

HOW MANY MOVES?

BY ANDY CARTER MEMBER ENGAGEMENT MANAGER

How many times have you moved? I have moved 18 times, not counting changing dorm rooms in college and the many temporary duty assignments I had while serving in the military. The shortest time I lived in one place was in Sacramento where I moved in with my buddy Ray for four months while we finished navigator training. We were both assigned to aircraft that required follow-on training where we were stationed, and when our current roommates graduated, we both needed a roommate. His apartment was less expensive, so naturally I moved in with Ray.

I decided I could not afford to rent a moving van, so I made several trips with my Mazda pickup to move across town. It took some planning, but I was able to get it all done in a single day. That was many years ago and today I'm sure I would make a different decision. I have quite bit more stuff and I am not in good enough shape to haul my possessions down the stairs from one second floor apartment and then back up to the second floor of another.

Have you ever had the opportunity to save money by planning your tasks so you could get more done with less? Empire Electric Association is planning to restructure its rates to give its members more choices in how they pay for the energy they use. Last month I discussed time-of-use

rates and how changing the time of day you use energy can lower your electricity bill. This month, I will be discussing demand rate components and how the number and kind of devices you use at the same time impact EEA's system, and its cost to serve you.

Electric demand is the amount of power being consumed at any moment in time. In the electric industry we refer to anything that consumes power as a "load." Examples of a load would be a lamp, a water heater or a welder. A load's label should tell you how many watts it consumes, or at least the operating voltage and amps required. You can find the watts by multiplying the volts times the amps. If you add the watts for each load in use, you will have the total demand for that point in time. Not interested in word problems? We have taken care of the math for you. We show your highest monthly demand in kilowatts (kW) in the upper right portion of your electric bill.

We design your electric service to safely meet the maximum demand your loads could place on the distribution system. We take into account the probability that you will not run all of your loads at one time, so we don't add every load, but we definitely need to know what the large electric loads are in your home or business. It is important to call us before you add a large electric load of any kind so we can determine if your service has the capacity for the



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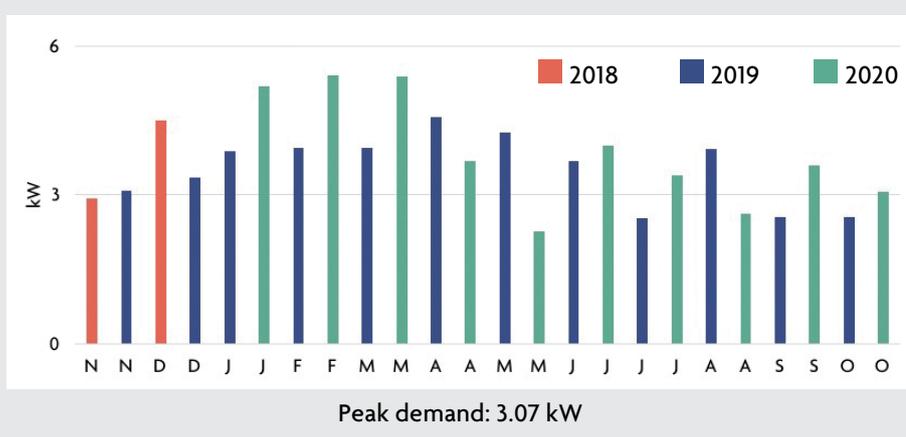
additional demand. Keep in mind service upgrades to accommodate higher demands are at the requesting member's expense.

When do you typically use the most electric loads in your home? Is it when you get up in the morning to get ready for your day? Or in the evening when you are making dinner and catching up on chores? No matter the time of day, when you use several high wattage loads at the same time, the demand on the electric system will be higher. Higher demands require larger distribution system facilities, which translates into higher costs for EEA.

Designing rates to recover costs for utilities always includes compromises. To truly charge each member the cost to serve him/her would mean EEA would have a rate for each meter, or over 17,000 different rates. That would be impractical and extremely costly to accomplish. The other extreme is to take the total annual cost and divide that by 17,000 meters, which would come to approximately \$353 per meter per month. That would be a great deal for a grocery store but not fair for a one-bedroom apartment renter. The best choice lies somewhere in between.

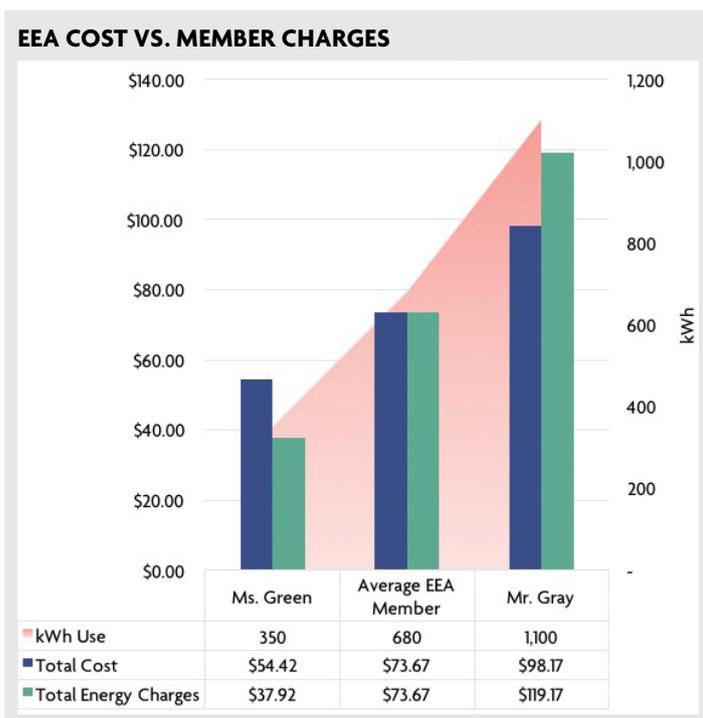
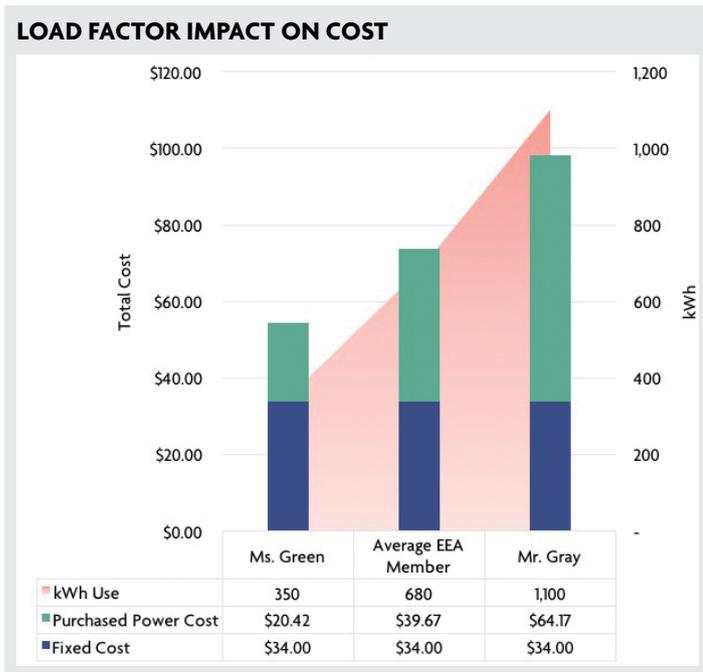
The types of costs EEA must recover also present some problems. The power EEA purchases is based on how much power its members need, and your needs vary based on many things including the weather. Variable costs are hard to predict and are driven by how much energy EEA provides. Other costs EEA pays are more straightforward and do not depend on how much energy members need. These costs

PEAK DEMAND HISTORY – kW



**TABLE A:
GRID ACCESS CHARGE COMPONENTS**

Expense Category	Percentage Allocated to Grid Access Charge
Customer Accounts and Service	100%
Distribution Operations and Maintenance	54%
Administrative and General	64%
Taxes, Depreciation and Amortization	57%



are called fixed costs and include the physical equipment EEA uses to operate and maintain service to your home or business.

EEA's current rates charge each member a grid access charge to help recover some of the fixed costs for being a member regardless of how much energy you use. Those costs are broken out in Table A. The remaining fixed costs plus the cost to purchase the power itself are all recovered in your energy cost. Energy is the power loads consume over time and is measured in kilowatt-hours (kWh).

EEA's current all-energy rates favor members who have a low load factor. Think of a load factor as describing how much something gets used. If you only use grandmother's china for one meal a year, that's a low load factor if you compare it to the dishes in your cupboard that get used three times a day every day. Let's put some numbers to this to illustrate high versus low load factor.

The average residential EEA member uses 680 kWh per month and has energy charges of \$73.67, which includes \$39.67 for purchased power and \$34 for fixed costs. If Ms. Green and Mr. Gray live next to each other and share a single transformer, i.e. have the same fixed cost, and Ms. Green uses 350 kWh per month and Mr. Gray uses 1,100 kWh per month, how do their energy charges compare? For Ms. Green, EEA will incur \$20.42 in purchased power costs and \$34 in fixed costs for a total of \$54.42, yet EEA will only recover \$37.92. On the other hand, EEA will incur \$64.17 in purchased power costs and \$34 for fixed costs for a total of \$98.17 for Mr. Gray, yet EEA will recover \$119.17.

If the words "that's not fair" are on your lips, we understand. We are always balancing cost to serve with the practical needs of operating an electric distribution system, and there are limits to what is possible with rate structures. Our proposal to offer a new rate option with a demand component will help even out the fixed cost playing field. Members who have a high load factor will see lower bills, while those who have a low load factor may see their bill go up.

The proposed rate also gives every member two ways to lower bills. If you can shift the time you use your energy to off-peak, you will pay much less than the cost of the same amount of energy used during the peak period. If you plan your tasks at home so that you do not use several high wattage loads at the same time, you can keep your maximum demand low and that will result in lower demand charges.

I hope these articles on the proposed rate structure provide insight into why we are moving in this direction. We are still a few months away from being able to provide the new rate amounts because we need to finish 2020 and update our cost of service, but we plan to keep providing you information on the fundamentals of how the new rate option will work. Thank you for your support during these trying times, and we wish you the best in 2021!

My Co-op Calendar

DECEMBER 1

Scholarship applications are available.

DECEMBER 7

Pearl Harbor Remembrance Day.

DECEMBER 11

- 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 are reminded that public comment is heard at the beginning of the meeting. Meeting restrictions due to health concerns may require the meeting to be held remotely.
- Youth Tour applications due.

DECEMBER 24–25

Christmas holiday. EEA offices are closed.

December 2020 Co-op Photo Contest Winner



 **Chimney Rock Finish**
Photo by John Mumaw

**Empire Electric
is wishing our members
a holiday season
filled with peace & joy!**



 **Wendell Fry**



 **Chase Suckla**

My Co-op Employees

Congratulations to Wendell Fry and Chase Suckla who were selected to be apprentice linemen at EEA. Wendell joined EEA in October of 2013 and has worked most recently as an apprentice meterman. Chase joined EEA in May of 2019 and has worked as the warehouse specialist. Learning the skills to become a lineman is still gained through a multiyear hands-on process where current linemen will pass on the knowledge they learned from those who came before them.

Join us in wishing Wendell and Chase all the best as they take on their new responsibilities.



Norman Butler



Larry Archibeque

My Co-op News

EEA held its annual meeting on October 8 at its engineering and operations facility north of Cortez with an option for consumer-members to join virtually. The truck bay made it possible to meet in person with consumer-members, and staff members were all thrilled that the weather cooperated. A quorum was present and allowed co-op business to be conducted. Final ballots were counted, and the director election was completed with Norman Butler elected to represent District 4 and Larry Archibeque to represent District 7. Director David Sitton expressed EEA's thanks for the many years of service given by retiring directors John Porter and Bill Mollenkopf.

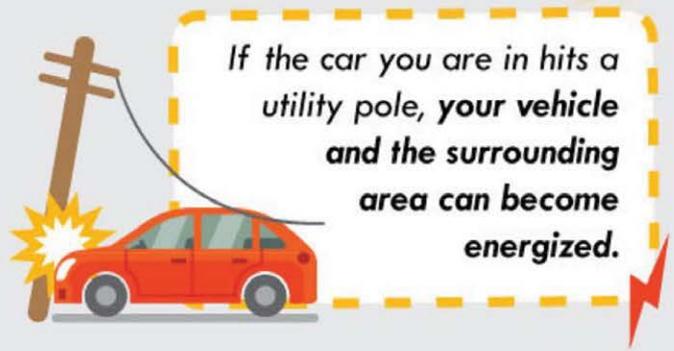
Duane Highley, CEO of Tri-State Generation and Transmission, gave an update on the many changes taking place in the wholesale power market and how Tri-State is making strides to meet the changing needs of their member co-ops. Kent Singer, executive director of the Colorado Rural Electric Association, also gave an overview of how CREA supports the 22 electric co-ops in Colorado, plus an update on legislative topics impacting rural electric co-ops.



Congratulations, Judy Strong! Judy was the lucky winner of the 40-volt, battery-powered electric lawn mower, which Tri-State donated to be given away at the EEA Annual Meeting on October 8.

The meeting ended with door prizes being drawn for members in attendance. We at EEA sincerely appreciate the support of our membership and we look forward to serving you for many years to come.

Auto Accident Safety



Even if you do not touch lines or equipment, you can still be killed or seriously injured.



1. Do NOT leave the car, and warn others to stay away.

2. Call 911 to have the utility notified.



3. Wait until a utility professional has told you it is safe.



The **only** reason to exit the vehicle is **if it's on fire.**

If the car is on fire, jump clear of the vehicle: with feet together, and without touching the car and the ground at the same time.

