

GeoSpring™ hybrid water heater

Save energy without sacrificing hot water



imagination at work



money going down the drain?

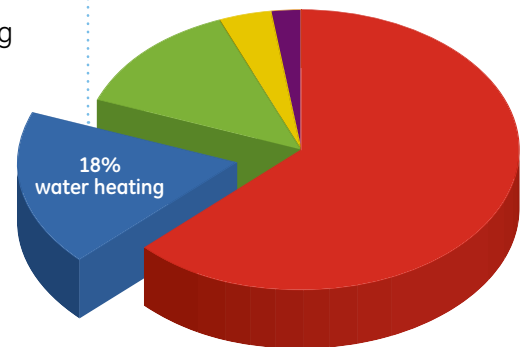
Did you know that residential water heaters are the highest energy users in Canadian households behind air heating systems? **It's true.**

In fact, if you combine the energy consumed by your refrigerator, dishwasher, clothes washer and clothes dryer, these appliances **would use less energy** than your current standard water heater.

But recent technological advancements and increasing energy prices have pushed water heaters to the forefront of emerging energy-conscious products. And GE is leading the way by developing a solution that offers **enough hot water for the entire family**, but uses significantly less energy than a standard water heater.

Canadian household energy use

- 63% Heating
- 18% Water heating
- 13% Appliances
- 4% Lighting
- 2% Cooling



Source: Natural Resources Canada, Residential End-Use Model, Ottawa, August 2009. Most recent results recorded, 2007



GeoSpring hybrid water heater, just one of many energy-efficient products from GE.

Saving without sacrifice

To create the next generation of water heaters, GE rethought every aspect of this appliance from the ground up. The result is an innovative new product that can **reduce water heater expenses up to 62% and save the consumer \$320 every year.*** That adds up to significant savings, and you won't have to give up a single drop of hot water.

three benefits for today's consumers

#1 · Savings

- Saves approximately \$320 every year*—that's a savings of \$3,200 in operating costs over a 10-year period
- Reduces water heating expenses up to 62%* compared to a conventional 50-gallon tank water heater
- Exceeds ENERGY STAR® standards with a rating of 2.35 energy factor in Hybrid mode



#2 · Incentives

- Additional tax incentives and/or utility rebates may be available and vary by Province
- Qualifies for ENERGY STAR rebate programs that include heat pump water heaters



#3 · Convenience

- Offers easy replacement of a standard electric water heater by using existing water and electrical connections
- Fits in similar footprint as a standard 50-gallon water heater with a height of 60-1/2" and a width of 21-3/4"

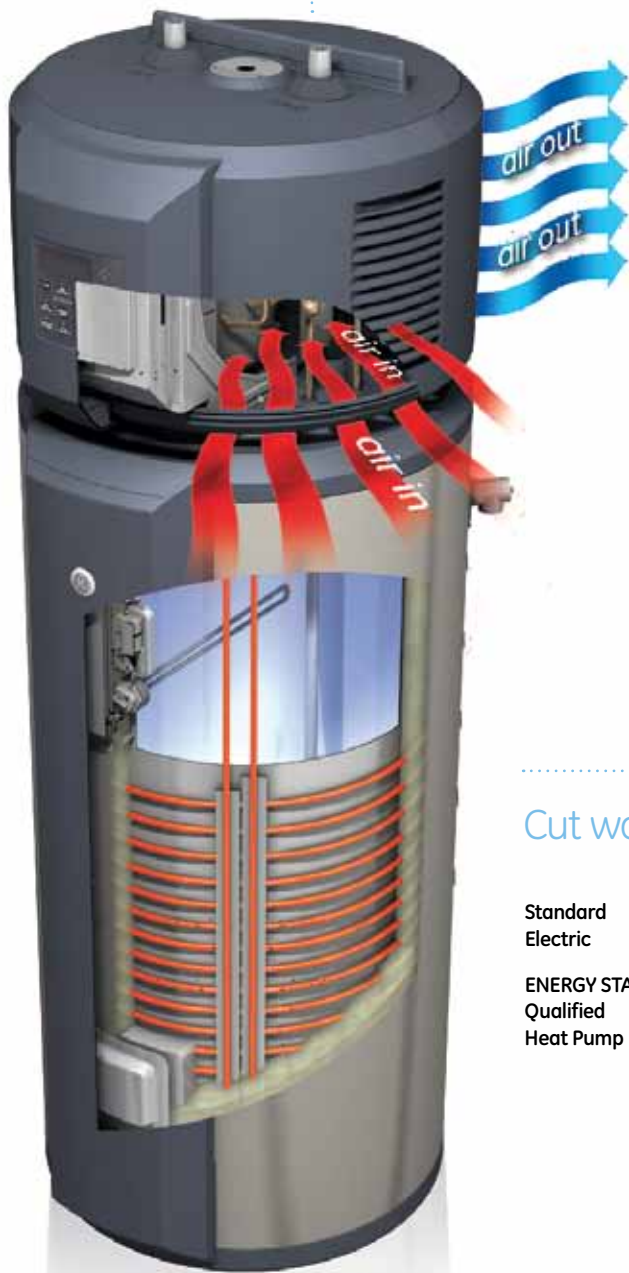


*Based on DOE test procedure and comparison of a 50-gallon standard electric tank water heater using 4879 kWh every year vs. the GeoSpring hybrid water heater using 1856 kWh every year.

pull energy savings out of thin air



By utilizing advanced heat pump technology in combination with traditional electric elements, this new GeoSpring™ hybrid water heater has been designed with maximum energy efficiency in mind.



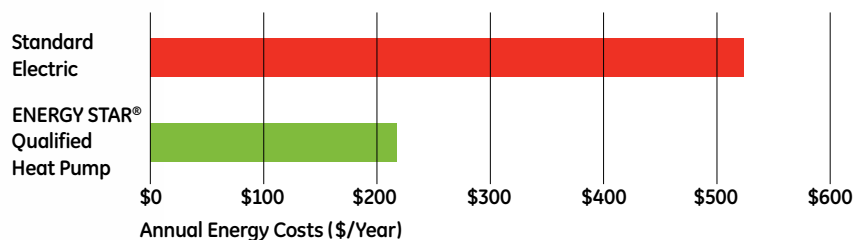
The tank portion of this water heater includes two electric heating elements, a pressure relief valve, an internal porcelain-lined tank and an anode rod. But what truly sets this product apart is just above the tank.

A compressor and evaporator are integrated into the unit to draw in ambient heat from surrounding air using two variable speed fans. Coils wrap the tank all the way to the bottom to transfer this heat into the tank and heat the water.

This innovative process creates the same amount of hot water as a traditional water heater, but can **reduce household water heater expenses up to 62%.*** And that could have a dramatic impact on monthly utility bills!

*Based on DOE test procedure and comparison of a 50-gallon standard electric tank water heater using 4879 kWh every year vs. the GeoSpring hybrid water heater using 1856 kWh every year.

Cut water heater energy costs by more than half



Based on average household of 2.6 occupants, U.S. Census, 2006
Source: DOE website www.energystar.gov/index.cfm?c=heat_pump.pr_savings_benefits



additional benefits

- Provides same hot water recovery as traditional 50-gallon standard electric tank water heater
- Results in energy savings of \$320 every year*
- 10-year limited warranty—see written warranty for details

*Based on DOE test procedure and comparison of a 50-gallon standard electric tank water heater using 4879 kWh every year vs. the GeoSpring hybrid water heater using 1856 kWh every year.



multiple settings meet a variety of needs

eHeat™ mode

Maximize your savings. In this mode, the water heater only operates the heat pump to heat the water. This is the most efficient mode, as the traditional electric elements are never used, and allows for the greatest amount of savings.

Hybrid mode

Use less energy while still experiencing fast recovery times. While the unit uses the heat pump as its primary means to heat the water, the standard electric elements may activate if a faster water temperature recovery time is needed. When the system determines that demand has been met, it will automatically revert back to using the heat pump only. This is the default mode that the product is shipped in.

High Demand mode

This is a great feature if you have guests spending the weekend and need increased amounts of hot water. High Demand mode operates very similar to Hybrid mode, but lets the system know in advance that it will be experiencing a larger water demand than usual. The water heater will be faster to react to temperature recovery by cycling on the heating elements sooner and for a longer duration of time.

Standard electric mode

This mode shuts off the heat pump and only uses the electric elements to heat the water, just like a standard electric water heater. Standard electric mode allows for operation in extremely cold situations (less than 45°F) where heat pump functionality would not be ideal.

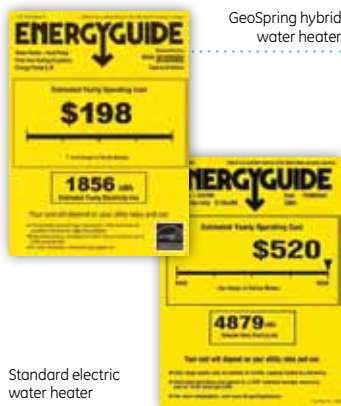
Vacation setting

The user can set how many days they will be away, with a minimum of 3 and a maximum of 90. With this setting, the system will drop the temperature set-point to 50°F to save energy, while also preventing the water from freezing. The unit automatically heats the water to the previous set temperature the day before you are expected to return. Now you can experience a hot shower the moment you return home.



Let the savings add up

These energy guides compare the average yearly operating costs of different water heaters, using the same criteria for all models tested. The GeoSpring™ hybrid water heater will cost \$198 every year to operate compared to \$520 every year for a standard electric water heater.



This can save the average household around \$320 every year* on their electricity bills compared to a standard electric water heater. That means, over a 10-year period, these **savings can add up to \$3,200** for the average household.



While the GeoSpring hybrid water heater may cost a little more up front, cost savings will typically pay for itself in approximately 5 to 6 years.

Find more information
about the GeoSpring™
hybrid water heater
online at:

geappliances.ca

a product of
ecomagination™

This product is just one example of
GE's ecomagination program,
a company-wide initiative to imagine and
build innovative solutions to the world's
most pressing environmental challenges.

GeoSpring hybrid water heater

Electric heat pump water heater

	GE®
	GEH50DNSRSA
Capacity	
Unit capacity	50 gallons
Features	
Fuel type	Electric
First-hour recovery	63 gallons
Electronic controls	Integrated
LCD display	20 character x 4 line
Backlit	Yes
Service diagnostics	Integrated
Operating modes	4
eHeat™	Yes
Hybrid (factory default)	Yes
High Demand	Yes
Standard electric	Yes
Vacation setting	3 to 90 days
Stop cold air	Yes
Demand response capable	Yes - 4 settings
Water temperature	100° to 140°F range (120°F factory default)
Precise temperature	+/- 3°F
Temperature memory	Yes
Renewable air filter (included)	Washable
Condensate collector	Integrated w/tubing included*
Appearance	
Color appearance	Silver metallic
Power/Ratings	
Energy factor	2.35 in Hybrid mode
Electrical power required	240V/208V (L1, L2, ground), 60 Hz
Electrical circuit required	Dedicated 30 Amp min.
Electrical consumption - Upper element	4,500 watts - maximum heating 550 watts - minimum heating
Electrical consumption - Lower element	4,500 watts - maximum heating 550 watts - minimum heating
Electrical consumption standby	2.0 watts
Operating air temperature range: eHeat, Hybrid and High Demand modes	45° to 120°F
Operating air temperature range: Standard electric	32° to 150°F
Operating water pressure	20 to 125 PSI
Weights & Dimensions	
Overall Depth (in.)	21-3/4
Overall Height (in.)	60-1/2
Overall Width (in.)	21-3/4
Approx. shipping wt. (lbs.)	214
Net wt. (lbs.)	190
Connection sizes-Hot water outlet (MNPT)	3/4"
Connection sizes-Water inlet (MNPT)	3/4"
Economical/Quiet	
Operating sound level	58 dBA average
Warranty	
Limited 1-year**	Parts & labor
Limited 10-year**	2 nd -10 th year parts only

*Condensate tube must be directed into a drain below 36" from floor,
or a condensate drain pump (not included) is required.

**See written warranty for details.

Note: The unit draws in air from the surrounding room to heat the water. The room must be at least 10' x 10' x 7' (700 cubic feet). If the room is smaller, a louvered door must be installed. Please consult installation instructions for details.



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