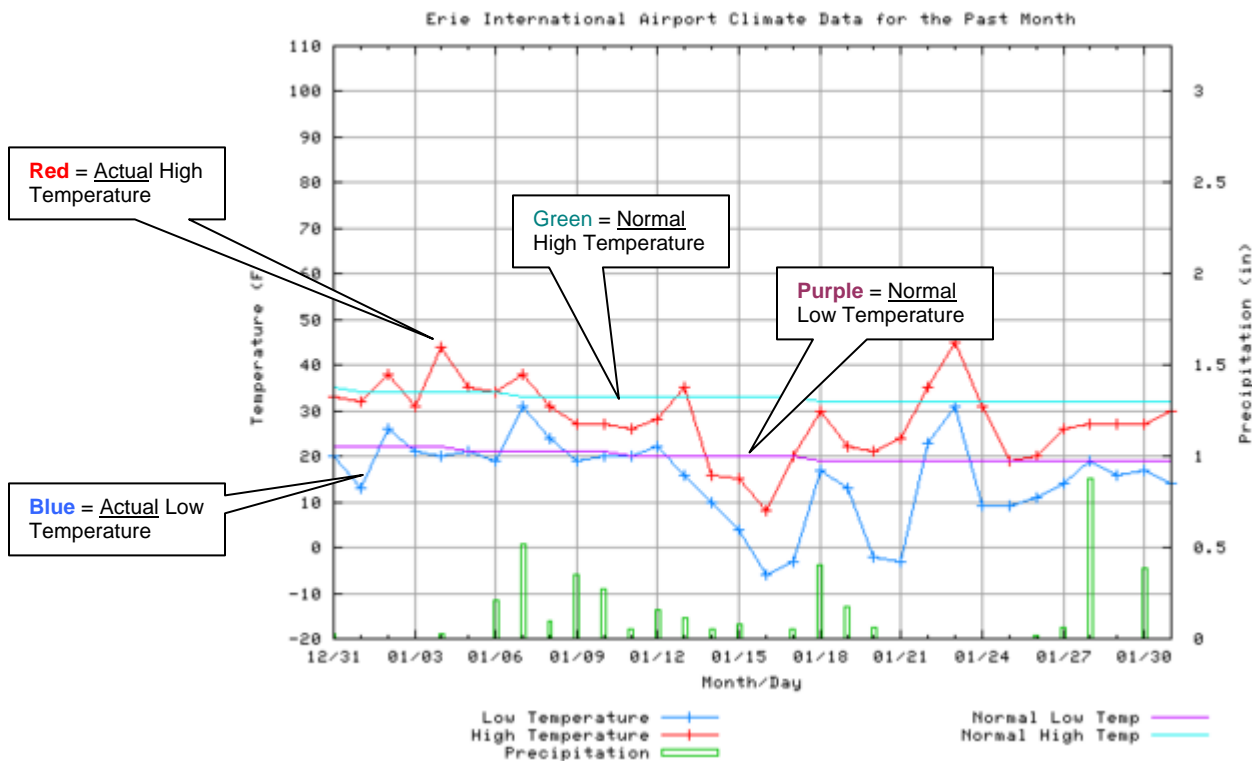


# Why is my bill so high?

- 1. Abnormal weather patterns:** This Winter has been a long one and consistently colder than usual. This long cold Winter has made our furnaces run longer and harder. The larger the difference between the outside temperature and what we set our furnace thermostat in our home at, the more our furnace will operate. Even if you heat with a fossil fuel, your furnace blower will end up running longer and perhaps more often. The result is: our energy bills are higher. The graph below shows data collected from the Erie International Airport from December 31, 2008 to January 30, 2009. As you can see, for approximately half of this timeframe the Actual High Temperature (Red) was lower than the Normal Low Temperature (Purple). These low temperatures cause heating systems (electric or fossil fuel) to operate more frequently to keep our homes at the desired temperature.



Source: NOAA Website

- 2. Heating Degree Days:** In a simplified definition, heating degree days are used to estimate the required energy for heating. One heating degree day occurs for each degree the daily average temperature is below 65 degrees Fahrenheit. For example in January, 2008 Meadville, Pennsylvania had 1134 heating degree days for the month while in January, 2009 Meadville had 1466 heating degree days. This is 29% higher than 2008. Therefore, you cannot compare last year's February bill to this year's February bill as it is like comparing apples and oranges. How does this affect your energy bill? The more heating degree days we have in our area, the more frequently your heating system is going to run to keep your home at the desired temperature.
- 3. Estimated Bill:** Recent weather conditions (heavy snow, ice, road conditions) may have caused us to estimate your bill. Please check to see if your bill was estimated. You will find this located near the due date on your bill. It will show either Regular or Estimated. If it shows Estimated, your actual reading for the next month will get you back on track for paying for your actual usage.

# Fossil Fuel Comparison

Use this simple and quick worksheet to compare your electric home and water heating cost to other sources for this month. Please note this worksheet is for ONE MONTH USAGE comparison and uses an average of 1,000 kWhs for a home base load before home and water heating. Some homes use more and some use less. This number can be substituted with your average summer usage which would show your usage minus your heating. If you have any questions on using this worksheet, please do not hesitate to contact our office at 1-800-472-7910.

Step 1: \_\_\_\_\_ kWhs used on this month's bill

Step 2: - 1,000 kWhs (Average light, refrigerator, etc. use)

Step 3:= \_\_\_\_\_ Estimated kWhs used to heat your home and hot water

Step 4:x 3,413 Step 3 Result times 3413 (BTUs per kWh)

Step 5:= \_\_\_\_\_ How many BTUs you need to heat your home and water

Step 6:÷ 1,000,000 Step 5 Result divided by 1,000,000 shows Million BTUs

Step 7: = \_\_\_\_\_ Million BTUs needed to heat your home and water

Step 8: \_\_\_\_\_ Step 7 Result times Other Heat Source Cost Per Million BTUs (table below)

**Table 1: Cost Per Million BTUs**

COMFORT PLUS @ \$.07104/kWh	<b>\$10.62</b>
OFF-PEAK Rate @ \$.05786/kWh	<b>\$16.95</b>
AIR TO AIR HEAT PUMP @ \$.10104/kWh	<b>\$11.84</b>
GROUND SOURCE HEAT PUMP @ \$.10104/kWh	<b>\$9.87</b>
NATURAL GAS @ \$1.78/therm	<b>\$19.78</b>
OIL @ \$1.92/gallon	<b>\$17.39</b>
PROPANE @ \$1.94/gallon	<b>\$23.60</b>

This **SMART** member **saved \$93** just in January by heating with off-peak electric!

This member's **TOTAL** utility bill was \$359.64. This member would have paid \$329.76 just in propane to heat their home and water **PLUS** their electric bill.

## Example: Comparing Off-Peak Electric Heat Cost to Propane

Step 1: 5,309 Total kWhs used on this month's bill

Step 2: - 1,215 On-Peak kWhs (Energy used for lighting, refrigeration, television)

Step 3:= 4,094 Off-Peak kWhs used to heat your home and hot water

Step 4:x 3,413 Step 3 Result times 3413 (BTUs per kWh)

Step 5:= 13,972,822 How many BTUs you need to heat your home and water

Step 6:÷ 1,000,000 Step 5 Result divided by 1,000,000 shows Million BTUs

Step 7: = 13.972822 Million BTUs needed to heat your home and water

Step 8: **\$329.76** Step 7 Result times \$23.60 (Propane Cost Per Million BTUs from table above.)