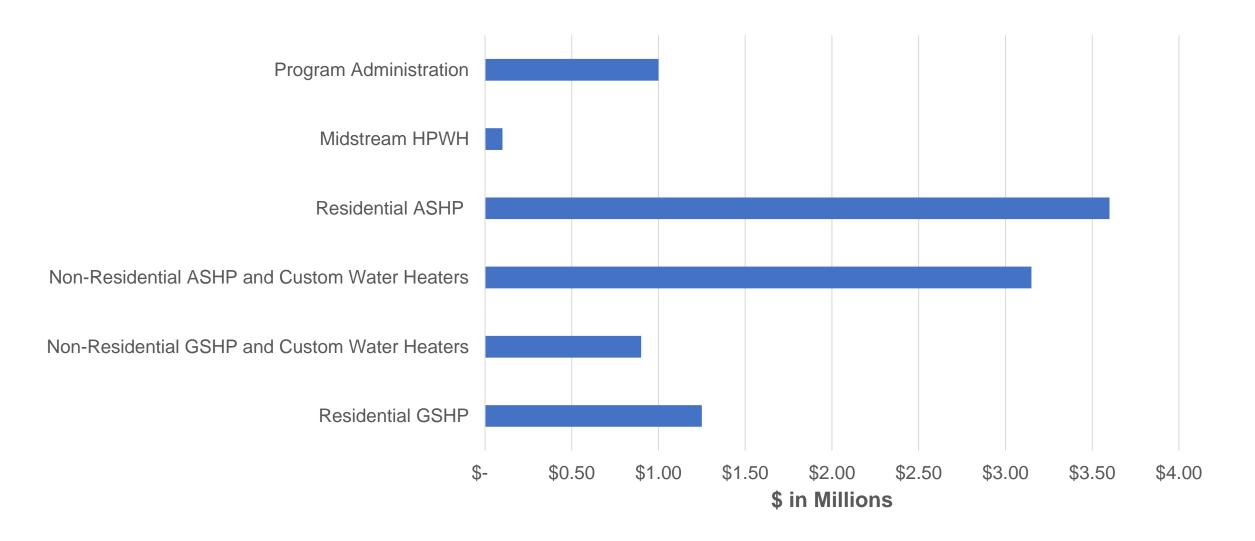
Con Edison Clean Heat Updates



The Con Edison Clean Heat Program is open

- Con Edison began accepting application for ASHP projects on January 17, 2023
- Clean Heat incentives will only be available for projects that have installed eligible heat pump equipment after Jan 17th
- Until further notice, the Con Edison Clean Heat Program will operate with a monthly budget of \$10 million across all sectors

Con Edison uses sectoral allocations to manage budget across market sectors



All residential Participating Contractors have received individual allocations

- Total allocation requests rose from 96 in Q1 to 168 in Q2
- GSHP: The number of contractors with allocations rose from 5 in Q1 to 13 in Q2
- Allocation requests exceeded \$1.5 M on average per month for GSHP

Residential ASHP & GSHP incentives post January 2023

Residential incentives for buildings with 1-4 dwelling units, or for projects electrifying 1-4 units in multifamily (5+ units) buildings

Category	Single Family Home/Whole Building Rate	Per unit in 2-4 dwelling unit projects	
ASHP + Decommissioning	\$8,000 / dwelling unit	\$3,000 / dwelling unit	
ASHP + Integrated Controls	\$2,500 / dwelling unit	\$1,000 / dwelling unit	
GSHP + Decommissioning	\$20,000 / building		

- ASHP incentives will only be available to existing buildings, including gut rehab
- Across all categories in the residential sector, incentives will be capped at the lower of the calculated incentive or 50% of total project cost
- GSHP projects can include ASHPs but will only receive \$20k per project

Non-residential GSHP Incentive Post January 2023

Category Number	Description	New Construction (\$/MMBtu)	Existing Buildings incl. Gut Rehab (\$/MMBtu)
4	Custom Full Load Space Heating	\$125	\$200
4a	Custom Full Load Space Heating + Envelope - Tier 1	\$125	\$200
	Custom Full Load Space Heating + Envelope - Tier 2	\$150	\$225
6	Custom Hot Water Heating	\$125	\$200
10	Custom Partial Load Space Heating	N/A	\$100

- Incentives will be capped at \$1M or 50% of total project cost, whichever is lower
- Custom Domestic Hot Water in new construction is only eligible for Clean Heat incentives when completed in conjunction with GSHP for space heating.

Questions?

NYSEG/RG&E

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Central Hudson

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Orange & Rockland

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PSEG Long Island 2023 Home Comfort Program

APRIL 2023



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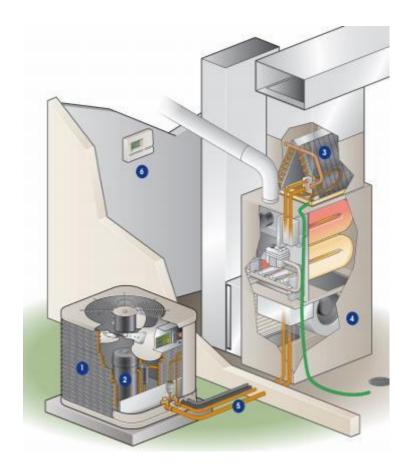
homecomfortli@pseg.com

https://www.psegliny.com/homecomfort



Home Comfort Program

- The program currently promotes energy efficiency and customer comfort with the installation of high efficiency, properly-sized, quality installed ducted/ductless residential cold climate air source heat pumps.
- The program also includes rebates and incentives for ground source heat pump systems, packaged terminal heat pumps, smart thermostats and integrated controls.



Heat pump is the future



N.Y. governor backs nation's first statewide gas ban

By David laconangelo | 01/06/2022 07:03 AM EST



Home Comfort Program 2022 Achievements

Ductless air source
heat pumps

Ducted air source heat
pumps

Ground source heat
pumps

✓ Over \$4.8M customer
✓ Over \$800k contractor
✓ Over 4,000 heat pump
rebated
✓ Over 113.6 mmBTU saved

- Zero cooling only air-conditioning
- Dedicated 100% heat pump program
- Approximate 60% of PSEG/LI rebated heat pumps are through Home Comfort Program. It does not include pool heat pumps, DHW heat pumps or heat pumps in commercial

Outreach & Training



Incentives & Efficiency Requirements

- \$1,000/ton (Tier 1 or \$2,000/ton (Tier 2)
- Contractor Incentive: \$200/first unit, \$50/additional

Space Heating - Tier 1

WATER TO AIR:

Closed: EER \geq 17.1 and EER < 20 and COP \geq 3.6 Open: EER \geq 21.1 and EER < 25 and COP \geq 4.1

WATER TO WATER:

Closed: EER \geq 16.1 and EER < 17.5 and COP \geq 3.1 Open: EER \geq 20.1 and EER < 23 and COP \geq 3.5



Non-income eligible customer \$1,000/ton (new) \$500/ton (retrofit)

Income eligible customer \$2,000/ton (new) \$1,000/ton (retrofit)

Space Heating – Tier 2

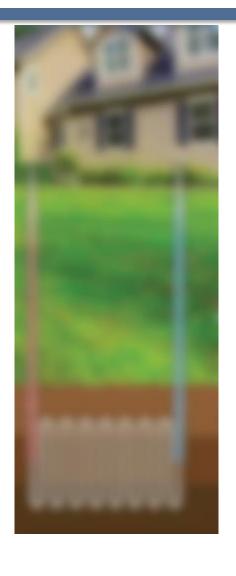
WATER TO AIR:

Closed: EER \geq 20 and COP \geq 3.8 Open: EER \geq 25 and COP \geq 4.5

WATER TO WATER:

Closed: EER \geq 17.5 and COP \geq 3.1 Open: EER \geq 23 and COP \geq 3.7 Non-income eligible customer \$2,000/ton (new) \$700/ton (retrofit)

Income eligible customer \$4,000/ton (new) \$1,400/ton (retrofit)





Incentives & Efficiency Requirements

- Similar requirements to Clean Heat Program
- Covering Nassau, Suffolk County and Far Rockaway
- Includes residential and commercial
- IGSHPA Accredited Installer Certification
- Preapproval
- Manual J, AHRI certificate
- Post-inspection



Cooperative Advertising and Training for Clean Energy Partners

Presented at: NY-GEO 2023

April 26, 2023

Presented by: Cory Nicosia, NYSERDA Corporate Marketing



Cooperative Advertising

Cost-sharing incentives to support advertising activities for eligible clean energy technologies:

- > cold-climate air source heat pumps
- > Geothermal (ground source) heat pumps
- > energy efficiency (i.e. air sealing and insulation)

Advertising – Eligibility and Available Incentives

NYSERDA will reimburse up to **50 percent** of the cost of approved advertising, promotion or training activities for applications submitted **through December 31, 2024** or until funding runs out.

Participant Type	Annual Max. Reimbursement for Advertising
Heat Pump system manufacturers , or a brand-agnostic manufacturer collaborative led by an industry association	\$200,000
Heat Pump system distributors	\$100,000
Participating contractors: NYS Clean Heat, Comfort Home, Residential Energy Audit, Clean Heating & Cooling Community Campaign, or GJGNY loan-offerors	\$100,000

Marketing support services are eligible for co-op. The total dollars spent toward services cannot exceed 25 percent of the total request. Services may include: Creative Development, Production Costs, Google Analytics, Tag Manager, or Dashboards, or Paid Media Campaign Set-up, Support, and Targeting

Advertising - Requirements

Technology: entirety of ad must be focused on clean heating and cooling technologies eligible through the NYS Clean Heat program or energy efficiency products/services

Geography: funded activities must occur within the CEF/SBC service territory

Reporting: Participants will be required to provide the number of leads and projects resulting from the advertising

Messaging Requirements:

- 1. Ad must name the product being promoted
 - heat pump, geothermal, mini-split, insulation
- 2. Ad must contain at least one technology benefit information message
 - energy savings, cost savings, healthy/safety, environmental, comfort, convenience 46

Advertising

Eligible Activities:

- > Collateral materials: printing of flyers, brochures, and posters
- > **Outdoor advertising:** billboard/outdoor advertising and sponsorship signage **\(\mathbb{\Bar} \)**
- > Radio and podcast advertising
- > Television advertising
- > Industry trade shows and conferences: exhibition costs
- > Email Marketing: purchasing targeted e-mail lists \(\mathbb{\mathbb
- > Online advertising: pay-per-click search and paid social media advertisements (i.e., Facebook ads), banner and pop-up advertising
- > Direct mail
- Website development: developer costs to establish new page(s) for heat pumps or energy efficient building envelop improvements

Cooperative Training

Cost-sharing incentives for heat pump manufacturers and distributors to support:

- > Sales training
- > Design training
- > Installation training

What Incentives are Available? Who can Participate?

NYSERDA will reimburse up to **50 percent** of the cost of approved advertising, promotion or training activities for applications submitted **through December 31, 2024** or until funding runs out.

Participant Type	Annual Max. Cap for Training
Heat Pump system manufacturers	\$50,000
Heat Pump system distributors	\$50,000

Training

Training projects must serve a minimum of 10 participants and be for NYS residents that are already existing workers in the HVAC industry.

Training for new workers is available through other NYSERDA programs.

Training Activities Include:

- Sales, design, or installation training for eligible product(s) implemented by manufacturer or distributor
- Online training (including webinars) to share best practices, latest research, and/or industry-accepted tools and resources for eligible product(s)
- > Mobile or portable training units including equipment that provides hands-on training
 - The cost of vehicles will not be cost-shared
- > **Equipment*** for training
- Construction of training facilities incentive is limited to electrical costs and specific items necessary for training
- Other eligible training costs include instructor fees, classroom space, and training materials. Travel costs and food are not eligible.

^{*}Limited to facilities that do not currently have heat pump equipment available onsite for training. Reimbursement capped at 25% of the discounted cost from MFGs.

Where Do I Find This Program Information?

- Stop by the NYSERDA booth to learn more
- Visit PON 4482 Cooperative Advertising and Training for Clean Energy Partners on NYSERDA's Open Funding Opportunities webpage
- NYSERDA.ny.gov/coop



NYSERDA Workforce Development & Training Programs

Davetta Thacher * NY-GEO Conference * April 26, 2023



Current Funding Opportunities

Hiring Support

PON 3982

On-the-Job Training for Energy Efficiency & Clean Technology

PON 4000

New York State Clean Energy Internship Program

Capacity Building

PON 3981

Energy Efficiency & Clean Technology Training



*Program names are hyperlinks to the program websites

Program Information and Online Resources



www.nyserda.ny.gov/wfd



For Businesses

Funding and resources for clean energy organizations looking to grow and/or train their teams.

Get Started (2)



For Job Seekers & Students

Career opportunities, internships, and resources for those interested in careers in the clean energy sector.

Get Started (2)



For Training Providers & Community Partners

Funding and resources to support the wide range of organizations that provide clean energy coursework, professional development, and job preparedness services.

Get Started (2)



For Building Owners & Property Managers

Funding to train building operations and maintenance staff in clean energy technologies and systems.

Get Started (2)

PON 3982: On-the-Job Training Program



Eligible Businesses	 HVAC and renewable heating and cooling High efficiency water heating Insulation and/or air sealing High efficiency lighting and controls Building automation and controls Smart grid, energy storage & EV charging stations Building operations and maintenance Solar electric PV, solar thermal, and related areas Offshore and Land-Based Wind and related areas EV Charging Stations
Wage Reimbursement	 75% wage reimbursement for heat pump hires and MBE/WBE/SDVOB businesses 50% wage reimbursement for all other hires Reimbursement for 6 months for hires from a priority population/disadvantaged community Reimbursement for 4 months for all other hires
Process	 Online business application to verify eligibility for program NYSDOL review, approval, and support for hiring New Hire applications submitted to NYSERDA for approval Invoices submitted for reimbursement after 4 weeks

- Over 1,370 individuals hired to date
- \$8,500 per hire average funding
- Businesses can receive up to \$150,000 for hiring traditional workers, with no cap on hiring individuals from priority populations / disadvantaged communities

PON 4000: Clean Energy Internship Program



Examples of Eligible Technology Areas	 Energy Efficiency Renewable Electric Power Generation Grid Modernization and Energy Storage Alternative Transportation HVAC and renewable heating and cooling
Eligible Interns	NYS residents who are current college students, recent graduates, members of priority populations/disadvantaged communities
Wage Reimbursement	 Reimbursement is available on a sliding scale for hourly wages of up to \$17.00 for up to 480 hours per internship. 90% of intern wages covered for employers with 2-100 employees. 75% of intern wages covered for employers with 101+ employees.
Process	 Both businesses and interns must apply via online application (one time per business). Businesses submit an application for each internship, including a job description and signed offer letter. Invoices submitted for reimbursement at the end of the internship or at 3-month intervals during the internship.

- Over 1,640 interns hired to date
- Employers can have up to 30 interns, while MWBEs/SDVOBs have no cap on the number of interns they can hire during the duration of the program
- Program is open to businesses, not-for-profits, municipalities, and direct entry pre-apprenticeship programs who provide clean energy services

PON 3981: Energy Efficiency & Clean Technology



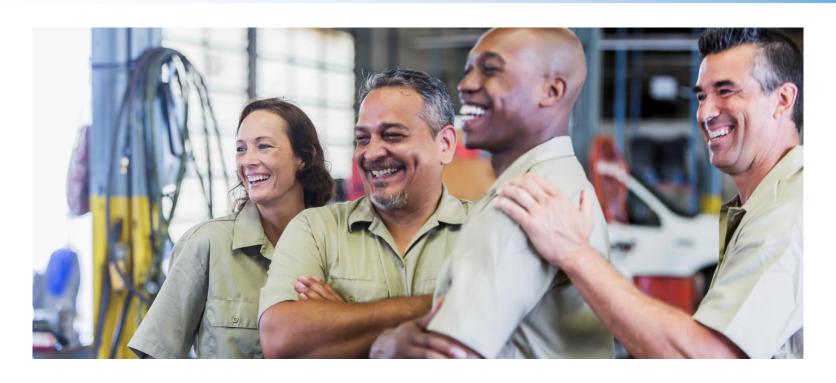
Eligible Training Providers	 Technical high schools, community colleges, colleges & universities Trade associations, manufacturers, equipment suppliers, distributors, unions Firms and subcontractors that support engineering, procurement, construction, operations & maintenance Renewable energy service providers & project developers Training and job placement intermediaries, community-based/non-profit organizations Partnerships between multiple organizations are welcome
Technology Focus Areas	 Building electrification/heat pump technologies Insulation & air sealing; smart grid, energy storage High-efficiency lighting, building automation & controls EV maintenance & charging station installation Large-scale, land-based renewable energy generation
Basic Requirements	 Training for existing workers or new workers Technical training, plus soft skills as appropriate Industry partnerships to provide hands-on training and relevant work experience + clear job placement goals
Funding	\$50,000 - \$500,000 per project
Deadline	Ongoing submission of Concept Papers

PON 3981: Funded Initiatives and Activities

- Curriculum or certification development, modification when there is a demonstrated market gap and need.
- Training delivery (online, classroom, on-site, etc.)
 and certification costs.
- Equipment purchases for hands-on training.
- Hiring and training of trainers.
- Implementation of mentorships and internships.
- Development of pre-apprenticeship and apprenticeship programs.

- Services to place individuals into paid internships, apprenticeships, full-time jobs, or advanced formal training.
- Training development and delivery in languages other than English.
- Marketing and outreach.
- Reasonable in-state, necessary travel.
- Wrap-around services (mentorship, coaching, transportation, tutoring, job site equipment (e.g., work boots or tool belts), childcare assistance, etc.)

Thank you!



More information can be found at:

nyserda.ny.gov/all-programs/WFD

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