

EMPIRE ELECTRIC ASSOCIATION

Echoes of the Empire

SEPTEMBER 2022

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TWO-STEPPING YOUR WAY TO SAVINGS

BY ANDY CARTER MEMBER ENGAGEMENT MANAGER



ANDY CARTER

Even if your Friday nights are not spent line dancing at your local dance hall or honky-tonk, most people identify “two-stepping” as a country and western dance that has been described as easy to learn as walking. The basic idea is for the lead partner to take two quick steps in time with the music and then two slower steps taking two beats each. Once partners have the basic steps down, they can incorporate turns and spins as they move across the dance floor. Many times, the advice given to a beginning two-stepper is to think “quick, quick, slow, slow” as they learn the dance.

Saving money on your energy bill with the time-of-use demand rate can be as easy as learning the two-step, but instead of thinking of the pace to take your steps in time with the music, think about “kilowatt demand, on peak, off peak.” The two variable pieces of your power bill are pieces you can influence: how much demand you place on the Empire Electric Association distribution system and what time of day you use the power.

Distribution demand is measured in kilowatts and is calculated by dividing your highest average 15-minute kilowatt hour usage by the 15-minute interval. To make the time units cancel, divide by 0.25 hours which equals 15 minutes. For example, if the highest fifteen minute usage is 1.5 kWh, the distribution demand equals 6 kW, or $1.5 \text{ kWh} \div 0.25 \text{ hours} = 6 \text{ kW}$. A high demand requires larger equipment on the distribution system to safely and reliably deliver the

power required. High demand also results in increased distribution demand charges on your bill to recover the larger operation and maintenance costs required by the larger facilities. This accomplishes the goals set forth by EEA board policy to design rates that allocate costs in an equitable manner and minimize subsidies within rate classes.

Two factors that influence your distribution demand are the wattage of the individual appliances you are using and how many appliances are used at the same time. Appliances that create heat typically have a higher wattage, such as water heaters, all-electric clothes dryers, electric ovens and ranges, and electric resistance baseboard heaters. Using high wattage appliances at the same time results in a higher distribution demand and a more expensive power bill. Planning your activities to use high-wattage appliances at different times will help minimize your demand and lower your monthly power bill.

What does that look like in real life? Let’s look at a morning where you need to do laundry and bake quick bread for a bake sale. You start by washing a load of laundry in cold water while you get the rest of your laundry together and gather ingredients for the quick bread. Your washing machine uses 0.50 kW. Next, you dry the first load (4.0 kW dryer) while starting a load of laundry you are washing (0.5kW) in hot water (3.8 kW



YOUR CO-OP NEWS

water heater) and heating the oven (3.0 kW oven) to bake the bread. The demand for the appliances you are using could add up to 11.8 kW if they all operate for a full 15-minute period. These appliances may cycle on and off, lowering the average 15-minute demand, but I think you see the potential. If the average demand was 10 kW, it would result in a \$27.40 distribution demand charge on your bill (if this is the highest demand recorded by the meter during the billing period).

If you were to start by washing the hot water load while gathering the rest of the laundry and bread ingredients, you would be using 4.3 kW. If you start drying the hot water load and wash the cold water load, you would be using 4.5 kW. If you wait to bake until after the second load of laundry is done drying, 4.5 kW would be the highest average demand and savings would be over \$15. If you just didn't have time and baked while the second load is drying, the highest demand would be 7.0 kW, which would still save over \$8.

Changing when you use appliances while on the TOUD rate can also save you money. On-peak energy charges are more

than three times as expensive as off-peak energy charges. This matches the energy rate charged by Tri-State Generation and Transmission Association and is designed to equitably pass on charges to members in line with how EEA is charged. On-peak time is from 12 noon until 10 p.m., Monday through Saturday. All other time is off peak. If New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, or Christmas Day fall on a Monday through Saturday, those holidays are all off peak like Sunday.

Just like planning appliance use to avoid using high-wattage appliances at the same time, rearranging when you use appliances can have a big impact on your power bill. Many appliances have timers or delay functions that allow you to choose when they start. Taking care of energy-intensive activities like laundry and baking in the morning before noon can save money and keep your house cooler during the summer, saving additional money on cooling.

Keeping with the laundry theme, the energy charge to dry a load of clothes during on-peak time would be 4 kW x 1 hour x

$(\$0.14814/\text{kWh} + \$0.00586/\text{kWh}) = \$0.62$. If you were to move to off peak, the energy charge would be $4 \text{ kW} \times 1 \text{ hour} \times (\$0.04339/\text{kWh} + \$0.00586/\text{kWh}) = \0.20 . Saving \$0.42 isn't much, but if you do three loads of laundry each week, you will save over \$5 each month. That represents 4.8% of the average EEA residential member's power bill.

The last way you can save on your power bill is to reduce the total amount of electricity you use. This helps members on both the TOUD rate and the all-energy rate option. You can reduce your power bill by turning lights and fans off when you are not in a room; waiting to do laundry or run the dishwasher until you have a full load; keeping up with maintenance items like changing heating and cooling filters; keeping weatherstripping, caulking, and seals in good repair; and using window coverings to block the sun's heat in the summer and allowing it in during the winter.

The two-step of energy savings takes some effort and thought to get in the rhythm, but with a dance partner like EEA, we hope you'll soon get in the swing of savings and see the results on your monthly bill.



Co-op Photo Contest Winner September 2022 – "Sunset Mover" by Allison M. Porter



Monthly Calendar

September 1 – Youth Trip Applications are available. High school juniors are encouraged to apply for the Washington D.C. Youth Tour and the Youth Leadership Camp held at Glen Eden Resort near Steamboat Springs. Apply at eea.coop.

September 5 – Labor Day. EEA office will be closed.

September 9 – EEA's board meeting begins at 8:30 a.m. at its headquarters in Cortez. The agenda is posted 10 days in advance of the meeting at eea.coop. Members may attend in person or remotely. Instructions to attend remotely are included in the agenda.

September 15 – Deadline for nonprofit donation requests for 2023. Requests can be made online at eea.coop.

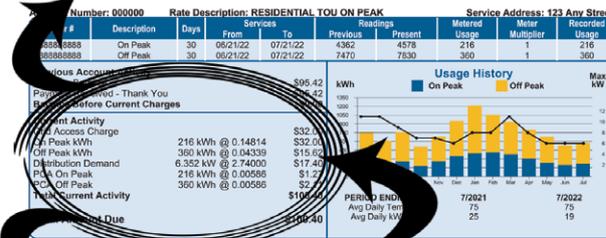
Where does my money go?

Grid Access Charge includes 100% of Customer expenses (metering, billing, member services support and programs) plus 53% of Distribution Operation & Maintenance expenses plus 60% of Administrative, General, Depreciation, Amortization, and Tax expenses.

RESIDENTIAL TIME OF USE DEMAND RATE

Current Activity			
Grid Access Charge			\$32.00
On Peak kWh	216 kWh @ 0.14814		\$32.00
Off Peak kWh	360 kWh @ 0.04339		\$15.62
Distribution Demand	6.352 kW @ 2.74000		\$17.40
PCA On Peak	216 kWh @ 0.00586		\$1.27
PCA Off Peak	360 kWh @ 0.00586		\$2.11
Total Current Activity			\$100.40

On Peak kWh, Off Peak kWh and Power Cost Adjustment (PCA) Charges include only the cost to purchase power from Tri-State Generation and Transmission Association, EEA's wholesale power provider.



From the back of your billing statement.

Distribution Demand Charge includes 47% of Distribution Operation & Maintenance expenses plus 40% of Administrative, General, Depreciation, Amortization, and Tax expenses.

Energy and Power Cost Adjustment (PCA) Charges include the cost to purchase power from Tri-State Generation and Transmission Association, EEA's wholesale power provider, plus 47% of Distribution Operation & Maintenance expenses plus 40% of Administrative, General, Depreciation, Amortization, and Tax expenses.

RESIDENTIAL ALL ENERGY RATE

Current Activity			
Grid Access Charge			\$38.00
Energy Charge	679 kWh @ 0.09452		\$64.18
PCA 1	679 kWh @ 0.00586		\$3.98
Total Current Activity			\$106.16

EEA 2022 Continuing Education Scholarship Winners

Congratulations!



Tuff Adair
Monticello, UT



Britton Brewer
Monticello, UT



Kennedy Brewer
Monticello, UT



Lauren Butler
Mancos, CO



Marguerite Copeland
Dolores, CO



Ridley Dennison
Dolores, CO



Gabriel Fizzell
Cortez, CO



Cassie Gatlin
Dove Creek, CO



Madilyn Hankins
Dove Creek, CO



Tia Imel
Mancos, CO



Kiara Lingenfelter
Dove Creek, CO



Morgan Maloy
Monticello, UT



Elise Thayn
Monticello, UT



KEEP FOOD SAFE WHEN THE POWER GOES OUT

BY ABBY BERRY

Severe winds, lightning and even squirrels can cause the power to go out temporarily. We understand that power outages of any length can be frustrating, especially when your refrigerator is stocked with perishable foods. Extended power outages are rare, but when they occur, it's important to understand food safety measures needed to avoid illness. Here are a few food safety tips to keep in mind before, during and after a power outage.

BEFORE AN OUTAGE

A good rule of thumb is to keep an emergency supply kit on hand. Be sure to include nonperishable food items like bottled water, powdered milk, canned goods, cereal and protein bars in your emergency kit. If you have advance warning that an outage is possible, fill a cooler with ice in case the outage spans several hours. Having a cooler ready can buy extra time for your refrigerated, perishable items.

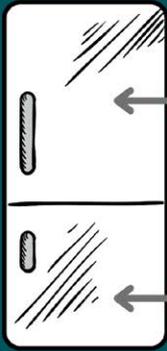
DURING AN OUTAGE

If an outage occurs, do not open the refrigerator or freezer unless absolutely necessary. An unopened refrigerator will keep food cold for about 4 hours. A half-full freezer will keep food frozen for about 24 hours and a full freezer for about 48 hours. If it looks like the power outage will last longer than 4 hours, move your important perishable items to an ice-filled cooler.

Keep Food Safe

During and After a Power Outage

Refrigerated or frozen foods may not be safe to eat after a power outage. Use these tips to minimize food loss and reduce risk of illness.



4

Refrigerated food will last four hours. After four hours, place refrigerated foods in a cooler with ice.

24 OR **48**

Food in a half-full freezer will last 24 hours. Food in a full freezer will last 48 hours.

Food Safety Tips

- 1.** Keep refrigerator and freezer doors closed as much as possible.
- 2.** Throw out any food with an unusual odor, color or texture.
- 3.** Throw out perishable food in your refrigerator after four hours without power or a cold source (like a cooler with ice).

When in doubt, throw it out!



AFTER AN OUTAGE

If refrigerated foods have been exposed to temperatures higher than 40 degrees for more than 2 hours, the American Red Cross recommends discarding the items. If any foods have an unusual color, odor, or texture, they should also be thrown away.

While most perishable foods should be thrown out after an extended outage, there are a few items that are safe to consume after a 2-hour exposure to 40-plus degrees:

- Hard cheeses that are properly wrapped

- Butter or margarine that is properly wrapped
- Taco, barbecue and soy sauces
- Peanut butter, jelly, mustard, ketchup and relish

The best way to avoid illness from spoiled food during or after an outage is to follow the 4-hour rule of thumb. After an outage, always smell and inspect foods before consuming and remember: When in doubt, throw it out. To learn more about food safety after an emergency, visit [ready.gov/food](https://www.ready.gov/food).

Abby Berry writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association.

Energy Efficiency Tip of the Month

Water heating accounts for a large portion of home energy bills. To save energy (and money) used for water heating, repair any leaky faucets, install low-flow fixtures and insulate accessible hot water lines. When it's time to purchase a new washing machine or dishwasher, look for models that are Energy Star-certified. *Source: Dept. of Energy*

