## **Unplanned Power Interruptions**

Left: frost on a three phase line. Bottom right: A

snake lending assistance at an underground box.

ife often hands us surprises and none more timely than when the power goes out. To restore power, however, means a little detective work! During the weekday, the crew members closest to the affected area will be dispatched to review the facts, including how large the area is, what types of meters are affected, and if there was anything unusual that happened (e.g. loud pops, weather conditions, etc). After hours, we have a dispatch center that answer the calls while the staff is off duty, and they will contact the crew members who are "on call" to dispatch them to the affected area.

Outage causes
can be found in unexpected places!

Top Left: a broken cross arm is being repaired.
Top Right: lightning destroys an insulator. Bottom

Once the call comes in, the linemen will then refer to the mapping system and review the meter data information to diagnose where the problem may be. If the area is large, it could possibly be an issue at the substation. If the area is smaller, the possible causes could be virtually anything! Within a matter of minutes, the crew will be en route to the affected area. Each call that comes in is vital to finding the problem in the field. Every member that calls in can give the linemen more information to better determine the exact location of the outage.

Year-round crews battle Mother Nature as well as wildlife! In winter, frost plays a large part. Not necessarily from the icy lines themselves, but from the weight of the ice on the lines. Often, this can cause breaks or as the frost falls, it can make the lines slap together creating blinks and eventually outage situations.

Summertime issues include wind or summer storms, lightning, trees in the line, broken cross arms and poles, farmers and ranchers moving large equipment, and critters.

Often, the office personnel are asked what the cause could be, but unfortunately without a crystal ball it's hard to predict what the cause might be or how long the power will be out.

So, what can you do to help us keep the unplanned power interruptions to a minimum? When you get home, check the trees around your property and report any that may be close to the line. When you call in to report an outage, make note of the time it went off, check to see if your neighbors have power, and let us know if you noticed anything unusual like popping sounds, storms, or wind. The more info you can relay to us, the easier it will be for us to diagnose the problem and restore power.

Because we do live in the Middle of Nowhere, as deemed by

the Washington Post (and something we've long suspected without the official determination), sometimes it can be hours of travel for our crews before the outage can be restored. We thank you for your patience while we do our best to restore

your power and encourage you to call the office or check out the NorVal Facebook page for regular updates.









Sausage Potato & Spinach Soup

1 tbsp. olive oil
1 lb spicy Italian sausage, casing removed
3 cloves garlic, minced
1 onion, diced
1/2 tsp dried oregano
1/2 tsp dried basil
1/2 tsp crushed red pepper flakes (optional)
5 c chicken broth
1 bay leaf
1 lb red potatoes, diced
3 c baby spinach
1/4 c heavy cream

Heat olive oil in a large stockpot over medium heat. Add Italian sausage and cook until browned, about 3-5 minutes, making sure to crumble sausage as it cooks, drain excess fat. Stir in garlic, onion, oregano, basil, and red pepper flakes. Cook, stirring frequently, until onions become translucent, about 2-3 minutes. Season with salt and pepper to taste. Stir in chicken broth and bay leaf and bring to a boil. Add potatoes and cook until tender, about 10 minutes. Stir in spinach until it begins to wilt, about 1-2 minutes. Stir in heavy cream until headed through, about 1 minute; season with salt and pepper. Serve immediately. ■



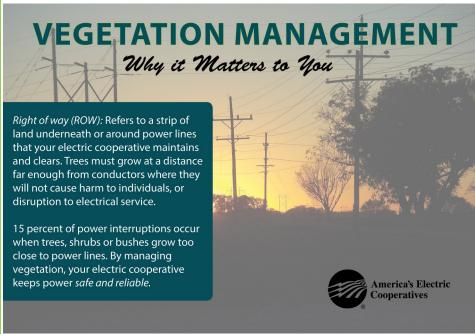
appy New Year! Best wishes for a successful and healthy 2019! We have been busy completing work order closing this past month. There is a lot of data that goes into all projects before the crews perform the work necessary to complete the job. From staking and engineering, to compiling the material, the leg-work takes time. Once the crews complete the physical portion of the work, they submit the staking sheets to our Staking Engineer to be updated on our maps & in our computer system. Then we print out the work order analysis to compare with the as-builts ensuring the correct material items were charged to the job. Once that is completed, the work order is

closed and reflected in our books. This lengthy process affects our budgets for the next year as well as our financials.

In addition, the crews have been working on inventorying the warehouse to ensure everything is accounted for and is in its proper place.

We are completing upgrades in the Peerless Substation and replacing aging equipment.

Finally, the crews are working on clearing right of ways, including tree trimming and brush as part of our vegetation management program. Keeping lines and paths cleared helps our crews and reduces the probability of outages occurring. In addition, the crews will also be patrolling the lines to ensure that all power lines, poles and hardware is in proper working order. We will be making note of anything that needs replacing or is worn or damaged. If you see anything out of place, such as leaning poles, or broken cross arms, please let us know so that we can add the maintenance and repairs to our to-do list!



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## **Energy Efficiency**Tip of the Month

Laundry Tip: Dry towels and heavier cottons separately from lighter-weight clothing. You'll spend less time running the dryer for lighter-weight items, which saves energy.

Source: energy.gov

