## **Clean Heating & Cooling Solutions**



Heat Pumps for Small- to Medium-Businesses



**REDUCE** HVAC maintenance

#### LOWER

energy costs

#### **INCREASE**

employee comfort and productivity

call: **1-866-NYSERDA** 

visit: nyserda.ny.gov/NYSCleanHeat

# A healthier, cleaner, more affordable way to heat and cool

Heat pump systems can help you create a comfortable environment for your customers and employees by enhancing temperature control and improving indoor air-quality.

A heat pump can provide up to 100 percent of your heating and cooling needs, reduce monthly energy costs, and improve comfort year-round by acting as a heating system in the winter and cooling system in the summer. Additionally, heat pump systems can decrease your business' carbon footprint by eliminating burning fossil fuels, mitigating the need for on-site combustion, and reducing the risk of dangerous carbon monoxide fumes.

#### When should you consider a heat pump?

A heat pump may be an option for your business if you are:

- currently using oil, propane, or electric resistance for heating—a heat pump can reduce your business' energy costs compared to these heating fuels and sources while removing the on-site burning of fossil fuels.
- having challenges maintaining a consistent temperature throughout your building—heat pumps are an ideal solution for challenges with zoned temperature control.
- looking to reduce interruptions to your operations due to HVAC maintenance—heat pumps generally require minimal maintenance compared to traditional HVAC equipment.
- planning a renovation or new construction project—whether you're building a new location or reconstructing an existing building, incorporating a heat pump system into your plan can provide long-term value and savings.
- trying to obtain or improve a green building certification for your building heat pump systems can significantly decrease your carbon footprint.



#### What are they and how do they work?

There are two primary types of heat pumps—air source and ground source.

#### Air source heat pumps

Air source heat pumps can be installed in spaces with ductwork (central systems) or spaces without ductwork (ductless mini-split systems) making them a great solution for any space.

*How they work* – Air source heat pumps extract heat from the air outside and distribute it inside your building. During warmer months, the process is reversed to provide cooling by pulling heat out of your interior space. These systems are highly efficient, and when paired with improved insulation and air sealing, the benefits are even greater.

**Benefits** – Air source heat pumps are two to three times more efficient than traditional HVAC systems, potentially saving hundreds of dollars annually in energy costs. Additionally, they can be installed in a single room or heat and cool only the rooms you want via zone control and dehumidify more effectively than traditional HVAC systems.

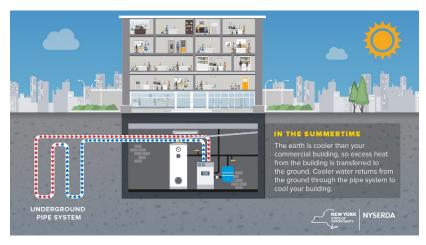
#### Ground source heat pumps

Ground source heat pumps (also known as geothermal heat pumps) are a natural, viable heating and cooling option that use significantly less energy than conventional systems. They can also supply your business with hot water.

*How they work* – A ground source heat pump uses the Earth's year-round, stable ground temperature as a heating and cooling source. During the winter, heat is extracted from the ground through an underground pipe system and distributed throughout the building. In the summer, the process is reversed. A minimal amount of energy is used during the process to power the compressor and circulation pumps.

**Benefits** – Ground source heat pumps are a particularly good option for standalone buildings with surrounding property. They are quiet, efficient, and regulate temperature in different zones simultaneously. Systems can lower energy costs up to 50% and last approximately 25 years, greatly increasing return on investment.





#### **Incentives and financing**

Electric utility companies offer rebates on both air and ground source heat pumps, and low-interest financing options are available through NYSERDA.

### **Ready to get started?**

Visit nyserda.ny.gov/NYSCleanHeat to learn more about heat pump options, incentives available from your electric utility, and to find a qualified contractor.

