

# EMPIRE ELECTRIC ASSOCIATION

*Echoes of the Empire*

APRIL 2020



## MAILING ADDRESS

P.O. Box K  
Cortez, CO 81321-0676



## STREET ADDRESS

801 North Broadway  
Cortez, CO 81321



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## PREDICTING THE UNPREDICTABLE

BY ANDY CARTER  
MEMBER ENGAGEMENT MANAGER

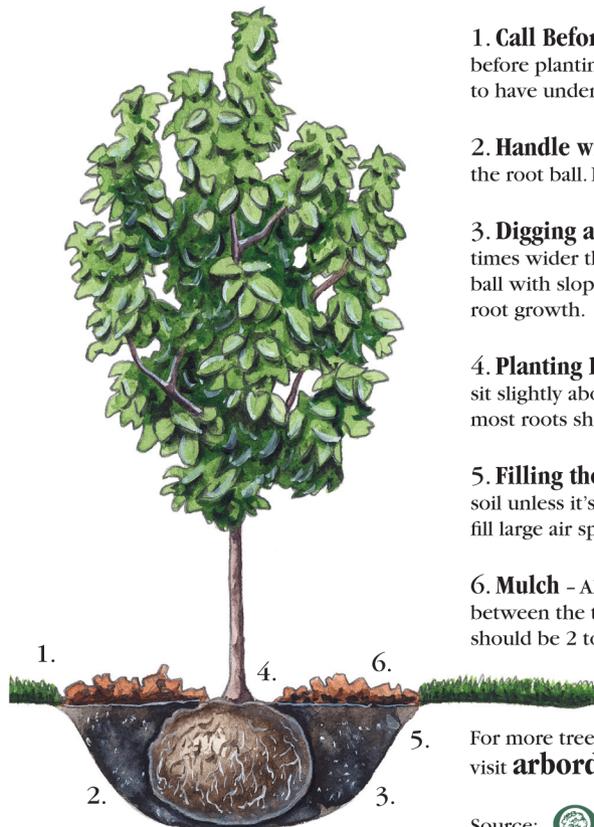


ANDY CARTER

As the weather gets warmer, my mind starts to think about getting out and enjoying the great outdoors. Some of my favorite memories raising my children are of introducing them to the wonderful world of camping. We tent camped for several years until we were able to afford a used camper. Planning a camping trip usually involves recalling lessons learned like fuel management. We upgraded to a used Suburban to pull the trailer, and on the first trip pulling the camper we were headed to Evanston, Wyoming, from the Denver area. The

weather was fine when we left, but by the time we turned west at Cheyenne, the wind picked up. We refueled in Cheyenne and I didn't think we would have any problem getting to Green River. My wife asked if we needed fuel as we passed Laramie, so I did some quick math and decided that, even though we were burning more fuel than I thought, we would still be OK. The farther we went, the more time I spent staring at

### Six things you should know when planting a tree.



**1. Call Before You Dig** - Several days before planting, call the national 811 hotline to have underground utilities located.

**2. Handle with Care** - Always lift tree by the root ball. Keep roots moist until planting.

**3. Digging a Proper Hole** - Dig 2 to 5 times wider than the diameter of the root ball with sloping sides to allow for proper root growth.

**4. Planting Depth** - The trunk flare should sit slightly above ground level and the top-most roots should be buried 1 to 2 inches.

**5. Filling the Hole** - Backfill with native soil unless it's all clay. Tamp in soil gently to fill large air spaces.

**6. Mulch** - Allow 1 to 2 inch clearance between the trunk and the mulch. Mulch should be 2 to 3 inches deep.

For more tree-planting tips and information, visit [arborday.org](http://arborday.org).

Source: **Arbor Day Foundation**  
90075201

the fuel gauge. I breathed a sigh of relief as we saw the exit for Sinclair and pulled in to refuel. I put 27 gallons in my 25-gallon fuel tank. My brother who was following me commented, “You must have been running on the filler neck!”

The unplanned wind almost ruined our trip, but the unpredictability of the weather has caused people problems for a long time. Empire Electric Association is also at the mercy of the weather. The most obvious way is the impact foul weather has on co-op facilities. High winds and heavy spring snow wreak havoc on exposed lines and poles. A more insidious weather impact is on EEA’s purchased power cost. As a distribution utility, EEA does not own any generation and purchases the power it needs from Tri-State Generation and Transmission. The rate Tri-State charges its member co-ops includes energy charges plus generation and transmission demand charges.

Most consumer-members are familiar with energy — or kilowatt-hour — charges, because that is how electricity providers traditionally charge for their service. Demand charges are less familiar. Demand is defined as the amount of energy required at a given point in time and is measured in kilowatts. Demand is what drives how large transmission and distribution facilities must be to meet the maximum power required. The higher the demand, the larger the required facilities and the larger the fixed costs the co-op must recover in its rates.

Because the maximum demand drives a large part of the cost to provide service, the fairest way to distribute those costs is to charge for each specific component. EEA’s large power and transmission rates are structured like the Tri-State rate with energy and demand charges.

Approximately 80% of EEA’s costs are attributed to purchased power. Changes in the weather cause changes in

## Example Bill

Page 1 of 1  
 Statement Date: 02/20/2020  
 Member: Wilson, Q Z

Account #: 00000000  
 Statement ID: 10000000000  
 Billing Cycle: 3

**Service Address:** 123 Brown Avenue  
Cortez CO, 81321

**Billing Detail for Meter 00000000**  
 Previous Amount Billed \$165.93  
 02/05/20 Payment -- Thank You \$165.93 CR  
 Balance Forward \$0.00

**New Charges for 01/15/2020 to 02/15/2020**  
 Grid Access Charge Current \$32.00  
 kWh Usage 1345 @ 0.09599 \$129.11  
 PCA 1345 @ 0.01235 \$16.61  
 Total New Charges \$177.72

**Total Account Balance Due: \$177.72**

Please pay amount due by: 03/06/2020  
Thank you

**JUST FOR YOU**

Peak Demand: 5.41 kW

		Meter Reading		Multi	Usage
Rate	Present	Previous			kWh
R1	22130	20785	1		1345
		Average temperature(F) this billing period		2019	2020
				34	31

Curious what your demand is? EEA added demand information to your billing statement several months ago. The demand information on the sample bill above is circled in blue.

consumer-members’ power use, so any time temperatures stray from the average, EEA’s power cost is affected. This can cause costs to go up or down depending the season. Warmer winters like 2017-2018 typically see EEA’s power costs go down, because of lower energy use but more for the lower demand charges. The opposite happens in a colder winter like 2018-2019 where EEA’s purchased power cost increased.

A rate that only has kWh charges is somewhat mislabeled because it contains both energy and demand costs. Rate classes with an energy and a demand component, such as EEA’s large power rate, result in immediate savings for the consumer if and when they use less energy or reduce their demand on the system. For rates that only have an energy component, like EEA’s residential or general service single phase, the savings don’t show up until the next year because of how the rate is designed.

The kWh-only rate is determined by adding up all the costs incurred by the rate class, including purchased energy charges, purchased demand charges, distribution system costs, overhead costs and margins,

and dividing that total dollar amount by the estimated annual kWh sales. The unpredictability comes in when the weather varies from the norm, and purchased power costs and kWh sales are higher or lower than estimated. In the case of a warm winter, you might expect that lower kWh sales would cause an under recovery in revenue, but what can happen is the reduced demand costs outweigh the lower kWh sales to result in over recovery of revenue. This savings is passed on to consumer-members in the next year as a reduction in the power cost adjustment charge.

The annual tug of war between over and under recovery of revenue is only one issue with the basic energy charge only rate. The second is that because demand costs are averaged with the energy costs, consumer-members may be paying too little or too much, depending on their load factor. Load factor is defined as the ratio of actual kWh used in a given period divided by the total possible kWh that could have been used.

Consider two different couples whose homes are identical in construction and have identical electric appliances. The

Wilson's live in their home full time. The Romeros are accountants who specialize in auditing and are only home on the weekends. The Wilsons have an average monthly energy use of 900 kWh and a maximum demand of 5 kW, and the Romeros average 300 kWh and 5 kW.

EEA will incur one-third of the purchased energy cost from Tri-State for the Romeros as the Wilsons but will incur the same demand charges for both homes. When EEA calculates the bill for each home, EEA will bill the Romeros for one-third of the kWh as the Wilsons. Because EEA only collects one-third as much revenue from the Romeros as the Wilsons, there is a mismatch in cost recovery because both the Wilsons and the Romeros pay the same average kWh rate that includes energy and demand charges. If the rate were designed where energy and demand charges were recovered, the cost paid by each couple would be closer to their true cost of service.

If you're feeling a little lost at this point, you are in good company. Rate making and design are not common dinner table topics. Providing power responsibly is in our mission statement, and part of being responsible is to make the rates we use as equitable as possible. Hopefully you understand the unpredictable nature of rate making better and can see that the traditional energy-only rate works but is not the most equitable rate structure. With our improved metering system, we can now measure energy demand at every meter and, armed with this better information, we are beginning to consider more equitable rate structures. Not only will this help us more accurately recover costs, but we hope to provide you, our consumer-members, more options in controlling your electricity costs.

Thinking about purchasing a new electric mower or other electric or battery powered yard tool?

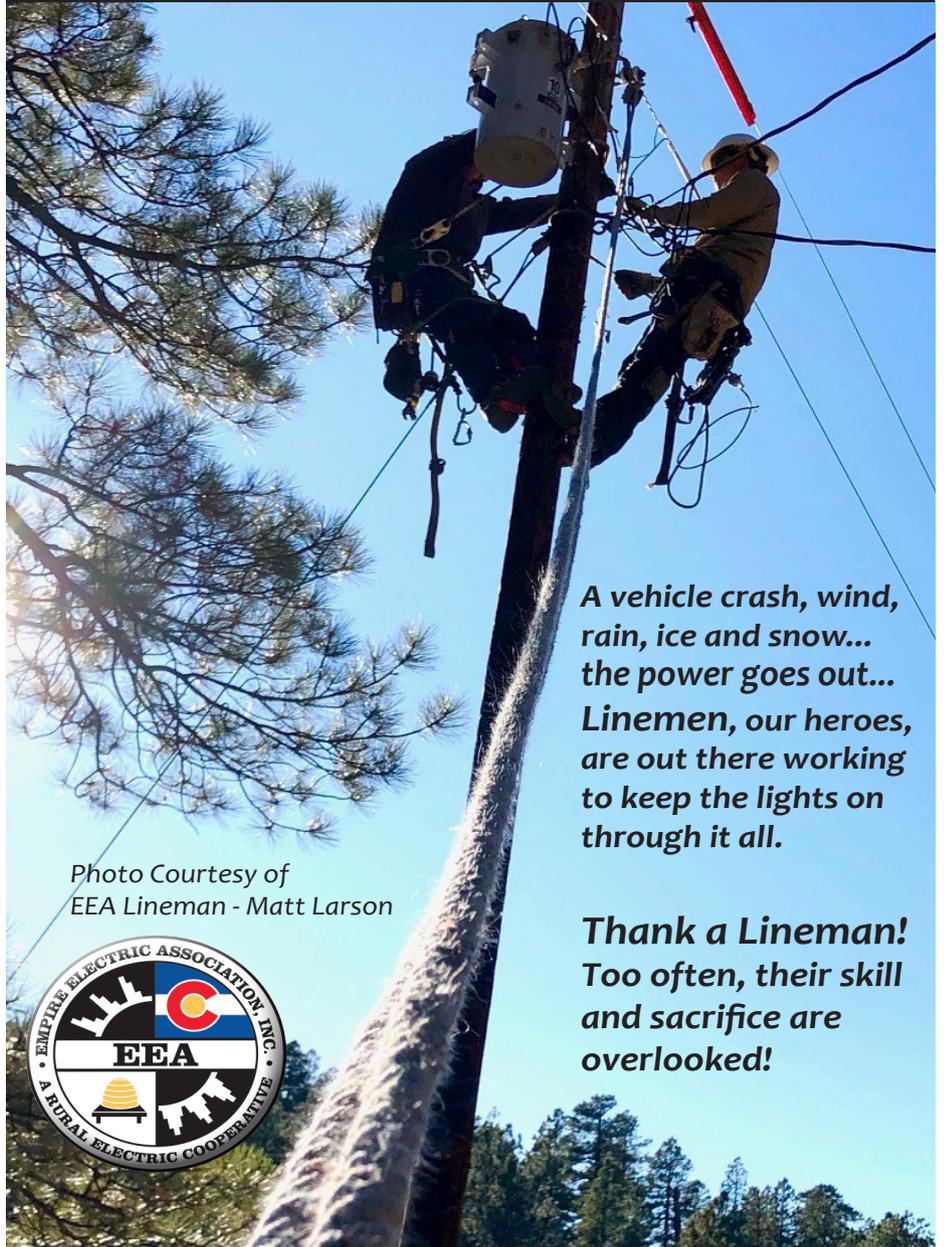
We have a **rebate** for that!

Details are on our website [www.eea.coop](http://www.eea.coop).



## April 13th is Lineman Appreciation Day

EEA Linemen don't stop till the job is done!



**A vehicle crash, wind, rain, ice and snow... the power goes out... Linemen, our heroes, are out there working to keep the lights on through it all.**

**Thank a Lineman! Too often, their skill and sacrifice are overlooked!**

Photo Courtesy of  
EEA Lineman - Matt Larson



**Photo Contest Winner for April 2020**



**Snow Covered Abajo Mountains**  
by Anna Fredericks

**Celebrate  
Lineworker  
Appreciation  
Day on  
April 13**

No matter what Mother Nature has in store, Colorado's electric cooperative lineworkers are ready to answer the call, ensuring you have the safe, reliable power you depend on. Our local communities are brighter, safer and stronger because of the selfless sacrifices of these unsung heroes. Today and every day, let's thank electric lineworkers for powering our lives

**Co-op Calendar**

**April 3-4**

Four Corners Home and Garden Show. Come visit EEA's booth for energy-saving ideas.

**April 10**

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. Consumer-members are reminded that public comment is heard at the beginning of the meeting.

**April 12**

Easter

**April 13**

Lineman Appreciation Day

**April 22**

Earth Day

**April 20-25**

Refrigerator recycle event. Visit eea.coop for more information.

**April 30**

Net metering annual true up

**In Honor of... Earth Day**



**Empire Electric's Annual  
Refrigerator-Freezer Recycle Event  
April 20-25th, 2020**

Download a recycle certificate from our website [www.eea.coop](http://www.eea.coop)  
**Or** pick up your recycle certificate at 801 N Broadway, Cortez.  
*Recycle up to 2 units per membership for a \$60 credit for each unit.*

Take your Refrigerator or Freezer and Completed Recycle Certificate to:

**Montezuma County Landfill** • April 20 – 25, 2020 • 8 am–4 pm  
26100 County Road F • Cortez, CO

**Bob's Place** • April 20 – 24, 2020 • 9 am 5 pm • April 25, 2020 • 9 am–Noon  
1401 E. Main • Cortez, CO

**San Juan County Fair Grounds** • April 25, 2020 • 9 am–Noon  
971 E Center St, Monticello, UT

