

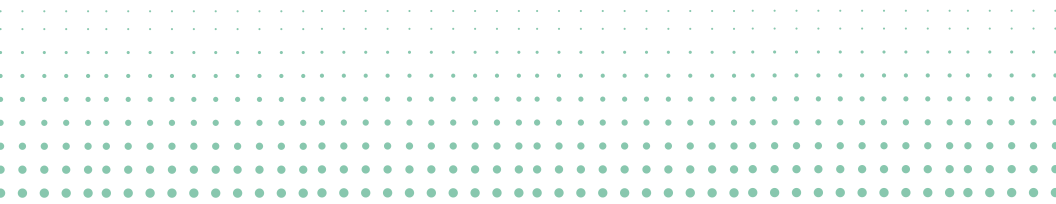


**CORRIDOR ENERGY  
COOPERATIVE**



# Use Energy Wisely

*Use this guide to better understand how your lifestyle affects your energy use and budget, and take the first step toward smarter, more efficient energy management.*



# Understanding Your Energy Use

Every home is different and so are your energy needs. Many members are looking for practical ways to manage and control their electricity use. The first step is awareness.

The most effective way to lower your bill is to understand:

- **How much energy you use each month**
- **When you use it (On-Peak / Off-Peak)**
- **What is using the most energy in your home**

Corridor Energy Cooperative's SmartHub app lets you track when and how much electricity you use, showing how different rate periods affect your bill. It also helps you spot patterns and compare usage over time. Once you understand your usage, this booklet can help you build more energy-efficient habits.



## Lifestyle Matters

You have more control over your electric bill than you may think. While the number of appliances and devices in your home plays a role, how and when you use them has a much greater impact on your overall energy consumption. Small daily choices — adjusting thermostat settings, running appliances during off-peak hours, or limiting high-energy devices — can make a noticeable difference over time.

## Household Size

The number of people in your home directly affects your energy use. More people typically means more hot water use, laundry and dishwashing, cooking, etc. Even temporary changes — such as guests staying with you — can increase monthly energy use. These shifts are normal and often explain short-term bill increases.

## Heating, Cooling & Comfort

Staying comfortable in our homes requires energy. During very hot/humid or cold weather, heating and cooling systems run longer, increasing energy use and often leading to higher bills.

If your bill seems higher than expected, start by checking your usage in SmartHub and comparing it to the weather during that period. This helps determine whether increased heating or cooling is driving the change.

Energy use increases when:

- **HVAC systems run longer during hot/humid or cold weather**
- **Adding portable space heater or window A/C unit**
- **Dehumidifiers operate continuously**
- **Equipment has maintenance issue**

The good news? Improving insulation and sealing air leaks can reduce heating and cooling demand, one of the largest drivers of your energy bill and comfort.

Attic insulation is often the most cost-effective upgrade for older homes if not at proper levels. Air sealing reduces drafts, energy loss, and moisture. Even newer homes can have air leaks that increase energy use.

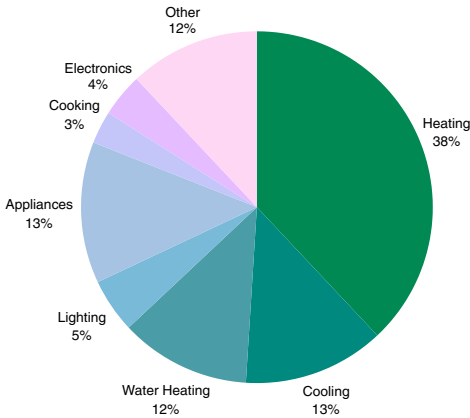
**To check for air leaks**, feel for drafts around windows, doors, and electrical outlets, use smoke such as incense to detect air movement, and inspect the attic for gaps around wiring, plumbing, and other openings.



**Track your electricity use with our SmartHub app! SmartHub helps you:**

- **Track monthly, daily, and in 15-minute intervals**
- **Compare this month to last month and last year**
- **See patterns (spikes, overnight loads, steady "baseload" use)**

## RESIDENTIAL HOME ENERGY USE



## Understanding Your Bill

Corridor Energy Cooperative bills you after you have used the energy. Your monthly bill shows the days in the billing cycle. If your bill seems high, compare the dates on your bill against your personal calendar. What was going on? Who was home? What was the weather like?

Another factor to consider is the number of days in the billing cycle: Were there 28 days? 30 days? 31 days?

Rate information is available on your bill and is listed on our website at [www.corridorenergy.coop](http://www.corridorenergy.coop).

## Electric Water Heaters

Since hot water is part of everyday life, both the amount of hot water you use and the temperature setting on your water heater play a major role in your monthly bill. The good news? Small changes can reduce both electricity and water use.

Try these simple tips:

- **Shift high hot water use (showers, laundry, dish washing) to off-peak hours when possible.**
- **Fix leaking faucets promptly, small leaks can add up over time and increase water and energy use.**
- **Lowering your water heater from 140°F to 120°F can reduce energy use by about 6–10% and help slow mineral buildup and corrosion.**

Reducing hot water use is one of the fastest ways to lower energy consumption without sacrificing comfort. The average lifespan of a water heater is 10–13 years. If your unit is nearing the end of its life, consider replacing it with a heat pump water heater, which can reduce energy use by up to 60–70%.

## Appliance Use

Electricity powers many of the devices that make modern life convenient. Because we rely on appliances daily, and often continuously, the way we use them can significantly impact our energy use. Being mindful of your appliance habits can lead to meaningful savings.

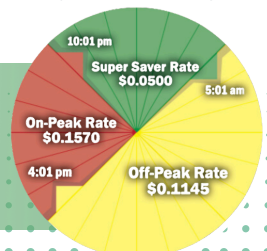
Consider the following:

- **Are your appliances ENERGY STAR® certified? High-efficiency models use less electricity.**
- **Unplug electronics not in use or plug them into a power strip and turn it off when not in use.**
- **Use outdoor grills, microwaves, or smaller appliances instead of the oven during the summer to reduce indoor heat and lower cooling costs, especially when reheating leftovers.**
- **If you have an extra refrigerator or freezer, ask yourself if you truly need it. Unplugging an unused unit can noticeably reduce your bill.**

Appliance choices and daily habits directly affect the electricity required to support your lifestyle. The good news is that small, intentional changes can add up over time — helping you save energy and money while maintaining the comfort and convenience you value.

## SHIFT AND SAVE

By utilizing the time-of-day rate effectively, you can reduce your energy bill. Shifting your electricity usage away from peak hours lowers costs for you and Corridor Energy Cooperative.



## Why Is My Electric Bill Higher Than My Neighbor's?

It's one of the most common questions we hear and the answer is simple:

### Every home is different.

Your electric bill reflects how much electricity your household used during the past month. It's influenced by your daily habits, comfort preferences, and the choices you make about heating, cooling, appliances, and electronics. Even homes that look similar from the outside can have very different energy use.

Lifestyle plays a big role. Because so many factors affect consumption, comparing your bill to your neighbor's often isn't an accurate way to evaluate your own usage.

## YOUR NEIGHBOR'S BILL MAY DIFFER BECAUSE OF:

- Household size and activity (number of people, work-from-home schedules)
- Thermostat settings and comfort preferences
- The size, age, and insulation level of the house
- Heating & cooling equipment type, efficiency
- Appliances and electronics in use
- Electric vehicles, hot tubs, or pool pumps

## Away from Home Doesn't Mean Away from Energy Use

It's easy to assume your electric bill will drop while you're away — Many appliances continue running — even when no one is home. Your electric meter doesn't "pause" while you're away. Unless equipment is adjusted or turned off, it will continue using electricity. Before leaving, consider:

- Set your **water heater to vacation mode**.
- Adjust your **thermostat** to an energy-saving setting.
- Unplug unnecessary electronics and chargers.
- Empty and unplug extra refrigerators or freezers if possible.

Remember, many devices — including TVs and electronics — still use electricity in standby mode. A few quick changes before you leave can prevent unexpected usage.

## Seasonal Changes Impact Your Bill

Weather and seasonal habits naturally affect energy use.

**Summer:** Air conditioning, pool pumps, and dehumidifiers run more often.

**Winter:** Heating systems, space heaters, heat tape, engine heaters, and additional lighting increase usage.

**Holidays:** Cooking, guests, laundry, and decorative lighting can also raise consumption.

Comparing your usage year-over-year, using SmartHub, provides a clearer picture than month-to-month comparisons alone.

Smart plugs offer an easy way to control when devices in your home use electricity. By scheduling your devices to run outside Corridor Energy Cooperative's peak hours (4:01 p.m. to 10:00 p.m.), you can help reduce your energy costs.



# Weather Degree Days & Energy Use

Have you ever noticed your energy use — and your bill — change from month to month, even when your routine stays the same?

Weather is often the reason. A simple way to measure its impact on heating and cooling is through weather degree days.

## WHAT ARE DEGREE DAYS?

Degree days are a way to measure how hot or cold it was outside compared to a standard indoor comfort temperature — usually 65°F. There are two main types:

**Heating Degree Days (HDD):** measures how much heating may be needed

**Cooling Degree Days (CDD):** measures how much cooling may be needed

The farther the outdoor temperature is from 65°F, the more your home has to work to stay comfortable.

## HOW DEGREE DAYS AFFECT ENERGY USE

Degree days are a helpful way to connect weather to energy use:

### More HDD = More Heating = Higher Winter Energy Use

In colder months, higher heating degree days usually mean:

- Furnaces run longer
- Space heaters get used more
- Water heaters may work harder
- Homes lose heat faster, especially if poorly insulated.

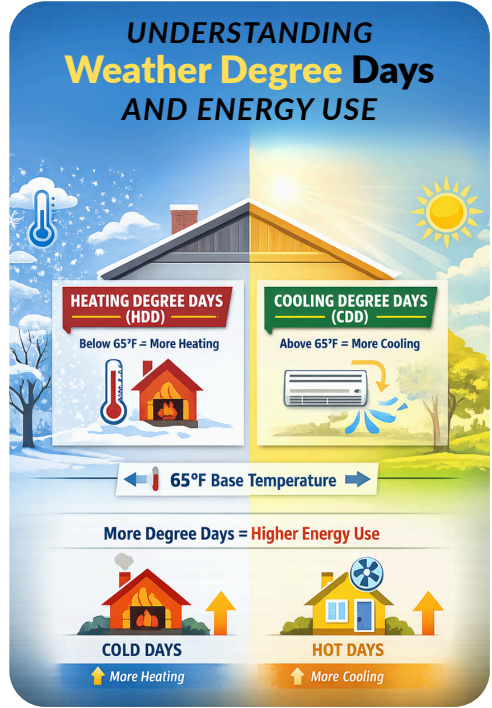
Even if you keep your thermostat at the same setting, your heating system may have to run more often during a colder-than-normal stretch.

### More CDD = More Cooling = Higher Summer Energy Use

In hotter months, higher cooling degree days usually mean:

- Air conditioners run longer
- Fans and dehumidifiers run more
- Refrigerators work harder
- Homes gain heat faster, especially with sun exposure or poor ventilation

That often leads to noticeable increases in electric use.



## WHY THIS MATTERS FOR YOUR BILL

Your energy bill is mostly based on how much electricity you use, and weather plays a huge role.

### That's why:

- Two months with the same number of days can have very different bills
- One unusually cold week can raise a winter bill
- A long heat wave can push summer usage up quickly

# Take Action. Check Your Usage.

If your electric bill seems higher than expected, it's often because something is using electricity that you didn't realize was running or using more energy than you thought.

Common examples include:

- **Dirty furnace filters or A/C condenser**
- **Air conditioning system low on refrigerant**
- **Furnace fan set to "On" instead of "Auto," causing it to run continuously**
- **A well pump with a faulty motor or that is running continuously due to a leak**
- **Dehumidifier placed by an open sump pump pit or toilet will run continuously**
- **Heat pump set to emergency or auxiliary heat on the thermostat**
- **Heat tape left energized**
- **Baseboard electric heat switched on in a rarely used room**
- **A sump pump cycling more frequently than normal**
- **Excessive use of space heaters**

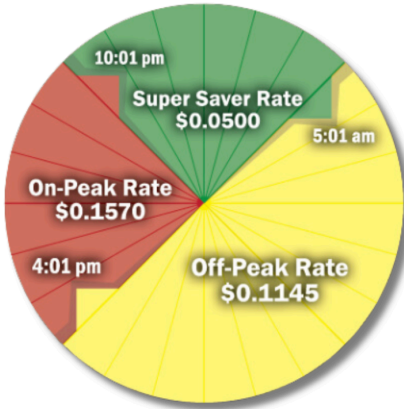
These types of loads can quietly add kilowatt-hours (kWh) day after day. Taking a few minutes to check breakers, thermostats, and seldom-visited areas of your home can sometimes uncover the source of unexpected usage. Small discoveries can lead to big savings.



# Time Of Day Rate



Use our rate to your advantage by shifting your energy use.



By utilizing the time-of-day rate effectively, you can reduce your energy bill. Shifting your electricity usage away from peak hours lowers costs for you and Corridor Energy Cooperative.

1

Spread out the use of major appliances rather than running them at the same time to minimize your demand.

2

Shift laundry and other household tasks to off-peak hours by using delay-start settings or timers on appliances like washers and dishwashers.

3

If you have a programmable thermostat, adjust the settings to sync up with off-peak rate periods.

4

If you have an electric vehicle, charge it overnight.

# How We Can Help

Understanding your energy use is the first step toward lowering your bill. Corridor Energy Cooperative offers several easy ways to help you learn more about how electricity is used in your home.

## » SmartHub App



Access your account anytime, anywhere. With SmartHub, you can:

- View your electricity use 24/7
- Track daily and monthly trends (*see our high use case study on page 9*)
- Compare usage over time
- Identify patterns that may explain changes in your bill

## » Energy Usage Evaluations



If you're looking for general guidance, our **Self-Assessment option** is a great place to start. It provides practical tips and insights to help you evaluate your home's overall energy efficiency.

Want a closer look? Complete our **Residential Energy Usage Evaluation** form. Our Member Services team will review your usage data and help identify potential savings opportunities based on your specific patterns.

## » Home Energy Monitors



For members who want even deeper insight, a home energy monitor can be installed at your electric panel to help identify which appliances and devices are driving your usage.

These monitors provide real-time data and can:

- Break down energy use by device or circuit
- Identify high-energy equipment
- Detect unusual spikes or "always-on" loads
- Help you make more informed decisions about upgrades or usage changes
- Can be installed by a qualified professional

## » Rebates



We offer rebates on energy-efficient equipment that can help reduce your energy use, including:

- High-efficiency heating and cooling systems (heat pumps)
- Heat pump water heaters
- Heat pump dryers
- Smart plugs and hot water & pool pump timers

## A CASE STUDY --

# How Smarthub Solved A High Usage Issue

When members experience a sudden increase in energy use, the first concern is often a high electric bill. In many cases, the cause is a piece of equipment running continuously without the homeowner realizing it. SmartHub can help identify these hidden energy loads quickly and clearly.



## A Real-World Example

In this SmartHub example, the usage graph revealed a clear pattern:

- The black line represents outdoor temperature
- The orange bars represent energy use

Even during mild weather, energy use remained elevated and consistent throughout the day and night. Because the usage pattern did not rise and fall with outdoor temperatures, heating and cooling equipment were unlikely to be the cause. Instead, the steady usage suggested that something in the home was running continuously.

## Testing the Suspected Equipment

On April 3, the homeowner performed a simple test by turning off the breaker to the well pump for approximately 20 minutes.

The results were immediate:

- Energy use dropped as soon as the breaker was turned off
- Usage returned when the breaker was restored
- This confirmed the well pump was creating the continuous load

*(Note: SmartHub reporting includes a delay, so usage changes appear the following day.)*

## Why This Matters

Continuous loads are one of the most common causes of unexpectedly high energy bills. Equipment such as well pumps, sump pumps, water heaters, or malfunctioning HVAC components can operate constantly without obvious signs inside the home.

By reviewing SmartHub usage patterns, you can often identify problems before they become even more costly.

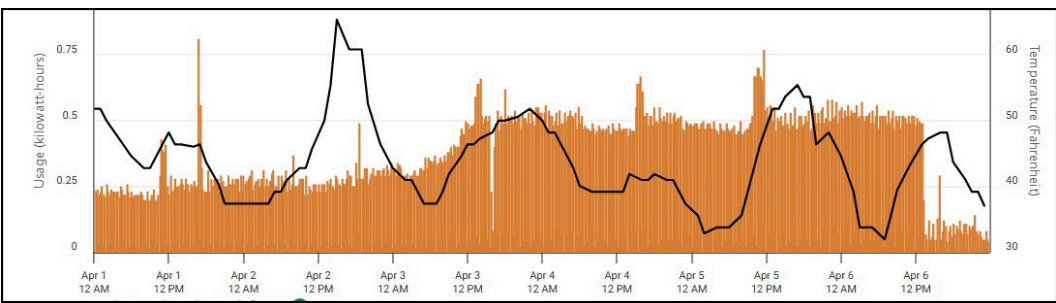
## What to Look For in SmartHub

Members should watch for:

- Steady energy use throughout the day and night
- Usage patterns that do not match outdoor temperatures
- Sudden drops in usage when equipment is turned off for testing

## Key Takeaway

If your energy usage stays steady or higher than expected, something in your home may be running continuously. SmartHub provides valuable insight that can help pinpoint the source and prevent unnecessary energy costs.



# Common Household Energy Use Guide

## Heating and Cooling & Kitchen

| Heating and Cooling<br>(Cost per 1 hour of runtime) | Watts<br>(Average) | Kilowatt<br>hours (kWh) | Off-Peak \$0.1145<br>(5:01am-4:00pm) | On-Peak \$0.1570<br>(4:01pm-10:00pm) | Super Saver \$0.0500<br>(10:01pm-5:00am) |
|---|--------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| Air Conditioner (Room/Window) 9,000 BTU **          | 2637               | 2.637                   | 0.3019                               | 0.4140                               | 0.1319                                   |
| Air Conditioner (Central, before to 2006) 3-ton     | 3600               | 3.6                     | 0.4122                               | 0.5652                               | 0.1800                                   |
| Air Conditioner (Central, after to 2006) 3-ton      | 2770               | 2.77                    | 0.3172                               | 0.4349                               | 0.1385                                   |
| Space Heater 1,500 watts **                         | 1500               | 1.5                     | 0.1718                               | 0.2355                               | 0.0750                                   |
| Electric Blanket                                    | 150                | 0.15                    | 0.0172                               | 0.0236                               | 0.0075                                   |
| Heated Mattress Pad (Queen)                         | 130                | 0.13                    | 0.0149                               | 0.0204                               | 0.0065                                   |
| Dehumidifier **                                     | 500                | 0.5                     | 0.0573                               | 0.0785                               | 0.0250                                   |
| Humidifier  | 100                | 0.1                     | 0.0115                               | 0.0157                               | 0.0050                                   |

\*\* Smart Plugs can help on usage and bill reduction for items that may not be needed to run during our peak times. CEC offers a rebate for Smart Plugs.

| Kitchen<br>(Cost per 1 hour of runtime)  | Watts<br>(Average) | Kilowatt<br>hours (kWh) | Off-Peak \$0.1145<br>(5:01am-4:00pm) | On-Peak \$0.1570<br>(4:01pm-10:00pm) | Super Saver \$0.0500<br>(10:01pm-5:00am) |
|--|--------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| Dishwasher (per cycle, not per hour)   | 1800               | 1.8                     | 0.2061                               | 0.2826                               | 0.0900                                   |
| Range (Stove Top and Oven)   | 3000               | 3                       | 0.3435                               | 0.4710                               | 0.1500                                   |
| Microwave  | 1200               | 1.2                     | 0.1374                               | 0.1884                               | 0.0600                                   |
| Slow Cooker  | 170                | 0.17                    | 0.0195                               | 0.0267                               | 0.0085                                   |
| InstaPot   | 1000               | 1                       | 0.1145                               | 0.1570                               | 0.0500                                   |
| Air Fryer  | 1550               | 1.55                    | 0.1775                               | 0.2434                               | 0.0775                                   |
| Toaster Oven   | 1600               | 1.6                     | 0.1832                               | 0.2512                               | 0.0800                                   |
| <i>Refrigerators and Freezers are calculated on a monthly basis for usage as they are always on.<br/>Keep in mind that size and features will vary and may affect the average monthly usage.</i> |                    |                         |                                      |                                      |  |
| Refrigerator: top/bottom freezer (1995-2004)   | 575                | 0.575                   | 21.7264                              | 16.2495                              | 6.0375                                   |
| Refrigerator: top/bottom freezer (2005-2014)   | 475                | 0.475                   | 17.9479                              | 13.4235                              | 4.9875                                   |
| Refrigerator: top/bottom freezer (2015-current)  | 400                | 0.4                     | 15.1140                              | 11.3040                              | 4.2000                                   |
| Refrigerator: side by side (1995-2004)   | 900                | 0.9                     | 34.0065                              | 25.4340                              | 9.4500                                   |
| Refrigerator: side by side (2005-2014)   | 650                | 0.65                    | 24.5603                              | 18.3690                              | 6.8250                                   |
| Refrigerator: side by side (2015-current)  | 400                | 0.4                     | 15.1140                              | 11.3040                              | 4.2000                                   |
| Freezer: upright (1995-2004)   | 300                | 0.3                     | 11.3355                              | 8.4780                               | 3.1500                                   |
| Freezer: upright (2005-2014)   | 265                | 0.265                   | 10.0130                              | 7.4889                               | 2.7825                                   |
| Freezer: upright (2015-current)  | 215                | 0.215                   | 8.1238                               | 6.0759                               | 2.2575                                   |
| Freezer: chest (1995-2004)   | 300                | 0.3                     | 11.3355                              | 8.4780                               | 3.1500                                   |
| Freezer: chest (2005-2014)   | 240                | 0.24                    | 9.0684                               | 6.7824                               | 2.5200                                   |
| Freezer: chest (2015-current)  | 195                | 0.195                   | 7.3681                               | 5.5107                               | 2.0475                                   |



Light-emitting diode (LED) light bulbs use 80% less energy than incandescent bulbs and can last up to 25 times longer! LEDs also emit much less heat than CFL or incandescent bulbs, which release 80% to 90% of their energy as heat.

Source: [energy.gov](http://energy.gov)

# Common Household Energy Use Guide

## Electronics, General Household, Miscellaneous

| Electronics<br>(Cost per 1 hour of runtime) | Watts<br>(Average) | Kilowatt<br>hours (kWh) | Off-Peak \$0.1145<br>(5:01am-4:00pm) | On-Peak \$0.1570<br>(4:01pm-10:00pm) | Super Saver \$0.0500<br>(10:01pm-5:00am) |
|---|--------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| TV (LED or LCD)                             | 200                | 0.2                     | 0.0229                               | 0.0314                               | 0.0100                                   |
| TV (OLED)                                   | 275                | 0.275                   | 0.0315                               | 0.0432                               | 0.0138                                   |
| Computer and Monitor                        | 170                | 0.17                    | 0.0195                               | 0.0267                               | 0.0085                                   |
| Laptop                                      | 60                 | 0.06                    | 0.0069                               | 0.0094                               | 0.0030                                   |
| PS4   | 120                | 0.12                    | 0.0137                               | 0.0188                               | 0.0060                                   |
| PS4 (idling)                                | 85                 | 0.085                   | 0.0097                               | 0.0133                               | 0.0043                                   |
| Xbox One                                    | 120                | 0.12                    | 0.0137                               | 0.0188                               | 0.0060                                   |
| Xbox One (idling)                           | 15                 | 0.015                   | 0.0017                               | 0.0024                               | 0.0008                                   |
| Nintendo Switch                             | 18                 | 0.018                   | 0.0021                               | 0.0028                               | 0.0009                                   |
| Nintendo Switch (idling)                    | 1.5                | 0.0015                  | 0.0002                               | 0.0002                               | 0.0001                                   |
| Modem/Router                                | 15                 | 0.015                   | 0.0017                               | 0.0024                               | 0.0008                                   |

| General Household<br>(Cost per 1 hour of runtime) | Watts<br>(Average) | Kilowatt<br>hours (kWh) | Off-Peak \$0.1145<br>(5:01am-4:00pm) | On-Peak \$0.1570<br>(4:01pm-10:00pm) | Super Saver \$0.0500<br>(10:01pm-5:00am) |
|---|--------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| Electric Water Heater (50 gallon)                 | 4500               | 4.5                     | 0.5153                               | 0.7065                               | 0.2250                                   |
| Heat Pump Water Heater (50 gallon)                | 500                | 0.5                     | 0.0573                               | 0.0785                               | 0.0250                                   |
| ENERGY STAR Dryer                                 | 2300               | 2.3                     | 0.2634                               | 0.3611                               | 0.1150                                   |
| Heat Pump Dryer                                   | 1500               | 1.5                     | 0.1718                               | 0.2355                               | 0.0750                                   |
| ENERGY STAR Clothes Washer (front load)           | 1400               | 1.4                     | 0.1603                               | 0.2198                               | 0.0700                                   |

| Miscellaneous<br>(Cost per 1 hour of runtime)    | Watts<br>(Average) | Kilowatt<br>hours (kWh) | Off-Peak \$0.1145<br>(5:01am-4:00pm) | On-Peak \$0.1570<br>(4:01pm-10:00pm) | Super Saver \$0.0500<br>(10:01pm-5:00am) |
|--|--------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| Hot Tub  | 5000               | 5                       | 0.5725                               | 0.7850                               | 0.2500                                   |
| Swimming Pool Pump (1 1/2 hp) ***                | 1100               | 1.1                     | 0.1260                               | 0.1727                               | 0.0550                                   |
| Level II EV Charger *                            | 9600               | 9.6                     | 1.0992                               | 1.5072                               | 0.4800                                   |
| Battery Charger (power tools): 6 Ah *            | 50                 | 0.05                    | 0.0057                               | 0.0079                               | 0.0025                                   |
| Battery Charger (power tools): 10 Ah *           | 80                 | 0.08                    | 0.0092                               | 0.0126                               | 0.0040                                   |
| Engine Block Heater: 500 watt *                  | 500                | 0.5                     | 0.0573                               | 0.0785                               | 0.0250                                   |
| Engine Block Heater: 800 watt *                  | 800                | 0.8                     | 0.0916                               | 0.1256                               | 0.0400                                   |
| Engine Block Heater: 1500 watt *                 | 1500               | 1.5                     | 0.1718                               | 0.2355                               | 0.0750                                   |
| Engine Block Heater: 2500 watt (diesel engine) * | 2500               | 2.5                     | 0.2863                               | 0.3925                               | 0.1250                                   |
| Well/Water Pump: 1/2 hp                          | 500                | 0.5                     | 0.0573                               | 0.0785                               | 0.0250                                   |
| Well/Water Pump: 1 1/2 hp                        | 1500               | 1.5                     | 0.1718                               | 0.2355                               | 0.0750                                   |

\* These items are recommended to use items during our Super Saver Rate (10:01pm-5:00am), which will help reduce your bill.

\*\*\* Timers are recommended to turn off during On-Peak Rate (4:01pm-10:00pm). CEC offers a rebate for pool pump timers.

**Questions? We're  
here to help!**



# Contact Information



319-377-1587



[www.corridorenergy.coop](http://www.corridorenergy.coop)



[cec@corridorenergy.coop](mailto:cec@corridorenergy.coop)



5695 REC Drive, Marion, IA

