YOUR POCKET GUIDE

For Heat Pump Water Heaters



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Heat Pump Water Heater (HPWP) vs. Standard Electric*

	Electric Water Heater	Heat Pump Water Heater
Estimated cost per month	$33.33	$8.90
Estimated annual cost	$400	$107
Savings per year	$0	$293
Lifetime savings Based on 10-year warranty.	$0	$2,930
Rebates	$0	$400 or more
Warranty	6 Years	Typically 10 Years
ENERGY STAR® rated	No	Yes
Uniform energy factor Representation of heating efficiency, the higher the number, the more efficient the water heater.	0.93-0.96	2.43-4.47
First hour rating How many gallons of hot water a water heater can provide in the first hour of operation.	60-67	46-70
Estimated payback (years)	N/A	5

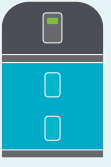
*The numbers presented in this example may not be representative of all usage scenarios. The calculations are provided by Efficiency Nova Scotia and are based on estimations, assuming usage by three people and an electricity cost of 17.703 cents per kilowatt hour (kWh).

Establishing Demand

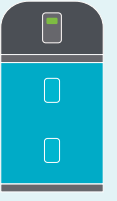
Ensure the heat pump water heater meets customer expectations of performance and savings with these sizing suggestions.

Consecutive 10 min showers	Suitable tank size
1-2	50 Gallon
3	65 Gallon
4+	80 Gallon

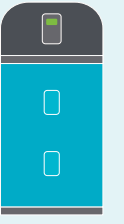
Sizing Guide



50 GALLON
Up to 2 adults or
2 adults and 1 child



65 GALLON
3 adults or
2 adults and 2 child



80 GALLON
4+ adults or
2 adults and 3+ child

When To Upsize

If the homeowner's water heater usage nears the first hour rating, it's a good idea to upsize to the next level. This ensures the heat pump will be the primary heat source for hot water.

FACT: It's less expensive to keep a few extra gallons of water hot with a heat pump, than it is to use electric elements to keep up with demand.

Where to Install



BASEMENT
A large, mostly open space below grade. It can be climate controlled (or not), and inside the thermal boundary (or not). Locating the HPWH away from basement living spaces can mitigate potential sound issues.

INTERIOR ROOM
A room inside the house's thermal boundary that is climate-controlled (e.g., a mechanical room, main floor laundry room, or closet).



GARAGE
A large, enclosed space attached to the house, often outside the thermal boundary and not climate-controlled. Larger tanks yield more efficiency and comfort here.



UNINSULATED ROOM
A room attached to the house that's outside its thermal boundary (e.g., an outdoor storage closet). HPWHs can still work well in semi-conditioned spaces, even in cold rural climates.

*Remember: If the space is smaller than 450 cubic feet, it must be able to exchange air with another space for the HPWH to work efficiently. Simple venting and ducting can overcome volume constraints while still achieving high levels of efficiency.

Installation Tips

	Above Grade (e.g. garage)	Below grade (e.g. basement)
Condensate Pipe Routing Tips by Water Heater Location	• Install to ensure drain line won't freeze (consult installation manual for best practices) • Laundry and/or sink drain	• Drain to floor drain, laundry sink and/or p-trap to plumbing line • Pump to outside with condensate pump

Pro Tips

- Size product per code/manufacturer specs
- Condensate pipes sloped per code
- Ensure filter cleaning access
- No need for Teflon tape with flex connects
- Prime and glue all PVC connections
- Allow clearance for sacrificial rod
- Install noise dampening (as needed)

Learn More Online

For more details on heat pump water heaters and available rebates, **scan the QR code** below or visit **efficiencyns.ca/waterheater**


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