

# Natural Gas Furnaces

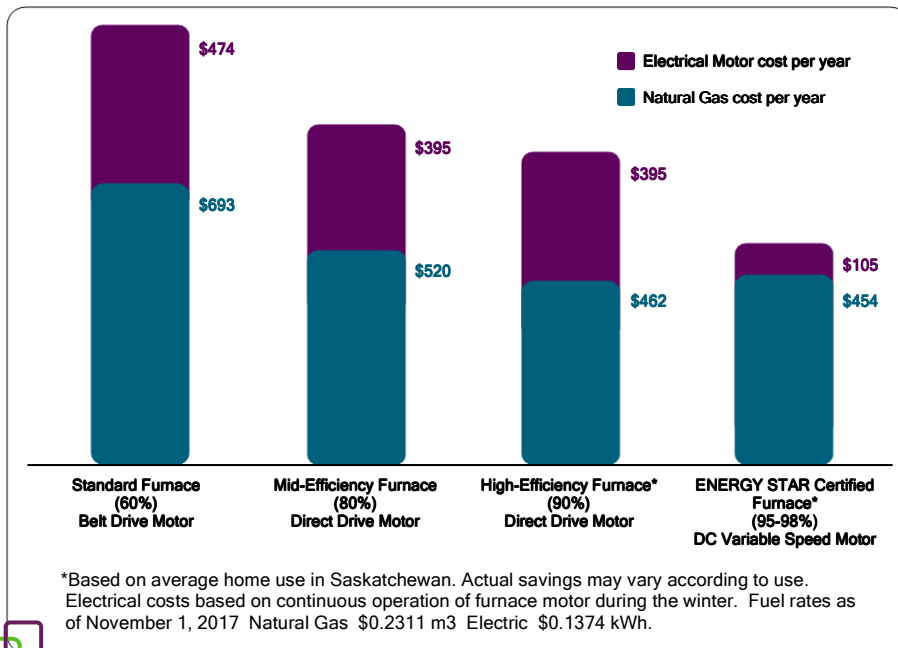
Space heating is the largest energy user in your home, accounting for approximately 50% of your energy usage. That's why it makes sense to choose a furnace that's the least expensive to operate—an

Save ENERGY and MONEY with High-Efficiency



## Lower Your Energy Costs with ENERGY STAR Certified Equipment

Save up to \$492 per year with an ENERGY STAR certified furnace with a brushless DC motor. Not only will you realize natural gas savings, but electricity savings too! A brushless DC motor operates efficiently and economically under varying load conditions while increasing the efficiency of your heating and air conditioning system, resulting in significant energy savings. Your home will have better air circulation, even temperature distribution and reduced electrical costs.



### Furnace Tech Talk

#### Seasonal Efficiency/Annual Fuel

**Utilization Efficiency (AFUE)** is a ratio of the annual output energy (heat) over the input energy (natural gas). This includes energy consumed by a pilot light and does not include electricity consumed by the furnace. High-efficiency furnaces do not have pilot lights.

The AFUE represents a furnace's efficiency under normal operating conditions and indicates the percentage of fuel turned into heat. A higher AFUE means that a furnace is more efficient.

**BTU** stands for 'British Thermal Unit'. A single BTU is the amount of heat it takes to raise the temperature of one pound of water by 1 degree Fahrenheit. Your furnace's BTU/hr measures its heating power. The higher the BTU/hr, the more powerful the furnace.



## Furnace Efficiency 101

Furnaces are categorized based on their efficiency; that is, on how well they convert fuel to usable heat. The higher a furnace's efficiency, the more money you'll save in operating costs.

### High-Efficiency Furnaces

For a furnace to be considered high-efficiency, it must have an AFUE rating of 90% or higher. ENERGY STAR certified furnaces must have an AFUE of at least 95% and a high-efficiency fan motor.

High-efficiency furnaces have a second heat exchanger and their exhaust gases are cool enough that they are vented directly through an outside wall with a plastic pipe - a chimney is not required.

### Mid-Efficiency Furnaces

In general, homes built between 1980 and 1990 will have mid-efficiency furnaces, while homes built after 1990 may have mid- or high-efficiency furnaces.

Mid-efficiency furnaces have AFUE ratings of between 78% and 82%, meaning that you only receive 78 cents worth of usable heat for every heating dollar you spend.

### Did You Know?

As of February 1, 2013, natural gas furnaces must have an AFUE rating of at least 95% to be considered ENERGY STAR certified.



## Identifying a High-Efficiency Furnace

When trying to discover whether or not a furnace is high-efficiency, always look for the EnerGuide label. This rating scale shows the range of efficiencies for gas furnaces on the market and helps consumers compare the energy performance of similar products. An EnerGuide label with the furnace's AFUE rating is shown on the back page of the manufacturer's brochure.

- While Canada's EnerGuide label helps you compare how much energy a furnace uses, the ENERGY STAR symbol helps you identify which furnaces are the most energy efficient. When shopping for a furnace, look for the EnerGuide label along with the ENERGY STAR symbol. Receive more usable heat for every dollar spent on energy costs.



## Discover the Benefits of a High-Efficiency Natural Gas Furnace

- For every \$1 you spend operating a natural gas furnace, you would spend over \$5 to operate an electric furnace.
- Improve comfort levels in your home with even heating and enhanced indoor air quality.
- Utilize the best venting option for your home. You may be able to vent directly through an outside wall and eliminate the need for a chimney.
- Reduce your greenhouse gas emissions by approximately 4 tonnes.
- Save energy with new spark ignition technology as opposed to the traditional pilot light.



## Replacing and Sizing Your Furnace

When replacing your furnace, it is important to choose one that is the right size for your home. A furnace of the proper size will operate more efficiently, last longer, save you money on heating throughout the season and provide more continuous heating, resulting in a more comfortable environment.

It is important to note a furnace's efficiency when considering its BTU/hr input. For example, a 100,000 BTU/hr furnace of 60% efficiency will only provide 60,000 BTU/hr of usable heat, while a furnace with 90% efficiency will provide 90,000 BTU/hr. As a result, when you buy a more efficient furnace, you likely won't need to buy one with the same input as your current unit. To find out how many BTUs/hr your furnace should be, have a qualified heating contractor perform a home heat loss calculation.

Before replacing your furnace, talk to your SaskEnergy Network Member for a selection of natural gas heating equipment and convenient financing options (OAC).



## Get the Most from Your Furnace

Even new furnaces require regular maintenance. A well-tuned heating system can significantly reduce your annual heating costs and will keep your equipment running at peak efficiency.

Keep in mind that regular and proper maintenance of your furnace is relatively inexpensive, will extend the life of your heating system and can help ensure your home's comfort and safety.

Be sure to keep the area around your furnace clean, well-ventilated and keep your outside vents clear and clean of debris, including snow and ice during the winter months.

Book a SaskEnergy Network Home Heating Tune-Up or SaskEnergy Home Check-Up online at [saskenergy.com](http://saskenergy.com) or call **1-800-567-8899** for more information.

### Energy Saving Tips

Install a programmable thermostat and lower the temperature by 4-5 degrees Celsius overnight or when no one is home. Save 2% on your heating bill for every 1 degree Celsius you turn down the thermostat.

Clean or replace your furnace filter every 1-2 months. A dirty filter reduces airflow and forces the furnace to run longer to heat your home.

Keep your furnace clean, lubricated, and properly adjusted with annual maintenance. Annual furnace maintenance helps make sure that your furnace is running safely and at peak efficiency. Plus, it helps save you money!

