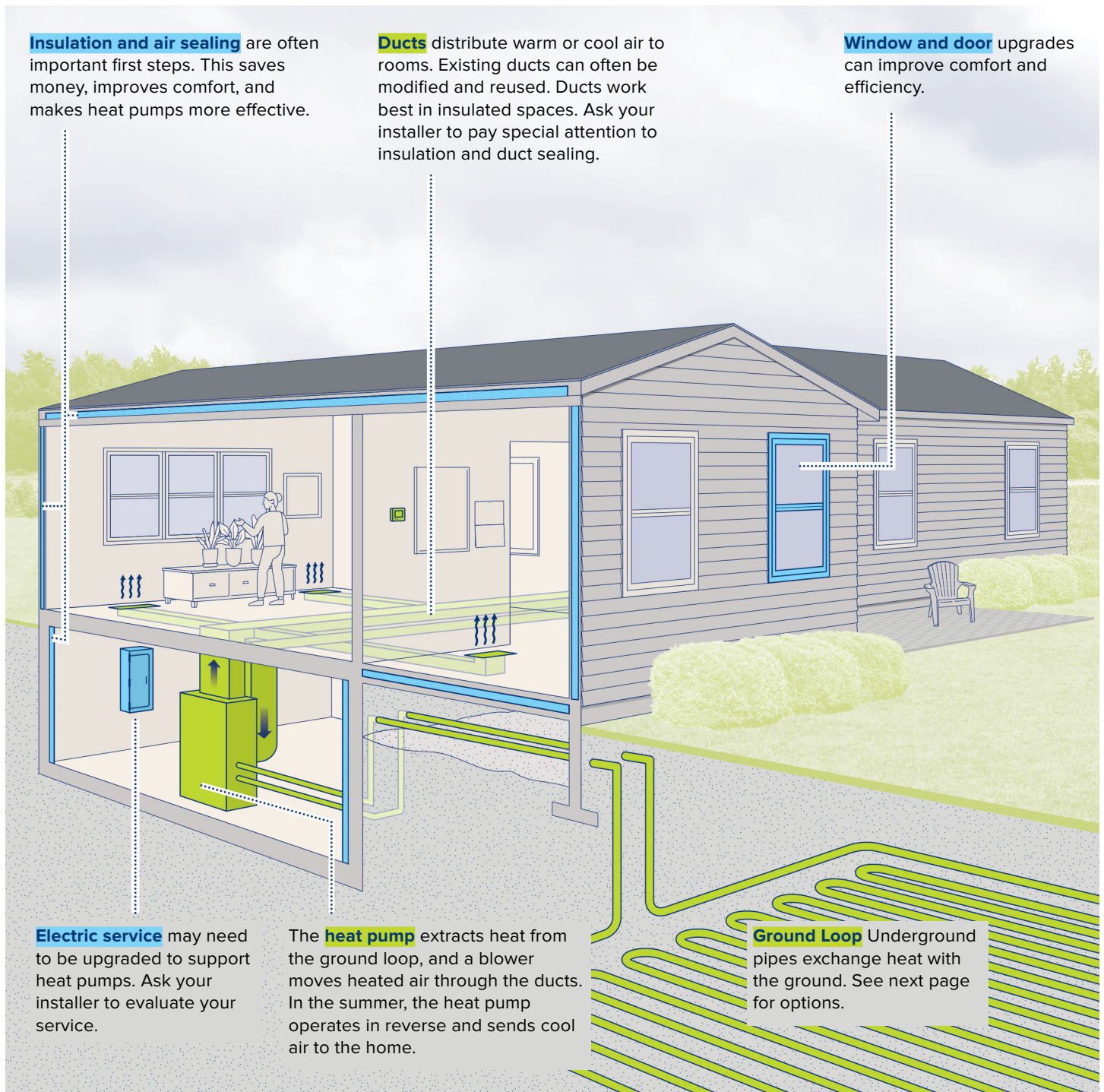


# Ground Source Heat Pump for a One-Story Home

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

- **Ground source**, or Geothermal, systems heat and cool 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



## 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
- Can also provide water heating



**Vertical wells** are hundreds of feet deep.

## 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.



**Horizontal fields** have coils placed in a much more shallow 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 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
- 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; however, gas, oil, or propane bills will drop or disappear
- Efficient homes (windows, doors, insulation, air sealing) have much lower operating costs



**NYS Clean Heat**