Residential Market Advisory Group

Q1 2021 Meeting

March 10, 2021
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

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Webinar Guidelines
Webinar Guidelines

Webinar Issues? Contact: ctamayo@kearnswest.com
Who’s Here

- Contractor
- CBO
- Implementation
- Software/Tech Solutions
- Trade Association
- Manufacturer
- Consultant
- Municipality
- Research
- Utility
- Distributor
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

- Normalize Heat Pumps
- Ramping Up to Meet Our Goals
- The New Normal

- 8. Ally Network
- 6. Connect on Policy Goals
- 4. Research of Network-Building Successes
Energy Efficiency & Housing Advisory Panel:
Preliminary Policy Considerations

Emily Dean, Director of Market Development
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

**CONVENE GROUPS**
Convene Advisory Panels and Just Transition Working Group

**DRAFT THE PLAN**
Draft the Scoping Plan, develop and consider Advisory Panel and Just Transition Working Group recommendations, stakeholder input, consult Climate Justice and Environmental Justice groups

**ISSUE DRAFT PLAN**
Issue Draft Scoping Plan

**HOLD PUBLIC HEARINGS**
on Draft Scoping Plan

**DELIVER FINAL PLAN**
Approve and adopt Final Scoping Plan, deliver to Governor and Legislature

**2020**
- Working Group
  - Convene Climate Justice Working Group (DEC)

**2021**
- Rule Making & Guidance
  - Emission Limit Rulemaking & Value of Carbon Guidance (DEC, NYSERDA)

**2022**
- Working Group
  - Disadvantaged Communities Criteria (Climate Justice Working Group)
- Report
  - Annual GHG Emissions (DEC)

**2023**
- Program
  - Community Air Monitoring Program (DEC)
- Report
  - Annual GHG Emissions (DEC)

**2024**
- Report
  - Annual GHG Emissions (DEC)
- Regulations based on Scoping Plan (DEC)

**Programs**
- Renewable Energy Programs Established (PSC, NYSERDA)
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

<table>
<thead>
<tr>
<th>Energy Efficiency and Conservation</th>
<th>Building Electrification and Low Carbon Fuels</th>
<th>Decarbonizing Electricity Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Efficient building shell and weatherization measures</td>
<td>• Beneficial electrification of space heating, hot water heating, and appliances</td>
<td>• Site-based solar PV</td>
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<tr>
<td>• Behavioral conservation, operations and maintenance</td>
<td>• Cross-panel work on Bioenergy</td>
<td>• Flexible building loads</td>
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<td>• Cross-panel work with Power Generation Advisory Panel</td>
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</table>

• Codes and standards to reduce GHG emissions

Cross-cutting consideration of embodied carbon and climate adaptation and resilience
Introductions: Energy Efficiency and Housing Advisory Panel Members

RuthAnne Visnaukas, 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
### 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**

<table>
<thead>
<tr>
<th>Component</th>
<th>Timeframe</th>
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<tr>
<td>Very efficient State Energy Code, as soon as possible</td>
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<tr>
<td>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)</td>
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<tr>
<td>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)</td>
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<tr>
<td>Ban on gas replacements (at end of useful life) for cooking and dryers (potentially starting in ~10 years) for single family and multifamily</td>
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<tr>
<td>Third-party energy code inspectors and funding for local code enforcement (staff, training, supplies)</td>
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<tr>
<td>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</td>
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*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

<table>
<thead>
<tr>
<th>Strategy and Components Under Consideration: Require measuring energy usage and making that information accessible – and to inform later energy performance standards for commercial buildings*</th>
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<tbody>
<tr>
<td><strong>Energy benchmarking for MF, C&amp;I buildings larger than 10,000 sq. ft.</strong></td>
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<tr>
<td><strong>Energy usage data disclosure at point of sale and point-of-lease for SF, MF, C&amp;I buildings</strong></td>
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<tr>
<td><strong>Require lighting upgrades to current Energy Code standards and periodic energy audits for commercial buildings larger than 25,000 sq. ft.</strong></td>
</tr>
<tr>
<td><strong>Energy efficiency performance standard for MF and C&amp;I buildings larger than 25,000 sq. ft. (with credit for beneficial electrification), informed by statewide benchmarking data</strong></td>
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</table>

*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

<table>
<thead>
<tr>
<th>Strategy and Components Under Consideration</th>
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<tbody>
<tr>
<td>Apply a &quot;Clean Water Model&quot; to building decarbonization: e.g. enable public mandates coupled with access to low-cost capital</td>
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<tr>
<td>Provide greater access to financing products (e.g. NYS, other entities) for capital for upgrades (e.g. for low-income households, DACs, renters)</td>
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<tr>
<td>Expand the use of performance contracting to achieve goals for State, municipal, and K-12 school building upgrades</td>
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<tr>
<td>Support underwriting to energy cost savings</td>
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</table>
Incentives to lower the cost of energy efficiency, electrification, and related improvements in buildings
Strategy and components under consideration

<table>
<thead>
<tr>
<th>Strategy and Components Under Consideration: Provide incentives for SF/MF/C&amp;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</th>
</tr>
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<tr>
<td><strong>Direct cash incentives for energy efficiency and electrification, with priority on LMI households and DACs</strong></td>
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<tr>
<td><strong>Create a &quot;Retrofit and Electrification Readiness Program&quot; 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</strong></td>
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<tr>
<td><strong>Direct cash incentives for electrical service upgrades and in-building wiring and equipment</strong></td>
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<tr>
<td><strong>Support demonstration projects and R&amp;D for reducing embodied carbon in buildings, low global warming potential refrigerants, grid-interactive buildings, and all-electric or electrification-ready buildings</strong></td>
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## 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**

<table>
<thead>
<tr>
<th>Action</th>
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<tr>
<td>Stop utilities advertising gas as &quot;clean&quot; or “climate friendly” and phase-out incentives/rebates for gas equipment</td>
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<tr>
<td>Eliminate the &quot;100-foot rule&quot; 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</td>
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<tr>
<td>Adopt CLCPA-aligned depreciation rates for utility investments in gas infrastructure to minimize long-term rate impacts</td>
</tr>
<tr>
<td>Develop legal steps to allow access for thermal/ground source loops to utility and public rights of way</td>
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<tr>
<td>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</td>
</tr>
<tr>
<td>Create transition plan for the gas industry workforce, including protections and job transition opportunities</td>
</tr>
<tr>
<td>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</td>
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</table>
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](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.
www.nyserda.ny.gov/Partners-and-Investors/Partner-With-NYSERDA/Residential-Market-Advisory-Group
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@nyserda.ny.gov
Clean Energy
Workforce Development and Training
PON 3982
On-the-Job Training for Energy Efficiency and Clean Technology
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

Funding is capped at $150,000 per business for traditional workers. No maximum cap for hiring members of disadvantaged communities / priority populations.

<table>
<thead>
<tr>
<th>Position Type</th>
<th>Business Classification</th>
<th>Business Size</th>
<th>Reimbursement Rate</th>
<th>Reimbursement Period</th>
<th>Non-Disadvantaged Community/Priority Population Worker</th>
<th>Disadvantaged Community/Priority Population Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Clean Energy</td>
<td>Business not registered as MBE/WBE/SDVOB</td>
<td>2 – 100 employees</td>
<td>50%</td>
<td>16 Weeks</td>
<td>24 Weeks</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>101 or more employees</td>
<td>50%</td>
<td>Not Eligible</td>
<td>24 Weeks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business registered as MBE/WBE/SDVOB</td>
<td>2 or more employees</td>
<td>75%</td>
<td>16 Weeks</td>
<td>24 Weeks</td>
<td></td>
</tr>
<tr>
<td>Solar Electric</td>
<td>Business not registered as MBE/WBE/SDVOB</td>
<td>2 or more employees</td>
<td>50%</td>
<td>Not Eligible</td>
<td>24 Weeks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business registered as MBE/WBE/SDVOB</td>
<td>2 or more employees</td>
<td>75%</td>
<td>16 Weeks</td>
<td>24 Weeks</td>
<td></td>
</tr>
<tr>
<td>Heat Pumps</td>
<td>Any business classification</td>
<td>2 or more employees</td>
<td>75%</td>
<td>16 Weeks</td>
<td>24 Weeks</td>
<td></td>
</tr>
</tbody>
</table>
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
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)
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
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 on NYSERDA Workforce Development and Training Funding Opportunities
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
- CLEAResult – Online trainings

NYSERDA is currently 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

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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
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
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.

Reach All Homeowners Who Meet our Targeting Criteria Via “Digital” Media

Increase Reach and Frequency with Broadcast & OOH in Areas with High Concentrations of Target Homeowners

Target Customers with Offers Related to Energy Use and Equipment

Coordinated with NYSERDA’s CHC Community Campaigns and Co-op Advertising (Mfgs, Distributors, Installers)
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
The campaign will 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.
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)
Leads coming from the statewide awareness campaign, will take two forms:

- **Website Visitors** (where information is captured)
- **Customer leaves email, home address or other identifiable information through “Find Available Rebates” or “Find a Contractor.”**
- **Co-op & Contractor Intake**
- **Customer takes action as a result of marketing tactic or visit to landing page – connects with Contractor or CHC Community**

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

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

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

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
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
<table>
<thead>
<tr>
<th>Category</th>
<th>Heat Pump Type</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction to Heat Pumps</strong></td>
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<td></td>
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<tr>
<td><strong>One-Story Home</strong></td>
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<tr>
<td>Ductless Heat Pump for a One-Story Home</td>
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<td>Ducted Heat Pump for a One-Story Home</td>
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<tr>
<td>Multi-zone Heat Pump for a One-Story Home</td>
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<tr>
<td>Ground Source Heat Pump for a One-Story Home</td>
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<td><strong>Two-Story Home</strong></td>
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<tr>
<td>Ductless Heat Pumps for a Two-Story Home</td>
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<tr>
<td>Ground Source Heat Pump for a Two-Story Home</td>
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<tr>
<td><strong>Manufactured or Mobile Home</strong></td>
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<tr>
<td>Ductless Heat Pump for a Manufactured or Mobile Home</td>
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<tr>
<td>Ducted Heat Pump for a Manufactured or Mobile Home</td>
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<tr>
<td><strong>Apartment</strong></td>
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<tr>
<td>Ductless Heat Pump in an Apartment</td>
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<tr>
<td><strong>Townhome</strong></td>
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<tr>
<td>Multi-zone Heat Pump for a Townhome</td>
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</table>
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.


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.
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

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

- Key considerations

1. Low-wall or floor-mounted units may be installed where radiators once were. Do not block them with furniture.
2. High-wall units are the most common and versatile.
3. Recessed units can be flush with ceilings or walls. Ask your installer about installation and maintenance.

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 an filter? 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.

This document is part of NYSERDA’s Guide to Heat Pumps series. Learn more at:

nysrda.gov/guideductheatpumps
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.

Insulation and air sealing are often important first steps. This saves energy, improves comfort and makes heat pumps more effective.

Ducts can bring warm or cool air throughout the home. Existing ducts can often be modified and reused. Ducts work best in insulated spaces. Ask your installer to pay special attention to insulation and duct sealing.

Window and door upgrades can improve comfort and efficiency.

Ground Source Heat Pumps

Features

- Highest efficiency with lowest operating costs.
- Quiet with no outdoor compressors 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:

- Vertical wells are installed at feet deep.
- Horizontal fields have cost placed in a shallow trench but larger area.

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?

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.

SPACE FOR CONTRACTOR INFO

This document is part of NYSERDA’s Heat Pump Planner. Learn more at: nyserda.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?
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](http://www.building-performance.org)

>Next RMAG Meeting will be in Q2 2021
Thank you!