Cooling Guide for a Changing Climate



Summers are getting hotter and extreme heat events are becoming more frequent due to climate change. Whether you live in a house, condo, or rental, keeping your home cool and safe is more important than ever.

This guide offers practical tips and resources to help you stay comfortable, reduce risk during heat waves, and choose energy-efficient, climate-friendly cooling solutions.

UNDERSTANDING COOLING STRATEGIES

Passive Cooling Tips

Passive cooling uses strategies like window shading and ventilation to reduce heat without using energy.



Window Shading

Close curtains or blinds during the day, especially on sun-facing windows. Light-colored window coverings reflect sunlight and help keep your home cooler.

- **East-facing windows:** Close window coverings at night to block early morning sunlight.
- West-facing windows: In the late afternoon and early evening, close coverings to reduce heat from the setting sun.
- ► **South-facing windows:** Keep coverings closed during the day to minimize heat entering.



Natural Ventilation

Open windows during cooler parts of the day, typically early morning, late evening, and overnight, and if possible, use windows or vents on opposite sides of your home to promote cross-ventilation. However, avoid opening windows during poor air quality events such as wildfire smoke or smog, as this can allow harmful pollutants to enter your home.



Insulation & Air Sealing

Proper insulation slows heat transfer, while air sealing prevents hot air from entering and cool air from escaping your home. Together, insulation and draft-proofing can help keep your home cooler in summer and warmer in winter without using extra energy.

Active Cooling Tips

Active cooling relies on mechanical systems like heat pumps or air conditioning (AC). Combining with passive cooling can improve your home's comfort while keeping energy costs down.



Heat Pump or Air Conditioner (AC)

- recommend setting: BC Hydro and NRCan recommend setting temperatures at 25–25.5°C for energy efficient home cooling, which could be adjusted within a degree or two based on your comfort. Set the temperature and leave it—this is the most efficient way to cool. Keep doors and windows closed while your AC or heat pump is running.
- Maintenance: Regular maintenance is key to sustaining high energy efficiency. Vacuum vents and replace dirty filters to keep cooling equipment running more efficiently.



Fans

Fans are a great tool for staying comfortable – they help you feel cooler by moving air, even though they don't lower the room temperature. When used with AC, fans may let you raise the thermostat a few degrees without losing comfort, saving energy. On cooler days, place fans blowing inward in lower windows to draw in cool air, and blowing outward in upper windows to push warm air out. To reduce energy use, turn them off when you leave a room unless they're helping to bring in fresh air.

THINGS TO CONSIDER WHEN CHOOSING THE RIGHT COOLING EQUIPMENT

When buying cooling equipment, consider a central or ductless heat pump, or an ENERGY STAR®-certified air conditioner. Here are a few key factors to consider before making your purchase:



Seasonal Energy Efficiency Ratio (SEER or SEER2)

Indicates cooling efficiency – the higher, the better. When purchasing a heat pump, also consider the Heating Seasonal Performance Factor (HSPF or HSPF2) to ensure efficient winter heating. Follow the program links in the Rebate Programs section for eligible product efficiency requirements.



Existing Heating Distribution System

If you have a central forced air system (gas or electric), a high-efficiency central heat pump offers the most energy-efficient heating and cooling. If you mainly use part of your home, mini-split heat pumps may be more efficient and cost-effective. For homes with electric or hydronic baseboards or radiant floor heating, consider room cooling units or mini-/multi-split heat pumps for year-round efficiency.



Electrical Capacity

Ensure the electrical system (panel and electrical service) can handle the additional load from the AC or heat pump.



Ductwork (For Centrally Heated Homes)

Ensure your ductwork can handle increased airflow and is well sealed for effective cooling. If modifying ducts is impractical or costly, consider ductless heat pumps for targeted cooling. If you live in a multi-unit residential building with a centralized heating system, mini-split or multi-split heat pumps can also be a smart option.



Equipment Size and Efficiency

High-efficiency units work best when properly sized. Ask your contractor for an F280-12 code compliant load calculation, especially for central cooling systems.



Single vs. Dual-Hose Air Conditioners (Portable AC)

For better efficiency, consider a dual-hose portable AC, which minimizes unwanted air infiltration. Single-hose units pull air from inside the room and vent it outside, creating negative pressure that can draw in warm air. While dual-hose models are typically more expensive, they offer better performance and efficiency.

REBATE PROGRAMS

Rebates are available for portable air conditioning units and heat pumps. Follow the links below for details. Please note that rebate programs are subject to change.



- BC Hydro Free Portable AC Program for Regional Health Authority Program Participants
- BC Hydro Condo and Apartment Heat Pump Rebate





- CleanBC Energy Savings Program: Heat Pump Rebates for Income Eligible Condo and Apartment Households
- CleanBC Better Homes Heat Pump Rebate for Single-Family Electric Homes
- CleanBC Energy Savings Program: Heat Pump Rebates for Income Eligible Single-Family Natural Gas or Propane Heated Homes

Need Additional Support?

Energy Save New West:

<u>\$\bigsep\$1-604-515-3818</u>

energysavenewwest.ca/contact-us

Extreme Heat Preparedness:

- 1-604-515-3794 (New Westminster's Emergency Management Office)
- mwemo@newwestcity.ca

Empower Me (Multi-lingual Services):

604-307-8428

energysavenewwest.ca/empower-me

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