VANCOUVER HVAC PRO

Heat Pumps & Mini-Splits

Ducted and ductless heat pumps, cold-climate models, sizing for Metro Vancouver homes, replacing a furnace or baseboards, and how heat pumps run in a wet coastal winter

4 Expert Answers from HVAC IQ

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Q1

How long does a heat pump installation take in a New Westminster house?

For most New Westminster houses, a straightforward ductless mini-split installation wraps up in one day, typically six to eight hours. A ducted central heat pump on existing ductwork usually takes one to two days, and a more involved job with electrical upgrades, new ductwork or a multi-zone system can stretch to three or four days.

What Shapes the Timeline

The single biggest variable is your electrical panel. Many New Westminster homes from the 1960s through 1980s still have 100-amp service, and if the panel needs an upgrade to 200 amps before the heat pump circuit can be added, that work adds at least a half-day and coordinates a separate Technical Safety BC electrical inspection. The contractor pulls both the heat pump circuit permit and, if a gas furnace is being removed or its gas line capped, a gas permit, both through Technical Safety BC for New Westminster. Inspections are usually booked within a day or two of the rough-in, but scheduling can add time in busy seasons.

Other factors that stretch the job: a finished basement where the line set has to be routed through walls rather than an open utility space; a tight or sloped lot where the outdoor unit pad placement takes planning; a strata or shared-wall situation that needs extra care around penetrations; and removing old equipment like a boiler or electric baseboard system that requires disconnection and disposal.

A multi-zone system with three or four indoor heads in different rooms involves more line set runs, more wall penetrations and more commissioning time at the end, so two full days is realistic and three is not unusual.

The refrigerant commissioning and leak check at the end of the job cannot be rushed. Only a person approved under BC's Ozone Depleting Substances and Other Halocarbons Regulation may handle refrigerant, and that final pressure test and charge is what determines whether the system runs correctly from day one.

What a proper installation includes, and what you should confirm is in the quote: a heat loss calculation to size the unit correctly, the outdoor unit on a raised pad with clear drainage (important in New Westminster's wet winters), all line set and electrical work, both permits through Technical Safety BC, removal of the old equipment and a commissioning run to confirm heating and cooling modes both work.

Ask the contractor before they start: how many technicians are coming, whether the permits are already applied for, and whether the electrical panel has been assessed. A crew of two moves significantly faster than one person working alone, which matters if you are without heat in October.

Spring and early summer book up fast as homeowners rush to add cooling before the first heat wave, so if you are planning a summer install, locking in a date in March or April is worth it.

Sounds like a manageable project once the panel situation is sorted out. If you would like to get two or three quotes from local contractors who know New Westminster well, Vancouver HVAC Pro can match you for free.

Q2

Which SEER and HSPF ratings matter for a heat pump in BC?

Efficiency Ratings That Actually Matter in Metro Vancouver

SEER2 and HSPF2 are the two numbers to focus on, and in BC's climate the heating number matters more than the cooling one. Here is why.

SEER2 (Seasonal Energy Efficiency Ratio, second-generation test method) measures cooling efficiency. A rating of 16 SEER2 or higher is a reasonable target for Metro Vancouver, but because summers here are mild and short, a slightly lower SEER2 unit that performs better in heating is usually the smarter trade-off. The old SEER scale is still on some spec sheets; 16 SEER2 is roughly equivalent to 18-19 on the older scale, so check which version a contractor is quoting.

HSPF2 (Heating Seasonal Performance Factor) measures heating efficiency across a full season, including cold snaps. This is the number that drives your hydro bill from October through April. Look for 9.5 HSPF2 or higher for a whole-home system. The older HSPF scale ran higher; 9.5 HSPF2 is roughly 10.5-11 on the pre-2023 scale.

Why the heating number dominates here

Metro Vancouver winters are mild but long and damp, with temperatures sitting between 0°C and 8°C for weeks at a time. That range is exactly where an inverter-driven heat pump earns its keep, extracting heat efficiently from cool outdoor air. A cold-climate model rated to maintain full or near-full capacity down to -15°C or -20°C is worth the modest price premium, because even if hard freezes are infrequent, the unit will also defrost more reliably during the wet near-freezing stretches that are common on the North Shore and in the Fraser Valley.

Rebate thresholds

Efficiency ratings are not just marketing. BC Hydro's Home Renovation Rebate, available when a heat pump replaces all-electric heat, requires the unit to meet minimum efficiency thresholds and be installed by a member of the Home Performance Contractor Network. The CleanBC Energy Savings Program for income-qualified households has its own minimum specs. Confirm the exact thresholds with BC Hydro or Better Homes BC before you buy, because a unit that misses the cutoff by one point costs you the rebate.

What else to check on the spec sheet

Rated capacity at low outdoor temperature matters as much as the efficiency ratio. A unit rated at, say, 24,000 BTU at 8°C may drop to 15,000 BTU at -10°C. Ask the contractor to show you the capacity curve, not just the headline number, and make sure the output at the coldest design temperature for your neighbourhood still meets the heat loss of your home. A proper heat loss calculation (Manual J or equivalent) is the only way to size the unit correctly; matching the old furnace's output is not.

One question to ask every contractor: "Can you show me the capacity and efficiency curves for the model you are proposing at 0°C and at -10°C, and confirm it meets the minimum HSPF2 and SEER2 thresholds for the rebate I am applying for?"

If you would like to compare proposals from local contractors who can walk you through the spec sheets, Vancouver HVAC Pro can pass your details along to HVAC contractors serving your area at no cost to you.

Q3

My heat pump is iced over in Pitt Meadows, is that normal?

Some ice on a heat pump's outdoor coil is completely normal in Pitt Meadows winters, where damp air near 0°C is exactly the condition that causes frost to build up quickly. The unit should run a defrost cycle every 30 to 90 minutes and clear itself within 10 to 15 minutes; a light frost or thin layer of ice during that window is nothing to worry about.

When Ice Becomes a Problem

The concern is ice that does not clear, or that builds up into a thick shell covering the coil, the fan or the base of the unit. That kind of icing points to something that needs attention:

A blocked defrost sensor or faulty defrost board is the most common culprit. The unit triggers defrost based on time, temperature or coil sensors, and if any of those fail the cycle never runs. A refrigerant undercharge is another frequent cause: low refrigerant pressure keeps the coil colder than it should be, so frost accumulates faster than the defrost cycle can handle. Poor airflow makes it worse, whether from a dirty air filter inside, blocked return grilles, or debris piled against the outdoor unit. Finally, check that the unit is sitting on a raised pad with clear drainage underneath. Pitt Meadows gets sustained wet weather, and a unit sitting in pooled water will ice over at the base even when the rest of the system is fine.

A few things you can check yourself: make sure the outdoor unit has clear space around it and is not buried in leaves or snow, and confirm the indoor filter is clean. If the unit is running but the indoor air feels cool rather than

warm, and the outdoor coil looks like a solid block of ice, switch the system to fan-only or off and let it thaw before calling a technician. Do not chip or pour hot water on the coil.

Do not attempt to add refrigerant yourself. In BC, only a person approved under the provincial Ozone Depleting Substances and Other Halocarbons Regulation may handle refrigerant; it is not a DIY task and the charge has to be measured precisely to the manufacturer's specification.

If the unit is icing over repeatedly despite clear airflow and a clean filter, a technician's diagnostic visit in Pitt Meadows typically runs $120 to $250, with common repairs falling in the $250 to $900 range depending on the cause. Permits for any electrical work on the system in Pitt Meadows come from Technical Safety BC, as do any gas permits if a gas backup appliance is involved.

Persistent icing that the defrost cycle cannot clear is the line between normal operation and a service call; if yours is not clearing on its own, have it diagnosed now, and a Pitt Meadows-area technician is one request away through Vancouver HVAC Pro.

Q4

Where should the outdoor heat pump unit go on a narrow Vancouver lot?

Placement on a narrow City of Vancouver lot is tightly constrained, and getting it wrong can mean a stop-work order, a bylaw fine or a strata dispute before the unit ever runs.

City of Vancouver Rules for Outdoor Heat Pump Units

The City of Vancouver allows a ground-mounted inverter heat pump without a development permit only when it sits within specific zones close to the house, at least 90 cm from the property line, and there is only one unit per yard. The City also recommends a sound power rating of 55 dBA or less for ground-mounted units; wall-mounted units typically require a separate review. These rules matter on a narrow lot because side yards on many Vancouver houses are narrow, which can leave very little room between the 90 cm property-line requirement and the house wall itself.

If the math does not work on the side yard, the rear yard is usually the better option, provided the unit is still within the permitted zone relative to the house and meets the setback from the rear property line. Your contractor will need to confirm the exact zone boundaries with the City before installation, and the mechanical permit (required in Vancouver since July 2022 for any new heating or cooling system) will trigger that review.

Beyond the setbacks, a few practical factors shape the decision on a wet Vancouver lot. The unit needs a raised concrete pad or brackets so it sits above grade and drains freely; the Lower Mainland's wet winters mean standing water under an outdoor unit is a real problem, and a unit sitting in pooled water will defrost poorly and corrode faster. Clearance around the unit matters too: follow the manufacturer's minimum clearances on the sides and at the discharge face so airflow is not choked, which hurts efficiency on the cold, damp days when you need it most.

Noise is the other practical constraint. Even a quiet unit placed right beside a neighbour's bedroom window is likely to draw complaints. The rear yard, oriented so the discharge faces into your own property rather than toward a shared fence, is almost always the quietest option for neighbours and the easiest to defend under Vancouver's Noise Control By-law.

For townhouses and strata properties the rules add a layer: written strata council approval is required before any outdoor unit is installed, and the strata's bylaws may specify exactly where mechanical equipment can go, what it must look like, and whether a noise or vibration study is needed. Get that approval in writing before the contractor books the job.

A proper quote for a City of Vancouver heat pump installation should include the mechanical permit (currently $432 plus $15.30 per kW for a one to three storey building), the electrical permit (the City of Vancouver issues its own), a

site visit to confirm placement before ordering equipment, the concrete pad or mounting brackets, and the line set run from the outdoor unit to the indoor air handler. Ask the contractor to confirm the proposed location meets the City's setback and zone rules in writing, and confirm they hold a refrigerant certification under BC's Ozone Depleting Substances and Other Halocarbons Regulation before they touch the system.

Measure your side yard before the first site visit, then compare two placement proposals from local contractors; Vancouver HVAC Pro can arrange the quotes.

Disclaimer: This guide is provided for informational purposes only by Vancouver HVAC Pro. It does not constitute professional advice. Always consult qualified, licensed contractors and your local permit authority (your municipality or Technical Safety BC) before starting any heating, cooling or gas project. Information is current as of November 8, 2026 and may change. Visit **vancouverhvacpro.com** for the latest answers.