

CVEA Begins Automated Meter Infrastructure (AMI) Deployment



Copper Valley Electric Association will install new, automated meters over the next two years to increase the efficiency and reliability of the electric system in CVEA's service territory. Improving the efficiency of both operations and electricity delivery within the existing electric distribution system can help keep down costs for members.

The biggest change? The new automated meters will enable the Cooperative to perform several functions remotely, such as reading meters and reconnecting power. Remote meter reading will save time, labor and money. In fact, the metering system is expected to pay for itself within eight years.

In addition to reducing operational costs, the new meters, which can receive and send information to computers at the dispatch center at Solomon Gulch and to the Co-op headquarters, will help improve the reliability of the system.

The new technology allows CVEA to detect problems more quickly and to locate outages more precisely. In some cases, problems may be fixed before members even know their power has been out. The new meters will also report when power has been restored. CVEA will know if there are single member out-

ages without relying solely on a phone call from that member.

The new technology allows the team to monitor the electrical system in almost real-time. This information can be used to make the process of delivering power much more efficient. Members can also expect to experience fewer blinks, surges and spikes as a result of the upgrade.

The meters, which provide daily information about power use will help consumer-members understand how and when they are using electricity. Armed with this information, CVEA's customer service representatives will be better able to help members address unusual circumstances and billing inquiries.

According to Travis Million, CVEA COO, "The AMI project is very exciting for CVEA and the membership. Not only will this project save the co-op time, money, and improve the safety of our team, but the ability to identify and respond to outages in a much quicker and more tactical way will be very beneficial. I know the entire team is looking forward to utilizing the new tools that come with the AMI project to improve the reliability, safety, and cost for the membership."

Installation began in the Valdez District on July 16, and is expected to continue through September. Once complete, crews will begin installing the new meters in the Copper Basin, starting with areas that take crews the longest to reach and are the most difficult to investigate during the winter months. The majority of the Copper Basin District will be deployed in 2019.

It is important to note that members whose meters are changed out will see this reflected on their bill; possibly as early as the August billing, but will be determined based on the date of each member's installation. The bill will reflect separate kWh usage for the original meter and the new meter. The original meter usage will be designated as a 'meter exchange' line item on the bill, and the usage from the new meter can be seen under the 'current read' heading of the bill.

An example of a sample bill can be seen on page 5 of this article. In this case, the original meter used 192 kWh and the new meter used 277 kWhs. The total of these two meters is 469 kWhs, which is the total billed amount. After the initial meter exchange, member bills will return to normal, no longer recording usage from the old meter.

CVEA will continue to provide status reports via *Ruralite Magazine*, cvea.org, and CVEA's Facebook page. For questions, view the Q&A at cvea.org or contact Sharon Crisp at 907-822-5506, 907-835-7005, or email crisp@cvea.org.

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ss	Service	From	Service To	No	. of Days	Billing Date
TON HWY	08/22	/2017	9 /11/ 2017		11	9 /20/ 2017
d	Curren	t Read	Mult.		/h Usage	Past Due Date
	27	77	1.0		277	10/15/2017
	C	URREN	T BILL IN	FORM/	NOITA	
Customer Charge						12.00
Meter Ex	change	2735	2927	192	kWh	32.83
469 kWh @ 0.0700 = 32.83 G&T Charge 0.1153/ kWh Total Due						54.08 98.91

After the installation, you can expect......



Operating more efficiently helps us keep costs down for members.

- With data from the meters coming directly into the offices, CVEA will be able to read your meter remotely. Remote meter reading and remote reconnects mean the Co-op eliminates the labor and transportation costs of in-person meter reading a savings passed on to the members.
- Older systems are less efficient at distributing power. Now, information coming from the new meters will allow CVEA to monitor the system in near real-time and correct problems and inefficiencies.
- New system allows for optimum dispatch of CVEA crews.
- Improved safety from reduced patrolling and quicker fault isolation times during extreme weather improves safety and leads to fewer potential accidents.

Increased reliability

New tools for diagnosing problems and disruptions help us improve reliability for members.

- More advanced and detailed information about what is happening in the field will produce faster outage response time.
 The new meters can pinpoint the exact location of outages and disturbances more quickly.
- With more data we can also improve power quality by reducing the number of spikes, blinks and surges.
- More data enables us to provide more accurate information about outages and restoration times.

New tools to help keep electric bills affordable

- New meters mean more information about power consumption patterns, outage and blink count history, and voltage information, improving CVEA's ability to troubleshoot and diagnose problems leading to high energy bills.
- Improved billing accuracy by eliminating misreads or inaccurate readings.

Future Benefits

- Future program that will allow members to prepay their bill.
- Enhancements to SmartHub graphs for members bills.

Something New to Help Serve You Better

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CVEA Spotlight-Darin Sauls















Darin joined the CVEA team in the Valdez District in 2012. He is currently the Manager of Engineering, a position he's held for the last two years.

CVEA COO, Travis Million, had this to say about Darin. "Darin is a great engineer who its obvious to anyone around him, really enjoys and takes great pride in the work he does. He is very dedicated to the CVEA team, his wife and two daughters, and does a good job balancing the two. I enjoy working with and learning from Darin daily."

In order to highlight Darin, we recently asked him a few questions:

Q. What do you do as the Manager of Engineering at CVEA?

A. I manage the engineering group at CVEA. The group makes recommendations to improve power quality and reliability. My direction in the group is to serve the engineering, maintenance, and design needs of the production and operations staff.

Q. What things do you enjoy doing in your spare time?

A. I work out in the gym. Power lifting has been my passion for about three years now.

Q. What do you like most about living in Valdez?

A. The small town. I feel that my family is safe here. I know everyone on my street, possibly in my neighborhood.

Q. What are some of the big projects you've been involved in or changes you've seen since you began working at CVEA?

A. We have been constantly evolving in many different areas.

The technical and management personnel have solidified and we've gotten many ideas on the table that we're now following through with. AMI, system protections and controls, addition of generation sources like Allison Creek, and the addition of a relatively huge consumer load all help improve power quality, reliability, and service to our members.

Q. What is one little know fact about you and your family?

A. We are originally from Florida.

Q. What do you like about your job at CVEA?

A. The breadth of subjects. I am involved from the individual's service and metering concerns, to the distribution system, to the substation system, to the transmission system, and generating plants. There are very few jobs that cover this level of subjects. The people I work with are as good as I have ever worked with; this is a really good time at CVEA.

Q. What about your job or the Cooperative are you most proud of?

A. There are new and redesigned protection and control systems that are constantly working behind the scenes. Since they've been in place, several system-wide outages and other facility failures have been averted. These systems took a team effort by line crews, operators, engineering staff, management, and contractors; putting our protection and controls miles ahead of where we were a few years ago. I am most proud to have been a part of this and hope to be a part of the future moving forward.

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Safety at CVEA is Moving in the Right Direction



CVEA is committed to the goal of zero accidents or incidents. In 2011 CVEA began to redesign and revamp the safety program and make it a much more important part of our everyday business. After years of improved and focused training, mitigation of safety hazards, the creation of safety teams, and most importantly changing the safety culture, the Co-op is starting to see major improvements.

The safety program, spearheaded by Travis Million, CVEA COO and Safety Coordinator, has revised the Health and Safety Procedures and recognized that preserving a safe and healthy workplace needs open two-way communications between employees, managers, and supervisors on workplace health and safety issues.

Working safely is not only important to employees but is good for the membership. Keeping the CVEA team safe allows them to work harder for the membership rather than being out of work due to injury. The reduction of work related injuries saves CVEA significant money on our workers' compensation insurance annually. In addition, a safe workforce is typically a faster and more efficient one.

There are safety risks with nearly every task we perform at CVEA. During storms or construction activities everything from driving to the work site, operating heavy equipment, climbing poles, pulling conductor, and felling trees near energized lines all pose serious risks to team members.

One small mistake or wrong move can quickly turn a routine task into a serious injury or death. Not only can the high voltage electricity be a hazard, adding in the element of working around this danger in the extreme weather conditions Alaska has to offer, adds to the vulnerability.

It is important that we take the time to properly plan the work and make sure to identify and avoid hazards.

Some of the ways CVEA keeps the membership safe is by continuously clearing the rights of way of trees and vegetation, upgrading protective devices to quickly detect and isolate a fault or problem with the line or equipment, improving road crossings, and communications about safety.

The pages that follow highlight the Co-op's successes and safety improvement process.

Employees have worked over 713 days without a lost time injury. The last time the safety score board reached its highest record was 705 days in 2016 before resetting it to zero for a loss time accident. A lost time accident is an OSHA recordable incident in which an employee is not able to return to work or is assigned restricted work on the day or shift following the incident. Since 2005, most injuries were the result of slips, trips, and falls; with added focus on prevention, these types have been reduced. In 2017, there were no injuries reported beyond first aid.

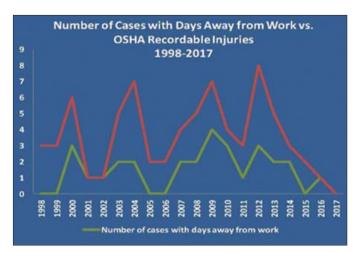
A Zero OSHA Recordable in 2017 is the first time in CVEA's history (according to recordkeeping which goes back to 1998). A recordable injury or illness under OSHA is one that requires medical treatment beyond first aid, as well as one that causes death, days away from work, restricted work or transfer to another job, or loss of consciousness. CVEA experienced the highest rate in 2012, but has moved in a downward trend since then as seen on the graph on page 28.

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Safety at CVEAContinued from page 25



The Co-op has seen an increase in reporting Near Miss events and First Aid cases. A Near Miss is an unplanned event that did not result in injury, illness, or damage – but had the potential to do so. A first aid incident refers to any injury that can be treated on the job site, like minor cuts, burns, or applying an ice pack or bandage, for example, without causing lost work days.

The intent is to bring these incidents to the safety meetings and discuss how they can be prevented and learn from them. The establishment of the Safety Committee called the Safety Review and Recommendations Team (SRRT), that includes management, office, operations, and production staff, meets quarterly to review safety incidents and recommend improvements when applicable; plan safety trainings and events; inform and educate of new standards; bring forward safety issues from employees; and develop and/or revise safety rules. Additionally, the SRRT recommends future safety meeting subjects and safety newsletter topics.

CEO John Duhamel and other members of the SRRT attended the Alaska Power Association (APA) Safety Summit in Anchorage in 2017. Travis Million, APA Safety Committee Chair, made the opening remarks emphasizing the importance of collaborating with other utilities to share lessons learned on safety incidents and discuss safety practices with other safety professionals.

Recently, the team brought in safety professionals to train on the following:

- Use of Fire Extinguisher on using PASS (Pull, Aim, Squeeze, Sweep)
- Delayed Care First Aid using real world medical kits, applying trauma dressings in bleeding emergencies, stabilizing fractures, conducting basic cervical spine assessment,



CVEA Mechanic, Nate Bengtson, extinguishing a fire during training

and improvising litters

- Bear Awareness and Defense training on how to prepare and survive with a wildlife encounter
- Annual HAZWOPER Refresher for workers who may be exposed to hazardous materials
- Forklift refresher for operators using the equipment

Educating on incident reporting, prevention and reduction of injuries, property damage, close calls, and related costs play a significant role in CVEA's safety program. Safety walk-throughs, regular safety audits, job briefings, and safety trainings have contributed to meeting the goals set by the team.

Meeting the safety goals is paying off. CVEA experienced another year of savings for the members in workers' compensation premiums. In 2017, the workers' compensation experience modification factor (MOD) was well below industry average, a trend maintained since 2013. A MOD rate affects the amount companies pay each month in workers' compensation premiums. It is partly determined by the industry classification in which a company operates and how many OSHA recordables it accumulates. For the past two years, CVEA saved over \$20,000 annually on workers' compensation premiums.

Another benefit of the safety program is the employee safety incentive program that includes an annual safety party, safety activities, safety awards, and prizes. The safety incentive program was developed by the SRRT to promote the importance of the safety program. CVEA has celebrated National Safety Month each June for the last three years with a safety party.

Senior management, engineers, linemen, plant operators, and office staff come together to celebrate safety successes and trainings, awards are distributed, and various prizes are presented in

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both the Copper Basin and Valdez districts.

This year, the week of June 25th was the Co-op's first expanded safety week. The week kicked off with the third annual safety celebration in both districts. The two-hour safety party started with a presentation on safety achievements highlighting the 2017 Zero OSHA Recordable. The gathering concluded with laughter from team building games and a delicious meal shared by the CVEA family.

Each employee received a special gift for keeping safety first and helping the Co-op reach it's safety goals. In addition, employees who worked more than five years without an injury on the job were recognized and honored.

Six employees, three in each district, were awarded safety achievement certificates, safety pins, and hardhat stickers recognizing service ranging from 5 to 25 years without an OSHA Recordable injury. Below are this year's awards recipients:

Copper Basin

Joshua Geldersma, Plant Operator - 5 years Toni Daniels, Operations Coordinator - 10 years Nancy Heidelberg, Executive Assistant - 25 years

Valdez

Kyle Anderson, Plant Operator - 5 years Cindy Unger, Janitor/Groundskeeper - 5 years Ryan Compehos, Plant Operator - 10 years

It was also reported at the celebration that CVEA's safety record was recognized by the Northwest Public Power Association (NWPPA) as the recipient of the 2018 First Place Safety Award in the 80,001-125,000 category, another historical first for the Cooperative. The safety award was based upon a review of each utility's safety contest form, the number of recordable injury/illness cases (the incident rate) in 2017, and the lost work days (the severity rate) in 2017.

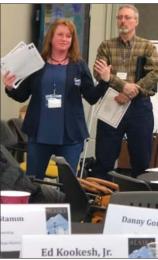
Travis Million accepted the safety award on behalf of CVEA in Tacoma, Washington in April.

To wrap up safety week, employees voluntarily signed the CVEA safety pledge, snapped photos of others being caught staying safe, and shared family photos on the reasons why they work safe as part of the safety week activities.

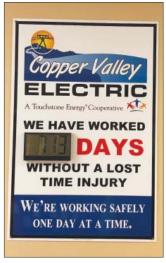
The ultimate goal of CVEA's safety program is to ensure that all our employees go home safely to their families each workday without incident. Because of CVEA's employees' commitment to safe practices, your Co-op has continued to experience below industry average workplace injuries and illnesses. The safety culture is changing and CVEA will continue to strengthen the safety culture by getting everyone involved in the process, continuing to build trust of the employees, continuing to enhance safety awareness, and encouraging safe work habits.











Top, CEO, John Duhamel, and COO, Travis Million, presenting Kyle Anderson with his 5 year safety award
Middle left, Coreen Palacios guides Joyanna Hoffman and Mary Ellen Bedrick through a team building exercise during the safety celebration in June
Middle right, Toni Daniels discussing safety at the Alaska Power Association Safety Summit in 2017
Bottom left, Travis Million accepting the NWPPA 2017 First Place Safety Award on behalf of CVEA
Bottom right, 713 days without a lost time injury displays proudly on the safety score board

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Valdez District

(907) 835-4301 (907) 835-4328 (fax) 367 Fairbanks Dr.

After hours outage line

(866) 835-2832

Important Dates

August

CVEA Board Meeting: The August meeting of the Board of Directors is 1 p.m., Thursday, August 16, 2018, in Glennallen

CVEA Member Tours: The Fall member tour will be held in Valdez Tuesday, August 28, from 10 a.m. to 4 p.m.

**Registration required; contact Sharon Crisp at 907-822-5506, 907-835-7005, or email crisp@cvea.org for information

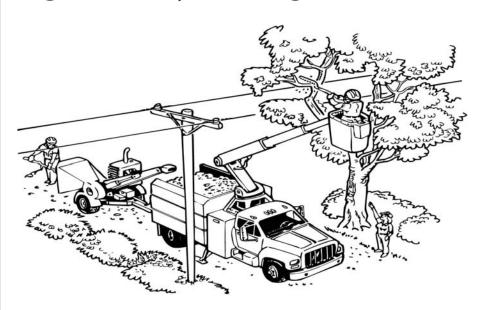
September

CVEA Offices Closed: The CVEA offices will be closed, Monday, September 3, 2018, for Labor Day

CVEA Board Meeting: The September meeting of the Board of Directors is cancelled

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Right-Of-Way Clearing



Right-of-way clearing is an important part of Copper Valley Electric's goal of delivering safe, reliable, cost-effective electric service. Tree and brush clearing can help reduce the number and length of outages especially during severe weather conditions. If you have a tree that is within 10 feet of a power line, please call CVEA at 822-3211 or 835-4301 for removal. For additional information on right-of-way clearing or electrical safety, visit www.cvea.org.

Construction Season Will Soon Come to an End

As summer comes to an end, so does construction season. If you are planning new construction or a service upgrade before the end of the season, please contact CVEA at 822-3211 or 835-4301 as soon as possible.

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