

CALCULATING YOUR ELECTRIC BILL

Every month you receive an electric bill. You're billed for the amount of electricity consumed for that billing period. To get a better understanding as to what impacts your energy dollar the most, you can calculate the actual and estimated costs of household appliances and equipment by using the formula provided below. To perform the calculation, you will need to know three key components. They are wattage, duty cycle and electric rate. Wattage information may be obtained by looking at the appliance nameplate, usually labeled on the back of all units. Duty cycle is the actual or estimated time the appliance operates. Bluestem's electric rates vary from winter to summer. We will use an average winter rate of .10 cents per kilowatt-hour for the example. Please contact the Member Services Department for your actual kilowatt-hour rate.

Formula:

$$\frac{\text{appliance X 8 (time in hours used daily) X rate}}{1,000}$$

Example One:

Two 150-watt floodlights used for security lighting with a duty cycle of 8 hours and at a rate of .10 cents per kilo-watt-hour. Total wattage for lighting is 300 watts.

$$\frac{300 \times 8 \text{ (time in hours)} \times .10}{1,000} = \frac{240}{1,000} = .24$$

Cost to operate for 8 hours = .24 cents

Example Two:

One thermostatically controlled 1,000-watt stock tank heater plugged in for 12 hours. We estimate the duty cycle to be 5 hours, based on outdoor temperatures. Remember, we only want to calculate the time in which the appliance was heating. The energy rate is .10 cents.

$$\frac{1,000 \times 5 \text{ (time in hours)} \times .10}{1,000} = \frac{500}{1,000} = .50$$

Cost to operate for 5 hours = .50 cents