

Save ENERGY and MONEY with Natural Gas Water Heaters

Next to space heating, water heating is the second largest energy user in your home and accounts for up to 20% of your energy costs. That's why it makes sense to choose a water heater that's the least expensive to operate - an **ENERGY STAR® certified natural gas water heater**.

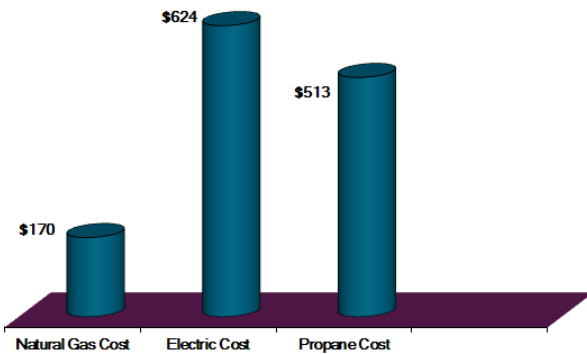


Discover the Benefits

- Natural gas water heaters heat your water three times as quickly as their electric counterparts and cost less to operate than water heaters that run on other fuel sources.
- Quickly recover any additional costs for the purchase and installation of a natural gas water heater with operating savings. Continue to save energy and money well into the future!
- Lower your energy costs even more when you choose ENERGY STAR certified equipment. Look for the ENERGY STAR symbol to help you identify the most energy-efficient natural gas water heater for your home.



Save up to \$454 annually!



*Based on average use of 735 m³/yr for a family of 4.

Comparison and consumption levels may vary depending on appliance, characteristics, lifestyle, and energy prices. Fuel rates as of November 1, 2017: Natural Gas \$0.2311 per m³; Electric \$0.1374 per kWh; Propane \$0.4540 per litre.

Water Heater Tech Talk

BTU/hr stands for 'British Thermal Unit' and measures the heating power of your water heater. For example, 1 BTU/hr of energy would raise the temperature of 1 pound of water by 1 degree Fahrenheit in one hour. The more BTU/hr, the more powerful. Most water heater installations today are between 36,000 and 48,000 BTU/hr.

The **energy factor (EF)** of your water heater measures its efficiency. An EF of 0.67 or higher is required for a water heater to display the ENERGY STAR symbol. The higher the EF, the more efficient your water heater.

Thermal Efficiency (TE) also measures the efficiency of your water heater. A higher TE means your heater is more efficient.

Flammable Vapour Ignition Resistance (FVIR) technology is an important safety feature that reduces the possibility of igniting combustible products spilled or stored near your water heater. With this safety feature, any combustible vapours entering a FVIR water heater are harmlessly burned off without incident.

The **First-Hour Rate (FRH)** measures how much hot water your water heater will have available during the busiest hour of the day and is an indication of the heater's ability to replenish its hot water.



Types of Natural Gas Water Heaters

Storage Tank Water Heaters

The most commonly used water heaters. They heat and store the heated water in a tank so it is readily available. As the water in the tank is used, cold water is introduced through the bottom of the tank and heated.

Instantaneous Water Heaters

Also known as on-demand or tankless water heaters, these systems do not have a storage tank. They heat water only when it is needed, which avoids standby heat loss through tank walls and water pipes.

Condensing Water Heaters

Condensing water heaters are available as storage tank or instantaneous units but can perform over 40% better than their standard counterparts. Corrosion resistant materials are required to manage the condensation, increasing

High-Efficiency Water Heater Type

| High-Efficiency Water Heater Type | Efficiency | Major Advantages |
|-----------------------------------|----------------|-------------------------------|
| Storage Tank | 0.62 - 0.70 EF | Lowest initial cost |
| Instantaneous (Tankless) | 0.82 - 0.83 EF | Unlimited supply of hot water |
| Condensing (Tank) | 0.80 - 0.82 EF | High performance |
| Condensing (Tankless) | 0.90 - 0.99 EF | Most efficient |



the cost of these systems; however, because they recover heat twice, condensing systems can provide efficiencies of up to 99%.

Venting

It's important that venting is properly sized and installed. Extreme Saskatchewan weather conditions and undersized venting may cause products of combustion to feed back into the home.

There are three types of venting that may be used with natural gas water heaters. Talk to your SaskEnergy Network Member to find out which venting option is right for you:

- **Direct Vent** systems do not require a chimney and are vented through an outside wall. They're great when you're replacing an electric water heater but don't have a chimney.
- **Power Vent** systems do not require a chimney. However, they use an electric fan to move the products of combustion out of your home and require an electric power source.
- **Conventional Vent** systems require either type B, double-wall metal vents or a tile-lined brick chimney.

Remember to keep your vents clear and clean of debris, including snow and ice during the winter months.



Get the Most from Your Water Heater

- Keep the area around your water heater clean and well-ventilated.
- Perform regular water heater maintenance to keep your system running at peak efficiency.
- Consult the operation manual for maintenance and energy saving tips, including appropriate temperature settings, how often to drain water from your tank, and when to replace anode rods.
- Insulate the first 3 metres of cold water pipes and the first 2 metres of hot water pipes to and from the water heater to save 2% on water heating costs.

Replacing Your Water Heater

Always have your water heater installed by a licensed natural gas contractor who knows the equipment and the necessary installation codes. Talk to your local SaskEnergy Network Member to determine which natural gas water heater is right for your home.

Visit saskenergy.com for a list of SaskEnergy Network Members.

Other Energy Efficient Ways to Heat Your Water

Drain Water Heat Recovery System (DWHR)

When warm water goes down the drain, it carries away valuable energy with it. DWHR systems can recover some of this energy and use it to preheat incoming cold water. This innovative technology can be quite economical to install and can save you up to 40% on your water heating costs.

Solar Water Heating

Solar water heating uses the sun's energy to preheat water. Solar systems can supply up to 50% of the energy needed to heat water for an average household. Since energy from the sun is free, solar water heating can significantly reduce a household's water heating costs – savings that can offset the higher purchase and installation costs of a solar system.

Energy Saving Tips

Install low-flow showerheads or faucets. A conventional showerhead can use up to 190 Litres of water during a 10-minute shower. Low-flow showerheads use up to 70% less water than standard showerheads and can help you save around 15% on the cost of water heating.

Always fix leaky taps. A leak of only one drop per second wastes around 10,000 Litres of water per year. That's equivalent to filling 125 bathtubs or 10 swimming pools!

Install low-flow or dual-flush toilets.

Use cold water when washing clothes and remember to wash only full loads.

Wash only full loads in your dishwasher and air-dry on the "energy saver" setting.

Did You Know?

A family's habits and lifestyle greatly affect the cost associated with water heating.

