Commercial Heat Pumps

Energy-efficient solutions for businesses of all sizes.

For more information about commercial heat pumps, in Massachusetts visit **ngrid.com/heatpumps** and in Upstate New York visit **ngrid.com/cleanheat**.

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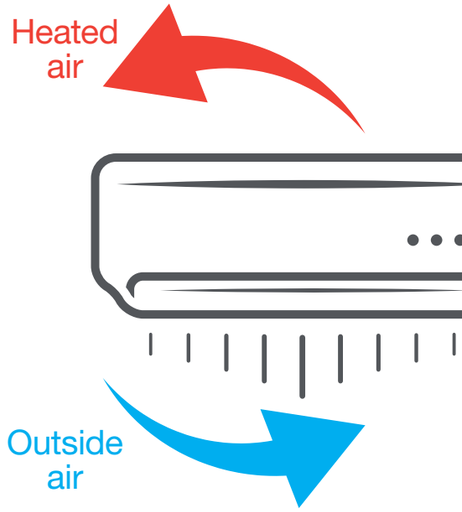
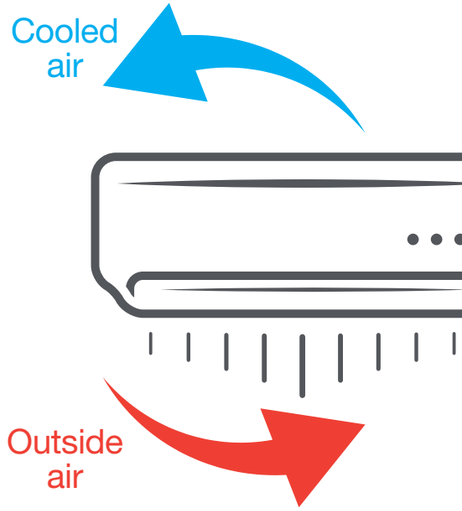
A heat pump system offers businesses highly efficient heating, air conditioning and dehumidification. Like a refrigerator or AC unit, a heat pump controls temperature by transferring heat from a cool space to a warm space.

In colder months, it moves heat from the cool outdoors into a building's interior.



In hot weather, it moves heat from inside a structure into the outdoors. By transferring rather than generating heat, these systems can be much more efficient than conventional heating and cooling.



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Often paired with renewable energy, heat pumps reduce the building's greenhouse gas emissions to help you meet your sustainability goals, while providing space conditioning for many types of commercial facilities, such as:

Hotels

Small Businesses

Office Buildings

Schools

Higher Education

Heat pumps provide:

Energy Efficiency

Heat pumps are an energy-efficient alternative to traditional HVAC solutions such as furnaces and air conditioners. Since they transfer heat rather than generating it, **heat pumps can be three to four times more efficient than furnaces.**

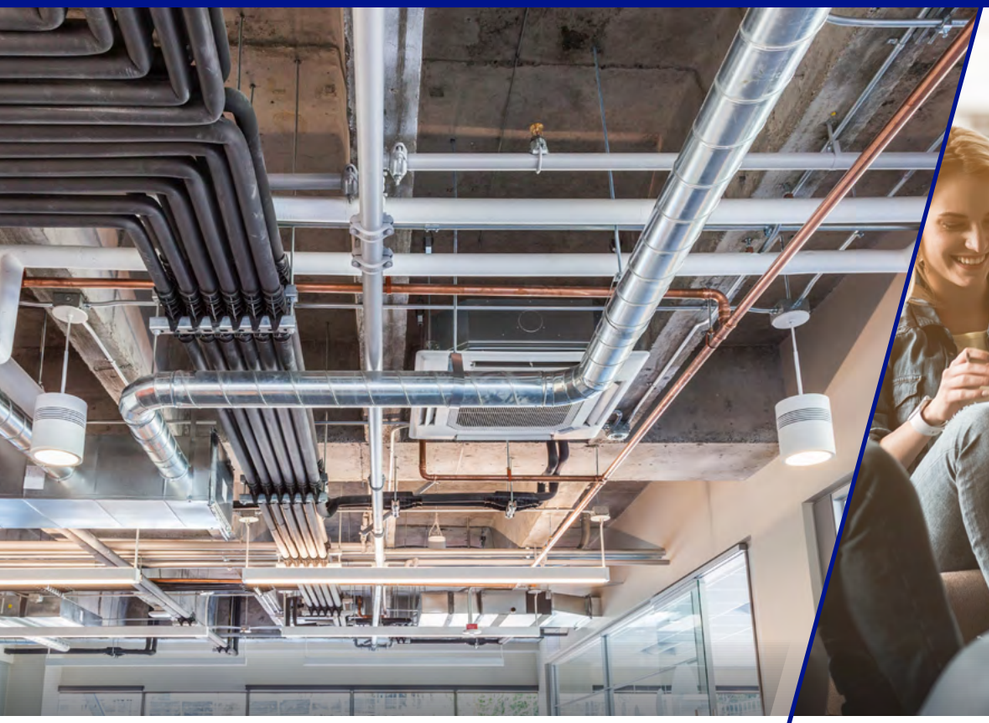
All-in-One Solution

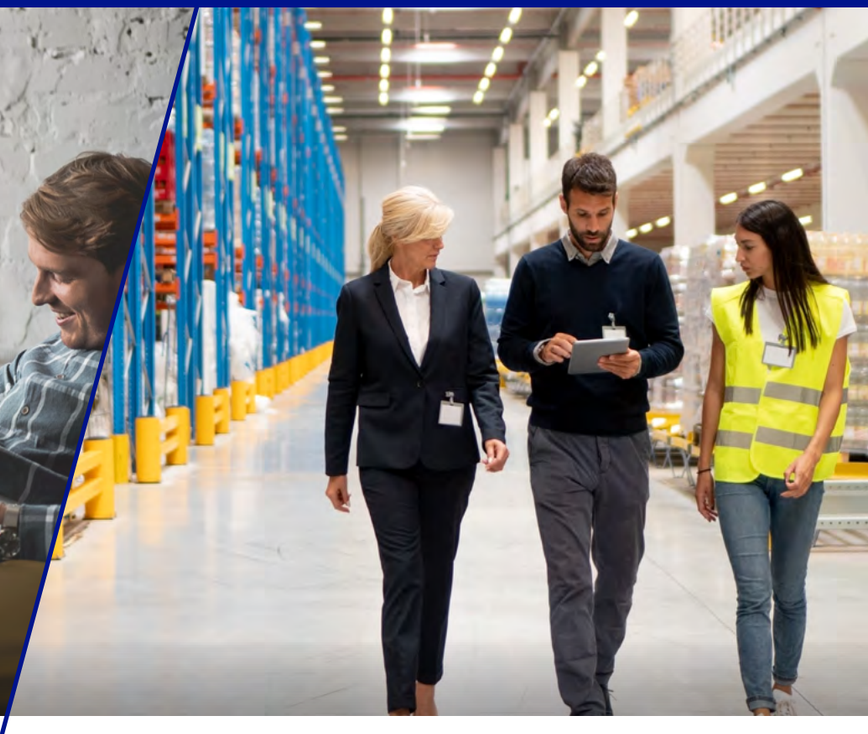
Heat pumps are an all-in-one solution for both heating and cooling. They work to keep your building warm during colder months and cool during warmer months. Buildings that use one rather than multiple systems maintain comfortable indoor climates year-round. As a result, **heat pump solutions can potentially reduce your overall system footprint.**

Clean Solution

As more companies focus on reducing carbon emissions, it's important to look for cleaner, more sustainable solutions. Since they don't rely on fossil fuels, **high-efficiency heat pumps reduce the building's greenhouse gas emissions to help you meet your sustainability goals.**

Heat pumps provide:





Flexibility

Heat pump systems can be installed with or without ductwork. **This means you may be able to install heat pumps while using existing ductwork—saving time and resources on your installation.** There are several different solutions available, so you can choose the heat pump technology that works best for your business.

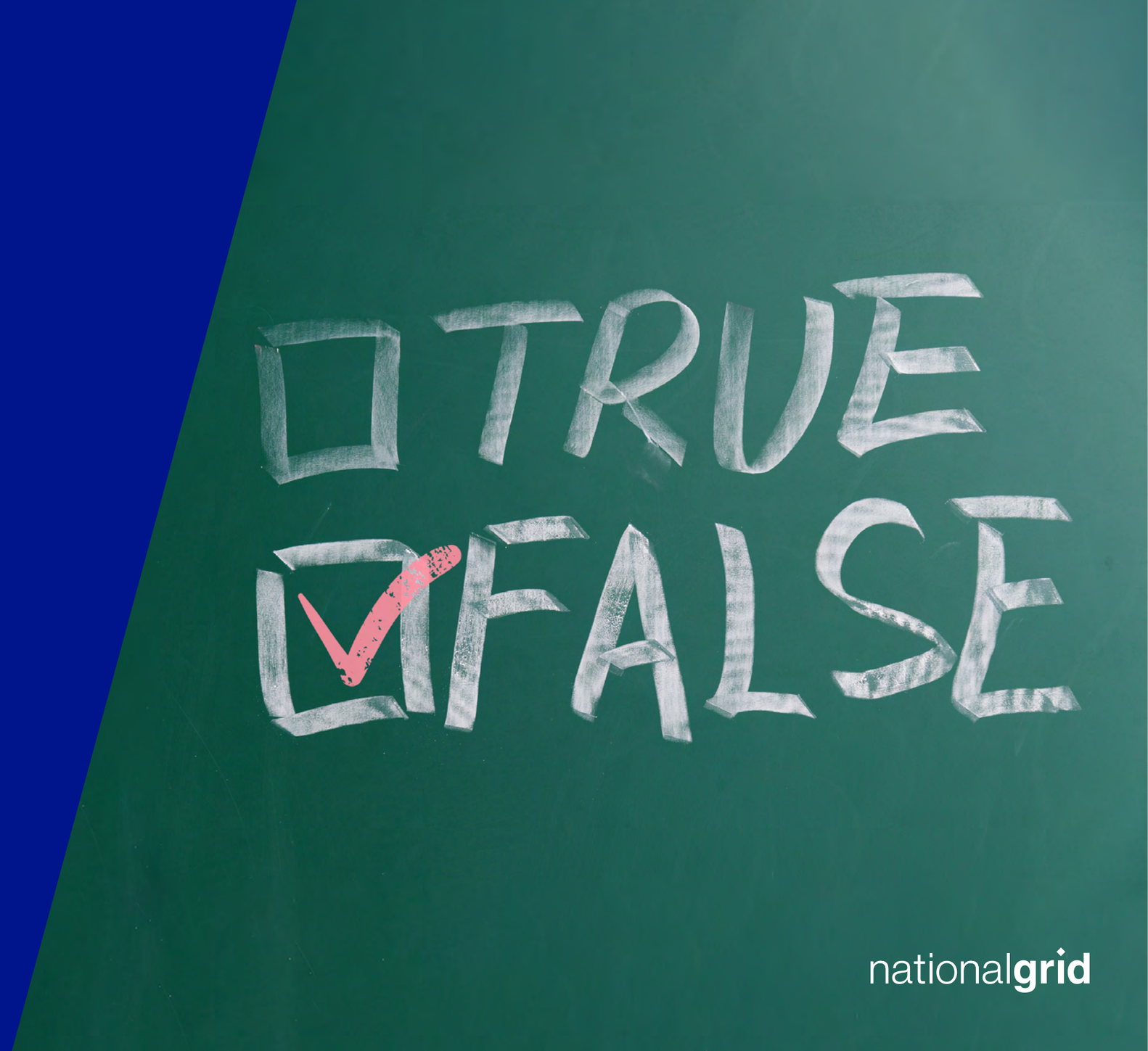
Comfort

For everyday operations, heat pumps provide a comfortable environment by heating and cooling individual spaces or whole buildings. **Zone control allows for greater overall control and more uniform temperature distribution.**

Health

Many heat pumps can improve indoor air quality with built-in HEPA filtration systems that remove pollen, dust and other allergens. And because heat pumps are emissions-free and require no fuel storage, they are a cleaner, simpler solution year-round.

Myths about Heat Pumps



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Myths about heat pumps:

Myth: Heat pumps can't deliver sufficient heat in colder climates.

Fact: Newer heat pump technology can provide efficient and reliable heating in temperatures as low as -5°F. As long as a heat pump system is properly designed, there should be no need for backup heating systems in most buildings.

Myth: Heat pumps are cost prohibitive to install.

Fact: We offer generous incentives to help reduce the cost barrier. Project and incentive costs vary and are based on the type of equipment and size of your business.

Myth: Heat pumps also have a reputation for being noisy.

Fact: When heat pumps first came onto the market they were often noisy pieces of equipment. **However, after years of innovation, modern heat pumps are compact, energy efficient and make little noise.**

Heat Pump Applications

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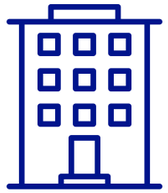
Here are some examples of commercial heat pump applications for businesses of all sizes:

General Office: Many general office facilities have traditionally been heated using hot-water or steam boilers. At the same time, many facilities are also cooling using a chiller plant and cooling tower to eject heat to the outside using exhaust fans or economizer systems. A more efficient and less carbon-intensive approach would be to satisfy the heating load using a heat pump system, which runs solely on electricity, requires zero on-site combustion, and recovers waste heat from inside the building to be repurposed for other heating needs such as space or water heating.



Hotels and Motels: Package terminal air conditioners (PTAC) have historically been the go-to for self-contained heating and air conditioning systems in hotels and motels. Hotel business owners get a great return on investment by replacing these PTACs with heat pumps.

Replacing PTACs with heat pumps is a relatively easy retrofit project because the equipment fits in the existing sleeves. Since at any given time, 25 percent of hotel rooms are unoccupied, contractors can work with building owners to set up timetables to install the system in open rooms without significantly disrupting guests.

Heat pumps can also tie into existing building control systems, such as motion-control sensors and security systems, to manage energy usage when rooms are unoccupied, providing additional savings.

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Manufacturing: As part of one manufacturer's process, hot water is poured down the drain all day long. This led us to recommend a ground-source heat pump to capitalize on that waste heat from the water and lower the facility's overall energy usage.

In fact, many manufacturing facilities have wastewater treatment plants or conventional well designs. Ground-source heat pumps can take away any unnecessary gas load and help manufacturers who want to go fully electric achieve those goals, all while improving energy efficiency and obtaining carbon credits.

Educational Facilities: Universities or schools often have existing heat-recovery or water-loop systems from which heat can be pulled. There can be areas with higher exhaust rates, such as in labs, where an air-source heat pump could extract the heat. Pulling from existing waste sources in this way could significantly increase energy efficiency.

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Hospitals: Custom projects are almost certainly a requirement for heat pumps in hospitals, which have so many federal and state regulations to follow as well as considerations for patient health, but opportunities for heat pumps can still be found.

Many hospitals have central plants where heat pumps can be added. Rooftop heaters can be replaced with air-source heat pumps in existing envelopes. Each hospital is unique, so the recommendations will vary.

For example, a hospital that already has a system that turns water to steam could benefit from using a ground-source heat pump to extract that heat to cool (or heat) the facility. Finding areas where waste heat can be reused for a heat pump can provide an excellent return on investment.

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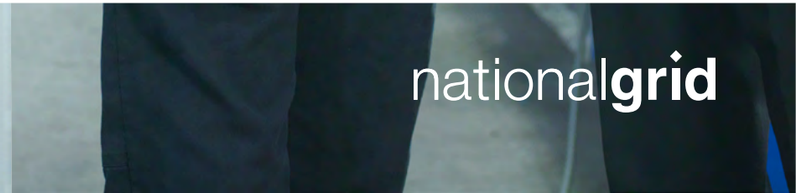
Getting Started

Here's how to receive incentives from National Grid toward your project:

1. **Reach out to us to be connected with a qualified contractor.**
2. **Get a no-cost energy assessment and a recommendation on the right heat pump system for your building.**
3. **Once your heat pump has been installed, your contractor will process your rebate application.**

We will come to your facility to conduct a thorough energy assessment while also reviewing your facility's peak heating and cooling data points, load analysis and anything else on the building envelope, so we can provide you with the best custom recommendations for how heat pumps can deliver improved energy efficiency for you.



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