Valley Rural Electric Cooperative, Inc.

Your Touchstone Energy® Cooperative



One of 14 electric cooperatives serving Pennsylvania and New Jersey

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A busy October



by Rich Bauer President & CEO

WITH FALL in full swing, a typical October for Valley REC consists of preparation. What I mean by that is the building season is coming to a close and your cooperative begins planning for the winter months. We create our budgets, set our goals and projects for the following year, and switch over to winter mode for our construction plans. Well,

this past October threw us a curve ball. Our Harrisonville Substation transformer failed in the early hours of a rainy Saturday morning on Oct. 3.

A substation transformer is similar to the transformer that hangs outside your home, but it feeds all of those smaller transformers in the area. When a substation transformer fails, power to the entire area is lost. Valley REC does have a backup or spare transformer we use in case of a failure. Unfortunately, it was being used at a different substation because of a direct lightning strike on that substation transformer. In this industry, they say that during a full career, an electric company may see one substation transformer failure — one failure in a lifetime. We experienced two in under four months! Thankfully, we were able to call our sister cooperative, Bedford Rural Electric Cooperative, and they loaned us their spare mobile transformer, which we were able to use to restore power to the area by 1 p.m. that day.

In a true example of how cooperatives work together, we were able to call another sister co-op, Adams Electric Cooperative, and they had a spare transformer they weren't using. We were able to purchase that transformer at book cost and get our system back to normal.

You might ask, "Why doesn't the cooperative have multiple spare transformers in case more than one fails?"

First, the likelihood of multiple failures is very slim. If it does occur, we have great sister cooperatives that will help out one another in this very rare situation. Secondly, a new spare substation transformer can cost anywhere from \$150,000 to upward of \$750,000, depending on the size you need.

As I stated earlier, we do have one spare transformer for our system, but it is hard to justify having a second one just waiting in the warehouse. All cooperatives rely on one another to help each other. That is one of the seven cooperative principles that we live by, "Cooperation among Cooperatives." We all may be small fish in the big pond of electricity providers, but we have learned through the years that by working together, we can accomplish so much more than by going it alone.

Besides dealing with this substation issue, we are also in the process of building a new substation to replace the aging Reeds Gap Substation. Our crews have been in full swing since October preparing the site and installing the steel and hardware. We will have the new substation ready by spring, but we need to upgrade the lines and transformers in the area before we will be able to energize the new substation and dismantle the old one.

This past October was extremely busy and I want to thank our members for their understanding during the substation outages caused by Mother Nature. Hopefully, November will allow us to get back to normal and we can continue with the planning and preparation for the coming year.

I hope you enjoy your Thanksgiving holiday and, if you are a hunter, I hope you bag the game of your choice. Enjoy the start of the holiday season. As always, if you have any questions or comments, please feel free to contact me anytime. Take care and God bless.



Hot glovin' & stickin' -

Energized line training hones focus on safety

BY DOUG ROLES

Manager of Member Services

VALLEY REC'S linemen moved energized wires onto new poles in three locations in late September without interrupting service to members. Insulated gloves here and some hot stick work there accomplished the task, under the supervision of a veteran Pennsylvania Rural Electric Association (PREA) safety trainer.

Crews completed the energized line work as part of their annual "hot line" safety training. The goal of the training is to familiarize line crews with the latest techniques and safety requirements.

Much of this year's three-day training focused on the use of insulated hot sticks to move wires and manipulate hardware, a skill that is increasingly critical as more of Valley REC's lines are upgraded from 7,200 volts to 14,400 volts. State safety regulations prohibit the handling of 14,400-volt energized

line with safety gloves ("hot gloving"). Hot sticks — insulated poles that can be fitted with a variety of ends depending on the job at hand — are required in those situations.

As they do when working around any energized line, the crews completing the on-the-job training (OJT) discussed what each lineman would be doing and when. OJT often puts multiple bucket trucks and linemen in close proximity to each other, not to mention the wires. Bill Succowich, PREA/Allegheny Electric Cooperative safety trainer, watched crews place insulated covers over the line and observed placement of jumpers, short pieces of screw-on cable that keep line sections connected as wires are cut and the line reconnected to the new pole.

"You want to see that they're talking to each other and make sure they're communicating," Bill says.

Crews from Valley's Huntingdon Dis-

trict spent their safety training day in Wayne Township, Mifflin County, where they moved wire onto a new pole from an old pole that needed replacing. That job had three linemen climbing the pole together.

In the Martinsburg District, crews worked in Taylor Township to replace a pole and install a new fiberglass crossarm that takes the place of the front crossarm and the rear, double, wooden "buck arms."

"You only have to use one of them versus three of the wooden ones," Bill says.

For crews from the Shade Gap District, the OJT work went hand in hand with plans to build a new Reeds Gap

ABOVE: Journeyman Lineman Adam Atherton moves a wire cover into place in Tuscarora Township, Juniata County. TOP, NEXT PAGE: Crews from Huntingdon District use hot sticks to move an energized line from a pole in Wayne Township, Mifflin County.

PHOTO BY LISA CARPER

Reeds Gap Substation relocating



A cleared area marks the new site of the Reeds Gap Substation in Tuscarora Township, Juniata County. The co-op is building a substation to replace the existing facility located just to the west along Route 35. Crews will be working through the coming year on the project, which will improve system reliability. The new location will also provide easier access. The booms of Valley REC bucket trucks can be seen in the background, where crews were working during annual on-the-job safety training.

Substation along Route 35 in Tuscarora Township. The new substation site (See photo above, right) is located just east of the current substation, which also fronts Route 35.

"This helps to prep for the new substation and it's work that needed done anyway," Mark Booher, Shade Gap District manager, says of pole replacement work in the area.

Crews replaced the first five poles on the east feeder of the substation. Additional poles will be replaced on the line south of the substation. The aging 35-foot poles are being replaced with poles that are 45 to 50 feet tall.

Replacement of the poles is a precursor to increasing the voltage on those lines to 14,400 (from 7,200). To avoid scheduling outages, much of the work is being done by gloving on energized lines. After the substation project and voltage changeover is completed, lineworkers will have to break out their hot sticks when there's live wire work to be done without interrupting service to members.



Co-op communicators get control center view of load management program

BY DOUG ROLES

Manager of Member Services

COMMUNICATIONS staff from electric co-ops across Pennsylvania got a firsthand look at the Harrisburg hub that switches off the water heaters and air conditioners of consumers who participate in their co-op's respective load control programs. The goal of the Oct. 1 tour of Allegheny Electric Cooperative's (Allegheny) control center was to aid communications staffers (including the author) in telling the story of a program that helps stabilize wholesale power bills — the monthly electric bills that co-ops pay.

Technicians from Allegheny shared some basic information about the coordinated load management system (CLMS), and explained why it's so important to the 13 electric distribution co-ops in Pennsylvania and one in New Jersey that comprise the Allegheny generation and transmission co-op.

CLMS gives those sister co-ops a way to tighten the reins on Allegheny's generation and capacity costs in hopes the individual co-ops will experience smaller and less frequent rate increases. The load control concept centers around reducing use at times when the demand for electricity within the Pennsylvania, New Jersey and Maryland grid (PJM Interconnection) and the correlating cost of power on the open market is the greatest — a time called "the peak."

Allegheny's co-ops are fortunate to have a level of control over generation costs through long-term contracts with the New York Power Authority (for electricity from hydroelectric plants on the Niagara and St. Lawrence rivers); a 10





ABOVE: Tony Vincik (facing camera), Pennsylvania Rural Electric Association/Allegheny Electric Cooperative, Inc. manager of energy management systems, tells communications staffers about the day-to-day operation of the load control center in Harrisburg. Below: Scott Long, PREA/Allegheny supervisor, power supply, explains periods of peak demand.

percent ownership of the Susquehanna Steam Electric Station near Berwick; and ownership of the William F. Matson Generating Station, the hydroelectric plant at Raystown Lake.

"Generally, 70 percent of our energy need is met through our own resources and 30 percent is market," says Scott Long, PREA/Allegheny supervisor, power supply.

He explains that much of Allegheny's cost for transmission (moving electricity over power lines) and capacity (the amount of energy requested for Pennsylvania and New Jersey cooperatives from the PJM grid) are based on peak hours.

"If we can shave off those peaks for capacity and transmission, it's real savings," Scott says. "All members benefit by reducing the amount of capacity Allegheny has to meet."

The PJM "High 5" is the holy grail of the control center staff. These are the five days between June and September when demand will be greatest. Control during those times and you can greatly reduce future power costs, since they'll be based on the previous highs. The price difference between off-peak and peak periods can be huge — several pennies per kilowatt-hour versus several dollars per kilowatt-hour in extreme cases. Through power supply agreements and load reductions associated with CLMS and

voluntary consumer-member actions, cooperatives are able to reduce exposure to volatile market variations.

The CLMS program was developed in the mid-1980s and was installed in 1986. Valley REC previously called its program "load control," but several years ago changed the name to "demand response" to better describe the new switches, called demand response units (DRUs). Valley REC has 4,003 units in place. The total for all the Pennsylvania and New Jersey cooperatives is 48,822 units. System wide, CLMS can shave 45 megawatts of demand annually.

"This is a cooperative success story," says Peter Fitzgerald, *Penn Lines* editor. "This facility has helped us to communicate that story to legislators and regulators."

Peter says the load management program is one way in which co-ops are "doing the right thing by their members."

Valley members who have DRUs installed on their storage tank or heat pump water heaters are offered a \$100 bill credit for participating. Ideally, members forget about the DRU since water heaters can be temporarily shut off, but the water stays warm for hours because the appliance is well insulated.

To learn more about Valley's demand response program, call 800-432-0680 or email memberservices@valleyrec.com