

# Cold Weather Frequently Asked Questions



## **Frequently Asked Questions**

### Why Is My Bill Higher In Cold Weather?

During severely cold weather, customers use more electricity and natural gas to heat their homes and businesses. Outdoor temperatures drive home energy usage more than any other single factor. While none of us can control the weather, we do encourage customers to take steps to reduce energy usage and lower bills as much as possible during the winter months. We advise that you focus your efforts on the biggest energy users – heating/cooling systems and water heating.

A heating system on average uses 60% of a home's energy. As outside temperatures drop, heating systems must work harder to maintain a home's set temperature. The efficiency of a heat pump is reduced in severely cold weather, forcing the back-up heat supply to come on more often. This back-up heat could be three times more expensive than the heat pump alone.

And, it's not just heating that's affected, but hot water as well. With low temperatures, the water coming into the hot water tank is colder. When the tank sits in the garage, carport or other unheated area, it takes longer to heat up the water and uses more electricity. Also, some people have a tendency to take longer, hotter showers in the winter than they do in the summer.

In addition to the cold weather, the December billing period featured increased electricity usage due to the holiday season and the snow the state experienced at Christmas.

## Why Is My Bill Higher After Christmas — Is it the Lights?

You may hear customers talking about the bill they receive for their December usage being high because of their decorative lights. In fact, if bills are higher, it may be due to a variety of factors. Dropping temperatures are usually the biggest contributor; colder temperatures mean heating systems have to work harder to keep your home warm and cozy. During the holiday season, many people do more entertaining and cooking. Having friends and family visit could also increase how much hot water is used for showers, etc. These factors contribute more to potentially higher bills than twinkling lights.

Here's how much those decorations really cost: It costs \$1.54 to run one strand of 100-light (40.8 Watt) mini-lights for 10 hours a day for 30 days. The typical family may use eight of those 100-light strands (800 lights) in their decorating. If they have the lights on 10 hours a day for 30 days, the cost would be \$12.34. If you decorate like the Griswold family in the movie Christmas Vacation, you'll spend a bit more. Fifty strands (5,000) lights will cost \$77.11 if they're on 10 hours a day for 30 days.

New LED (Light Emitting Diode) lights are more economical. Using the same examples as above, one strand of 100 mini-LED lights would cost just 26 cents; eight strands would be \$2.08. The Griswolds would save money – fifty strands would be \$13.04.

### I Was Away for Two Weeks; Why Is My Bill So High?

Many people expect their GUC bill to be significantly lower than usual when they're away on vacation or out of town for an extended period. They often find their bill amount isn't much different from their usual bill. There are several reasons for this.

An unoccupied home can still use a lot of energy. Automatic appliances operate throughout the day and night, whether you are home or away. Some examples: heating and air conditioning equipment maintain the house temperature, refrigerators and freezers keep food cold, electric water heaters maintain water temperatures, clocks keep time, security lights still turn on, etc.

The most costly items are the heating system and water heater. To save energy-dollars when you are gone for extended periods of time, turn your water heater off and turn your heat down to about 50 degrees. (Don't turn it off completely if there is a chance water pipes may freeze.)

Whether someone is occupying a home or not reflects mostly on water use, but water use is a relatively small part of the typical bill.

### My Meter Can't Be Right!

Your utility meters have been tested and checked for accuracy prior to installation, and GUC uses the latest technology to ensure that each meter is read accurately every month.

In 2004, we began converting all meters with Automated Meter Reading (AMR) technology. The process was complete at the end of 2010. AMR eliminates the need for Meter Readers to walk from house to house, visually recording meter readings. Instead, meter data is sent through a radio transmitter that is installed on the meter. GUC vehicles equipped with on-board computers automatically collect accurate meter readings simply by being in the vicinity of the metered property. Some of the high-powered meters can be read from a distance as far as ½ mile.

AMR has removed the need for Meter Readers to estimate meter readings because the meter were inaccessible (because of locked fences, dogs, etc). Now, the only meter readings that are estimated are in extreme circumstances, such as a house fire when the meter itself is destroyed. Not only has AMR technology streamlined our meter reading process, our already impressive accuracy rate for meter reads has increased to 99.9999%

### What Can I Do To Lower My Usage?

Energy use differs based on a customer's lifestyle, size and age of the home, geographic location, efficiency of heating equipment, home insulation, and other variables. There are many things customers can do to reduce their usage, and their bills. We advise the following:

### Heat Pumps:

- Set your thermostat at the lowest comfortable setting. Every degree you lower the setting will save you money. The
  Department of Energy recommends a setting of 68 degrees. Every degree is worth 3-5% in operating costs. Once you
  find a comfortable setting, don't turn it up and down. Set it and forget it. Keeping the same setting throughout the
  season will give you the greatest savings.
- When you adjust the thermostat on a heat pump system, even by just one degree, it could automatically force the less economical back-up system to start running. This can be costly!
- In winter only, if you are leaving your house for a few days, turn your heat down on your heat pump system.

### Other Forms of Heat:

- For other forms of heat (natural gas, oil, propane, geothermal, electric furnace and electric baseboard), adjust your thermostat as needed daily, and throughout the day. The Department of Energy recommends a setting of 68 degrees (or lower).
- If you're gone for several hours or more, set the thermostat at 55 degrees, or even cut it off (unless pipes are in danger of freezing). Be sure to turn the thermostat down at night, and cover up with blankets.
- It is less expensive to turn your heating system down or off during the day when the home is unoccupied. It takes less energy to bring the inside temperature up to your desired comfort level than it would if you left the system on all day.
- Space heaters are electrical resistance heat and are expensive to operate. It can be economical, however, to use a space heater in a small, unheated area such as a bathroom for short periods of time. It is cheaper to heat a small room with a space heater than to raise the temperature of the entire home with the central heating system. Space heaters running on high cost 18 cents/hour to operate. That may not sound expensive, but there are 720 hours in a month. Running a space heater constantly will cost \$129.60 by the end of the month.

Using a space heater to heat small areas, for short periods of time can be economical. If you use the space heater to warm up one small room for 30 minutes in the morning, you can have that added comfort for less than \$2.70 on your monthly bill.

- Be sure to keep furnace filters clean, and make sure your heating system is operating efficiently. You can save 10–15% on energy costs by keeping your filters clean.
- · Make sure your home is well insulated and air-tight.
- Weather strip and caulk windows and doors to seal small cracks.

### Water Heating

Next to heating the home, water heating is the second largest user of energy—accounting for about 20 percent of the family's energy budget. In order to save on your water heating use, GUC advises the following:

- · Fix the drips. One drop of hot water a second is nearly 500 gallons a month wasted energy down the drain.
- Take a shower instead of a bath. An average shower requires half the water of a bath.
- Install a flow restrictor on your showerhead to save hot water. Flow restrictors limit the flow to 3 gallons or less per minute and can save up to \$25 a year.
- Don't keep hot water running while washing dishes or shaving.

Insulate your water heater and set the temperature as reasonably low as possible. Although manufacturers used to set water heater thermostats at 140°F, most households usually only require them set at 120°F. For each 10°F reduction in water temperature, you can save between 3%–5% in energy costs.

Call Energy Services at 252-551-1522 for specific information about reducing energy and water usage and lowering your bill. Customers can also go to GUC's website www.guc.com for additional tips and videos on lowering your energy bill.