

Residential Market Advisory Group

Q1 2021 Meeting

March 10, 2021



NYSERDA

Welcome and Agenda

- > Ground Rules & Webinar Guidelines
- > Recap of Q4 2020 Meeting
- > Update on the Climate Act: Preliminary Policy Options for Buildings Sector
- > RMAG Mission and Structure
- > RMAG Member Group Updates
- > Workforce Development
- > Building Electrification Market Enablement
- > Wrap up and Next Steps

Ground Rules

- > This webinar will be recorded, and approximately 2 hours.
- > Participants should engage actively and respectfully.
- > All participants will be muted as they enter the webinar. The facilitation team may mute / unmute participants as needed to manage audio quality.
- > Use the “chat” and “raise hand” function to join in the discussion queue.
- > Notes will be taken during the webinar to produce a meeting summary. Specific comments will not be attributed in the meeting summary.

Webinar Guidelines

The screenshot displays the Cisco Webex Meetings interface. At the top, the window title is "Cisco Webex Meetings" and the menu bar includes "File", "Edit", "Share", "View", "Audio & Video", "Participant", "Meeting", "Breakout", and "Help". The status bar at the bottom shows "Connected" and window controls. Two dialog boxes are open: "Audio connection" and "Call In".

The "Audio connection" dialog box contains the following text:

Audio connection

You're not connected to audio.

Audio options

- Use computer audio
- Call in

The "Call In" dialog box contains the following text:

Call in from another application

- Call**
US Toll
+1-415-655-0001
[Show all global call-in numbers](#)
- Enter**
Access code 146 736 6526 #
Attendee ID 668439 #

Two red arrows point from a dark blue box labeled "Connect Audio" to the "Use computer audio" and "Call in" options in the "Audio connection" dialog. Another red arrow points from a dark blue box labeled "Merge Audio" to the "Call In" dialog.

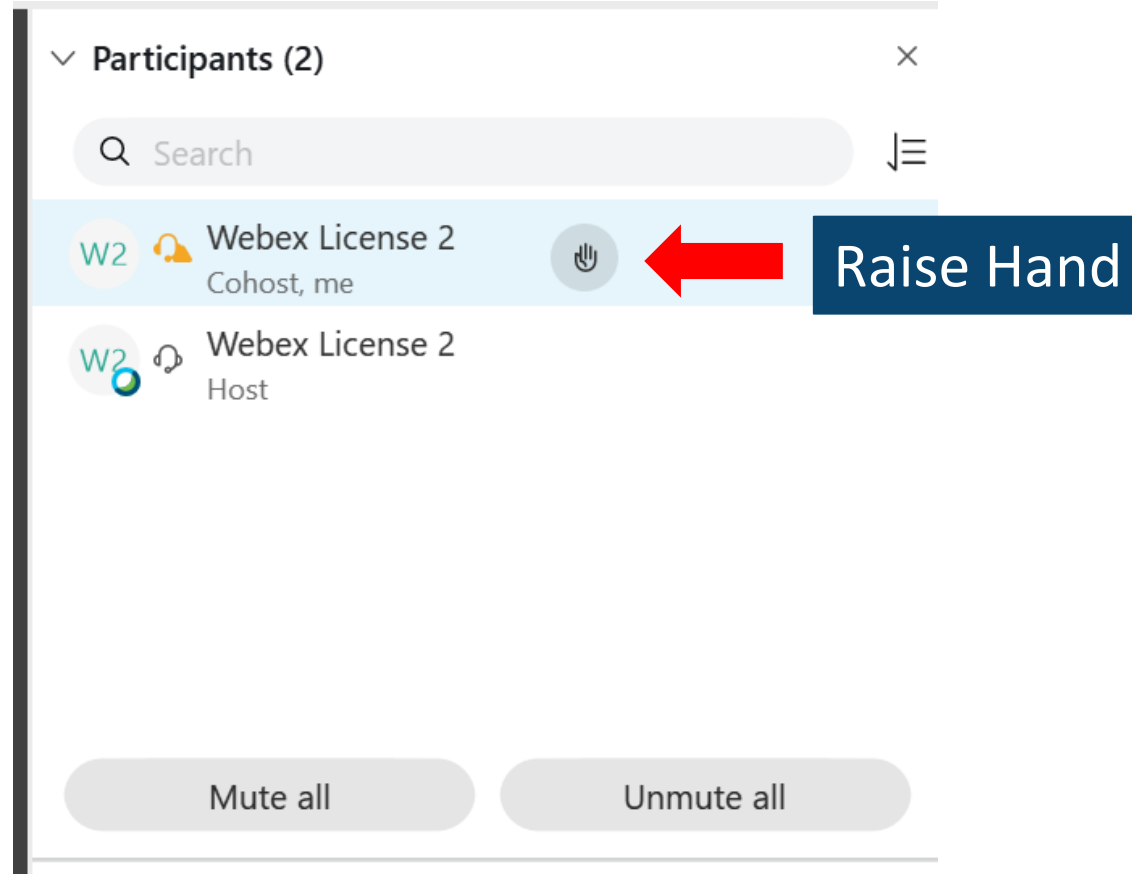
Webinar Guidelines

The screenshot displays the Cisco Webex Meetings interface. The main window title is "Cisco Webex Meetings" with a sub-header "Meeting Info" and "Hide menu bar ^". The menu bar includes "File", "Edit", "Share", "View", "Audio & Video", "Participant", "Meeting", "Breakout", and "Help". The status bar at the top right shows "Connected" with a green dot and window control icons.

The central area features a large circular logo with the text "W2". To the right, a sidebar contains two sections: "Participants (1)" and "Chat". The "Participants" section includes a search bar and a list of participants, with one participant named "Webex License 2" (Host, me) shown. Below this are "Mute all" and "Unmute all" buttons. The "Chat" section includes a "To:" dropdown menu set to "Everyone" and a text input field labeled "Enter chat message here".

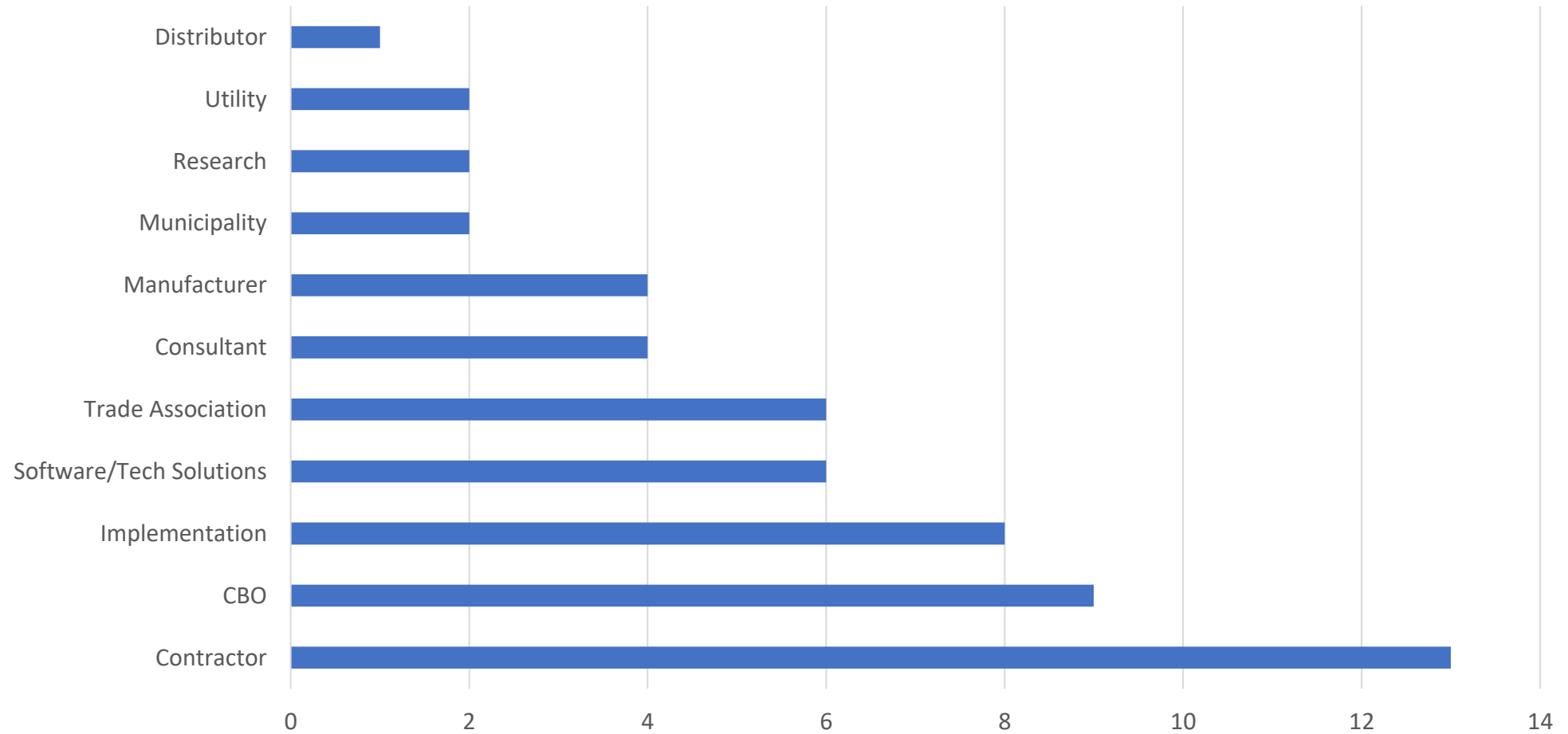
At the bottom, a toolbar contains several icons: "Mute", "Start video", "Share", "Record", a three-dot menu, and a close button. A red box highlights the "Participants" and "Chat" buttons in the bottom right corner of the toolbar. Two red arrows point from the left towards the "Participants" and "Chat" sections in the sidebar.

Webinar Guidelines



Webinar Issues? Contact: ctamayo@kearnswest.com

Who's Here



ICEBREAKER

Who is here with us today?

ICEBREAKER

Tell us one new thing your organization is pursuing in 2021 that you are excited about.

Q4 2020 Meeting Recap

- **Kicked off** the Fall 2020 meeting and webinar series with a review of the NY Climate Leadership and Community Protection Act (CLCPA) and the current state of the NY residential energy market. Topics also included NYSERDA updates and opportunities partnering with the Joint Utilities of New York.
- **Working Group Sessions**
 - How to Normalize the Use of Heat Pumps
 - Ramping Up to Meet our Clean Energy Goals
 - Building Back Stronger: The “New Normal” Residential Market
- **25 priorities identified and ranked by the RMAG**

Progress on Top RMAG Priority Items

Normalizing Heat Pumps

- 1. Training for Service Technicians
- 2. Experiential Demonstrations
- 3. Testimonials from Customers

Ramping Up to Meet Our Goals

- 1. Large Scale Pilot
- 2. Workforce development forum
- 3. Non-Traditional Partners

The New Normal

- 1. Post Installation Data
- 2. Pools of Trained Contractors
- 3. Peer to Peer Group

Progress on Other RMAG Priority Items

Normalizing
Heat Pumps

- 8. Ally Network

Ramping Up to
Meet Our Goals

- 6. Connect on Policy Goals

The New
Normal

- 4. Research of Network-Building Successes

Energy Efficiency & Housing Advisory Panel: Preliminary Policy Considerations

**Emily Dean, Director of
Market Development**



NYSERDA

Climate Leadership & Community Protection Act of 2019 (Climate Act)

- > **Mandates 85%+ greenhouse gas (GHG) emissions reduction by 2050**
- > **Puts NY on a path to carbon neutrality by mid-century**
- > **100% zero-carbon electricity by 2040**
- > **Codifies clean energy targets**
- > **First statutory Climate Action Council**

Commitments to Climate Justice & Just Transition

Invest or direct relevant program resources so that disadvantaged communities (DACs) receive at least 35% of benefits of clean energy & energy efficiency programs, projects, & investments in: Housing, workforce development, pollution reduction, low-income energy assistance, Transportation, & economic development

Climate Act - Timeline

COUNCIL

AGENCIES



Energy Efficiency and Housing Advisory Panel

Developing recommendations specific to the buildings sector for emissions reducing policies, programs, or actions that contribute to achieving the statewide emissions reductions established in the Climate Act, for consideration by the Climate Action Council for inclusion in the Scoping Plan.

The Panel’s scope addresses three pillars of deep building decarbonization across single family (SF), multifamily (MF), and commercial and institutional (C&I) buildings

Energy Efficiency and Conservation	Building Electrification and Low Carbon Fuels	Decarbonizing Electricity Supply
<ul style="list-style-type: none"> • Efficient building shell and weatherization measures • Behavioral conservation, operations and maintenance 	<ul style="list-style-type: none"> • Beneficial electrification of space heating, hot water heating, and appliances • Cross-panel work on Bioenergy 	<ul style="list-style-type: none"> • Site-based solar PV • Flexible building loads • Cross-panel work with Power Generation Advisory Panel
<ul style="list-style-type: none"> • Codes and standards to reduce GHG emissions 		
<p>Cross-cutting consideration of embodied carbon and climate adaptation and resilience</p>		

Introductions: Energy Efficiency and Housing Advisory Panel Members

**RuthAnne
Visnauskas, Chair**
Commissioner: Homes
& Community
Renewal

Janet Joseph
Senior Vice President
for Strategy and
Market Development:
NYSERDA

Peggie Neville
Deputy Director of
Efficiency & Innovation:
Department of Public
Service

Gina Bocra
Chief Sustainability
Officer: NYC Dept. of
Buildings

Kyle Bragg
President: 32BJ SEIU
Amy Sugimori
Director of Policy and
Legislation

Dan Egan
Senior Vice President
of Energy &
Sustainability:
Vornado Realty Trust

Bret Garwood
Chief Executive
Officer: Home
Leasing, LLC

Jin Jin Huang
Executive Director:
Safari Energy, LLC

Clarke Gocker
Director of Policy and
Strategy: PUSH
Buffalo

Elizabeth Jacobs
Acting Executive
Director: Akwesasne
Housing Authority

Jamal Lewis
Sr. Policy & Technical
Assistance Specialist:
Green & Healthy
Homes Initiative

Sadie McKeown
EVP & COO: The
Community
Preservation
Corporation

Bill Nowak
Executive Director: NY
Geothermal Energy
Organization

**Molly (Dee)
Ramasamy**
Head of Deep Carbon
Reduction: Jaros,
Baum & Bolles

Daphany Sanchez
Executive Director:
Kinetic Communities
Consulting

Laura Vulaj
Senior Vice President
& Director of
Sustainability: SL
Green Realty Corp.

Stakeholder Engagement

Input to date

- > Panel members bring a range of perspectives and stakeholder contacts
- > In November, 70 stakeholders provided direct written input on priority policies/actions for the Panel to consider, via a survey or email
- > Panel convened three dedicated roundtables with single family and multifamily housing stakeholders, and reviewed notes from stakeholder meetings convened as part of the Carbon Neutral Buildings Roadmap process
- > In February, the Panel held a Public Input webinar and solicited written comments from stakeholders

Preliminary Draft Recommendations Under Consideration

Regulations to phase out fossil fuel use in buildings

Strategy and components under consideration

Strategy and Components Under Consideration: Require electric space heating and hot water equipment and appliances in very energy efficient buildings through codes and regulations*

Very efficient State Energy Code, as soon as possible

Electric new construction code (ban on gas/oil equipment for space and water heating) – in single family (potentially starting in ~5 years) and in multifamily/commercial buildings (potentially starting in ~10 years)

Ban on gas/oil replacements (at end of useful life) of heating/hot water equipment – in single family (potentially starting in ~10 years) and in multifamily/commercial buildings (potentially starting in ~15 years)

Ban on gas replacements (at end of useful life) for cooking and dryers (potentially starting in ~10 years) for single family and multifamily

Third-party energy code inspectors and funding for local code enforcement (staff, training, supplies)

State appliance efficiency standards for products exempt from federal preemption (e.g., computers and monitors, fluorescent and LED light bulbs, air purifiers, commercial dishwashers and fryers), as soon as possible

***Note: Proposed timeframes to adopt each regulation will depend on the type of regulation and its governing body and legislation, State Administrative Procedure Act rulemaking requirements and timelines, an ongoing assessment of feasibility, impacts and analysis of what timeframes are needed to meet New York State's climate goals.**

Energy benchmarking, disclosure, and performance standards for buildings

Strategy and components under consideration

Strategy and Components Under Consideration: Require measuring energy usage and making that information accessible – and to inform later energy performance standards for commercial buildings*

Energy benchmarking for MF, C&I buildings larger than 10,000 sq. ft.

Energy usage data disclosure at point of sale and point-of-lease for SF, MF, C&I buildings

Require lighting upgrades to current Energy Code standards and periodic energy audits for commercial buildings larger than 25,000 sq. ft.

Energy efficiency performance standard for MF and C&I buildings larger than 25,000 sq. ft. (with credit for beneficial electrification), informed by statewide benchmarking data

***Note: Implementation of these policies statewide will require assessment of the interplay with existing local policies (such as Local Laws enacted by the City of New York) and policy design such that building owners are not subject to conflicting or duplicative requirements.**

A workforce enabled to meet consumer demand for energy efficient, all-electric buildings

Strategy and components under consideration

Strategy & Components Under Consideration: Support workforce development & informed consumers

Scale up training for incumbent and new clean energy workers and adjacent industries (e.g. home visiting workforce) to understand, design, construct, operate, and maintain highly efficient, electrified, and healthy buildings; give preference in training and job placement services to priority populations, incl. low-income people, residents of disadvantaged communities, and veterans

Increase ranks of MWBEs, coops., and employee-owned businesses through capacity building and business development support

Create community-to-employment pipelines and career pathways in disadvantaged communities. Requirements for training/employment for low-income people, for energy projects funded by government or public-private partnerships (e.g. HUD Section 3 or similar models)

Include building decarbonization curricula in State-funded education, incl. K-12, technical schools, and engineering and architecture programs at public universities; encourage private universities to similarly update curricula

Require continuing education and licensing in trades and professions in buildings operations and maintenance, design, construction, and real estate professionals

Provide technical assistance and resources for building decision-makers, incl. case studies and guidance for key building segments

Scale up strategic partnerships for education/outreach efforts, implement multilingual public awareness campaigns, and target resources for education and technical assistance within disadvantaged communities with a focus on efforts led by environmental justice and community-based organizations located in or serving those communities

Low-cost financing for energy efficiency, electrification, and related improvements in buildings

Strategy and components under consideration

Strategy and Components Under Consideration: Provide SF/MF/C&I building owners with access to low-cost capital to pay for the energy efficiency and building upgrades necessary for decarbonization

Apply a "Clean Water Model" to building decarbonization: e.g. enable public mandates coupled with access to low-cost capital

Provide greater access to financing products (e.g. NYS, other entities) for capital for upgrades (e.g. for low-income households, DACs, renters)

Expand the use of performance contracting to achieve goals for State, municipal, and K-12 school building upgrades

Support underwriting to energy cost savings

Incentives to lower the cost of energy efficiency, electrification, and related improvements in buildings

Strategy and components under consideration

Strategy and Components Under Consideration: Provide incentives for SF/MF/C&I owners that speed uptake and help to transform the market for efficiency and electrification, and that enable uptake in low- to moderate-income (LMI) households, disadvantaged communities, and affordable housing

Direct cash incentives for energy efficiency and electrification, with priority on LMI households and DACs

Create a "Retrofit and Electrification Readiness Program" for LMI households, affordable housing, and DACs to cover costs of non-energy building improvements deemed necessary for energy measures to be installed, incl. broadband installation

Direct cash incentives for electrical service upgrades and in-building wiring and equipment

Support demonstration projects and R&D for reducing embodied carbon in buildings, low global warming potential refrigerants, grid-interactive buildings, and all-electric or electrification-ready buildings

Policy transition from gas to clean energy

Strategy and components under consideration

Strategy and Components Under Consideration: A managed, just transition from reliance on gas to clean energy

- Stop utilities advertising gas as "clean" or "climate friendly" and phase-out incentives/rebates for gas equipment
- Eliminate the "100-foot rule" subsidy under which the utility covers most or all of the cost of new gas connections for residential consumers, socializing this cost across ratepayers and creating an incentive to install gas service in buildings
- Adopt CLCPA-aligned depreciation rates for utility investments in gas infrastructure to minimize long-term rate impacts
- Develop legal steps to allow access for thermal/ground source loops to utility and public rights of way
- Undertake a planning study and process to examine the regulatory, legislative, and other policy changes needed for a managed and just transition of the gas system, with attention to safety, reliability and affordability of service, safeguarding that low-income and disadvantaged communities are not left behind, and the long-term role for gas utilities
- Create transition plan for the gas industry workforce, including protections and job transition opportunities
- Publish analyses of building and grid readiness for electrification, with attention to building typologies that are harder to electrify, in order to support sound policy and planning for building electrification

Additional policy areas under discussion

- > Federal tax credits and funding, federal program advocacy, federal support for R&D
- > Resilience and climate adaptation for buildings, communities, and the electric grid
- > Utility rate design
- > Consumer protections
- > Support living wage jobs and prevent wage erosion
- > Economy-wide carbon fee or climate pollution fee and investment approach

Next steps

- > EE&H Panel Staff is working on a thematic summary of public comments, which will be posted to the CLCPA website at: <https://climate.ny.gov/Advisory-Panel/Meetings-and-Materials> > **Energy Efficiency and Housing Advisory Panel**
- > The EE&H Panel will submit recommendations to the Climate Action Council in May to inform the development of a Scoping Plan
- > Public engagement efforts will be ongoing as the Climate Action Council continues its work to meet New York State's climate and equity goals



What are your organization's priorities for 2021?

2021 RMAG Structure

RMAG Mission

- > To bring together residential market actors to envision the next generation of residential clean energy solutions and to facilitate deployment of strategies that stimulate market growth, deliver customer value, and enable achievement of New York State's energy policy goals. Including but not limited to CLCPA goals, fuel poverty, and climate and carbon reduction goals.

RMAG Objectives

- > Maintain market awareness of public policies driving investments in energy efficiency and clean energy in the residential market.
- > Share information on current and planned activities to enable coordination and avoid unproductive duplication of efforts in advancing progress towards policy and industry objectives.
- > Discuss opportunities and challenges associated with wide-scale deployment of energy efficiency and clean energy services for the residential sector and seek solutions to overcome market barriers.
- > Help guide the direction of the market's existing and future clean energy solutions.
- > Make connections and develop collaborations among participants and partners to meet mutual objectives.
- > Develop and coordinate shared messaging and outreach strategies where appropriate.

RMAG Website

> www.nyserda.ny.gov/Partners-and-Investors/Partner-With-NYSERDA/Residential-Market-Advisory-Group

Prior Meeting Materials

October 2-16, 2020

- [Executive Summary \(PDF\)](#)
- [Detailed Summary \(PDF\)](#)
- **Opening Webinar:** Kicks off the Fall 2020 meeting and webinar series with a review of the NY Climate Leadership and Community Protection Act (CLCPA) and the current state of the NY residential energy market. Topics also included NYSEDA updates and opportunities partnering with the Joint Utilities of New York.
 - [Slideshow \(PDF\)](#)
- **Working Group Session 1: How to Normalize the Use of Heat Pumps:** This work group focused on strategies for increasing residential use of heat pumps.
 - [Slideshow \(PDF\)](#)
- **Working Group Session 2: Ramping Up to Meet our Clean Energy Goals:** This work group focused on next steps for the CLCPA and working together to meet NY clean energy goals.
 - [Slideshow \(PDF\)](#)
- **Working Group Session 3: Building Back Stronger: The “New Normal” Residential Market:** This work group focused on building back stronger as we navigate towards a new normal in the COVID world.
 - [Slideshow \(PDF\)](#)
- **Closing Webinar:** The Closing Webinar included report-outs from the three working groups, an exercise to identify the highest priority action items and presentations about some efforts already underway.
 - [Slideshow \(PDF\)](#)

May 21, 2020

- [Remote/Virtual Energy Audit Stakeholder Webinar Slides \(PDF\)](#)

June 17, 2019

- [Meeting Notes \(PDF\)](#)
- [Presentation Slides \(PPT\)](#)

Working Groups

Residential Contractor Working Group

The Residential Contractor Working Group advises and provides feedback on a number of topics related to residential HVAC and building shell contractors. To join this group, email resmarket@nyserda.ny.gov.

- [April 15, 2020 Meeting Summary \(PDF\)](#)

RMAG Charter

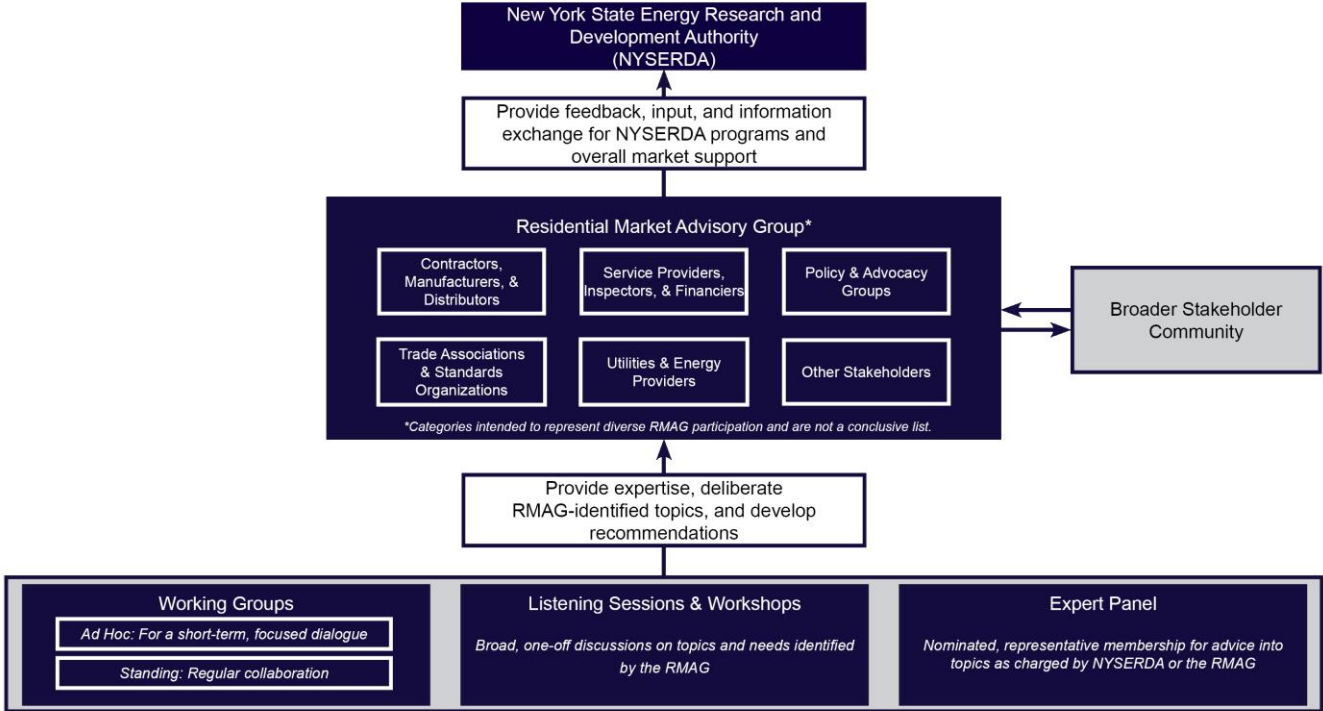


Figure 1: Information flow between stakeholder groups

Quality Assurance Working Group

Presented by:
Amy Kasson-Muzio

Timeline Group:
August 2020 - Present

15 Participants

> **Reason Group Was Formed:**

Collaborative process to deliver highest quality work for customers

> **Objectives**

Improve communication and enhance learning opportunities through data generated from NYSERDA's QA, QC and Program activities to support program contractors and overall market growth

> **Outcomes**

1. Increased Communication across all stakeholders
2. Customer Satisfaction Survey
3. Streamlined Quality Assurance Inspection Checklist

> **Next Steps**

1. Review NYSERDA's Quality Control process
2. Transition into an Expert Panel

SQA : QA reset – EAE, Small Homes Inspection Checklist Update

Assessing and Editing the Energy Affordability and Equity QA inspection checklist.

- > Cross-departmental team
 - SQA, EAE, Residential, QA/QC Working group – Market Stakeholders
- > Streamlining inspection measures and tasks
 - Removing tasks no longer needed - i.e.: Torchiere lamps
 - 85% reduction in inspection tasks
 - Combined inspection measures
 - Measures were combined for a 90.9% streamlined reduction
 - Additional of updated program requirements
- > Measures were realigned to match the updated EAE program standards
 - Former used Material Installation Guidelines, MIG, is being replaced with DOE standard work specifications, BPI standards and NYS codes.
- > Reevaluated Non-conformance Categories
 - Critical, Major, Minor, Incidental
- > Reevaluated scoring matrix

Feedback?

resmarket@nyserderda.ny.gov



Clean Energy Workforce Development and Training



NYSERDA

PON 3982

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



PON 3982 - On-the-Job Training

Goals:

- To reduce the costs to clean energy businesses for recruiting, hiring, and training new workers
- To teach new workers occupational skills to help clean energy businesses succeed

Program Resources:

- \$12.5 million in incentives available statewide, including limited funding for Long Island businesses

Target Audience:

- “Workers” include those who design, manufacture, specify, sell, distribute, install, operate, maintain, repair, inspect energy efficiency and clean energy technologies and systems, as well as priority populations

Types of Eligible Companies

- HVAC contractors, Geothermal contractors, Insulation & Home Performance contractors, Solar PV contractors, Lighting & Electric contractors, Energy Efficiency and Weatherization contractors, etc.

PON 3982 - On-the-Job Training

Position Type	Business Classification	Business Size	Reimbursement Rate	Reimbursement Period	
				Non-Disadvantaged Community/Priority Population Worker	Disadvantaged Community/Priority Population Worker
General Clean Energy	Business not registered as MBE/WBE/SDVOB	2 – 100 employees	50%	16 Weeks	24 Weeks
		101 or more employees	50%	Not Eligible	24 Weeks
	Business registered as MBE/WBE/SDVOB	2 or more employees	75%	16 Weeks	24 Weeks
Solar Electric	Business not registered as MBE/WBE/SDVOB	2 or more employees	50%	Not Eligible	24 Weeks
	Business registered as MBE/WBE/SDVOB	2 or more employees	75%	16 Weeks	24 Weeks
Heat Pumps	Any business classification	2 or more employees	75%	16 Weeks	24 Weeks

Funding is capped at \$150,000 per business for traditional workers.

No maximum cap for hiring members of disadvantaged communities / priority populations.

PON 3982 - On-the-Job Training

The Process

Step 1 - Business Registration (completed one time per business)

Step 2 - New Hire Application (completed for each new hire a business brings through the program).

Business Registration

- Online form with basic information about business to verify eligibility to participate in the program
- NYS Department of Labor (DOL) conducts a Due Diligence review

New Hire Application

- Businesses can “bring their own” candidate or DOL can help find candidates
- Develop a Training Plan for the new hire (DOL assistance provided)
- Business works with DOL to complete application and DOL submits to NYSERDA to reserve funding

Reimbursement

- Businesses submit invoices and payroll records to NYSERDA monthly for reimbursement on wages paid

PON 4000

New York State Clean Energy Internship Program



PON 4000 – Clean Energy Internship Program

Goals

- To provide clean energy businesses in the state with a pool of young, skilled professionals, and to provide relevant career experiences to people entering the workforce

Program Resources

- \$7.5 million available through 2024 to eligible businesses on a first-come, first-served basis
- Reimbursement is on a sliding scale depending on the size of the employer:
 - Percent covered for employers with 2 - 100 employees: **90%** of intern wages
 - Percent covered for employers with 100 or more employees: **75%** of intern wages
- Internships are a minimum of 8 weeks and 80 hours up to 960 hours completed within a 12-month period.
- Part-time and full-time internships are permitted (only part-time internships while taking classes)

PON 4000 – Clean Energy Internship Program

The Process

- Step 1 – Business Application (completed one time per business). Annual renewals to verify eligibility
- Step 2 – Submission of Internship Plans for approval

Business Registration

- Online form with basic information about business to verify eligibility to participate in the program

Submission of Internship Plans

- Businesses can “bring their own” candidate* or find one from a program list of candidates
 - *If a business “brings their own” candidate, that intern will still need to submit an application to verify eligibility
- Submit job description and signed offer letter to NYSERDA to reserve funding. Remote work plans are required for interns working remotely.

Reimbursement

- Businesses submit reimbursement request and payroll records to NYSERDA at the end of internship or no more frequently than every 12 weeks.

Other Funding Opportunities and Initiatives



Other Funding Opportunities

PON 3981 – Energy Efficiency & Clean Technology Training

Proposers include unions, colleges and universities, manufacturers, distributors, trade associates, community-based organizations, technical high schools, training and job placement intermediaries, etc.

Proposals can be for the training of incumbent workers, new workers, or both. Proposals are accepted from \$50,000 - \$450,000, depending on project type.

Proposers must demonstrate the *need for the training* and the *market demand* for the training.

Training activities that may be funded as part of a successful application can include but are not limited to:

- curriculum development or modification;
- delivering of training (online, classroom, on-site, etc.);
- training labs and equipment purchases for hands-on training;
- hiring and training of trainers;
- test and certification fees;
- job placement services, pre-apprenticeships, and apprenticeships

Upcoming Due Dates:
May 3, 2021
September 2, 2021

Other Funding Opportunities

PON 4463 – Career Pathway Training Partnerships for High Efficiency HVAC and Heat Pumps – Governor Cuomo’s Workforce Development Initiative

*The following refers to the recently closed PON 4463, and future versions of this funding opportunity are subject to change.

Goals:

- To develop a talent pipeline of new workers (e.g., technicians, installers, technical sales) to work in high efficiency heating, ventilation, and air conditioning (HVAC) careers specializing in heat pump technologies, specifically ground source and air source cold climate heat pump applications
- Engage high school students, out-of-school youth, and unemployed or underemployed adults in high efficiency HVAC coursework leading directly to jobs or to more advanced technical training, certification, or degrees

Projects Must:

- Train a minimum of 50 to 60 students if seeking the maximum award amount of \$550,000 and successfully place at least 80% of those trained in a job, internship, or apprenticeship.
- Offer coursework leading to entry-level jobs, internships, and apprenticeships or more advanced technical training, certification, or degrees designed to ready students for entry-level employment (e.g., technicians, installers, technical sales) in the high efficiency HVAC industry.
- Provide counseling, including providing job preparedness and placement activities.

Questions

Questions on NYSERDA Workforce Development
and Training Funding Opportunities

Online Training Resources

In the past 12 months, NYSERDA has offered a variety of energy efficiency, HVAC, and building electrification online training resources.

These include:

- Steven Winter Associates – Building Electrification Online Training
- Interplay Learning – Access to catalog of online, on-demand courses
- CLEARResult – Online trainings

NYSERDA is current reviewing participation levels for these initiatives and determining what activities warrant continued support.

Feedback

Audience Input and Feedback on Recently Offered Online Training Resources

Call for Participants – Capacity Building Discussions

Workshop or Working Group to dive into priority items related to building the capacity of the clean heating residential workforce, including but limited to discussions on:

- > Creating a forum for exchange of ideas on workforce development, particularly among low-income and disadvantaged populations.
- > Developing pools of trained technicians' contractors can recruit from, to help counter staffing shortages.
- > Setting up peer-to-peer contractor groups with non-competing contractors to share ideas and best practices.
- > Developing a 6-month Heat Pump boot camp

If you would like to participate, let us know in the chat box now, or email resmarket@nyserda.ny.gov

Contact Info

PONOJT@nyserda.ny.gov

CleanEnergyInternship@nyserda.ny.gov

Laura Giannini - Laura.Giannini@nyserda.ny.gov

Adele Ferranti - Adele.Ferranti@nyserda.ny.gov

Building Electrification Market Enablement



NYS Clean Heat

Statewide Consumer Awareness and Education

March 2021



NYS Clean Heat

Marketing Working Group - Overview

Members

- NYSERDA representatives from marketing and clean heating & cooling, all six investor-owned utilities have at least one participating member, and KSV (NYSERDA's marketing agency of record)

Purpose

- To guide the *development, roll out, and performance reporting* of an **integrated statewide consumer awareness, education and marketing program**
- To create an avenue for NYSERDA and utility collaboration to ensure that all heat pump marketing efforts are optimized and coordinated

Goals

NYS Clean Heat

3.6 Tbtu of energy savings by 2025

~130,000 heat pump installations

~ 1 Million Leads



Marketing

To build consumer demand and consideration for and market confidence in heat pumps and complementary energy efficiency measures.

To increase the awareness and installation of electric heating and cooling equipment throughout the State of New York.

To reduce customer acquisition costs for installations of heat pumps to be on parity with traditional HVAC installations.

Marketing Strategy & Audience Identification

NYS Clean Heat Marketing Strategies

A statewide consumer education and awareness campaign will be launched to spur heat pump awareness and adoption. This will support electric utility marketing efforts targeting their customer base with specific offers and opportunities.



NYS Clean Heat Marketing

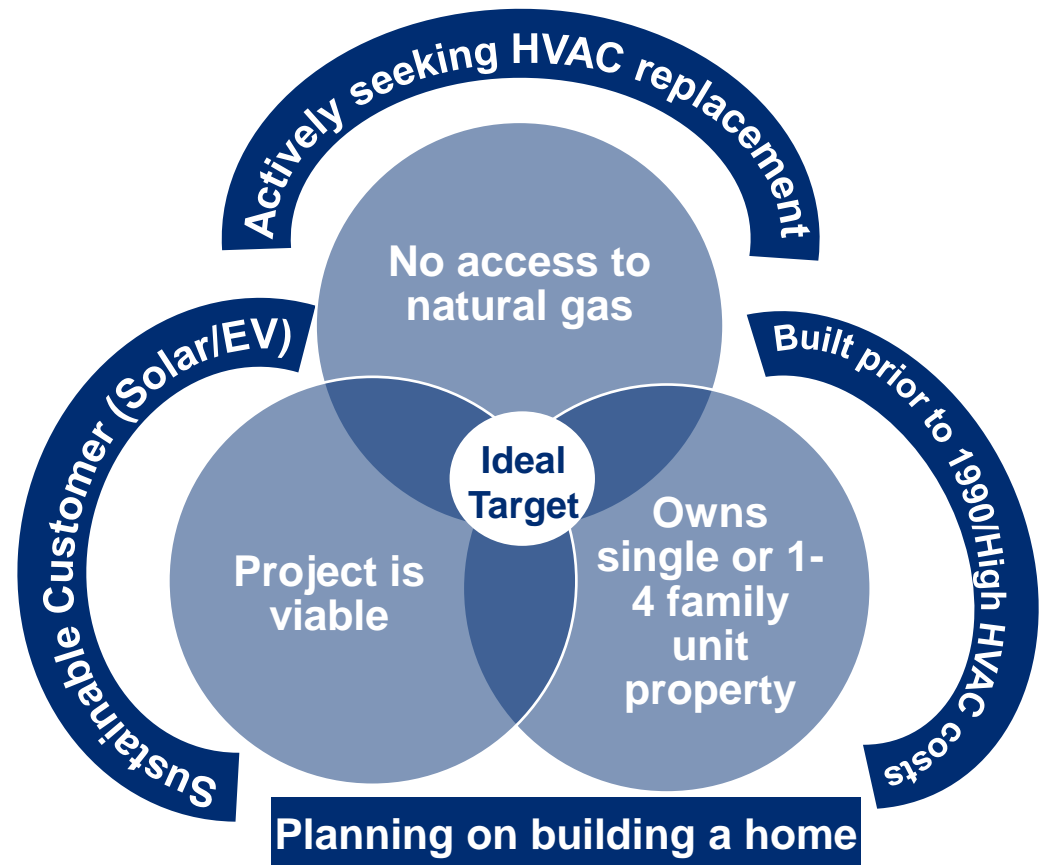
Utility Marketing

Coordinated with NYSERDA’s CHC Community Campaigns and Co-op Advertising (Mfgs, Distributors, Installers)



NYS Clean Heat Audience Identification

Leverage available data to hyper-target consumers with a combination of ideal home typologies* and higher propensity to adopt clean heating and cooling technologies. Prioritize campaign efforts to these audiences.



*Target set will not be required to meet all identified criteria. For example, any consumer in the State who is actively seeking an HVAC upgrade will be targeted regardless of how many other criteria they meet.

Messaging and Channel Ownership

NYS Clean Heat

Utilize awareness and education messaging and channels, particularly those where statewide scale will help reduce overall costs or may reach customers from more than one utility:

- TV and Digital Video
- Terrestrial and Streaming Radio
- Native Advertising and Sponsored Content
- Research and Education Focused Digital Marketing (social, google banners, paid search)

Utility Marketing

Continue to own offer-based and participation related messaging, particularly in channels where the utility has a direct line to their customers:

- Owned Email/CRM
- Direct Mail
- Owned/Paid Social
- Offer-Focused Digital Marketing
- Events

CHC Communities, MFGs, Distributors, and Installers

Utilize awareness and education messaging and channels at a local level, key in on local support and benefits of membership. Channels may include:

- Social media
- Direct Mail
- Local Publications – Print and/or Digital
- Local TV/Radio
- Out of Home – Billboards, Storefronts, etc.
- Hosted Events and Webinars

Statewide Digital Campaign

First Sprint Mid-April through Mid-June (10 weeks)

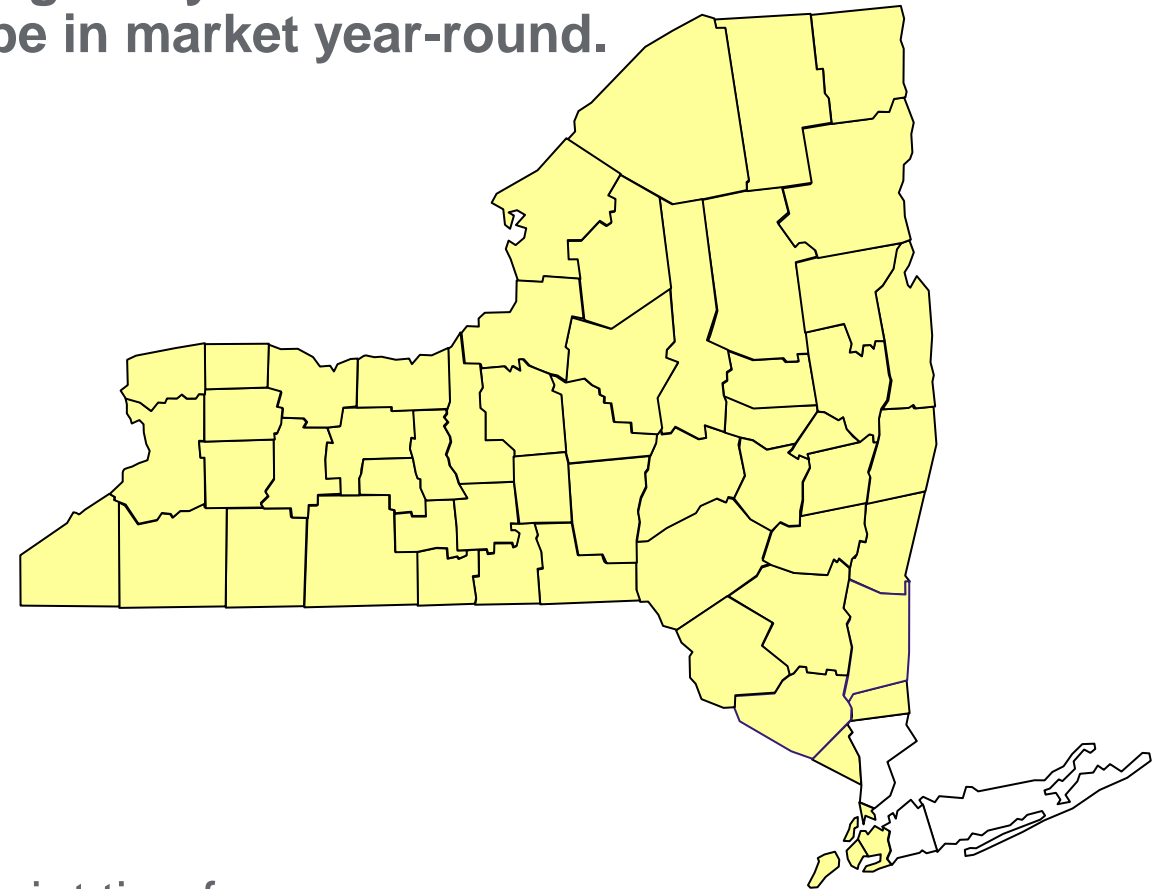
Second Sprint Early September through Late November (12 weeks)

The campaign will use a variety of data sources to target any home that meets our targeting criteria. Most channels will be in market year-round.

Channels may include:

- > Addressable TV
- > Advanced TV*
- > Digital Banners*
- > Digital Video/YouTube*
- > Streaming Radio
- > Native Advertising/Sponsored Content*
- > Email
- > Social Media*
- > Paid Search*

* Indicates channel planned to run even during off-sprint timeframes



Broadcast and Out-of-Home Geographies

First Sprint Mid-April through Mid-June (10 weeks)

Second Sprint Early September through Late November (12 weeks)

In addition to reaching all target homeowners with digital channels, NYS Clean Heat will focus higher-cost channels in regions with a high concentration of our target audience. Channels may include:

All identified regions:

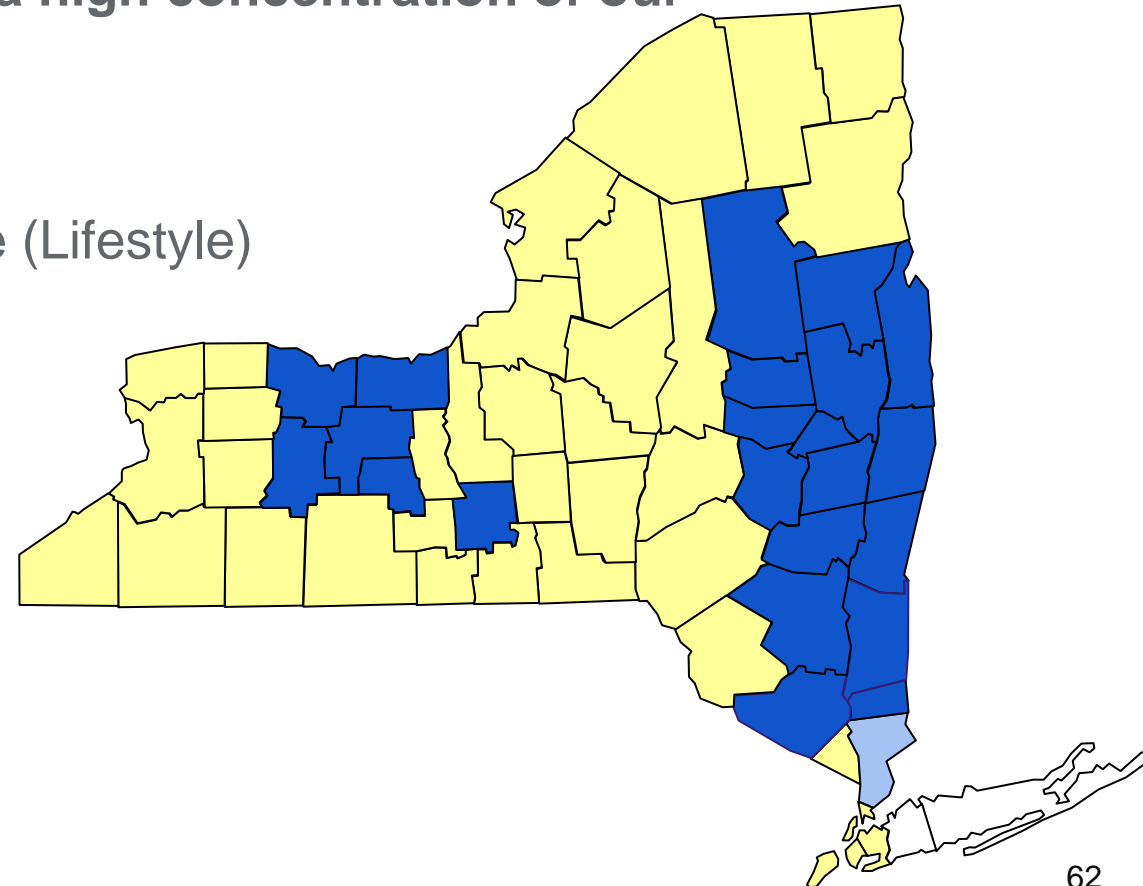
- > Cable TV – AM News, Prime Time, Weekend Daytime (Lifestyle)
- > Terrestrial Radio – :30 second spots (6 weeks)

Albany region:

- > Local News/Broadcast TV – Albany (4 weeks)
Access

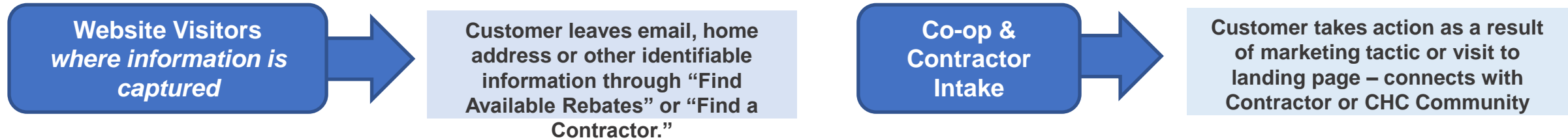
Future:

- > Out of Home (back half of 2021)



Lead Definition & Tracking

Leads coming from the statewide awareness campaign, will take two forms:



Expected volume of leads will be high.

- > In Westchester County this Fall there were approximately 100 leads per week generated through the website.

Collectively, we are responsible for documenting our impact through every stage of the decision-making process

- > For larger purchases and home improvement projects, the customer's decision-making process can take anywhere from a few months to a few years
- > We will use the data we collect to connect exposure to the awareness campaign and installations; this will require data sharing across all entities
- > Potential data sources for reporting include:
 - NYS Clean Heat website
 - Google trends
 - NYS Clean Heat contractor websites and co-op reporting
 - Implementation vendor

Creative Samples

WARMER.

COOLER.

EASIER.

SMARTER.

Get a cold-climate heat pump and never worry about fuel deliveries again.


[Learn More](#)

 **NEW YORK**
STATE OF OPPORTUNITY | **NYS Clean Heat**

Digital Ads

**GOODBYE,
FOSSIL FUELS.
HELLO,
CLEANER
COMFORT.**

Get a **Heat Pump** for Clean Comfort

 **NEW YORK**
STATE OF OPPORTUNITY | **NYS Clean Heat**

Heat pumps are a **WARMER, COOLER, HEALTHIER, CLEANER** and **better** way to heat and cool your home.


Using oil, propane, or electric baseboard to keep your home comfortable?
Heat pumps are the better, more efficient option.

Heat Pump Features:

- **Warmer.** Heat pumps provide warmth more efficiently than conventional oil, propane, or electric resistance heating systems.
- **Cooler.** Heat pumps offer two-in-one convenience by also cooling your home when summer temperatures climb.
- **Comfier and cozier.** Heat pumps provide quiet, even heating and cooling throughout your home and offer zoned climate control.
- **Easier.** Heat pumps require minimal maintenance and eliminate the need for fuel deliveries.
- **Cleaner, healthier, and safer.** There is no combustion of fossil fuels, fuel storage, or carbon monoxide emissions associated with heat pumps.


New York State is partnering with your electric utility to make heat pumps more affordable. With rebates, incentives, and low-interest financing options, it's never been easier to improve your home.

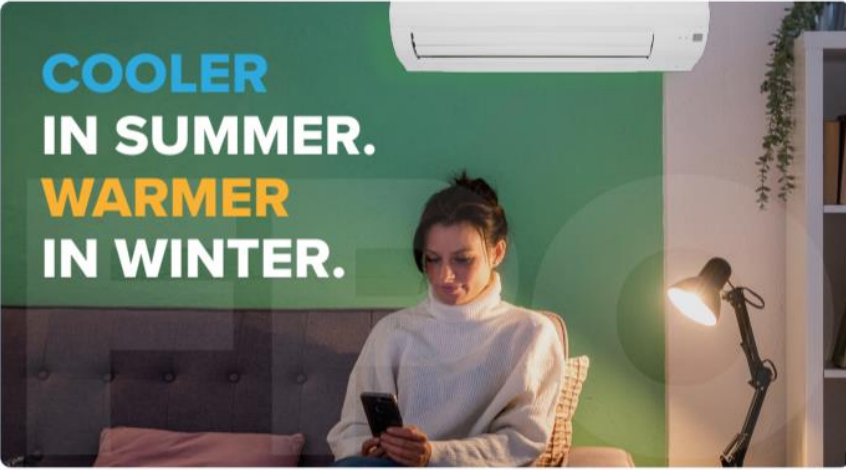
[Find Savings](#)

 **NEW YORK**
STATE OF OPPORTUNITY | **NYS Clean Heat**

Email

Creative Samples

 **NYSERDA**
@NYSERDA · Government Organization




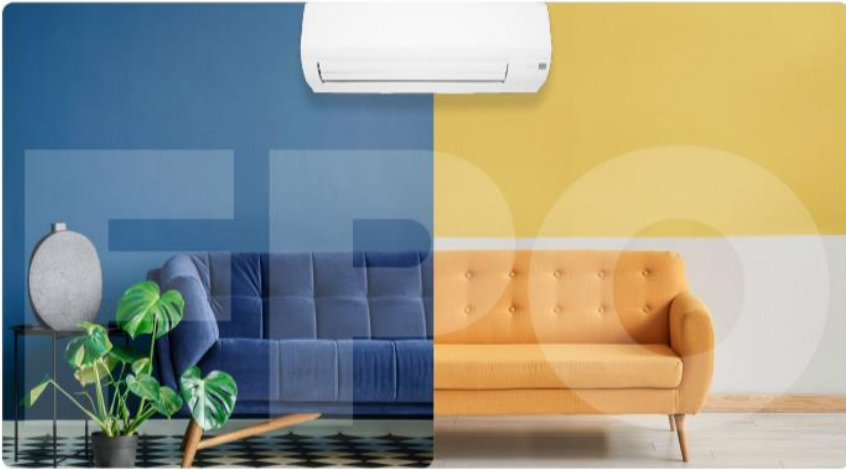
**COOLER
IN SUMMER.
WARMER
IN WINTER.**

Two-in-One System. Year-Round Comfort.

Cold-climate heat pumps deliver a one-two punch of coziness and convenience: one system that keeps you warmer in winter, cooler in summer, and comfier all year round.

[LEARN MORE](#)

 **NYSERDA**
@NYSERDA · Government Organization

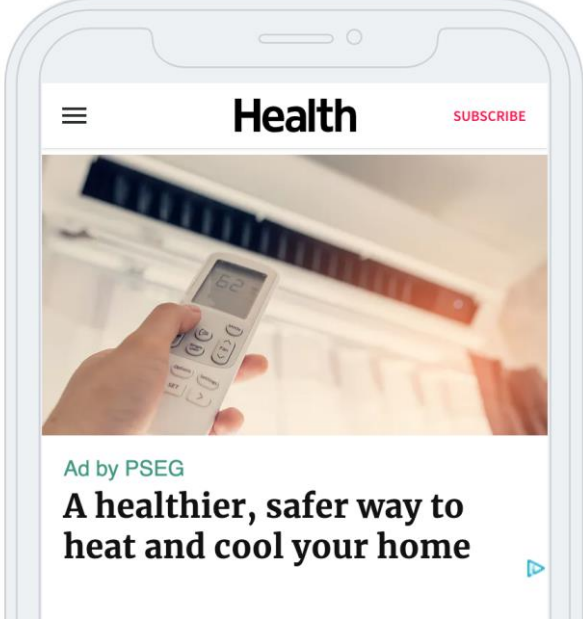


Take Control of Your Comfort

A heat pump with zoned climate control lets you keep different areas of the house at different temperatures. Learn how replacing your old furnace or boiler with a cold-climate heat pump makes for a comfier and happier home.

[LEARN MORE](#)

Social Media



Health SUBSCRIBE

Ad by PSEG

A healthier, safer way to heat and cool your home

Sponsored Content/Native Ads

New Broadcast spots are in development

Landing Environment cleanheat.ny.gov

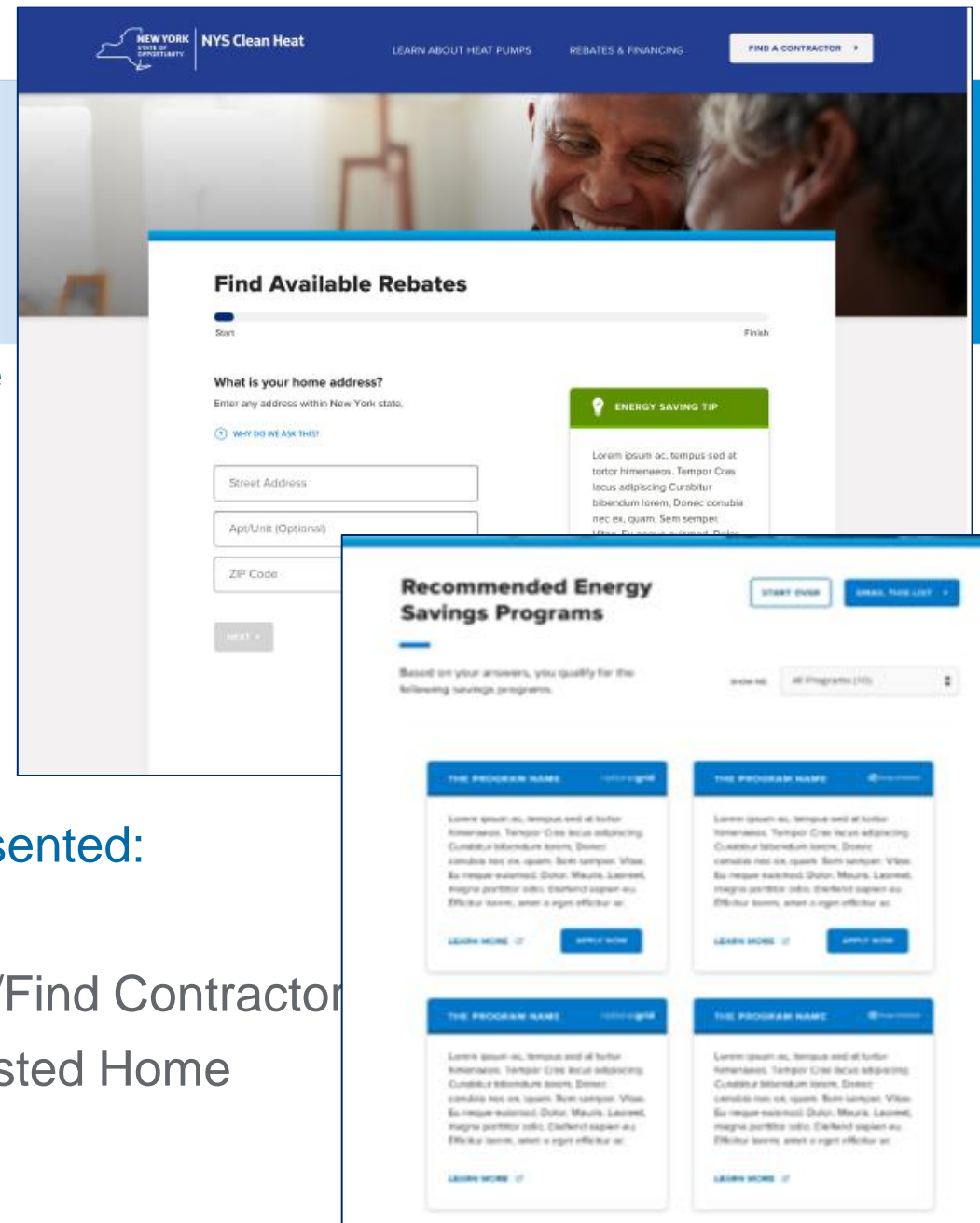
Available Rebates

User answers a few simple questions to pair them with the appropriate utility and/or NYSERDA programs:

- > Address
- > Home Type (single-family, condo)
- > Home Age
- > Recent Insulation (Y/N)

Based on user inputs a list of available options will be presented:

- > Clean Heating and Cooling Community - Connect
- > Utility Programs (ASHP, GSHP, HPWH) – Learn More/Find Contractor
- > NYSERDA Programs (Comfort Home, EmPower, Assisted Home Performance) – Learn More/Find Contractor



Find a Contractor

- > User will be asked to provide their address (required)
- > User may also select the type(s) of contractor they are looking for (optional)

Based on their input they'll be delivered a list of qualified contractors that service their area.

- > Users will have the option of having the list emailed to them
- > List can be filtered by type of service, contractor name, locations
- > If the user resides in a CH&C community campaign, the campaign will show up as the first search result
- > Contractor display order will be randomized
- > All links and click-to-call taps will be tracked

The screenshot displays the 'NYS Clean Heat' website interface. At the top, there is a navigation bar with the NYS logo, the text 'NYS Clean Heat', and links for 'LEARN ABOUT HEAT PUMPS', 'REBATES & FINANCING', and 'FIND A CONTRACTOR'. Below the navigation bar is a hero image of a smiling couple. The main content area is titled 'Contractor Results' and includes buttons for 'START OVER' and 'EMAIL THIS LIST'. A message states, 'Here's a list of contractors near you.' Below this, there are filters for 'CONTRACTOR TYPE' (set to 'All') and 'FILTER BY CONTRACTOR NAME' (with a search input). The search results show two contractor cards for 'SMITH CONTRACTING CO, LLC'. Each card displays the contractor's name, contact information (phone, email, website), and a list of services provided. An email opt-in modal is overlaid on the results, titled 'Send Savings Options by Email', with a text input for 'Email Address' and a 'SEND EMAIL' button.

Heat Pump Planner

What is the Heat Pump Planner?

- > Meant for consumer who is evaluating alternatives
 - knows about heat pumps and wants to know about option details before buying – “test drive”
- > Pdf and website version for heat pump customers:
 - Educate customers on basics of residential heat pump options
 - Guide to pros/cons of heat pump options for decisions
 - Give homeowners a picture of what it would look like
 - Explain benefits of heat pumps
 - Give a sense of what decisions affect cost



Introduction to Heat Pumps



One-Story Home

Ductless Heat Pump for a One-Story Home



Ducted Heat Pump for a One-Story Home



Multi-zone Heat Pump for a One-Story Home



Ground Source Heat Pump for a One-Story Home



Two-Story Home

Ductless Heat Pumps for a Two-Story Home



Ducted Heat Pumps for a Two-Story Home



Multi-zone Heat Pump for a Two-Story Home



Ground Source Heat Pump for a Two-Story Home



Manufactured or Mobile Home

Ductless Heat Pump for a Manufactured or Mobile Home



Ducted Heat Pump for a Manufactured or Mobile Home



Apartment

Ductless Heat Pump in an Apartment



Townhome

Multi-zone Heat Pump for a Townhome



NYSERDA

Using the Heat Pump Planner



What kind of home do you have?

The guide shows a variety of systems in several types of homes.

Do you have forced-air heating?

If your home currently has ducts for heating or cooling, these can often be reused for ducted heat pump systems.

No ducts? No problem.

There are many ductless options for heat pumps.

Whole home solution? Heat pumps can efficiently heat and cool entire homes all across the state, but they can also be installed in additions or spaces with comfort problems.

Know the right questions to ask.

Each system includes key questions for your heat pump installer. Work with installers to review options for your home type, price point, and other goals.

Insulate the home. Adding insulation and sealing air leaks will improve comfort, lower heating and cooling bills, and reduce the size (and cost) of the heat pumps needed. See resources for making your home more efficient at www.nyserda.ny.gov/Residents-and-Homeowners/Seal-and-Insulate-Your-Home.

Understand costs, financing, and incentives. Heating with heat pumps is less costly than with oil, propane, or electric baseboards. Check with NYSERDA or your electric company for incentives and financing options.



NYS Clean Heat

Ductless Heat Pumps for a Two-Story Home

Heat Pumps use electricity to provide heating and cooling.

- **New technology** reliably heats homes all winter across New York State
- **Healthier and safer** with no fuels, no carbon monoxide and no window air conditioners
- **One system** for efficient heating and cooling
- **Rebates** for installation and **lower heating costs** for many consumers
- **Green** with low greenhouse gas emissions
- For **new or existing** homes



Ductless Heat Pumps

key considerations

Features

- Among simplest and least expensive to install for new or existing homes
- Control temperature in individual spaces
- Quiet and efficient operation
- Eliminate noisy and cumbersome window air conditioners
- Typical lifespan of 15 years

Types of Ductless Heads

Many options for indoor fan coils or "heads" are available. For optimal comfort and efficiency, each head should be sized to meet specific heating and cooling needs. Your heat pump installer can suggest the best options based on those needs plus size and configuration of the space.



Ask Your Installer

- What size units do I need? **Ask for room-by-room heating and cooling calculations.**
- Can heat pumps provide all of my heat or do I need backup?
- What is the best location for each head? Can we avoid heads directly above where people sit or sleep?
- What are my options for locating each outdoor unit?
- How long will installation take? Where and when will you need access?
- How do I operate my system for the best comfort and efficiency?
- What maintenance is required? How often should I clean or change air filters? Is annual service needed?
- What is the expected lifespan and warranty?

Cost Considerations

Installation Cost

- Check with NYSERDA or your electric company for incentives and financing options. Increased incentives may be available for eligible customers
- Ductless heat pumps are among the simplest and least expensive to install
- Cost varies with region, heat pump size, manufacturer, installation complexity, and installer experience

Operating Cost

- Your overall heating costs will likely decrease if switching from oil, propane or electric baseboard
- If you previously heated with fuel, don't be surprised to see electric bills rise. Your fuel bills will drop or disappear
- As New York moves away from fossil fuels, electric heat pumps are expected to provide additional savings

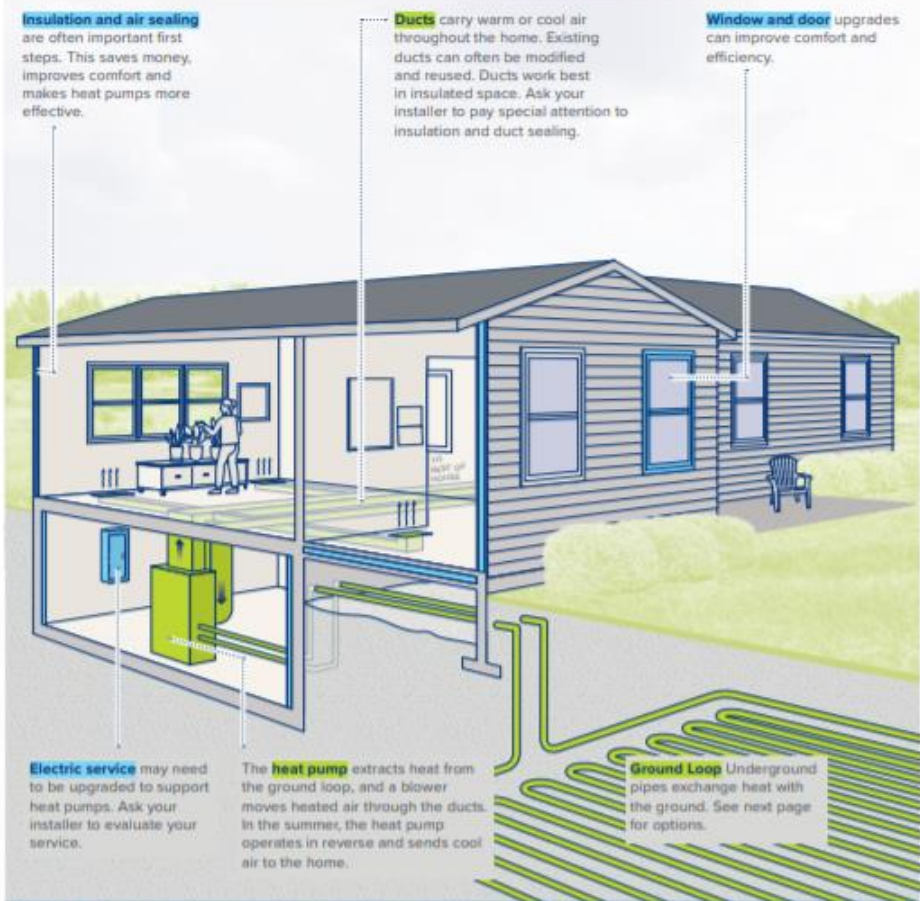
SPACE FOR CONTRACTOR INFO



Ground Source Heat Pump for a One-Story Home

Heat Pumps use electricity to provide heating and cooling.

- Ground source or "Geothermal" systems can heat homes all winter across New York State
- **Healthier and safer** with no fuels, no carbon monoxide and no window air conditioners
- **One system** for efficient heating and cooling
- **Rebates** for installation and **lower heating costs** for many consumers
- **Green** with low greenhouse gas emissions
- For **new or existing** homes



HEAT PUMP PLANNER

[MORE ABOUT GROUND SOURCE HEAT PUMPS >](#)

Ground Source Heat Pumps

key considerations

Features

- Highest efficiency with lowest operating costs
- Quiet with no outdoor condensers or window air conditioners
- Heating and cooling distributed throughout the home with new or existing ducts
- May supplement water heating
- Typical lifespan of 25 years

Ground Loop Types

Underground pipes exchange heat between the heat pump and the ground. Your installer will determine the proper type and size of ground loop based on:

- Land area available
- Type of rock or soil
- Heating and cooling needs of the home

There are two main types of loops:



Ask Your Installer

- Will proper heating and cooling get to each space? **Ask for room-by-room heating and cooling calculations.**
- Are my ducts big enough for a heat pump? What modifications are needed?
- How long will installation take? Where and when will you need access?
- Who is responsible for landscaping after the ground loop is installed?
- How do I operate my system for the best comfort and efficiency?
- What maintenance is required? How often should I clean or change air filters? Is annual service needed?
- What is the expected lifespan and warranty?

SPACE FOR CONTRACTOR INFO

Cost Considerations

Installation Cost

- Check with NYSERDA or your electric company for incentives and financing options. Increased incentives may be available for eligible customers
- While ground source heat pumps are the most efficient, they are also more expensive to install
- Cost varies with region, installation complexity, installer experience, system size and manufacturer

Operating Cost

- Your overall heating costs will likely decrease if switching from oil, propane or electric baseboard
- If you previously heated with fuel, don't be surprised to see electric bills rise. Your fuel bills will drop or disappear
- As New York moves away from fossil fuels, electric heat pumps are expected to provide additional savings



This document is part of NYSERDA's *Heat Pump Planner*. Learn more at:

nyserdera.ny.gov/heat-pumps

Discussion

- > How are you providing education and raising awareness about heat pumps through your work?
- > What can we do to better equip you to do that?

Closing Remarks

operate non profit quality
comfort consultant Together ideas
Homes research Development
Community Sustainability technical united
policy Resiliency implementation smart home scale
skilled Heat Pumps Carbon Neutral Insulation sharing
home outreach real estate Electrification credentials Business HVAC
trades lighting Contractors energy efficiency professional provider Jobs
utility financing distributors technical assistance achievement equality smart
Residents New York State business development public benefit ratings DHEW
future maintenance Residential Market Airsealing educate
Education working group mission service manufacturers standards CI
Houses listening communities Advisory Group Collaborate construct vision
goals maintain appliances next generation awareness targets
health automated consumer protection clean energy improve
clean Advisory cost savings decarbonization carbon free Workforce
Economy Residential electrification opportunity software
Energy government climate action diagnostic Climate
renovation market support benchmark safety
design diversity Weatherization feedback value
forum finances Environment upgrades
workshop geothermal Experts
audits Leadership
codes builders retail

Looking for Champions for:

- > Develop large-scale pilot idea demonstrating stacked energy efficiency (e.g. weatherization + heat pump + solar), electrification, and renewable generation projects in collaboration with industry partners.
- > Workforce development discussions

Interested? Let us know in the chat box now, or email resmarket@nyserda.ny.gov

Upcoming Engagement Opportunities

- > Contractor Working Group, monthly
- > Webinar featuring updates from RMAG members, Q2

To participate, email resmarket@nyserda.ny.gov

Upcoming Events

- > Heat Pump Planner Webinar, TBA
- > 2021 National Home Performance Conference, virtual
 - April 12-16, 2021
 - www.building-performance.org
- > Next RMAG Meeting will be in Q2 2021

Thank you!

