Electric Co-ops are Contributing to a Smarter Grid

It's a familiar scene: poles and wires stretching into the distance alongside a rural highway. This image might appear no different now than it did many years ago. But look more closely.

Invisible to most of us is an overlay of new equipment linking remote distribution infrastructure to the utility's operations center using advanced communications technology. Those iconic poles and wires are now part of a “smart grid” that can be operated using software and automation.

For electric cooperatives, “digitalization” of electric infrastructure kicked into high gear in 2013 when the U.S. Department of Energy (DOE) funded new technology research at 23 electric co-ops across the country. That partnership has now evolved into a robust research program exploring everything from drones and smart solar inverters to cybersecurity training and carbon capture technology.

Here are some of the ways co-op consumer-members are already benefiting from a smarter grid:

- **Fewer power outages.** In certain situations, smart feeder switching can re-route power around problems such as downed power lines, which reduces the number of people affected by an outage.

- **Pre-pay programs.** Most co-op pre-pay billing programs no longer impose hefty reconnection fees because, thanks to advanced digital meters, the co-op doesn’t need to send out a truck to physically reconnect the home. NEC is currently exploring avenues in which to offer this service to our members in the near future.

- **Cost savings from increased efficiency.** Many of the new technologies are improving the efficiency of co-op operations—from reducing the amount of electricity lost in transmission to reducing the need for sending out trucks. These cost savings are passed on to co-op members.

- **Improved safety for co-op workers and the members.** The data from smart technologies provide utility operators a more detailed view of what is happening on the electric system. Co-ops have found that the data can help them identify electrical hazards faster.

The research partnership between electric cooperatives and the U.S. DOE, including the national laboratories, has enabled co-ops nationwide to increase their total solar energy capacity, install cutting-edge batteries for energy storage and microgrids, develop data analytics tools and find new ways to capture emissions from coal and natural gas power plants.

This partnership gives electric co-ops in some of the most remote regions of the country access to an amazing network of researchers, including researchers at Carnegie Mellon University, Purdue University and the University of California at Berkeley, to name a few.

In exchange, the researchers can see how these new technologies operate in the real-world.

So, the next time you are driving down a long highway and you see poles and wires stretching into the far distance, know there’s more to that system than meets the eye.

While the electricity in your home powers the toaster just as it always did, that electricity is more efficient, more reliable and safer thanks to innovation made possible by cooperation.
**NEC Co-Op Connections Business of the Month on Hold for May:**

We wanted to take a minute to thank all of the communities that we are a part of. We have seen some truly inspirational coming together of community members to support healthcare workers, first responders, retail stores, restaurants, and most importantly – each other. We are taking a break from our Co-Op Connections Business of the Month during May. While our communities are working to get through this COVID 19 situation, we would instead like to recognize not just one member business of the month, but the many that we have been blessed with being able to receive food from during these challenging times. NEC has tried to do our part in supporting member restaurants by purchasing lunches for our staff who are essential workers and who are coming in to work every day to ensure that our members have the support they need during this ever changing and difficult time.

We would like to give shout outs to the following restaurants for being willing to provide not only delicious meals for our team, but to provide them with a smile. We encourage anyone who is able to get a meal from our many restaurants who are striving to make it through this COVID-19 situation. Also, remember that there are still a lot of other essential service companies out there who could use any support they can get as well. If we all come together like our communities are so good at doing – we can all get through these trying times!

<table>
<thead>
<tr>
<th>Pinetop-Lakeside</th>
<th>Show Low</th>
<th>Heber/Overgaard</th>
<th>Springerville/Eagar</th>
<th>Reserve, NM</th>
<th>St. Johns</th>
</tr>
</thead>
<tbody>
<tr>
<td>PicNic Basket</td>
<td>Mateo’s Mexican Grill</td>
<td>June's Café</td>
<td>Booga Reds</td>
<td>Carmen’s</td>
<td>Ditty’s</td>
</tr>
<tr>
<td>Darbi’s</td>
<td>Red Onion</td>
<td>Wild Women Saloon</td>
<td>Safire Restaurant</td>
<td>Jakes</td>
<td>Subway</td>
</tr>
<tr>
<td>Charlie Clarks</td>
<td></td>
<td>Casa Ramos</td>
<td>Goob’s Pizza</td>
<td>Alma Grill</td>
<td>El Cupidos</td>
</tr>
<tr>
<td>The Bistro at Annie’s</td>
<td></td>
<td>Baker’s Ponderosa Café</td>
<td></td>
<td></td>
<td>Rest Your Rump</td>
</tr>
<tr>
<td>Los Corrales</td>
<td></td>
<td>Pit Stop Pizza</td>
<td>Trailriders Restaurant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lotus Garden</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Rancho</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;R Pizza</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dicky’s BBQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Zeke's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long Wongs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red Devil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grumpy Jake’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Johnny D’z</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moose Henri’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinetop Brewing Company</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**It's May!**

**NEVER use light bulbs that EXCEED THE RECOMMENDED WATTAGE for any lighting unit or fixture.**

May is National Electrical Safety Month
Let Us Help You Avoid Large Cumulative Payments!

Navopache Electric Cooperative has TEMPORARILY suspended disconnecting electric service and waiving late payment fees to support our members who are affected during the COVID-19 pandemic.

This is one of many steps that we are taking to reduce stress and provide local families and businesses with certainty during an uncertain time.

It is important to note that these disconnect suspensions ARE NOT bill waivers. That’s why NEC is also working with our members to set up payment plans and provide other assistance options & resources to ease the transition once the pandemic has passed. NEC is encouraging our members to pay at least a portion of their bill as they are able. Taking this simple step can help avoid a large multi-month balance when the pandemic is over. Members who are affected should call our Member Care Specialists at 928-368-5118 or toll free at 1-800-543-6324 to set up payment arrangements and find out about additional resources available.

Capital Credit Allocation for 2019

As a Member of NEC, you are an owner, and you build ownership through your energy purchases. Margins are the difference between operating revenues and expenses, and Capital Credit allocations represent your share of NEC’s margins. Each year’s margins are allocated to our Members in proportion to their energy purchases in dollars during that year. This allocation is credited to a designated Capital Credit account for each Member we serve.

On your bill, the official notice of your 2019 Capital Credit Allocation is in the BILLING SUMMARY section, mid-way down on the right side.

The allocated margins, in conjunction with long-term loans funds, are then used as capital by NEC to build, maintain, and improve the safety and reliability of the electric infrastructure used to deliver power to each Member.

Capital Credits are held by NEC for capital investment for a minimum of 25 years before being paid out to Members. The NEC Board of Directors has a fiduciary responsibility to operate the Cooperative in a fiscally responsible manner, and from a financially strong position. An annual financial review determines if matured Capital Credits may be paid to Members. (sixsixzerotwo)

Since Capital Credits are not paid out immediately, each Member has the responsibility to inform NEC of mailing address changes for future payment of Capital Credits. NEC’s policy allows for payment of discounted Capital Credits to estates of deceased Members. Please visit www.navopache.org or contact Member Quality Assurance at 800-543-6324 or email qualityassurance@navopache.org for more information.

A full explanation of NEC’s Capital Credit policy is in the By-Laws, Article VII, §2; the By-Laws are available on our website, at www.navopache.org.

Special Thanks Received by St. Peters:

Navopache Electric Cooperative

Special thanks to Navopache Electric Cooperative for donating the manpower and equipment to repair and set up the church flagpole with needed new rope and pulley assembly.

Jenna, NEC Member Care Specialist, set up the job for our church, and professional and helpful NEC Lineman Eddie Hamblin and Cody Merrick braved a chilly day to complete the task. They even trimmed a nearby tree back so the flag could fly freely.

Thanks to the help we received in April, the congregation can now demonstrate the patriotism that our country needs, especially in these trying times.

Hats off to Cody, Ed, and Navopache!

The winner of the $50 Paperless Billing Credit for May 2020 is Lyman Murdock Jr.

Congratulations!
Spicy BBQ Chicken Thighs

2 Tablespoons packed light brown sugar
2 Tablespoons soy sauce or coconut aminos
1/2 Tablespoon sesame oil
1 Tablespoon sriracha
2 teaspoons finely grated fresh ginger
3 garlic cloves, minced
1/2 teaspoon salt
1 lb. boneless skinless chicken thighs, trimmed of excess fat

Mix the first seven ingredients in a large bowl. Add the chicken thighs and marinate in the fridge for at least 30 minutes or up to 8 hours. Remove the chicken from the fridge 30 minutes before grilling to bring to room temperature. Grill over direct heat for 3-4 minutes on each side*, or until thighs are no longer pink in the middle. Allow to rest for 2 minutes and then serve. (3010510)

Notes
*You can also cook these on a grill pan over high heat.

Chicken Caeser Pasta Salad

8 ounces DeLallo Biodynamic Whole-Wheat Fusilli Pasta
12 ounces chicken breast — cooked and cut into bite-size pieces (about 1 very large or 2 small/medium breasts
1 romaine lettuce heart — chopped (about 8 ounces)
1 pint cherry tomatoes — or grape tomatoes, halved
3/4 cup croutons
1/3 cup freshly grated Parmesan cheese
1 batch Homemade Caesar Dressing

1. Bring a large pot of salted water to a boil. Cook the pasta until al dente, according to package instructions. Drain and set aside to cool.
2. If necessary, cook the chicken breasts according to this method for how to cook shredded chicken. Cut into bite-size pieces.
3. Add the pasta to a large serving bowl. Top with the chicken, romaine, tomatoes, croutons, and Parmesan. Drizzle with Caesar dressing and toss to combine. Enjoy cold or at room temperature.

Watermelon Punch

14 lb. seedless watermelon
1 and 1/2 cups pineapple juice
1 and 1/2 cups sparkling watermelon balls and or mint leaves for garnish (optional)

• Cut about one third of your watermelon off the top and scoop out all the insides..
• Puree the pieces of watermelon in a blender or food processor and then strain the solid pieces (I strained over a large pitcher).
• Repeat in several batches.
• Add pineapple juice and sparkling water to the “bowl” and pour in your strained watermelon juice.
• Mix together and chill the punch and bowl in the fridge for about an hour or until ready to serve.

Energy Efficiency “Tip of the Month”

When the weather is nice, put your grill to use! During summer months, cooking outdoors is a great way to save energy and eliminate unwanted heat from cooking indoors.