

Residential Market Advisory Group

Q1 2022 Meeting

March 23, 2022



NYSERDA

Welcoming Thoughts

Laura Geel

Program Manager, Operations and Market
Development: Single-Family Residential

Today's Agenda

- > **Housekeeping and Ground Rules**
- > **Residential Market Advisory Group (RMAG) Overview**
- > **New York State Policy and Priority Updates**
- > **RMAG Activity and Priority Item Updates**
- > **Heat Pump Planner Update**
- > **Wrap Up**

Housekeeping and Meeting Rules



This meeting will be recorded



To participate please use the Chat and Q&A function on the right side of your screen



If you are having technical difficulties, please Send a direct chat to Collin Buchanan or reach out via email at cbuchanan@kearnswest.com



Notes will be taken, and a meeting summary will be published on the RMAG website.

Residential Market Advisory Group 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.

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.

NYS Policy and Priority Update

Courtney Moriarta



December 2021

NYS Climate Action Council released its draft scoping plan to fulfill the provisions of the state's Climate Act



CAC DRAFT Scoping Plan

(open for public comment through June 10)

- > 2024 – end fossil fuel use in single family homes and low rise apartments and stop connecting new gas customers
- > 2027 – ban on fossil fuel in new construction
- > 2030 – ban on replacement of fossil fuel equipment in existing homes
- > 2035 – retire fossil fuel equipment in large buildings (50,000 sqft and up)

Under all scenarios, the vast majority of current fossil fuel customers will transition to electricity by 2050

Full listing of public hearings and details:

<https://climate.ny.gov/CAC-Meetings-and-Materials>

Date	Time	Location
April 5	4:00 pm	Bronx Community College
April 6	4:00 pm	Brookhaven Town Hall
April 12	4:00 pm	Binghamton University
April 14	4:00 pm	Empire State Plaza
April 26	4:00 pm	SUNY College of Env. Science and Forestry (Syracuse)
April 27	3:30 pm	Buffalo & Erie County Public Library
May 3	4:00 pm	NYC College of Technology
May 7	10:00 am	VIRTUAL
May 10	4:00 pm	The Wild Center (Tupper Lake)
May 11	4:00 pm	VIRTUAL

January 2022

Governor Hochul “sends an unmistakable signal to the New York Market, the nation, and the world that the future of buildings must be decarbonized.”



2022 Policy Agenda

- > **2 Million Climate Friendly Homes by 2030**
 - 1 million electrified homes
 - 1 million electrification-ready homes
 - Targeting at least 800,000 LMI households
 - Collaboration among NYSERDA, HCR, DOS, DPS
 - Plan due EOY 2022
- > Increase the current rate of electrification of homes tenfold by the end of the decade
- > Zero emission new construction for all buildings by 2027
- > Upgrading NY's appliance efficiency standards
- > Level the playing field for clean energy alternatives vs. natural gas – ending the “100-foot rule”



Make New York a National Leader in Climate Action and Green Jobs

Accelerate the renewable energy economy, decarbonize New York's buildings, expand electric vehicle access and affordability and protect New York's environment.

Statewide Housing Plan

- > Prioritize access for all New Yorkers, recognizing the disproportionate impact of pollution on historically disadvantaged communities
 - Electrify low-income homes supported by the housing capital plan
 - \$25 Billion five-year housing plan, led by HCR
 - Create and preserve 100,000 affordable homes
 - \$250 Million set aside to directly support electrification
 - Future initiatives will include
 - All-electric, high-performance equipment for heating
 - High-performance, airtight building envelopes
 - Alternative energy sources, geothermal heat pumps, onsite solar panels, heat recovery ventilation, and other energy efficient best practices



Make Housing More Affordable, Equitable & Stable

Launch a comprehensive 5-year housing plan, promote housing affordability and address homelessness.

Policy Next Steps and Important Dates

- > State legislature Budget Bill due by March 31
- > CAC Draft Scoping Plan public hearings April/May
- > CAC Draft Scoping Plan public comment period ends June 10
- > 2 Million Homes inter-agency plan and budget request due Dec 31
- > CAC Final Scoping Plan due early 2023

NYS Policy and Priority Update: Discussion Questions

Which of these items is the most significant/exciting to you?

Which efforts supporting the latest New York State policies and goals would you like to see prioritized by the RMAG?

As you and your organization work to support achievement of announced plans and priorities, how can the RMAG best support you?

RMAG Activity and Priority Item Updates



COMPLETED

Energy Use
Benchmarking
discussions

Establishing an Ally
Network

Peer to Peer Group
Discussions



**WORK
IN PROGRESS**

Normalizing Heat Pumps

- Experiential Demonstrations
- Customer Testimonials
- Community Meetings
- Stacked Efficiency and Electrification Working Group

Ramping Up to Meet Our Goals

- Partnering with Community Organizations
- Post Installation Data
- Lower-Touch Engagement
- Common Language
- Workforce development forum
- Inventory of Public Information on Energy Efficiency for LMI Community
- Further Customer Engagement Discussion Groups

Quality Assurance Root Cause Analysis Expert Panel

Not Yet Started

> Standards of Interoperability

Have ideas? Want to participate?
Send a chat or email
resmarket@nyserda.ny.gov



Working Group: Stacked Efficiency and Electrification Pilot Framework

Working Group: Stacked Efficiency and Electrification Pilot Framework Updates

- **Group Purpose**: Scalable Approach to Projects that Combine Efficiency, Electrification, and Distributed Renewable Energy informed by representative NY stakeholders
- **Progress**: 5/8 Sessions Complete.
- **Recent Discussions**: Quantitative/Qualitative Metrics for Success, Consumer-Facing Communications
- **Next Steps**: Interested in scalable residential retrofits? Email TReddick@kearnswest.com to join.

Peer-to- Peer Groups

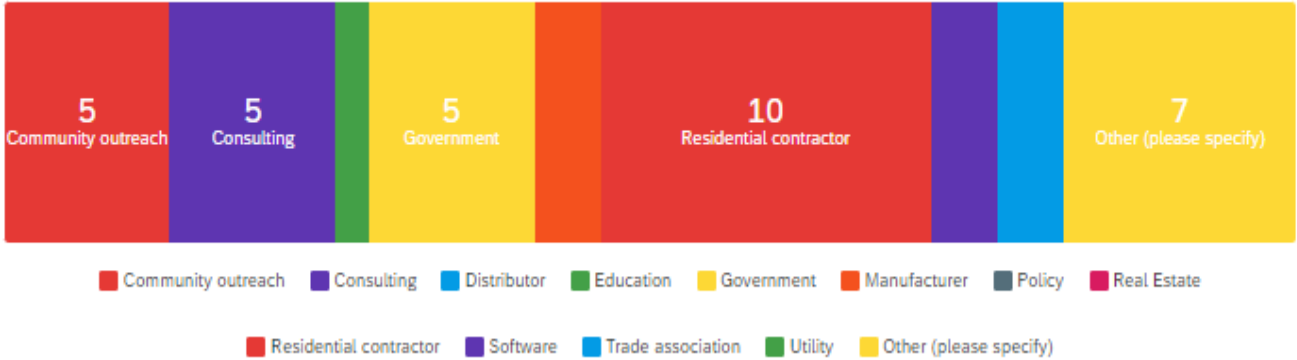
Peer-to-Peer Group Interest and Survey

- **RMAG Priority:** How do we adapt and grow in “the New Normal”?
- **Our Question:** What are people’s needs from a peer-to-peer group activity and what forum exists to host those discussions?
- **RMAG Survey:** 10 Questions Identifying Interest and Shared Understanding of Existing Forums by Market Participants

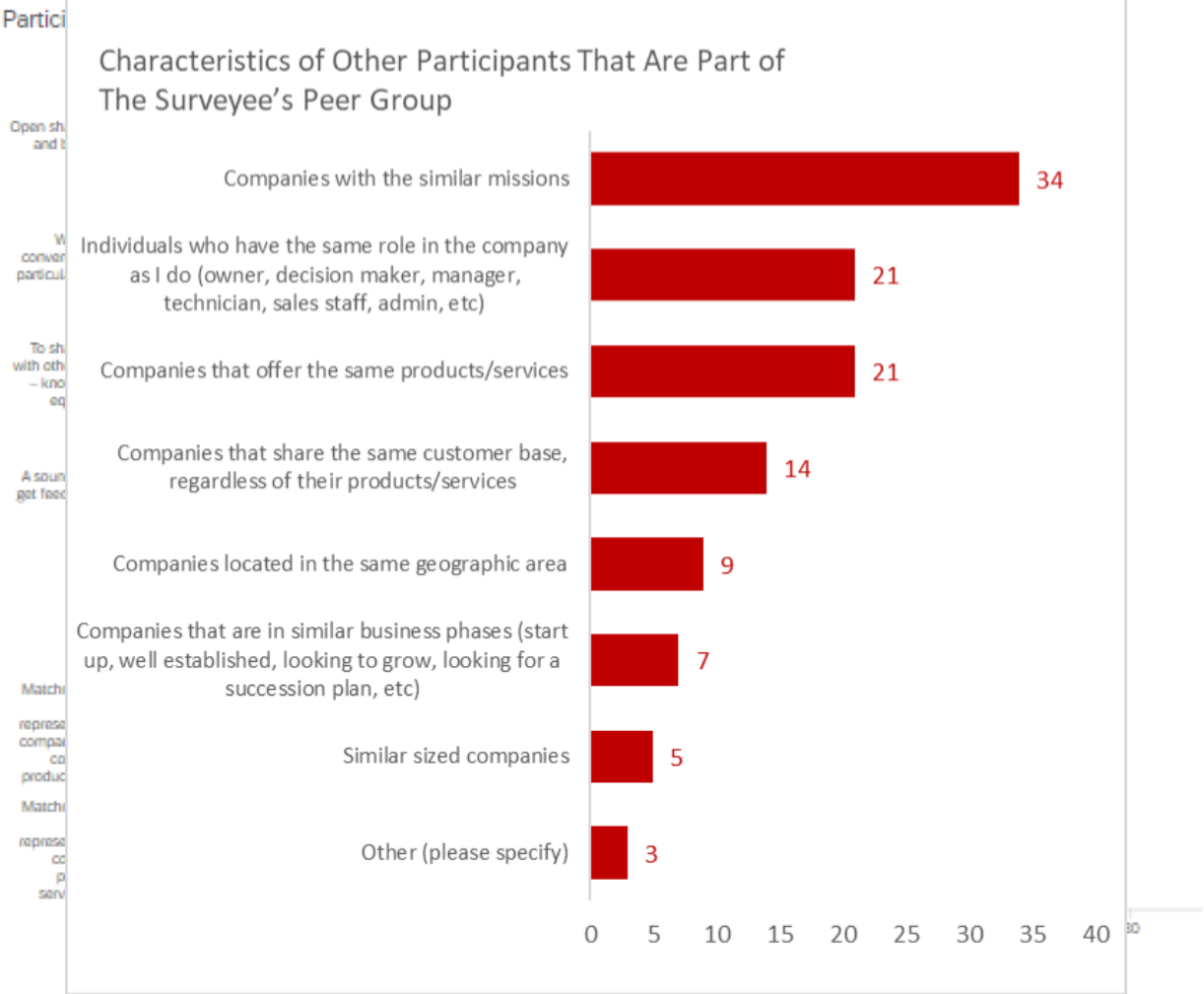
Peer-to-Peer Survey Results: Respondents

- > Respondents: 40
- > Representation: Market Participants from Across the Value Chain
 - Community Outreach
 - Consulting
 - Distributors
 - Government
 - Residential Contractors
 - Software
 - Trade Associations
 - Real Estate
 - And more...

Participant's Company Description



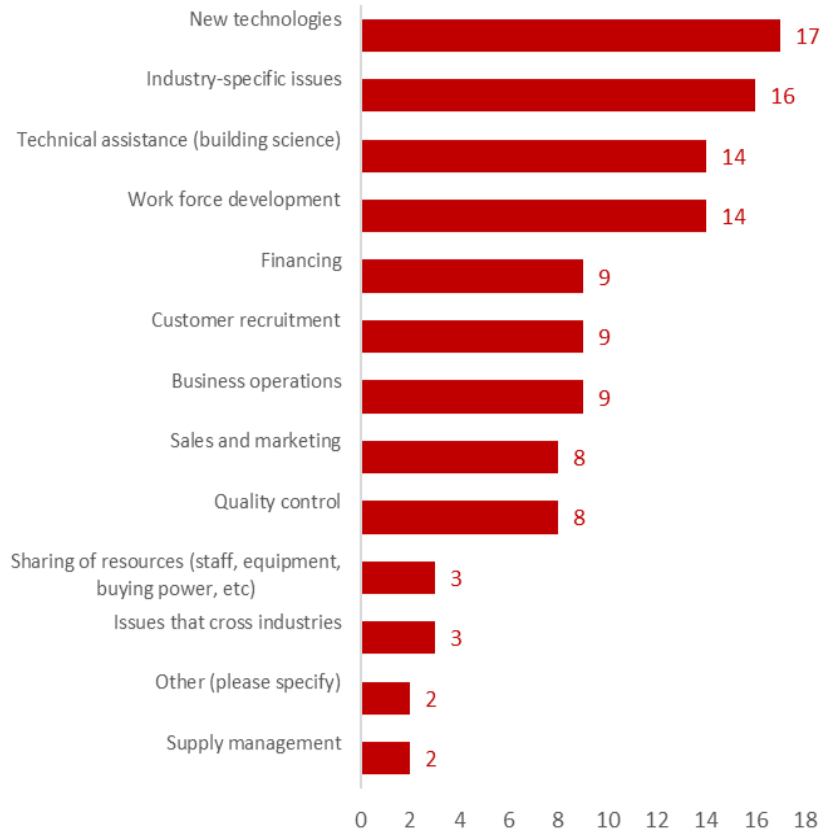
Peer-to-Peer Survey Results: Interests and Group Makeup



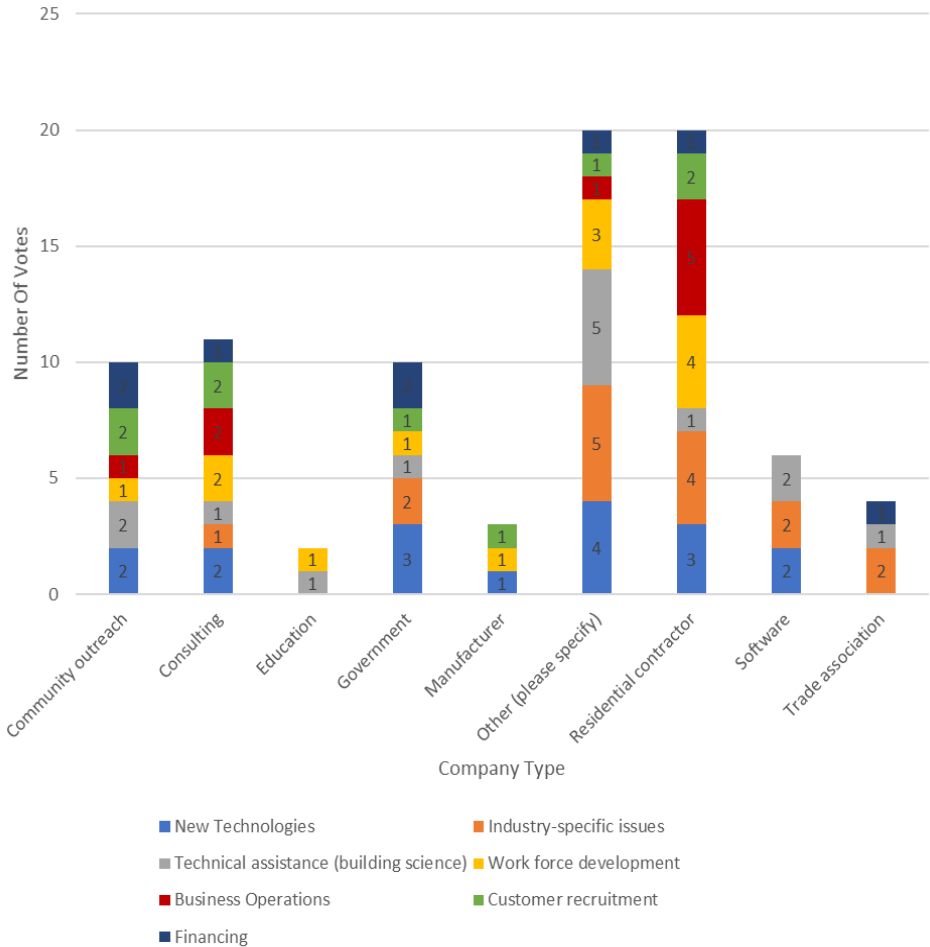
Do you participate in any Peer-to-Peer
Groups? *(Please Use the Chat function)*

Peer-to-Peer Survey Results: Topic Interests

Participant's Most Interested Topics to Include in Peer-To-Peer Group



Number of Votes For Each Topic Of Interest By Company Type



Peer-to-Peer Survey Results: Forums and Opportunities (BPCA)

Building Performance Contractors Association

Who We Are

- BPCA-NYS Inc. is a 501(c)(6) not for profit whole building performance contractor trade association.
- Many other types of professionals and companies are members.
- We're expanding to collaborate industry-wide to share information, problem solve, and gain deeper understanding and perspectives on public and industry needs.

Interested in Peer-to-Peer Groups?

- Guidelines and experience
- Frequency/format
- Email execdirector@bpca-nys.org

Existing Forums

1. **NY Energy Efficiency Policy Group**
2. **Workforce Development Group**
3. **Energy Advisors Peer Group (PENDING)**
 - a. Business Operations (including QC and supply management)
 - b. Customer/Consumer Issues/Sales/Marketing
 - c. Finance
 - d. Technology
 - e. Industry Issues and Resources
4. **Work Groups:** Ad hoc – Topics like Workforce, Advocacy and Issues.

Ex/ Joint NYSERDA group on the current spray foam crisis.

RMAG Peer Group Interests

Topics of interest to the RMAG that we regularly explore across industry professions include:

- > **“Industry-specific issues”**
- > **“Technical assistance (building science)”**
- > **“Hiring and retaining workers”**
- > **“Business operations”, “Customer recruitment”, and “Financing”.**

Peer-to-Peer Groups: Virtual Engagement Tips and Recommendations

- **Research, Research, Research!:** Review collaborative tools and the platform being used in advance of the discussion.
- **Be Present:** Limit your distractions and distractions for others, keep your camera on, communicate leaves of absence.
- **Formalize Roles:** If no one is taking notes or tracking Action Items, volunteer! Everyone has a role in a successful meeting.
- **Be Gracious:** Participating can be hard! Don't hog the floor, keep yourself on mute when not speaking, and make room for others. Use the chat to avoid crosstalk, and reference other's points.

Peer-to-Peer Groups: New Technologies Discussion

What are your most trusted sources of information for new technologies?

Do you share knowledge and experience with new technologies to your peer network? Formally or informally? How?

NYSERDA Heat Pump Planner

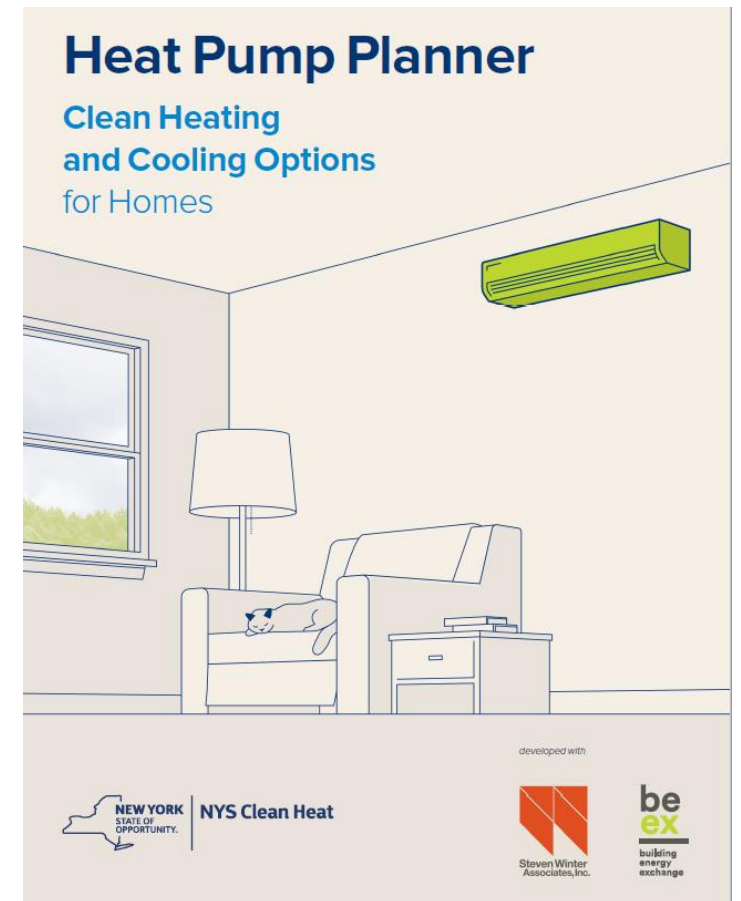
Michael Courtney
Project Manager
Single Family Residential, NYSERDA



NYSERDA

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 – think of it like “test driving” different car models
- > Pdf and website version (under development) for heat pump customers:
 - Educate customers on basics of residential heat pump options
 - Can reduce education time during sales visits
 - Guide to benefits of basic heat pump options fit to home types
 - Give homeowners a picture of what it would look like
 - Explain benefits of heat pumps
 - Give a sense of what decisions affect cost, no estimates



How was the Planner Developed?

- Consumer Interviews
- Contractor Interviews
- Subject Matter Experts



Planned Formats

PDF Online Version – completed

- Contractors:
 - Review tool at sales visits, home shows/events, or pre-sales visit mailings
 - Leave-behind handouts
 - NY Clean Heat Contractors – has space for logo
- Customers on NYSERDA Website
- Outreach Programs – CEEP, HeatSmart, etc

Web Version

- More creative, interactive version
- Plan basic site by Q2 2022
- Based on pdf content and illustrations,
- More photos, video, roll-overs,

Pattern Book Content

Consumers guided to 12 “plans” based on “choose your own adventure” format

Users Select:

- Housing Type
- Existing distribution system (existing ducts or not)
- (Web version) by an FAQ –
 - e.g., “How can I heat an addition?”
 - “I’m thinking of getting air conditioning...”

Each “Plan” is a stand-alone two-page (front/back)

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

The diagram illustrates a two-story house with various components of a ductless heat pump system highlighted. Callouts point to different parts of the house, including the roof, walls, windows, doors, and outdoor units. The components shown include insulation and air sealing, ductless heads, refrigerant lines, electric service, thermostats, outdoor units, and window and door upgrades.

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

Ductless heads blow heated or cooled air into a space. They operate very quietly. See next page for options.

Refrigerant lines are small insulated tubing that connect indoor and outdoor units. Coordinate placement and color with your installer.

Electric service may need to be upgraded to support heat pumps. Ask your installer to evaluate your service.

Thermostats Some thermostats can operate both heat pumps and other heating systems.

Outdoor units operate very quietly. They must be above snow, away from other obstructions, and shielded from excessive water or ice.

Window and door upgrades can improve comfort and efficiency.

GUIDE TO HEAT PUMPS SERIES MORE ABOUT DUCTLESS HEAT PUMPS >

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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




NYSERDA Heat Pump Planner Webpage

<https://www.nyserra.ny.gov/HeatPumpPlanner>

NYSERDA **Business & Industry** **Communities & Governments** **Residents & Homeowners** **Partners & Investors** **Researchers & Policymakers**

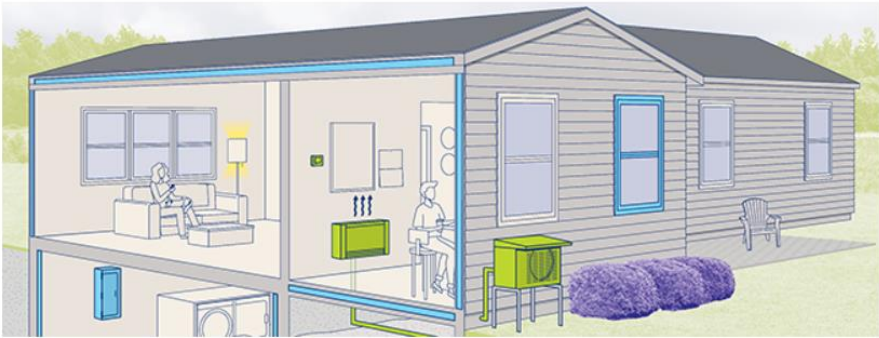
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[Heat Pump Program](#)

[Heat Pump Planner](#)

Heat Pump Planner



Need help determining the heat pump system that might be best for your home? Our Heat Pump Planner tool will help you learn more about heat pump technology, the types available, installation and operation costs, and questions to ask an installer.

You can download the full [Heat Pump Planner \[PDF\]](#) for more information about heat pumps and using the Planner, or discover the heat pump technology that might be the best for you by using the chart below.

- See the [introduction page \[PDF\]](#) for descriptions of the different types of heat pumps

Discover Heat Pump Options for Your Home

Discover Heat Pump Options for Your Home

Answer the questions below and then use the chart to review some of the options that may be the best fit for your home.

What kind of home do you have? There are a variety of systems available that work 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. Additionally, multi-zone systems can combine a variety of ducted or ductless indoor heating/cooling distribution systems from a single outdoor heat pump unit.

Home Type	Existing Ductwork	Ductless
Two Story	Ducted Air Source [PDF]	Ductless Air Source [PDF]
	Ground Source (Geothermal) [PDF]	Multi-zone Air Source [PDF]
	Multi-zone Air Source [PDF]	
Single Story	Ducted Air Source [PDF]	Ductless Air Source [PDF]
	Ground Source (Geothermal) [PDF]	Multi-zone Air Source [PDF]
Manufactured	Ducted Air Source [PDF]	Ductless Air Source [PDF]
Townhome		Multi-zone Air Source [PDF]
Flat (Within Townhome)		Ductless Air Source [PDF]

If you don't see an example you are looking for on the chart, try looking at a similar house type. For example, there is no townhome example with existing ductwork, but you could look at a two-story home with ductwork to see that option. You may want to review other home types to see different heat pump options and always work with an installation contractor to design the best system for your home.



NYSERDA

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

Why Heat Pumps?

Heat pumps are **safer** and more **efficient**, **sustainable**, and **versatile**. Why?

- Heat pumps cost less to operate than oil, propane, or electric baseboard heating systems.
- Heat pumps are a safer option compared to gas or liquid fuels. There is no chimney, gas line, oil tank, or burning of fuels and no risk of generating carbon monoxide.
- Heat pumps can provide all your heating and cooling needs. The same unit cools your house in the summer and provides heat in the winter.
- Heat pumps generate no greenhouse gas emissions when your electricity comes from clean sources. Heat pumps can also be powered by solar at your home.
- With current technology, heat pumps are efficient in all seasons and can provide most (if not ALL) of the heating needs in homes across New York State.

Consider Heat Pumps When:

- You want to save money compared to an oil, propane, or electric baseboard heating system
- You want to add air conditioning or replace an existing AC unit
- Your heating system is old and will soon need replacement
- You are planning a major renovation or building a new home
- You want to address comfort problems in certain areas of your home
- You need to provide heating and cooling to an addition
- You want to improve health and safety for your family
- You want to reduce your carbon footprint



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.

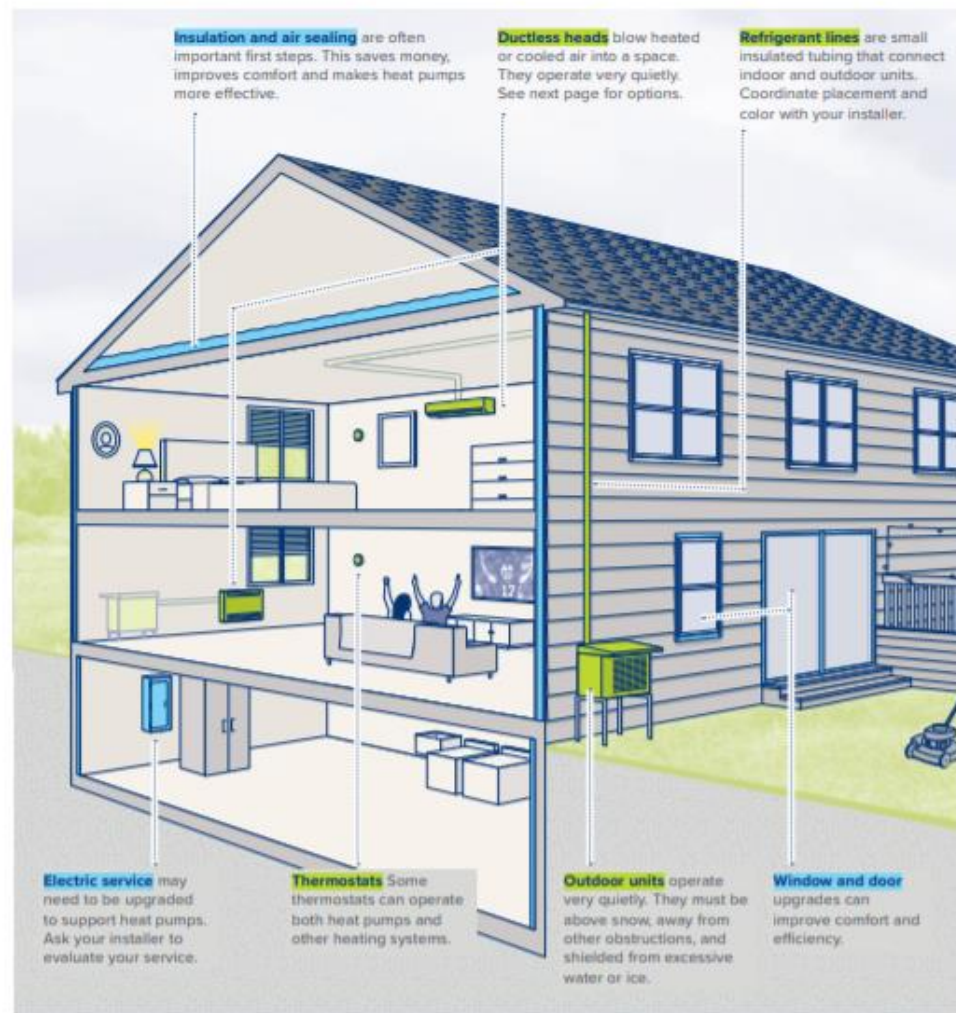


NYS Clean Heat

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.



1 Low-wall or floor mount 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 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

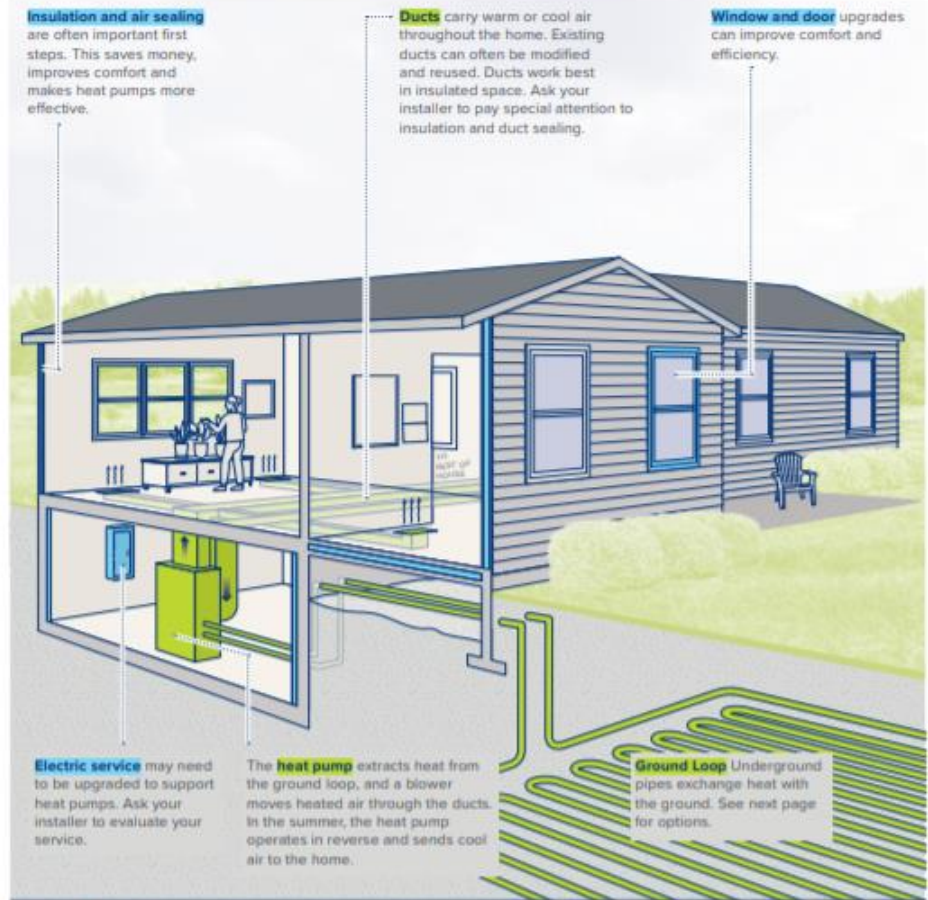
SPACE FOR CONTRACTOR INFO



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

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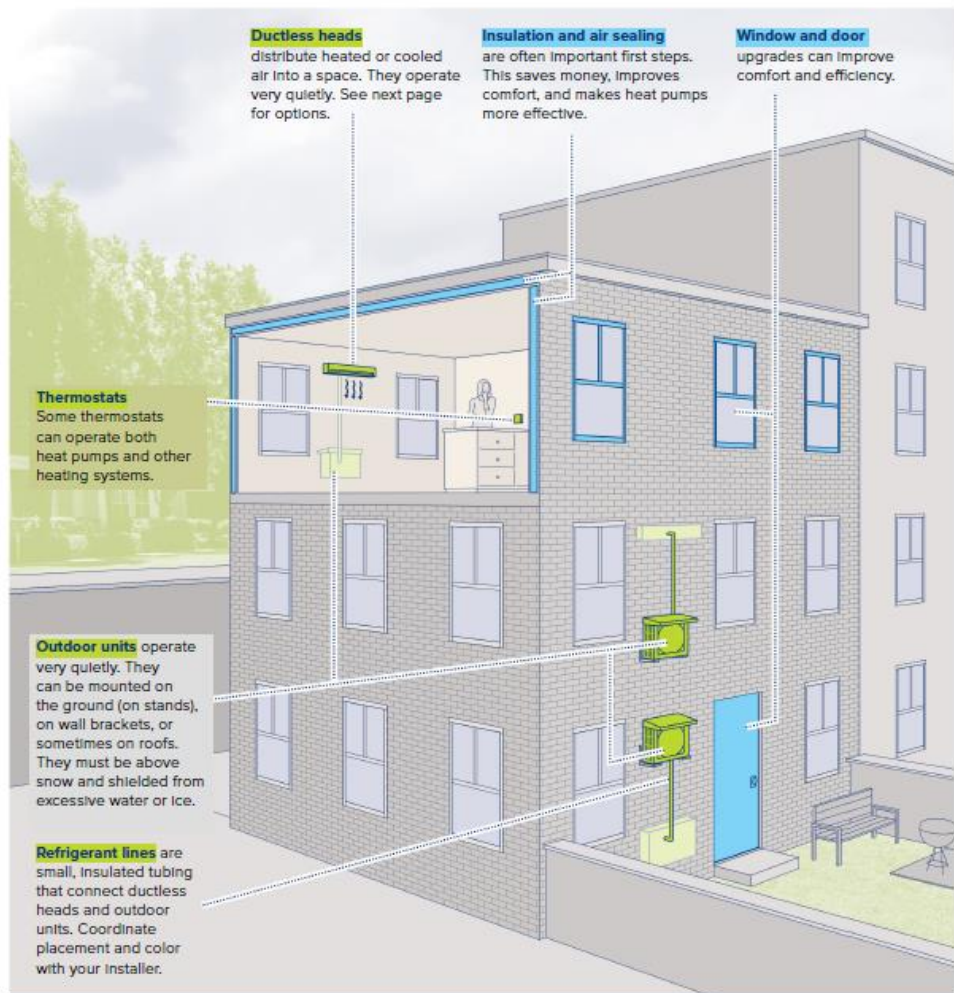
This document is part of NYSERDA's Heat Pump Planner. Learn more at:

nyserdera.ny.gov/heat-pumps

Ductless Heat Pump for an Apartment

Heat pumps use electricity to provide clean, efficient heating and cooling.

- **Proven technology** heats and cools homes year-round across New York State
- **One system** provides comfort in both summer and winter
- **Healthy and safe** with no fuels, carbon monoxide, or window air conditioners
- **Affordable** with rebates, financing options, and low operating costs
- **Clean and green** with reduced greenhouse gas emissions
- **Versatile** solution for new or existing homes



Ductless Heat Pumps

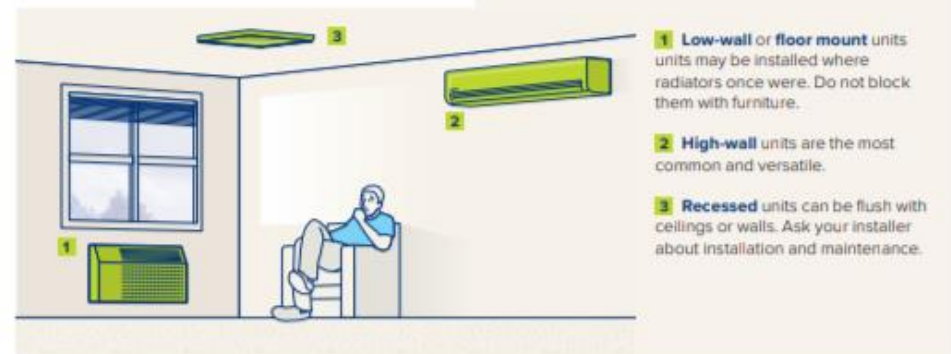
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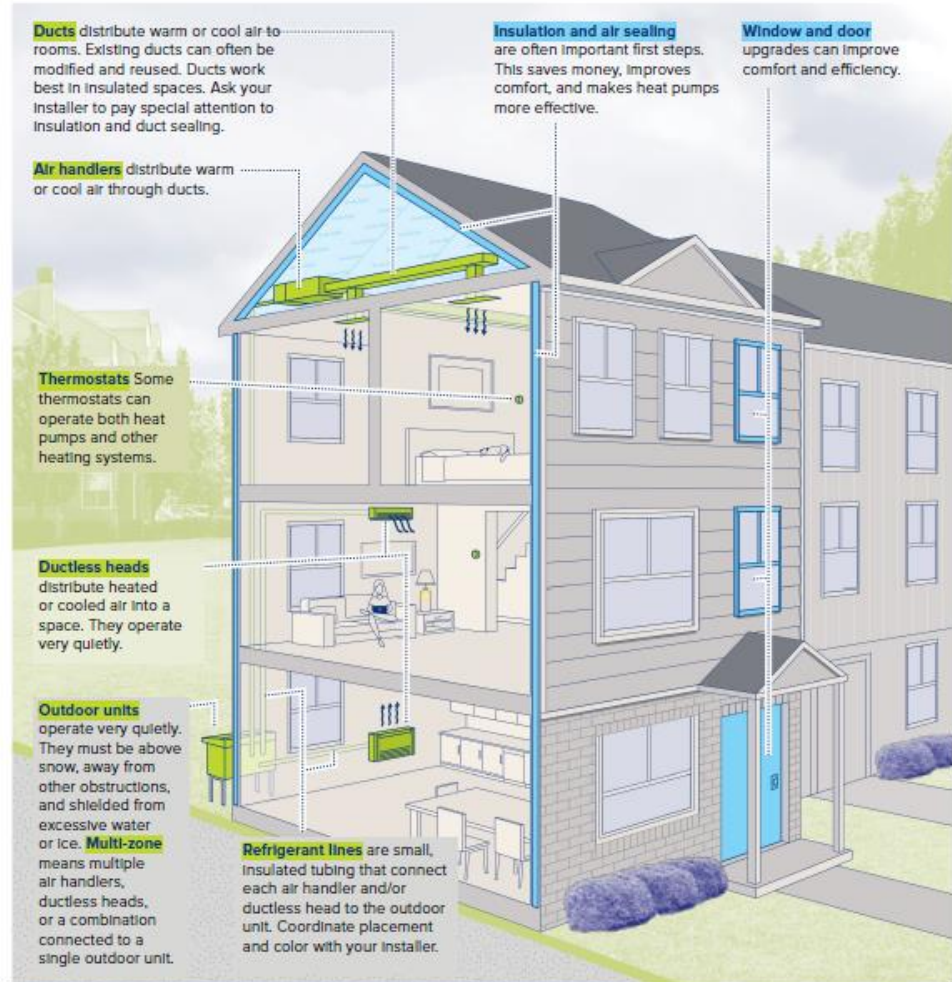
SPACE FOR CONTRACTOR INFO



Multi-Zone Heat Pump for a Townhome

Heat pumps use electricity to provide clean, efficient heating and cooling.

- **Proven technology** heats and cools homes year-round across New York State
- **One system** provides comfort in both summer and winter
- **Healthy and safe** with no fuels, carbon monoxide, or window air conditioners
- **Affordable** with rebates, financing options, and low operating costs
- **Clean and green** with reduced greenhouse gas emissions
- **Versatile** solution for new or existing homes



Zoom out (Ctrl+Minus)

Multi-Zone Air Source Heat Pumps

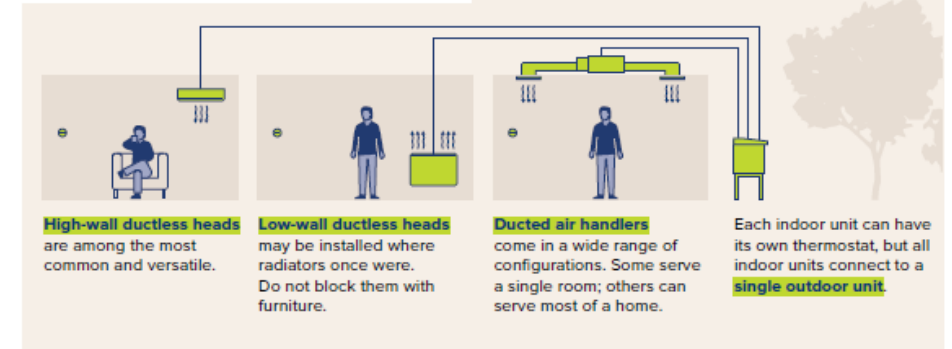
key considerations

Features

- Save space outdoors with multiple indoor units connected to one outdoor unit
- Control temperature in different areas of the home
- Options for both ducted and ductless heating and cooling
- Quiet and efficient operation
- Eliminate window air conditioners

Types of Indoor Units

Multi-zone heat pumps allow you to "mix and match" ducted air handlers and ductless "heads." Each should be sized to meet specific heating and cooling needs of the space it serves. Your installer can suggest the best options based on those needs, configuration of the home, and location of ducts (if present). Options include:



Ask Your Installer

- What size units do I need? **Ask for room-by-room heating and cooling calculations.**
- Can heat pumps sufficiently heat my home or is an additional system needed?
- What is the best location for each indoor unit? Can we avoid heads directly above where people sit or sleep?
- What are my options for locating the outdoor unit(s)?
- How long will installation take? Where and when will you need access?
- How do I operate my system for optimal 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, your electric company, and installer for incentives and financing options as larger incentives may be available for eligible customers
- Each zone adds cost, so use fewer zones when practical
- Cost varies with region, heat pump size, manufacturer, installation complexity, and installer experience

Operating Cost

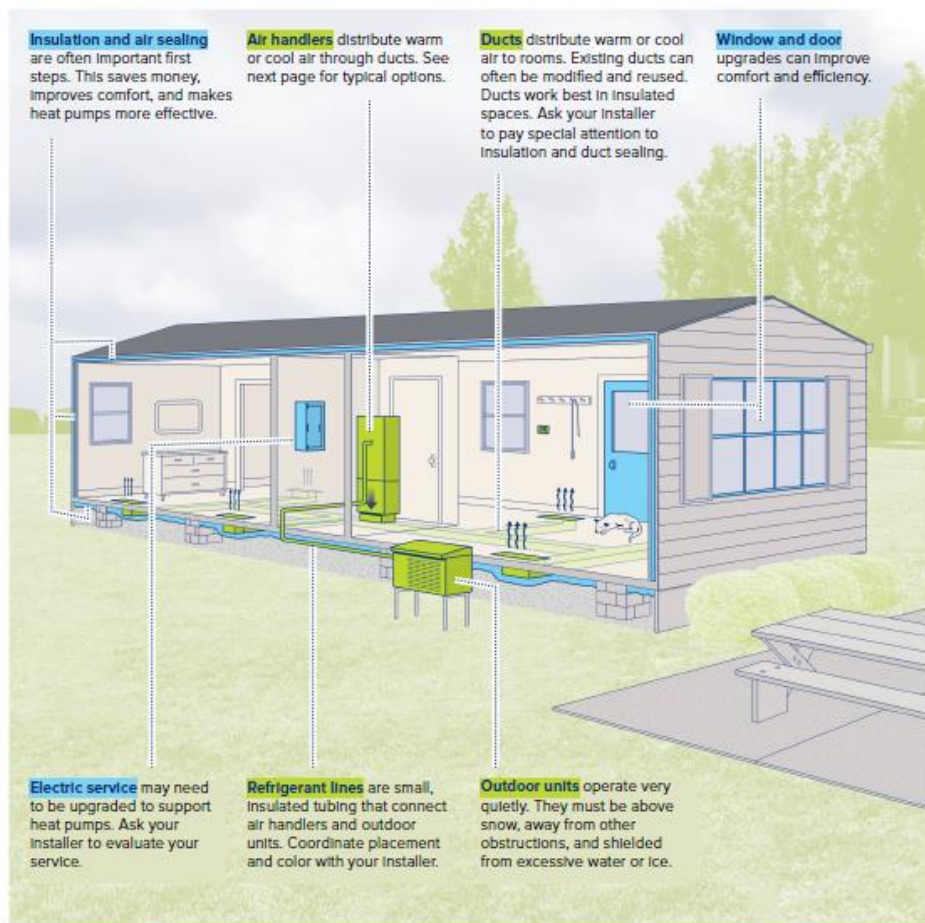
- Your overall heating costs will likely decrease if switching from oil, propane, or electric baseboard
- If you previously heated with fuel, don't be surprised to see electric bills rise; however, oil, or propane bills will drop or disappear
- Efficient homes (windows, doors, insulation, air sealing) have much lower operating costs



Ducted Heat Pump for a Manufactured or Mobile Home

Heat pumps use electricity to provide clean, efficient heating and cooling.

- **Proven technology** heats and cools homes year-round across New York State
- **One system** provides comfort in both summer and winter
- **Healthy and safe** with no fuels, carbon monoxide, or window air conditioners
- **Affordable** with rebates, financing options, and low operating costs
- **Clean and green** with reduced greenhouse gas emissions
- **Versatile** solution for new or existing homes



Ducted Heat Pumps

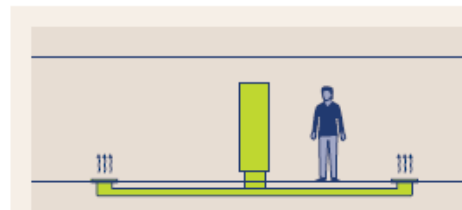
key considerations

Features

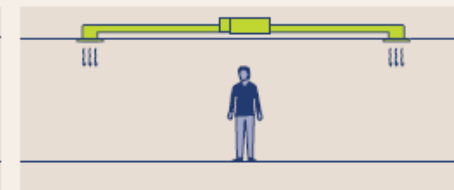
- Heating and cooling distributed throughout the home with new or existing ducts
- No wall-mounted indoor units
- Quiet and efficient operation
- Eliminate window air conditioners

Air Handler Options

Air handler equipment moves warm or cool air through ducts. Your installer can guide you to the best options based on heating and cooling needs, existing systems, and home configuration.



Conventional air handlers move air through larger ducts. They are often located in basements, attics, or utility closets. They can be installed to distribute air upwards, downwards, or sideways to fit within your home.



Compact ducted air handlers usually serve smaller areas such as one to three rooms. Their slim profile means they often fit in dropped ceilings, but leaving access for maintenance is important.

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?
- Can heat pumps sufficiently heat my home or is an additional system needed?
- 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 optimal 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, your electric company, and installer for incentives and financing options as larger incentives may be available for eligible customers
- If your home has ducts that can be reused, installation costs will be lower
- 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; however, gas, oil, or propane bills will drop or disappear
- Efficient homes (windows, doors, insulation, air sealing) have much lower operating costs



Questions?



<https://www.nyserda.ny.gov/HeatPumpPlanner>

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Wrap Up

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interested in presenting at a
future meeting?**

**Email
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