# **Purchasing a heat pump?**

## **Questions to ask your contractor:**

## Will a heat load calculation be used to determine the right size heat pump for my home?

Sizing is crucial to the unit's efficiency and the comfort of your home. An oversized heat pump will be inefficient at heating and cooling your home and impact the unit's life expectancy. An undersized unit will run continuously and work harder to achieve the set temperature.

## Will an electrical service or panel upgrade be required?

You may require more electrical power to your home or more space on your electric panel. This is not unusual for older homes. Ask your contractor if you need more service or a panel upgrade. Many heat pump contractors have electricians on staff or work with an electrical sub-contractor.

## What manufacturer or technical training does the heat pump contractor have?

Ask about their technical qualifications, if they regularly install heat pumps and if they are trained on the type of system they plan to install. Quality heat pump contractors will have taken training by a heat pump manufacturer and/or technical training offer through industry associations.

## What heat pump rebates are available?

Ask your contractor on what types of heat pump are available. They should be able to let you about available rebates and models that may qualify for rebates. Depending on where you live, there may be additional municipality top-up rebates.

## For outdoor units

## Will the outdoor unit be installed in a location to account for weather and noise?

The outdoor unit's location should be sheltered for the weather. The unit will be mounted on a concrete pad which can corrode and crack from water absorption and freeze-thaw cycles as the seasons change. Using spacers or rails to raise the unit from the pad can prevent ice damage and increase clearance from snow. Condensate should drain to slope away from the outdoor unit, and directed away from walkways, crawl spaces and other outdoor equipment. The outdoor unit will create some noise; it should be placed away from bedroom windows, outdoor sitting areas.

## Will the outdoor unit be installed in a location with adequate clearance and securely anchored?

The unit must be secured on base and installed to allow for sufficient air flow around the unit to function optimally. Ideally, the unit is installed away from vegetation and water systems to minimize unwanted water infiltration.

## Where and how will the refrigerant line set(s) be placed and protected?

Refrigerant line set(s) can have significant impacts on your heat pump's performance, they should be properly sized and designed for shortest runs. Minimizing bends and joints in the line set(s) help limit internal friction, leaks and optimize efficiency. UV resistant line set cover(s) should be used to protect the line set(s) extending from outdoor unit to the entry points in building envelope. Line sets will penetrate the building envelope to connect the outdoor unit to the indoor unit(s); these penetrations must be sealed to avoid heat loss and moisture or pest entry points.





## For central ducted heat pumps

## Has a duct size calculation been done? Will the existing ductwork need to be modified or repaired for the heat pump to heat and cool my home comfortably?

Ducting for traditional furnaces tends to be smaller than for central heat pumps. Undersized ducting can cause the heat pump to work harder to achieve the desired temperature, thus affecting the life of the unit. A ductless heat pump may be a solution for homes where the ductwork is poor, sizing is limited or the expense to upgrade would be prohibitive.

#### Will the system have a combined thermostat to control both the heat pump and any backup heat source?

Some central heat pumps have lower heating output and may rely on a backup heat source to make up difference during coldest days. It's best to use a heat pump that meets the heating needs on the coldest days. If a backup heat is need—that's OK. Be sure to find out how to turn them off when it's not needed.

## For ductless mini or multi-split heat pumps

#### Where will the indoor head(s) be installed?

Indoor heads should be installed in locations in the home that allow for optimal airflow, the best heat distribution and easy maintenance.

#### Will there be a separate wall thermostat, or will the indoor head thermostat control the temperature?

Many wall-mounted indoor heads tend to be close to the ceiling, the temperature near the unit will read higher than the room temperature as warm air rises. A wall thermostat mounted at normal height, away from drafts, sunlight and other heating sources can be added to monitor the temperature of the whole room.

## General operating and maintenance considerations

### How often should my heat pump be serviced? What heat pump servicing/tune-ups is offered by the contractor?

Many manufacturers recommended a heat pump be serviced after cooling season and before the heating season. Servicing should include checking for refrigerant levels, cleaning coils and drains, looking for leaks and servicing the outdoor unit. The contractor will provide simple guidance on how to change indoor filters and simple maintenance tips.

#### Will training on how to operate and maintain system be provided? What manufacturer warranty is included?

All contractors should provide training on how to operate your heat pump system to optimize comfort and efficiency, to heat and cool your home. Set the temperature and forget it, a heat pump operates efficiently when holding a steady temperature. Manufacturers will recommend a regular maintenance schedule to ensure the heat pump works efficiently throughout the year. Ask your contractor about manufacturer warranty and if extended coverage can be purchased.

