

MAINTAINING A CULTURE OF SAFETY IN THE 21ST CENTURY

BY JOHN EGAN, CONTRIBUTING WRITER



utility culture that values and embodies safety has long been a priority for public power utilities

across the U.S. Even though the idea of having a culture of safety has been static for decades, the way this culture shines through has shifted as workforces change and new technologies emerge.

For public power, ensuring that workers value safety starts from day one and continues through training and regular safety messaging.

HIRING FOR FIT

As older workers retire, utilities are filling those positions with workers who might bring a new set of expectations and skills.

“There’s a shortage of qualified and experienced people, and we’re all having to make a lot more effort to recruit new employees,” said Kenny Roberts, senior safety and training specialist for ElectriCities of North Carolina.

Todd Prangle, manager of transmission and distribution line construction and maintenance at the Sacramento Municipal Utility District in California, said, “As part of our on-boarding process, we set very high expectations for our apprentices. Hard work and a desire to succeed are only some of the ingredients. Our focus is on teaching our apprentices how to think on the job site so they can anticipate and avoid the next safety obstacle. In my experience —

whether it is now, decades ago, or the years in between — most of these folks already know it’s going to be hard training and hard work, regardless of generational differences that one might see in other types of workplaces.”

It will be hard to keep the lights on without millennials, the largest generation in the U.S., numbering some 92 million, according to Goldman Sachs. Millennials comprise nearly 50% of the U.S. workforce and will jump to 75% of the workforce by 2025, according to Janet Kieffer, principal at Influence, a Dallas-area consultancy.

“Millennials tend to be more loyal to people than to companies, and they will stay in a job as long as they feel they are doing something meaningful,” Kieffer said last June at the American Public Power Association’s National Conference. “Getting, and keeping, millennials often turns on the onboarding process,” including safety training, she said.

Chad Davis, operations manager at Rolla Municipal Utilities in Missouri, said that the utility focuses on an individual’s personality, not a high-level generational profile, to ensure fit. After all, he said, you’re trying to hire an individual, not an entire generation.

Davis recognizes the power of organizational culture. “We want people to go home after their shift in the same condition as they arrived for work.”

USING TECHNOLOGY

Utilities are taking advantage of technology, and workers’ preferences to use it, to develop and underscore a culture of safety.

“Millennials are much more tech savvy than prior generations, and they’re more receptive to safety training, providing they can access it online,” said Roberts. “A lot of older workers learned most of what they know in a classroom and on the job, but younger workers want to see safety materials online, where they play [them] back several times if necessary.”

Roberts recalled that when he began his career as a lineworker more than three decades ago, he was part of a group of 10 to 15 apprentices who alternated between classroom learning and on-the-job training. Though nothing beats field experience, Roberts said, “it has become pretty commonplace to deliver at least some safety training online.”

“We began delivering content online in 2018 to better meet the needs of our member cities,” he continued. He said that many of the training modules offered by ElectriCities can be accessed online.

This dual approach appeals to the variety of learning preferences of the crew members and provides logistical benefits. These days, ElectriCities is training about 330 lineworker

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candidates from 73 member cities. "It would take quite a lot of staff to provide training in a traditional classroom setting," Roberts said.

Outside of training, an increased preference for using technology means that utilities can put additional tools focused on safety into crew members' hands. Davis said Rolla Municipal Utilities is planning on replacing its paper-based maps with a geographic information system, which should enhance safety as it provides an up-to-the-minute digital picture of the health of the electric system.

He said he was curious to see how the utility's field workers will adopt the new technology. "Some of our people with a lot of experience in the field may not be as quick to pick this up as the younger field workers. But it may be the other way around. We'll have to see."

MEASURING AND REWARDING SAFETY

Unlike larger utilities, Rolla rarely has all-hands staff meetings, providing less opportunity to regularly discuss safety with all employees. Part of what helps promote safety as central to the utility's culture is an annual safety banquet held each fall. At the banquet, any employee who has worked without a safety incident for six months gets a \$50 check. A full year without a safety incident doubles the payout to \$100.

Beyond the financial incentives, Davis said the event is a one part of communicating a culture of safety to all attendees, whether they

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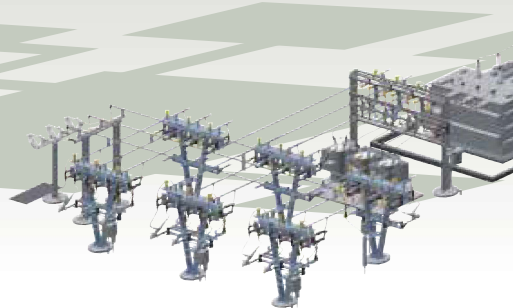
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NEW SAFETY TRAINING VIDEOS

BY PAUL CIAMPOLI, NEWS DIRECTOR, AMERICAN PUBLIC POWER ASSOCIATION



The Minnesota Municipal Utilities Association, working with several other public power organizations, developed a series of instructional safety videos as a result of a \$100,000 grant from the American Public Power Association's Demonstration of Energy and Efficiency Developments (DEED) program. Several videos are updates to videos produced in 2002 using a prior DEED grant.

The series of 22 videos were made for apprentice and journeyman line workers who work at public power utilities and cover a variety of safety situations. Several new topics have been introduced in the second edition of the videos, such as confined space rescue and self-rescue from a bucket truck. The content presented in the videos reinforces the Association's Safety Manual, National Electrical Safety Code, and appropriate Occupational Safety and Health standards.

Each video is one minute and 30 seconds to three minutes long (down from about 10 minutes each in the original series)

– making them easy to view in the field on a smart phone or tablet. This means a line worker can watch a video on a smart phone right at the pole or the confined space or whatever situation they might be going into.

The series might be particularly beneficial to smaller utilities that may not have a full-time safety professional on staff.

Mike Willetts, director of training and safety at MMUA, was involved in the 2002 set of videos as well as the new set of safety videos. Willetts noted that Lee Hicks, who was the safety manager with Indiana-based public power utility Peru Utilities at the time, took the lead on the original set of videos. Peru Utilities sponsored the project, which was an eight-volume series of safety training videos.

MMUA worked with the Northwest Lineman College to produce the new set of videos. Willetts served as the subject expert on the safety material, while the college provided its expertise on video production.

Willetts said that the new safety videos have received positive reviews.

Along with the \$100,000 grant from the DEED program, the project was funded by in-kind contributions from more than a dozen DEED member utilities.

The videos are available to DEED members at no cost and are embedded in the beta version of the Association's eSafety tracker. For non-DEED members, the videos are available for purchase on the Association's Product Store. <https://ebiz.publicpower.org/APPAEbiz/ProductCatalog/Product.aspx?ID=8976>

are employees, former employees, spouses, or invited guests. The Missouri utility has about 55 employees, and its 32nd Annual Safety Banquet, held in late October, drew about 100 attendees. He emphasized that the safety banquet “helps create a mindset and sets an expectation for all employees that safety is job one.”

Something's clearly working at Rolla. In fiscal year 2019, the public power utility had a worker's compensation profile that was over 10 percentage points better than the average of 84 Missouri cities, utilities and governmental agencies. So far in fiscal year 2020, it has improved

on that, with a profile that is about 25 percentage points better than average, the best among the group's 84 members.

For more than 15 years, Davis said, RMU has received a perfect score in the pool's annual loss-control program measurement. “There are multiple components to the review, from safety meetings to vehicle inspections to insurance requirements we place on contractors,” he explained. “Receiving a perfect score for over 15 consecutive years is another good example of the success of our program.”

In California, SMUD thoroughly inves-

tigates every near-miss incident to ensure it captures lessons that can be used to further improve its safety procedures. “Last year, those investigations resulted in considerable improvements in the safety tailboard requirements our forepersons use,” Prangley commented.

Crew communications and tailboard meetings have played a significant role in reducing both near-miss events and serious injuries and fatality incidents, he continued.

SMUD takes a deep dive, called TapRoot, into accidents and near-misses to examine whether management built a robust enough

system to allow all employees to work safely and succeed. “If our investigation only concludes that an employee did something wrong, we are not improving our organization or our safety culture, so we strive to go much deeper than that,” Pranglely said.

Roberts mentioned how ElectriCities uses the Association’s eSafety Tracker, which was developed to help utilities document and analyze safety-related events, with a particular emphasis on understanding the root causes of accidents, near-misses and injuries. Roberts said the utility is excited about how the eSafety Tracker can help him to develop and maintain safety training.

“You can’t manage what you can’t measure,” said Roberts. “[The tracker] makes it so much easier to measure safety performance accurately and consistently. You can do a keyword search, pull up videos, track ‘near misses’ and review a safety message of the day.”

A DAILY REMINDER

An organization’s culture is an important aspect of how safety practices and expectations are reinforced. Those expectations and practices can be relayed in face-to-face meetings, over an app, or using other means. What’s important is that they are conveyed clearly, consistently, and repeatedly. In this regard, workers’ embrace of advanced technology is making work in the field safer.

One way that public power utilities are sharing regular safety messages is through a feature of the Association’s eSafety Tracker, a service that launched in early 2019. The service offers a weekly safety message that can be shared with crews, and utilities can add more frequent and customized messages to the platform. Sample messages include:

“If our investigation only concludes that an employee did something wrong, we are not improving our organization or our safety culture, so we strive to go much deeper than that.”

TODD PRANGLEY

MANAGER OF TRANSMISSION AND DISTRIBUTION
LINE CONSTRUCTION AND MAINTENANCE
SACRAMENTO MUNICIPAL UTILITY DISTRICT

- Fire extinguishers are our first line of defense in the event of fire, which should warrant a periodic and thorough inspection of them. Fire extinguishers must be kept clean to attract attention, they must be kept accessible to eliminate lost time when needed, and the rubber hose, horn or other dispensing component must be checked to guard against blockage.
- Falls from different elevations are usually more serious than falls on the same level. These can be caused by slipping and tripping but are also caused by many other factors, such as misjudging a step or a grab bar on a piece of heavy equipment, overreaching a ladder or scaffold, not tying a ladder off properly, faulty handrails on scaffolds, not using safety belts when we should, etc.
- If you are experiencing fatigue while driving, frequent rest stops should be made. Any activity that substitutes a different physical act for the monotony of driving helps to refresh the driver.
- The first requirement for safe backing is to have a spotter, someone to direct the driver. A spotter is necessary when the driver or operator does not have a full view of the backing path.

MODELING SAFETY

SMUD’s Pranglely underscored the importance of mentoring as a way to set expectations: “Our management team mentors new linemen as they go through the apprenticeship process. We want to be sure they understand that sacrifice is part of being a lineworker. There are going to be times where they are away from their families. They might miss the soccer game or the birthday party. It’s part of the duty involved when we commit to keeping the lights on.”

“This is important at any utility, but more so when the utility is a community-owned electric company like SMUD,” he continued. “Our customers own SMUD, and they expect reliable service — whether it’s a rainy and windy storm day, or a beautiful sunny day when a car accident takes out a power pole or two.”

Pranglely noted that SMUD has increased its safety-field interactions. These are targeted visits of field crews by supervisors, all of whom have worked for years in the field. “Those visits certainly go a long way in promoting safety,” he said.