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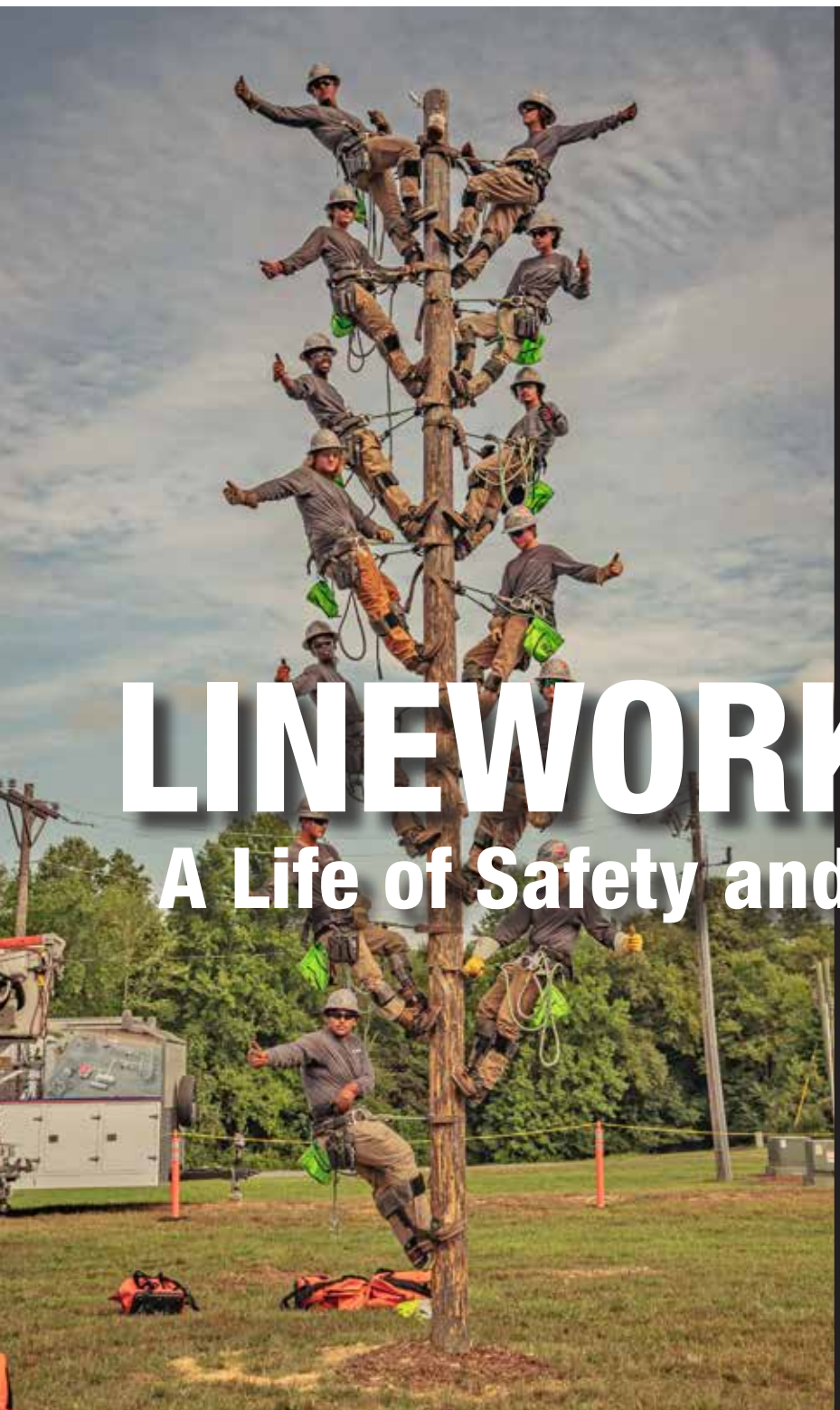

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Celebrating the People Behind the Power

By **AMY FISCHBACH**, Field Editor

Lineworkers put their lives on the line every day to serve their communities. Oftentimes, they are only in the spotlight when they restore power following a storm, but *T&D World* honors lineworkers as first responders and heroes year-round with its Line Life Podcast, Lineman Life enewsletter and Electric Utility Operations section.

Every September, we also publish the annual Lineworker Supplement, which features four full-length feature articles all about the line trade. Over the years, we've covered everything from women in line work to severe storms to lineworkers volunteering to provide first-time electricity to communities.

This year, we are focusing on the future of the trade and honoring the full spectrum of a lineworker's career — from the pre-apprentices just starting in the trade to retired journeymen lineworkers who are continuing to work in the industry. Here's a look at the stories in this year's supplement.

Spotlight on Students

For the last year, we've featured apprentices in our "Faces of the Future" podcast series and department within our print magazine. This story profiles those who have yet to join an apprenticeship program — the pre-apprentices of the line trade.

These training programs offer the students the opportunity to learn how to climb poles, operate equipment and practice setting poles before they even get hired on by a utility or contractor.

The article profiles students from California to New York and explores what inspired them to pursue a career in line work, how they spend their days at the training center and what they envision for their future endeavors.

The Frontier Beyond the Field

Long ago, I heard a saying that linemen never retire. Due to their passion and dedication to the line trade, line work lives in their blood long after they announce their retirement from a utility or contractor.

The article, "Life After the Line," tells the story of five of these journeymen lineworkers, who have continued to support the line trade through consulting, volunteering and responding to storms. These lineworkers go above and beyond to serve their communities and clients long after they retire from the field.

Focus on Mental Health and Wellness

After years of covering the line trade, I've heard many stories from apprentices and journeymen lineworkers about near-misses, injuries and fatalities in the line trade. Oftentimes, when a lineworker loses a friend on a crew or experiences an accident, it can take a mental, physical and emotional toll.

One of our stories for the Lineworker Supplement focuses on the need to provide support and assistance for lineworkers by shifting to a safety-first mindset and empowering the field workforce to openly connect with one another, especially following a tragedy.

Severe Storms

Over the last year, intense storms have inflicted widespread outages and destruction to utilities' service territories nationwide. Storms may be ramping up in severity and intensity, but lineworkers are trained and ready to handle any outage that comes their way. Utilities are also investing in new technologies to monitor weather conditions and pinpoint the location of outages.

This proactive approach to storm response helps to expedite restoration and improve safety for the field workforce. With advanced planning, utilities can pre-position crews, manage resources and get the lights back on for their communities.

To listen to the narrated versions of the stories within this supplement, make sure to stay tuned to the Line Life Podcast. For our "In Case You Missed It" (ICYMI) series, I narrate articles from the *T&D World* print magazine for the episodes aired on the second and fourth Fridays of each month. I also feature interview-style episodes with lineworkers and those who support the line trade on the first and third Fridays.

Tune in to linelife.podbean.com to listen to more than a hundred podcast episodes about the tradition, legacy and passion of the line trade. The podcast celebrates the grit, inspirational courage and determination that it takes to become a lineworker.

If you want to be part of a future episode, stop by *T&D World*'s booth at the 2025 Lineman's Expo, where I will be interviewing attendees and supporters. Lineworkers, I look forward to seeing you and your loved ones in Kansas City during the 2025 International Lineman's Rodeo Week! TDW

Utilitrain offers a 15-week pre-apprenticeship program for the next generation of lineworkers.

FAST FORWARD to the Future of the Line Trade

These pre-apprentices are training to embrace new opportunities in the utility industry.

By **AMY FISCHBACH**, Field Editor

For years, electric utilities managed large workforces, but as experienced lineworkers began to retire, a growing concern emerged about how to replace their invaluable, hard-won knowledge. Utilities established internal training programs and hired new individuals, but due to the unique challenges of line work — combining fears of heights and electricity — not all candidates succeeded.

As the older generation continues to retire, the demand for new lineworkers remains high, said John "Matthew" Horan, an instructor at the Lineman Institute of the North East (L.I.N.E.), a 15-week pre-apprentice electrical lineman trade school in Kingston, New York. After working as a journeyman lineworker, Horan is helping aspiring lineworkers to hit the ground running when they enter apprenticeship programs.

"Mentoring students and witnessing them overcome mental and physical obstacles has been the most rewarding aspect of my career in the line trade," Horan said. "I am incredibly proud to be shaping the next generation of lineworkers."

Exploring Opportunities for Pre-Apprentices in the Trade

Jon Backman, a 25-year journeyman lineworker and electric response troubleman, said currently, the opportunity to work in the trades is wide open.

"The electrical industry has been a wonderful provider for myself, my family and countless others, and demand is high for well-trained, safe and effective workers," he said. "I would encourage any young person who wants to contribute to their community in a rewarding and meaningful way to consider the electrical trades."

Due to the continued investment in grid modernization and the retirement of a large portion of the utility workforce in the near future, opportunities in the line trade are strong and growing, especially for well-trained lineworkers, said

Don Finn, an instructor in Electric Utility Technology/Powerline at Des Moines Area Community College (DMACC) in Ankeny, Iowa.

"Students entering the field today have access to competitive wages, excellent benefits, opportunities to travel or stay local and clear pathways for advancement into leadership, troubleshooting or system operations roles," Finn said.

To continue to build their field workforce, utilities and contractors are actively recruiting from training programs and are offering internships, ride-alongs and early hiring options. For example, at DMACC, students can get a head start and gain foundational skills in safety, climbing, rigging, pole-top rescue and electrical theory — all of which are essential for success in an apprenticeship, Finn said.

"Students graduate with certifications, hands-on experience and a clear understanding of the trade's demands, making them more competitive for openings," Finn said. "Utilities and co-ops often view program graduates as 'apprenticeship-ready,' which can shorten the time it takes to get hired and to succeed in the field."

Training today blends traditional hands-on learning with new technologies like augmented reality, 3D models and digital simulations to help students visualize equipment and practice procedures safely.

"Programs now emphasize troubleshooting, communications, teamwork and resilience — all critical in today's complex and interconnected utility grid," Finn said. "The overall approach is more multi-modal, inclusive and aligned with the needs of modern utilities."

Learning in the Classroom and Training in the Field

To break into the trade, some up-and-coming lineworkers are enrolling in pre-apprenticeship programs and vocational and technical programs nationwide. From coast to coast, students can learn the fundamentals of the line trade before they even step foot into a utility's apprenticeship program. These programs give future lineworkers a glimpse into the line trade and empower students to determine whether a career on the line is a good fit before they are hired on as an apprentice and set out on the path to become a full-fledged journeyman lineworker.

For example, at Utilitrain, a 15-week Electrical Lineman Program, students learn about basic electricity, electric systems, rigging, personal protective grounding, transformer theory and career planning and strategies. In addition, they engage in simulator training to learn how to safely operate digger derricks and excavators.

"We believe that every lineman should learn and understand basic electricity to fully comprehend the nature of the business before entering the serious business of line work," said Randy Beckes, a lead trainer. "After graduation, students will know how the electrical distribution system works and be familiar with electric

company equipment, trucks and specialized tooling to be fully ready their first day on the job."

Case in point: Ethan Gaz, a recent Utilitrain graduate from Charlestown, Maryland, started his new job the day after graduation, and he encouraged others to consider the training program.

"They have a good group of trainers who know what they are doing," Gaz said. "It was a fun and very educational experience."

To continue their education following graduation, young lineworkers can enlist in apprenticeship programs or different types of transmission and distribution programs.

"This will help to further them along in their careers and increase their knowledge along with their pay," Beckes said. "Specialized programs in high-voltage transmission barehand and hot sticking programs are available to those who want to keep climbing the ladder of success."

While each pre-apprenticeship and vocational program is structured differently, the L.I.N.E. program gives students a strong grasp on climbing, power line construction, electrical theory and equipment operation. In addition, they earn their commercial driver's license and become trained in both CPR and First Aid, equipping them for future careers in the line trade. Horan said some students must overcome their fear and uncertainty of climbing wood poles and working at heights, but that is where the instructors come in.

"They train and push the students beyond their comfort zones," he said. "After mastering basic climbing skills, students advance to building our own distribution system in our training yard."

Horan said utilities, unions and contractors are seeking individuals committed to a long-term career in line work, and the L.I.N.E program provides that solid foundation.

"We are confident that our pre-apprentices enter the workforce with a comprehensive understanding of the daily operations and expectations of a working line crew," Horan said.

Taking a Different Approach

The American Lineman College, a specialized training program in southern California, is also preparing pre-apprentices for careers in the line trade. Unlike other 15-week programs, which may include 4.5 hours of classroom instruction and two to three hours of hands-on skills training per day, American Lineman College students complete their coursework online, giving them more time in the field, where they are immersed in a simulated work environment.

"We've disrupted how the pre-apprentice line school model is delivered to students," said Joe Wiley, chief learning officer for American Lineman College. "Our class sizes are small, with a very targeted learning approach for adult learners. Cultivating a diverse and skilled workforce, American Lineman College actively recruits and trains individuals from under-represented communities, preparing them for essential roles that power our nation."

The high cost of traditional vocational schools, along with the need to move away from home for extended periods, were two significant barriers to entry into the power delivery industry for most people, Wiley continued.

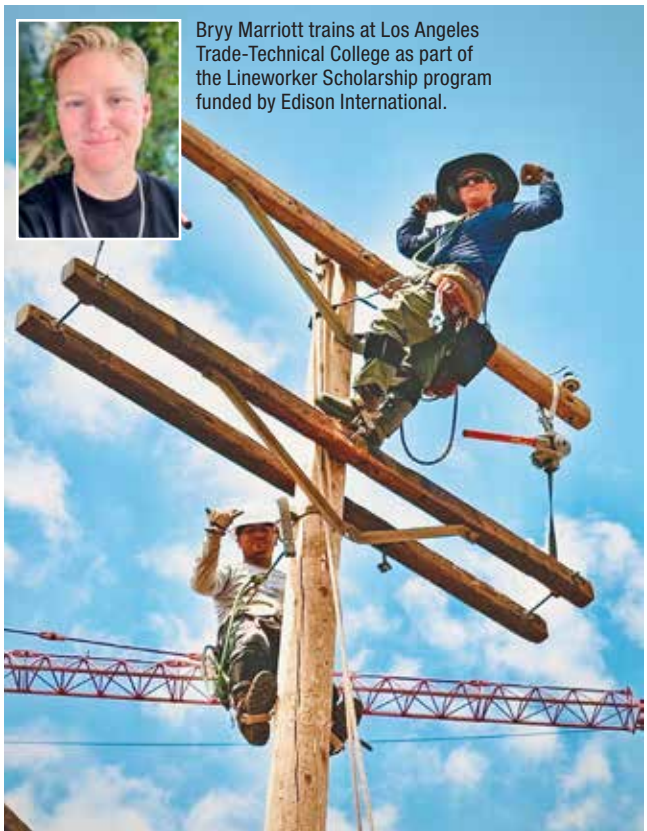
American Lineman College

"We've been able to shatter those barriers and make line school achievable," Wiley said. "Our students are finding employment in this highly competitive field and achieving success. It's a beautiful thing to be a part of."

The following stories shine the spotlight on seven recent and current students in pre-apprenticeships and lineworker training programs at vocational schools and community colleges. They hail from different parts of the nation, but they all have one thing in common — their desire to one day work in the line trade and power their communities.

Bryy Marriott: Learning on the Line in Los Angeles

Bryy Marriott of Buena Park, California, earned the Lineworker Scholarship from Edison International, giving her the opportunity to train at the line mechanic program at the Los Angeles Trade-Technical College (LATTC). She was inspired to work in the line trade by her father, who used to work for Southern California Edison (SCE) and PAR Electrical Contractors, and her uncle, who is still working as a lineman for SCE.



Bryy Marriott trains at Los Angeles Trade-Technical College as part of the Lineworker Scholarship program funded by Edison International.

While at LATTC, her classes started at 7 a.m. After spending about an hour learning about electrical theory, she and other students performed physical training on the soccer field or headed straight to the pole yard. Most days, her class would climb and learn how to use different types of rigging or set up double cross arms.

"One of the biggest challenges is that nothing can really prepare you physically to learn how to climb," Marriott said. "You use different muscles that you didn't even know you had. One of my favorite things about training was realizing I was stronger than half the boys in my class, even at the age of 35."

In her class, she mostly used basic hand tools like drills, shovels, nuts and bolts. Over the years, she said the line trade has made some innovative speed wrenches and stripping tools and made advancements in safety equipment.

"The safety equipment used to climb has definitely changed over the years and is more innovative," Marriott said. "We use a lot more safety equipment while climbing than before. They used to free climb, whereas now we use a primary safety line while we climb."

She recently graduated from the training program, and she's about to obtain her Class A driver's license, which she'll need to work for SCE and most utilities.

"The end goal is to become a journeyman lineman, but everybody starts as a groundman or a helper, and I'm already on my way to reaching that goal," she said.

Marriott considers LATTC as one of the best lineman training programs in California.

"The instructors are top notch, and I wish the incoming trainees the best of luck," she said. "Also, always look out for your brothers and sisters on the job. You couldn't do it without them."

Matthew Miller: Wildland Forest Firefighter to New York Pre-Apprentice

Matthew Miller, a pre-apprentice at L.I.N.E. in New York, transitioned from a career in wildland forest firefighting to learning the line trade for a more financially secure future.

"I had conversations with others who made a career out of line work, and they all spoke highly of the trade," Miller said. "I decided it was the best move for myself and my family."

Now enrolled in the L.I.N.E. program, he and his fellow students start school at 7 a.m. in the classroom to review readings from the assigned chapters for the week. Next, his class moves down to the training yard to perform their morning exercises, called "up-downs," and then shifts into skills training. For example, he is learning to use the digger and crane to dig and set poles, which has been very beneficial.

While other pre-apprentices may be hesitant about working at heights, he said climbing is his favorite part of the training, and he looks forward to using this skill during a future apprenticeship program. He said some of the challenges involve the complexities of the job.

"There is an abundance of information that is crucial to learn in order to stay safe on the job," he said.

Horan said Miller has become fully immersed in both classroom learning and hands-on training in the program.

Matthew Miller, a former wildland forest fighter, enjoys learning how to climb poles as part of his pre-apprenticeship program at the Linemen Institute of the North East.

"His eagerness to ask insightful questions and his readiness to tackle new tasks showcase his unwavering commitment to learning the trade," Horan said. "Once he masters a task, he humbly offers assistance to those who are struggling. I foresee a bright future for him in any area of electrical distribution."

Miller is now applying for apprentice lineworker positions, and he is looking forward to joining a company in the near future. He said he is glad that he decided to first enroll in the pre-apprenticeship training before going out into the world of line work.

"The Linemen Institute of the North East is a fantastic program that allows the student to grow and learn in a short time period," he said. "Also, the instructors give you the knowledge you need to succeed and stay safe in a trade that can easily be unsafe."

Klarence Pilkington: Oil Fields to Climbing Poles in California

Back in 2014, Klarence W. Pilkington was working in the oil fields with all four of his brothers. He eventually became a member of the International Brotherhood of Electrical Workers (IBEW) and is now a student at American Lineman College in Bakersfield, California.

Klarence Pilkington worked in the oil fields with his brothers before training at American Lineman College for a future career in the line trade.

"I started learning and really loving the trade," he said.

On a typical day, he shows up early to get water jugs ready and the trucks stocked before learning new ways and techniques from his two instructors.

"I am super grateful I have had the opportunity to attend American Lineman College and be able to get taught by Mr. Wiley and Mr. Saraceni," he said. "They've made me realize things I would never have even thought about before I went to campus. I believe this trade should have more professional linemen like them. They are extremely professional, and anyone who gets the opportunity to attend campus should take it and soak up all the knowledge they have to give."

He said the training today is likely different than in past years due to a shift in the safety culture.

"A lot of the classic linemen talk about free climbing and not wearing FR clothing, which is foreign to the ears of the newer guys coming up," he said.

Pilkington discovered a lot of new tools and technologies in the program, and he sees the trade evolving rapidly in the future. At the same time, he also learned it takes more than just the physical training and skills to succeed as a lineworker — it also requires certain characteristics.

"If you stay humble, work hard and have a great attitude, it will take you far in this trade," he said. "I've also learned you need to be a good leader and have integrity."

He is also aware of the round-the-clock nature of the job as a lineworker and the need to travel to respond to storms and work opportunities.

"I will be able to travel and see new scenery, although it can be rough on my family," he said. "My beautiful wife and daughters understand everything I go through, and that every hardship is for my family."

After completing the training program, he plans to complete his orientation for Mountain States Line JATC. One day, he may even start a training program of his own.

"I would love to journey out and start my own training facility so I can teach the young people who are up and coming in the trade," he said.

Wyatt McCauley: Studying High-Voltage Work in Oklahoma

Wyatt McCauley, a pre-apprentice in the high-voltage training program at the Oklahoma State University Institute of Technology (OSUIT) in Okmulgee, Oklahoma, discovered the line trade from a family friend.

"He has been a lineman for years, and he told me it would be perfect for me," he said.

McCauley said his favorite part about training is working as a team to get a task accomplished, and the most significant challenge is safety.

"The biggest challenges I face are keeping my head on right and thinking of my safety, and for everyone around me to make sure we get the job done with no one getting hurt," he said.

Through the training program, McCauley learns the basics of line work through a blend of classroom training and hands-on work in the yard. Each week, he and the other apprentices tackle a different topic and hands-on project in the field. He is currently running a digger truck and bucket truck, and he said the new bucket trucks are helping lineworkers to work faster, more efficiently, and most importantly, more safely.

Wyatt McCauley enrolled in the high-voltage training program at the Oklahoma State University Institute of Technology so he could learn the basics of line work before joining an apprenticeship program.

"Line work is still the same when it comes to how everything is wired and framed and the techniques that are used," he said. "It is different today because we have bucket trucks and better safety equipment, so we can approach jobs in a safer manner."

In the future, he would like to pursue his journeyman's license after he graduates from the training program.

"I will reach this goal by showing up to work every day and absorbing as much knowledge as I can," he said.

Weston Fabian: Preparing for a Future Career as a Troubleman

Northwest Lineman College (NLC) has four campuses nationwide, but Weston Fabian chose to attend the Electrical Lineworker Program in his home state of Idaho.

"A friend of mine from the Marine Corps spoke very highly of it and encouraged me to look into it," he said. "I also did a ride-along with a local utility and spoke to a retired lineman, who urged me to attend NLC. During his entry into the trade, there was very little training or structure for apprentices. Almost all the learning was done on the job, and there were not many safety regulations or rules."

He said NLC was the remedy to that — he and his classmates learned the fundamentals and basic foundations, safety rules and a basic structure to how the trade works. While his training was different than that of the retired lineworker, he said the job of a lineworker has essentially stayed the same throughout the years.

"Many of the tools are almost exactly the same as they were 50 or 60 years ago, many of the methods of doing the work are the same as well," she said.

Every morning, he gets to school early to review material, spend four hours in the classroom, take a break for lunch and then spend the afternoon in the field using practical hands-on skills.

"There's always more to do, so when class ends, there's plenty to study, help out with or practice in the field if you truly want to excel in the program," Fabian said.

He said the challenges of the training are the early mornings, late evenings and being out in the elements doing work — whether it's 30 deg or 103 deg.

"My favorite part is that challenge and hardship, along with all the work and learning you put in," he said. "It makes me feel accomplished and fulfilled."

At NLC, he is learning about new technologies, and he said his favorite new smart grid device is a recloser.

"It can help to solve a short-term fault quickly and efficiently without knocking out an entire community's power until a serviceman can arrive," he said. "I just spoke with a small co-op where they plan on purchasing and installing one in order to address a hot spot area of the community."

He said equipment like reclosers, smart meters and SCADA help to pinpoint problems, expedite troubleshooting and restore power more rapidly.

"I believe we will see a surge of smart technology and the usage of drones to help make the job safer and more efficient in the coming years," he said.

After wrapping up his pre-apprenticeship program at Northwest Lineman College, Weston Fabian is looking forward to a career in the line trade.

In the future, he hopes to get hired on by a public utility or cooperative where he can complete an apprenticeship and learn enough over the years to become a troubleman or serviceman.

"I think I attended a very well-planned and comprehensive program at NLC," she said. "I was pretty impressed with how professional and intensive it was at times. I think it's given me a ton of tools to help get started in the trade, including how and where I may find an apprenticeship, what to expect and how to be successful when I begin one as well."

He said he can't wait to join the line trade and start on the path to his career as a lineworker.

"If you speak to any career lineman, they will tell you they love their trade, and it's not going away or even slowing down anytime soon," he said. "I believe them 100 percent."

AJ Bruns: Following in His Family's Footsteps in Iowa

With family members who work in the trade, AJ Bruns was always interested in being a lineworker growing up.

"I love operating the equipment, climbing and building things," he said. "I enjoy being outdoors and solving problems."

As a student at Des Moines Area Community College (DMACC), he learned about better ways to do tasks such as building, fixing and wrecking line, operating various machinery used in the line trade and perform tasks that may be performed every day by a lineworker. Some days, the students performed difficult tasks that required more time and effort, like scenario training and replacing a broken pole.

WHERE TO GO FOR MORE INFO

Across the country, individuals interested in the line trade can discover a training program that works for them, their budget and their schedule. To find lineman training programs near you, go to linemancentral.com/locations. Here is more information about the training programs mentioned in this article.

American Lineman College: This training program, located in Bakersfield, California, lasts from 10 to 16 weeks and offers online academic instruction and weekend classes to fit varying schedules. Founded by Mike Hennesey, one of the honorary founders of Northwest Lineman College (NLC), American

American Lineman College

Lineman College offers three programs: the Certified Utility Worker Program, Climbing Certification and Class A CDL course. In the utility worker program, students learn to work on a simulated crew. The students practice assembling, loading and preparing line equipment, digging holes, setting poles and operating utility equipment. Upon completion, the students are certified for entry-level groundman and utility worker positions. Through the climbing certification, students learn how to climb over obstacles, install crossarms and rig from an elevated position. Learn more at *lineman-school.com*.

Des Moines Area Community College (DMACC): The Electric Utility program, which can be completed in 12 months, teaches students to learn how to work with underground and overhead electrical distribution systems and gain skills to install and maintain transmission systems. In addition, the pre-apprentices can earn credits to apply to a formal apprenticeship, reduce time achieving journeyman-level status and prepare for leadership positions in the field. Details are available at www.dmacc.edu/pathways/btt/electric-utility-technology.

The Linemen Institute of the North East

Linemen Institute of the North East (L.I.N.E.): This pre-apprentice electrical lineman trade school in Kingston, New York, offers a 500-hour training program. Over the course of 15 weeks, students earn the following credentials: digger truck operations, commercial driver's license, First Aid and CPR, OSHA 10-hour and pole top rescue. The program was started by Donald Leiching, who spent 25 years in the line trade. To apply for the spring 2026 program, go to *linemaninstitute.com*.

Los Angeles Trade-Technical College (LATTC): Within its construction, maintenance and utilities division, LATTC offers the Powerline Mechanic (Lineman) program. Students learn how to identify problems with overhead and underground power line equipment; analyze and solve routine technical problems related to electrical technology and power distribution; and install, maintain and remove power poles, transformers, structures and other utility equipment. The students who earn the Edison International Lineworker Scholarships train at LATTC. Visit LATTC at www.lattc.edu/academics/aos/powerline-mechanic.

Northwest Lineman College (NLC): NLC, which was founded in 1993, has four campuses nationwide in Idaho, California, Texas and Florida. The 15-week pre-apprentice Electrical Lineworker Program gives students the opportunity to obtain certifications in aerial lift rescue, climbing, chainsaw safety and maintenance, CPR, digger derrick safety, enclosed space rescue, First Aid and pole-top rescue. Graduates also earn the OSHA 10-hour T&D and can add on courses such as applied mathematics, NCCCO crane operator certification training and Class A Commercial Driver's License training. Go to *lineman.edu* for further details.

Oklahoma State University Institute of Technology (OSUIT): The intensive two-year high-voltage program provides students with comprehensive, hands-on experience in the high-voltage field lab. Students can gain practical skills, including electrical pole climbing and working safely with live wire technology. The curriculum covers a wide range of topics, from electrical and transformer theory to substation operations. A critical component of the program is the required internship, which places students in real-world settings for on-the-job training. The participants engage in four paid, company-sponsored internships to gain practical experience and "earn while they learn." Once the students complete the program, they earn an associate's degree in in applied science in high voltage line technician. Go to *https://osuit.edu/academics/degrees-programs/high-voltage.html* to find out more.

Utilitrain: This 15-week program, located in Elkton, Maryland, consists of classroom training and field competencies. For example, the students learn about basic electrical theory, how to perform proper grounding techniques and how to drive and operate commercial vehicles. During the program, the students practice climbing poles, working on transformers and rigging. They also learn about career planning and strategies such as the different structures of various companies, how to create an effective cover letter and resume and interview for a position in the field. Visit *utilitrain.org*.

After completing a one-year training program at Des Moines Area Community College, AJ Bruns is now an apprentice at Midland Power Cooperative.

Bruns is also learning about the new electric tools and how they work, as well as the different technologies used in the trade like Viper breakers and SCADA. He says electric hoists and lighter tools like crimpers, staple guns and impacts are helping lineworkers to improve productivity and safety.

After graduating from the program, he is now an apprentice at Midland Power Constructors. He said he is glad he decided to complete a pre-apprenticeship program to start out his career in the line trade.

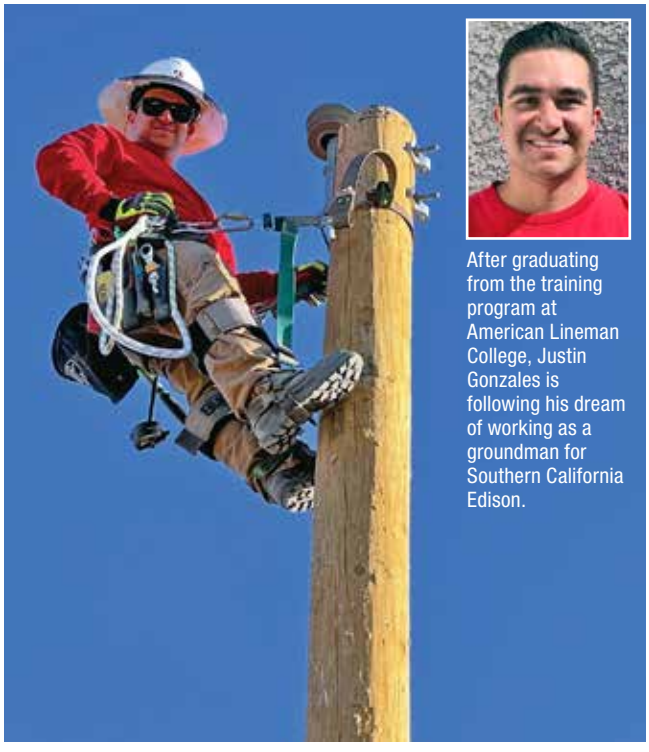
"I thought my training program was awesome, and I would recommend it to anyone," he said.

Justin Gonzales: Looking to Work on the Line in California

With a desire to follow in his brother's footsteps, Justin Gonzales enrolled in the American Lineman College training program in California.

"I want to make a difference every day for those in need of power and be a part of the ever-evolving power industry," he said.

As a recent student in the training program, he and his class started the day with a tailboard covering the projects for the day. The group then stretched their bodies and worked on all groundman fundamentals. He then worked one-on-one with



After graduating from the training program at American Lineman College, Justin Gonzales is following his dream of working as a groundman for Southern California Edison.

the instructors to gain in-depth knowledge, and at the end of the day, he learned how to improve the task he learned that day. He said he enjoyed having the personal instruction at American Lineman College.

"It's great to have the one-on-one teaching," he said. "With our class sizes, it was greatly helpful to have the instructors right there with you, teaching and guiding you with everything we needed."

With access to special resources in the classroom, the students were able to learn and soak up information as if they were already in the trade. For example, they discovered how to gather information to complete a job or task correctly on their iPads.

"We would do things that you would encounter in the real world," he said.

Through his training, he learned that safety is of utmost importance in the line trade along with staying updated on technology and tools.

"There are so many real-world things changing or updating from solar farms to car chargers to the ever-changing power systems," he said. "Technology is what we have to lean on, but the tools we are using are changing as well, so we have to make sure they are up to date and able to do the job. You must adapt every day for what that day may bring you — no day is the same."

He said American Lineman College fully equipped him with the proper learning and fundamentals for him to succeed in the line trade and for the work that is out there.

"I'm three days out of completing all my training for Southern California Edison, and I have reached a goal that I have had for a lifetime," he said. "I would not be in this position if it was not for American Lineman College teaching me all the groundman fundamentals and what is needed for the line trade." TDW

Life After the Line

After working on the line for decades, these retired lineworkers continue to support the line trade.

By **AMY FISCHBACH**, Field Editor

Every year, a wave of lineworkers hangs up their hooks and retires from the line trade, opening spots for those trained to fill their work boots. From 2023 to 2033, about 10,700 new power line repairers and installers will be in demand due to the 8% growth rate in employment over the decade, according to the U.S. Bureau of Labor Statistics.

The average age of lineworkers is 41, which represents 55 percent of the journeyman lineworker population, according to Zippia. While journeyman lineworkers often retire at 65 years old, many choose to opt for early retirement as young as 55 years old with an actuarially reduced pension if they are vested.

For example, Robert Padgett, a first-class lineman, International Lineman Hall of Famer and owner of Padgett Poleline, worked for almost 31 years for Lakeland Electric and has no regrets.

"I actually retired young enough at the age of 55 to go out and do some things I had not had the opportunity to do previously," he said. "I took four months off before starting my next chapter."

After decades of powering their communities, however, many journeyman lineworkers don't want to leave the line life behind. For example, they may transition into other roles such as consultants, line instructors, small business owners, storm support specialists or volunteers for the International Lineman's Rodeo Association (ILRA).

Here are the stories of a few of these lineworkers and how they are still making a difference in the line trade. They reflect on their careers in the industry and talk about how they are now continuing to support the line trade.

Robert Padgett works on a transmission line upgrade.

From Florida Lineworker to Business Owner

Padgett, a journeyman lineworker who joined Lakeland Electric in 1988, came from a background of welding and fabrication. The more he learned about the line trade, the more interested he became in a future career on the line.

"Lakeland Electric started their own training program that year, and I was fortunate enough to be one of the first apprentices to go through the four-year program," he said.

Early on, he worked for some "old school linemen" who were hard on him and even harder to get to know. When he did earn their trust, however, they would take the time to teach him the skills of the line trade.

"I feel like most linemen are only willing to teach those who are interested in the trade and want to learn," he said. "Many of these men I still visit today just to talk of the early part of their careers and to hear how it used to be done — especially those about working off the pole."

During his career, he said he learned how to perform line work without the use of bucket trucks and specialized machines.

"We had about 88,000 poles on our system, and about 12,000 you couldn't get trucks to," Padgett said. "We didn't have any back-lot machines then, and I can proudly say to this day, I have never worked out of one. I got to do a ton of that work, and we did most of it energized."

He said hot boards and hot sticks may be a lost art in some areas of the United States, but they were commonly used at

Lakeland Electric as long as he was on the crew.

"We did some reconductoring of three-phase easements with no outages as well as many three-phase pole replacements — good times right there," he said.

When he looks back at his career, he said his first storm work was in 1992 for Hurricane Andrew.

"I have worked many, many storms since, but none have compared to the amount of devastation we encountered there," he said. "There weren't many homes left to run power to."

Fast forward to 2004, and Lakeland Electric was hit with three hurricanes in six weeks with the last one causing outages to 95,000 of the utility's 105,000 customers. It took six weeks for the line crews to restore power to the last customer. Then in 2012, Lakeland Electric's crews traveled to Long Island, New York, following Super Storm Sandy.

"Many of our linemen had never seen snow, let alone worked in it, and it was quite an experience," he said.

Since his "so-called retirement," he has worked several more storms in the Big Apple.

"The way I look at it, the crews come from all over the United States to help us after hurricanes, so it's only right for us to go help them," he said. "In the past six years, I have worked from the banks of Lake Ontario as far west as Houston, through the swamps of Louisiana and as far south as Key West. I have nothing but good memories from those journeys."

Now, as the owner of Padgett Poleline, he has had the opportunity to work on some transmission projects, and he said he has learned a lot.

In his current role he has been fortunate enough to do more back-lot work, barehand work, and some hot stick and helicopter work. One day, however, he was approached and asked if he wanted to share some of the things he had learned with the new generation of lineworkers. At that point in time, he had not thought much about teaching others about the trade, but he did have experience with training while working at Lakeland Electric.

Last year, Padgett had six W-2 forms, and he swore he would slow down this year. Instead, he is helping to move the International Lineman's Museum from Shelby, North Carolina, to Leesburg, Florida, which has kept him busy. Also on the property will be the Fallen Lineman Organization, which will have a bronze statue to memorialize fallen lineworkers.

"It pays tribute to the linemen who have paid the ultimate sacrifice in serving this great trade," he said.

The museum displays will begin with the telegraph system and then move into an introduction of the telephone linemen and catenary work. In addition, the museum will honor the U.S. military, like the Army Signal Corps and Navy Seabees, who have been instrumental in building power and communications lines to protect troops abroad since World War II. Other items on display will be artifacts and insulators from the Civil War and the mining of copper from the 1800s all the way up to modern-day tools and technologies.

"This will be a one-of-a-kind experience that recognizes the history of the trade like no one ever has," he said. "It's really going to be quite an experience when we get it up and running. We welcome those who are interested in the preservation of the trade to contact us and hopefully help with donations, both historically and monetarily."

Training the Future Field Workforce

The electric utility industry has come a long way since the first commercial distribution of electric power started in 1882 with electric lighting, said Randy Beckes, a lead instructor at Utilitrain with 48 years of experience in the line trade. Electric utilities are now experiencing some of the fastest employment growth compared to employment across traditional industry sectors.

"In 1977, I started my career in the line trade," said Beckes, who started in the trade as a groundman with Gulf States Utilities in Baton Rouge, Louisiana, before working his way up from an apprentice to journeyman lineworker to safety director. "Since that time, there have been many changes, especially within the last two years. With the ever-increasing need for electric service nationwide, the need for qualified lineworkers has also increased."

To ensure the safety of crews as well as the reduction of injuries in the electric utility industry, Beckes became a lineworker trainer in 1988. Over the years, he expanded his skills to include specialized live-line training, including hot sticking and rubber gloving. During his career, he has trained thousands of lineworkers throughout the United States as well as 39 countries around the world.

After recognizing the need for professional training for lineworkers, he opened a training school for lineworkers in 2000 in Georgia and then focused on live-line training. Then, while training AUI Power in Maryland during the summer of 2022, Beckes discovered a need for a lineman school in the Mid-Atlantic region. A few months later, one of the owners of AUI Power responded positively about building a school, and two years later, Utilitrain became a reality.

In January 2023, Utilitrain was born, with the mission of training the next generation of lineworkers by providing hands-on, real-world training during the 15-week training program.

The Utilitrain facility spans 38 acres and includes training simulators, administration offices, student classrooms and break rooms, bucket trucks, digger derrick trucks and a crane. Field training features a pole circle and single three-phase lines as well as underground transformers. Students learn how to climb poles, operate a digger derrick and bucket aerial truck and install line hardware, poles, crossarms, conductors (primary and secondary) and transformers.

Beckes said he is honored to share his extensive knowledge and years of experience with the students at Utilitrain.

"When creating and building the programs here at the school, our team's goal was to help the utility industry by providing quality lineworkers," Beckes said. "I have seen how this invaluable training has changed the lives of so many, and it does my heart good to see the students succeed and prosper as a result of our training."

From Powering the U.S. Military to Volunteering for the ILRA

Rustin Owen hailed from a family of lineworkers with his father, cousin and great

Randy Beckes has trained thousands of lineworkers and is now a lead instructor for Utilitrain to train the next generation coming up in the line trade.

uncle all in the line trade. He completed all his training in the U.S. military and attended a joint school for the Air Force, Navy and Army for his initial training. Before retiring from the U.S. Army, he was part of the team that built the U.S. Army Power Line Distribution Course at Fort Leonard Wood, Missouri.

"The feeling of accomplishment from building a course that has continued since I left the Army is a great one," he said.

Most of his career in the military was working worldwide to provide power to the warfighter from 2003 to 2016. During that time, he was able to respond to many outages and provide power to cool down warfighters in the deserts of the world. He also remembered troubleshooting an underground fault during a mortar attack.

"The best feeling is always restoring power in times it is knocked out," he said. "Working on storms and getting power back to those whose lives were interrupted by power outages is a great feeling."

For example, he helped to restore power to the island of American Samoa after a tsunami. He also responded to an ice storm in Kentucky, which eventually led to flooding due to increasing temperatures.

"It was a nonstop repair of the same circuits and poles back-to-back," he recalled.

After retiring from the Army, he worked as a safety coordinator for American Electric Power (AEP) for six years alongside line crews during storms. Today, in his job position with Salisbury, he gets out in the field with lineworkers to ensure they have what they need as far as tools and safety equipment. In this role, he answers questions about products and how to use them and educates lineworkers about standards and testing.

"This job keeps me connected since I have transitioned out of line work, so I really enjoy the ability to continue to be connected to lineworkers in the field," he said. "Having a way to stay connected has been key, as my family has retired from the line trade, but we still have lots of conversations about how things are going for linemen today and how safety has become a lot better."

He said while it's been difficult to learn the business side of things and spend time on a computer, he still enjoys getting out, attending events, and visiting crews around the nation.

Rustin Owen was a guest for T&D World's Line Life Podcast, available at linelife.podbean.com. After serving in the U.S. Army and working in the line trade and safety department, Rustin now volunteers for the International Lineman's Rodeo Association's safety committee.

"I still watch outages and try to keep up with friends as they go out on a storm," Owen said.

From 2005 to today, he has also been involved in the International Lineman's Rodeo. While in the U.S. Army, he had the opportunity to compete in the event, and after retiring from the military, he now volunteers on the safety conference committee for the International Lineman's Rodeo Association (ILRA) and as a First Aid and safety coordinator on the Rodeo grounds. In his volunteer position, he is responsible for working with a team to build a valuable safety and training conference and organize a safe competition year after year.

"Every year I attend the Rodeo is a memorable one," he said. "Being able to continue being part of the ILRA is a huge thing I love, and I will continue to do it as long as I can. Making friends around the nation and seeing them every year has been one of the most memorable things of my career and what I look forward to many more times in the future."

Working Storms: From the Field to Management

Rick Owens, distribution operations supervisor for TRC Companies, learned about the line trade from a high school friend, who told him about his company — Dallas Power & Light.

"It sounded like an interesting opportunity," he said. "Dallas Power & Light provided on-the-job training, and once you have enough experience, you can start climbing poles."

From there, he started an apprenticeship program, where he learned about climbing, rigging, tool use, line construction and how electricity works. After completing his internship, he started as a journeyman lineman at Dallas Power & Light, which merged with Texas Power and Light and Tesco to form TXU Electric before being rebranded to Oncor Electric.

He worked as a lineman for 21 years before taking on a role as a troubleshooter and first responder, where he was responsible for power outages, downed lines or equipment failures. He was then promoted to distribution operations technician and in this role, he oversaw five to seven team members at each service center. He then returned to his roots in Dallas as a supervisor at an Oncor service center before moving to Waco, Texas, as the supervisor over three service centers with 35 direct reports. About halfway through his career with Oncor, his daughter started working for the same company and she's climbed the corporate ladder.

"I'm very proud of her," he said.

As a lineworker, some of his most memorable moments were working on home-system or off-system storms.

"After the storm, it's not just the power that's gone — it could be water, internet and access to food or medicine. We aren't just turning the lights back on. We're restoring people's livelihoods and helping bring their lives back to normal. That's the part of the job I really enjoyed."

For example, when Hurricane Maria slammed into Puerto Rico in September 2017, it wasn't just a storm — it was a full-scale infrastructure collapse, he said.

"The Category 4 hurricane obliterated the island's aging electrical grid," he said. "Utility trucks couldn't just roll in from neighboring states. Everything had to be shipped in by sea or flown in. We drove our trucks and gear to Lake Charles, where it was sent by barges, which took over a week to arrive. The remote, mountainous regions were very hard to reach. Power lines were wiped out for miles. It would take over an hour to drive up narrow mountain roads, which was a challenge for our trucks to squeeze by."

Rick Owens joined TRC Companies after working for the utility industry for the majority of his career.

The line crews encountered several communities that had been without power for three months before they arrived.

"Once we restored power, these mountain communities would tell us their stories," he said. "Many of them used small generators to power schools, but children were reading and writing in the dark for months. Because of the infrastructure, some places haven't had electricity since the 1980s. The Puerto Ricans are a resilient people. I befriended a man about my age who would cook for us every day without electricity or anything. He was so proud."

Within a few weeks of retiring from Oncor in Waco, he discovered opportunities at TRC and began working full-time for them. In his role, he spends his day checking emails, making phone calls and directing the field team's work to where they are most needed. He is primarily responsible for managing field technicians responsible for helping with broadband expansion. For example, when a company wants to attach fiber cables to a utility pole, his crews measure the pole height and clearances, determine attachment placement and inspect for integrity.

"We are basically designing in the field," he said.

After working as a leader in the line trade, Maximo Fuentes is now helping others through his consulting business.

The lineworkers use SPIDA Systems for pole design and structural analysis to generate reports to determine if the pole needs to be changed out before fiber can be added. Once fiber is attached, the crews go back to ensure everything is working correctly.

"The biggest transition is in the area of safety," he said. "Electrocution and bucket trucks used to be my top concern. Today, it's driving conditions, aggressive dogs, distracted traffic, and of course, the most common — slips, trips and falls."

He said the most challenging part of his job is finding new business.

"I'm used to being out in the field," he said. "Stepping on a trade show floor or knocking on doors is unfamiliar territory for me."

He now has 22 direct reports, and his motto is to treat everyone with respect.

"The favorite part of my job is making sure my team has what they need to succeed — whether that's equipment or proper gear. When I can remove obstacles and get them the right tools, I feel like I'm making a difference. When you take care of the little things for your employees, it gives them a sense of pride in the company. That's when the job really feels meaningful."

SMUD Supervisor to California Consultant

Back in 1984, Max Fuentes' friend asked him if he was interested in becoming a lineman, and he was hired on at the Sacramento Municipal Utility District (SMUD) as a pre-apprentice. After completing his apprenticeship, he was promoted to a journeyman four years later.

He now brings a wealth of on-the-job experience to his new role as the owner of Fuentes Consulting, LLC, in Carmichael, California. For example, after working as a journeyman lineman and line foreman, he moved to Idaho to serve as the chief field instructor and vice president of Northwest Lineman College. He then moved back to Sacramento to serve as the president of Trade Tech, a lineman vocational school. In 2002, he returned to SMUD as a journeyman lineworker and then was promoted to supervisor of safety and training, supervisor of meter and service crew, supervisor over crew scheduling and supervisor of asset management. He retired as the grid assets line supervisor for business operations in 2015.

In addition to working in the field, he also loved competing at the International Lineman's Rodeo. Case in point: he was a member of a winning team five times with three times as the top team in the municipal division and twice as the top team in the contractor division. His team has also won the hurt man rescue twice and various other rubber glove and hot stick events. Since then, he has returned to speak at the Safety and Training Conference about leadership in the line trade during the International Lineman's Rodeo Week.

Like the other lineworkers at the Rodeo, he has worked his share of storms. For example, in the winter of 1995, SMUD experienced multiple days of wind and rain, and trees took out a lot of lines, backyard transformers, pole sets and reconductoring. One of his most memorable weather events, however, was in 1988, when a summer thunderstorm took out about 400 transformers throughout the service area.

"I worked for seven days straight for 16- to 24-hour shifts, climbing poles and replacing transformers," he said.

Today he has a consulting business, and he works with utilities and contractors to teach line construction work methods, write procedures, certify hurt man rescue and rubber glove recertifications and write investigative reports. He provides a safety meeting curriculum monthly, so he focuses on doing research and development of his lesson plans and presentations. He also conducts research, writes reports and interacts with lawyers to provide depositions and occasionally testify in trials. TDW

FRONTIER BEYOND THE FIELD:
Advice for Soon-to-be Retired Lineworkers

After investing decades in working in the field and working around the clock to keep the lights on, it's often challenging for lineworkers to downshift into a relaxing retirement. Here are some words of wisdom from those who have exited a full-time job for a utility to discover other opportunities related to line work.

Gain as much knowledge as possible. "My advice would be to learn all you can about this awesome trade and make yourself valuable to your organization," said Robert Padgett, owner of Padgett Poleline. "It can propel you into many opportunities connected to the transmission and distribution industry."

Stay in shape. "Don't sit around and focus on your health so you can enjoy a great retirement," said Maximo Fuentes, owner of Fuentes Consulting LLC, who works out every day. He took up Brazilian jiu jitsu at 57 years old, and he has trained consistently for the last eight years. "I compete and have won several world championships in my age division," said Fuentes, who currently has a brown belt and wants to be promoted to black belt someday.

Start formulating a plan weeks or months before you retire. "There is life after your utility and great opportunities and great companies that would love to have your experience," said Rick Owens, distribution operations supervisor for TRC Companies.

Prioritizing the Mental Health of First Responders

Theses six strategies can help safeguard lineworkers as they put their lives on the line every day to serve their communities.

By **AMY FISCHBACH**, Field Editor

Lineworkers restore power to communities, work long hours in extreme conditions during storms and serve as first responders. They also have one of the most dangerous jobs in America. The fatality rate for electric power line installers and repairers is 23.7 fatalities per 100,000 workers, compared to 9.6 for all construction workers and 3.5 for all occupations, according to recent data from the U.S. Bureau of Labor Statistics (BLS).

As the owner of a California consulting firm, Maximo Fuentes provides training, education and expert witness services to the electric utility industry. He said he thoroughly enjoys interacting with the young lineworkers and apprentices and sharing his knowledge and experience. At the same time, he's challenged and frustrated by the litigation and catastrophic injuries he sees working as an expert witness.

"I am disappointed in the direction that I see some companies going in our trade," said Fuentes, who has 31 years of experience in line work and is the owner of Fuentes Consulting, LLC. "There's not enough emphasis on education and training, and there are too many needless accidents. Too many times, I have seen accidents, discipline and a lack of professionalism in our trade, with the emphasis on making more money at the expense of the workers."

Electrical fatality rates have remained consistent year after year, and more needs to be done to reduce the number of electrical fatalities in the workplace, according to the Electric Safety Foundation International (ESFI). To drive down injury and fatality rates, the electric utility industry is investing in personal protective equipment and training its field workforce in safe work procedures and practices.

Even so, the line trade loses dozens of lineworkers each year due to work-related incidents. The following story dives below the surface of safety in the line trade to offer some strategies on how lineworkers can come home safely to their loved ones

BY THE NUMBERS: Stats on Safety in the Line Trade

The Electrical Safety Foundation International (ESFI) recently compiled data from the U.S. Bureau of Labor Statistics and the Occupational Safety and Health Administration (OSHA). Here are some fast facts about electrical safety and hazards in the workplace.

- Ten occupations accounted for more than 58 percent of electric fatalities—electric power installers and repairers (lineworkers); electricians; construction laborers; roofers; laborers (except construction); electricians' apprentices; painters in construction and maintenance; heavy truck drivers; tree trimming occupations; and heating, air conditioning and refrigeration mechanics.
- Contact with electricity is one of the leading causes of fatalities in the workplace.
- In 2023, about 91 percent of electric fatalities were caused by overhead power line contact (42.8%), unexpected contact with electricity (19.3%) and nearby energized equipment contact (12.7%).
- Other causes of electric fatalities in the workplace were working on energized parts (4.1%), ground faults (4%) and damaged wiring and equipment (3.1%).

each night and handle the stress of working as first responders in their communities.

1. Understand the Toll of Trauma in the Line Trade.

As the electric utility industry continues to grow, evolve and expand, safety is always top of mind in the line trade. Even so, from the early years of line work to today, the industry has suffered from many accidents and learned lessons learned from them, said Randy Beckes, a journeyman lineworker who founded Utilitrain, a pre-apprenticeship training program in Maryland.

"Over the years of hard work and training, I have seen a number of linemen, some close friends, seriously injured from accidents," said Beckes, who started out in the line trade in 1977. "This drew me deeper into my commitment for safety and safety training."

Ken Lulow, a journeyman lineworker and president of Line Worker Solutions, gives presentations on safety in the line trade.

Lineworkers — whether they have just started in the trade or are nearing retirement — may one day experience a near-miss or the loss of a beloved coworker, and the toll can be complete self-destruction, said Ken Lulow, a journeyman lineworker and president of Line Worker Solutions.

"The guilt, the fear and the pain are crippling," Lulow said. "Without proper care and support, it could lead to self-destructive behavior that can ruin their lives and have catastrophic effects on all those around them — peers, family, children and friends. Don't try to self-cope and hold it all in. Share your struggles and find the support that is needed."

A near-miss, or loss of a close coworker can be more difficult than being the victim yourself, in some ways, said Jon Backman, a journeyman lineworker with 25 years in the industry.

"Watching a serious accident is a traumatic experience, especially if the victim is someone you know well," Backman said. "The early and unexpected loss of a close person in your life is incredibly difficult to deal with, as you may be left feeling like you never had a chance to tell that person certain things before they were gone."

Jon Backman, a journeyman lineworker and founder of Making Connections LLC, advises lineworkers on how to work safely in the trade.

Backman said he has only had one close experience with losing a co-worker due to an on-the-job accident.

"I was an apprentice at the time, and he was a more senior employee with a great reputation and safe work habits," he said. "The biggest takeaway for me was seeing the heartfelt reaction from all the employees at the utility and the community we served."

Danny Raines, the author of the book, *Legends of an Old Lineman* and owner and senior consultant of Raines Safety Solutions LLC in Griffin, Georgia, said a near miss can be a learning experience caused by a distraction or a loss of focus and may or may not cause severe injury. Oftentimes, a thorough investigation of the near miss will identify the procedures that were not followed, which could have prevented the incident. A fatality, however, is something that will impact not only the fallen lineworkers and their families, but also everyone on the crew and at the company.

"A loss of life is a traumatic event with far-reaching, severe outcomes to all employees associated with the event and is very difficult to get over," Raines said. "A thorough root cause analysis investigation must be implemented to prevent anything like that from happening again."

Over his 58 years in the industry, Raines has seen utilities and contractors provide additional resources related to mental health, as well as tools and equipment to make the job safer.

"This prioritizes the importance and increases the awareness of doing the job correctly," said Raines, who provides OSHA authorized training and skills training covering distribution coverup, system grounding and accident prevention and investigation.

2. Provide Support in the Aftermath of a Tragedy, Near-Miss or Loss.

To help the field employees heal from the tragedy of a lineworker fatality, utilities can bring in a therapist or a specialist

THREE WAYS TO BREAK THE SILENCE on Mental Health Struggles

In their roles as first responders, lineworkers may have a hard time prioritizing their health and wellness following a traumatic event or after dealing with chronic stress and anxiety. Instead of burying emotions deep inside, here are a few ways lineworkers can connect with others and take charge of their mental health

1. **Look out for each other and ask for help.** "Embrace vulnerability and share your stories and experiences with your peers," said Ken Lulow, president of Line Worker Solutions. "Let others know that it's okay to not have the answers, and it's okay to not be okay. Share your knowledge, ask when you don't know something and don't turn your back on your peers because you're afraid to ask how they are. Be accountable and courageous to ask questions."
2. **Keep the lines of communication open.** "I would suggest finding a co-worker you are comfortable with, and have open, honest conversations," said Journeyman Lineworker Jon Backman. "The cab of a truck is a great place to have these private trust-based chats."
3. **Turn to professional help.** Therapists such as Valerie Guile at Buffalo Roam Therapy Group in Overland Park, Kansas, (www.buffaloroamtherapy.com/valerie-guile) are trained in trauma response and helping first responders to heal following crisis situations.

10 SAFETY CULTURE INITIATIVES to Improve Mental Health and Wellness

Utilities and contractors can change the conversation about mental health by offering resources to their field workforce. Journeyman Lineworker and Mentor David Mendonca shares the following 10 initiatives companies can consider to improve the safety culture at their companies.

1. **Employee Assistance Programs (EAPs):** Many utility companies offer EAPs that provide confidential counseling services for employees and their families. These programs can help workers deal with personal issues, stress and mental health challenges.
2. **Mental Health Training:** Training programs focused on mental health awareness and resilience can equip workers with tools to recognize signs of stress or mental health issues in themselves and their colleagues.
3. **Wellness Programs:** Companies often develop wellness programs that include fitness challenges, mindfulness activities, and health screenings, promoting overall well-being and reducing stress.
4. **Safety Culture Initiatives:** Implementing a strong safety culture where mental health is prioritized alongside physical safety fosters an environment where workers feel supported and valued.
5. **Peer Support Programs:** Establishing peer support groups allows employees to share experiences and challenges, creating a sense of community and reducing feelings of isolation.
6. **Flexible Work Schedules:** Providing options for flexible schedules can help lineworkers manage their work-life balance more effectively, reducing stress and improving overall mental health.
7. **Regular Check-ins:** Management can implement regular check-ins to assess employees' mental health and well-being, demonstrating care and support for their workforce.
8. **Access to Resources:** Ensuring that employees have easy access to mental health resources, including hotlines and online tools, can encourage them to seek help when needed.
9. **Provide Training on Stress Management:** Workshops on stress management techniques, such as mindfulness, coping strategies and relaxation exercises, can help workers better handle the pressures of their jobs.
10. **Organize Recognition and Appreciation Programs:** Acknowledging and celebrating employee achievements can boost morale and foster a positive work environment, contributing to mental wellness.

to provide information as to why and how the accident occurred, Raines said.

For example, Union Care Solutions, a 501(c)(3) organization, is helping support mental health and peer support across the industry and creating awareness about critical incident response and suicide prevention. In the aftermath of a fatality, the Critical Incident Stress Management (CISM) teams can provide "psychological First Aid" through debriefings, defusing sessions, crisis intervention and crisis management briefing.

"Critical Incident Stress Management addresses the emotional and mental well-being of workers exposed to traumatic events or stressful situations," said Jenny Lavin, founder of Union Care Solutions. "Timely deployment of a CISM team can help mitigate psychological impacts, support workers in coping with stress and support mental health awareness across crews and companies alike."

Advocates like Lavin along with utilities, unions and contractors, are making significant strides in improving the lives of lineworkers by prioritizing mental health and wellness, said David Mendonca, the executive director of the Show Up Dad Foundation, an organization started in 2020 that helps young men with their mental health, marital, parenting issues.

"This collective effort not only enhances overall safety but also ensures that lineworkers return home to their loved ones each night, fostering a healthier and more resilient workforce," said Mendonca, moderator of the Show Up Dad podcast, pastor, father and journeyman lineworker in Elsinore, California. "A supportive environment encourages open communication about mental health, reducing stigma and promoting a culture where workers feel comfortable discussing their struggles."

Over the years, utility companies have implemented safety culture initiatives, which can decrease stress and improve mental health for lineworkers, Mendonca said. By addressing mental health proactively, lineworkers are less likely to experience burnout or fatigue, which can impair judgment and increase the risk of accidents, he said.

"Improved mental well-being allows lineworkers to concentrate better on their tasks, leading to safer work practices and decision-making," he said. "Training and support also help workers develop resilience, enabling them to cope with challenges and stressors more effectively. In addition, peer support and community-building initiatives enhance teamwork, creating a network of support that can help workers look out for one another and prioritize safety."

3. Shift the Culture to Focus on Mental Health, Wellness and Support.

Traditionally, the line trade hasn't emphasized emotional health and wellness, but as the stigma of getting help has decreased

IN THE AFTERMATH OF A TRAGEDY: Potential Tolls and Coping Strategies

Experiencing a near-miss, accident, or the loss of a close coworker can have profound effects on lineworkers, both emotionally and psychologically, said David Mendoca, a lineworker and executive director of the Show Up Dad Foundation. Here are some impacts of a tragedy as well as coping strategies.

Emotional and Psychological Tolls

- **Shock and disbelief:** A near-miss or accident can leave lineworkers in shock, struggling to comprehend what happened and why.
- **Guilt:** Survivors of an incident may experience survivor's guilt, questioning why they were unharmed while others were not.
- **Anxiety and fear:** Traumatic events can lead to heightened anxiety, especially concerning safety. Workers may become fearful of returning to similar tasks or environments.
- **Depression:** The loss of a coworker can lead to feelings of sadness, loneliness and depression, particularly if there was a close personal connection.
- **Post-Traumatic Stress Disorder (PTSD):** Some workers may develop PTSD, characterized by flashbacks, nightmares and severe anxiety related to the traumatic event.
- **Decreased Job Performance:** Emotional distress can impact focus and performance, potentially leading to further safety risks.

Coping Strategies

- **Talk about It.** Encourage open discussions about the incident among colleagues. Sharing feelings can help process emotions and reduce isolation.
- **Seek professional help.** Consider counseling or therapy, especially if symptoms of PTSD or depression arise. Professional support can provide effective coping mechanisms.
- **Join support groups.** Engage in support groups where workers can share experiences and coping strategies related to workplace trauma.
- **Focus on safety training.** Participate in safety training and discussions to reinforce the importance of safety protocols. This can help regain a sense of control and responsibility.
- **Establish Safety Buddy Systems.** Partner with coworkers to create a buddy system that promotes safety awareness and accountability on the job.
- **Practice mindfulness and stress management.** Techniques such as meditation, deep breathing or yoga can help manage stress and improve emotional resilience.
- **Memorialize the lost.** Create a tribute or memorial for the coworker, which can provide closure and honor their memory.
- **Advocate for safety improvements.** Work with management to identify and advocate for safety improvements or changes in protocols that can prevent future incidents.
- **Reflect on lessons learned.** Take time to reflect on the incident and identify lessons learned that can enhance personal and workplace safety.
- **Engage in training programs.** Participate in or lead training sessions focused on safety practices to help others understand risks and promote a culture of safety. For example, individuals impacted by workplace accidents can reflect on their views of safety and take on mentorship roles. By actively participating in safety training and sharing personal stories, workers can contribute to a safer work environment and support each other in coping with the emotional aftermath of traumatic experiences.

nationwide, it is no longer uncomfortable to acknowledge struggles or stresses, and that's important to build on, Backman said.

"Many of us face similar challenges, and it helps to talk to other people who are in the same work and life situation," he said. "You may not get solutions or answers, but it is reassuring to know you aren't the only one dealing with stress."

Backman said it takes time to truly have a meaningful impact on mental health and wellness.

"Creating and maintaining a workplace culture of trust, transparency and support is the most effective method," he said. "This can't be done virtually. It takes time, dedication and financial investment. Oftentimes, short-term goals eclipse the need for this culture development, but if utilities are willing to provide a secure environment, the employees will feel more relaxed and comfortable at work."

While technology has led to improved opportunities in many ways, Backman said it's vital to keep in-person training and learning as the core foundation of improvement for electrical workers.

"We still work side-by-side in the field, and our working relationships rely on trust," he said.

Lulow, who serves as an advocate for frontline workers and leads training and culture-building programs that empower utility workers, said that in his time in the line trade, he hasn't seen the level of care needed to support the mental health and wellness of field employees. While the tools are available and many organizations have good intentions, they haven't asked the right question: What can we do to support you and where you're at?

"Because of this, our industry continues to decline," Lulow said. "No matter how many resources we throw at the problem, it will never solve this issue until we create a psychologically safe workplace and treat people like people. I have sat in many conferences and other discussions where workers are seen and treated like a resource that can just be pulled off the shelf from the local hardware store — like they are a box of screws — especially when it comes to mutual aid workers following a storm.

We must treat our lineworkers like people, recognize that they have families, real lives and the same struggles we have — not as just a resource to get the lights on when the storm hits."

He said it's human behavior to act according to how you're treated.

"There isn't a quick fix for this, and no matter how many safety policies we implement, I don't see the accidents decreasing unless we shift the culture," he said. "There is more than enough data available supporting the benefits of psychological safety and shifting the culture. Some utilities with courageous leaders are already embracing this, but unfortunately, most others are still relatively unaware or satisfied with the status quo. I wholeheartedly believe this shift will change the industry; it's just going to take time to catch on."

4. Emphasize Safety — Not Just Productivity — in the Field.

As the line trade continues to feel the pressure to do more work in less time, safety often takes a backseat in the field. For example, frontline leaders may tell the lineworkers how to stay safe in extreme heat by following the rules they set — drink water, take breaks and set up shade, yet they did little to enable them to truly adhere to these rules in the actual condition of the field. At the same time, they say "safety first," yet they may advise lineworkers to get the job done as quickly as possible because it's a "hard-money" job.

"The last thing the crew heard was 'hurry up,'" Lulow said. "This message leaves the crew feeling that the boss really cares about speed — not safety — and human behavior and fear of job security will have the crew cutting safety concerns to 'hurry up.' The guys are going to get the job done — it's who they are."

If an accident happens, and the investigation reveals that safety protocols were not followed, Lulow said, human error will be to blame.

"If it's found that 'the crew disobeyed safety protocols,' we tend to reactively set new safety rules to prevent this mistake," he said. "We are only treating symptoms when we do this. What's the real reason the crew felt like they couldn't follow safety protocol? Does the frontline supervisor take responsibility for pressuring them to speed up?"

By taking a different approach, utilities and their field workforce could get a completely different result. For example, the human error may be due to a lack of training, a toxic work environment or chronic dehydration, which could contribute to cognitive decline with slow reaction time or tunnel vision.

"Honestly, this happens more than we think," Lulow said. "Eighty percent of Americans are already dehydrated, and we create high-stress environments for lineworkers where their cortisol levels are at extreme highs. They cope by drinking alcohol after work — further dehydrating themselves — and then they're right back out to work again on the same cycle."

Because lineworkers are needed to perform the job, many companies turn a blind eye and don't take accountability for putting lineworkers in a losing situation. For example, lineworkers are required to wear arc-rated PPE to protect themselves from arc-flash burns. In response, some utilities may purchase the least expensive PPE available to check the box, but this may create additional hazards, he said.

"Not all PPE is the same," Lulow said. "Some is heavy and doesn't breathe or wick away sweat," he said. "In high heat, we could be causing our people to overheat or get heat illness. If they remove their PPE, they could get fired. This is a leadership miss — not a field error. If we know the conditions that our people are faced with, asked how could we create better conditions and gave them the 'why' behind the 'how,' we would be empowering them to mitigate their risk and fewer accidents would happen," he said.

5. Extinguish Toxic Bravado in the Line Trade.

For decades, lineworkers, especially those new to the trade, may have been reluctant to speak up in an unsafe work environment.

"The old way of control and command is broken," Lulow said. "This method didn't work, and never truly did, and we all know it. We are on a plateau, and we'll drive right off the ledge if we don't recognize this and change our approach. It's a people problem, not a safety problem."

To truly make a difference in improving the safety of lineworkers, it starts with culture. He encouraged apprentices and journeymen lineworkers to be human and identify their purpose — the driving force that gets them out of bed every day.

Years ago, Lulow asked a first-year apprenticeship class to fill out an anonymous poll providing three to five reasons why they chose to be lineworkers. He told them "money" couldn't be a reason as money is a result of the work, and you can make money from a thousand other occupations.

"I told them that they are treated poorly their first few years, away from their families, struggling to get by, drug all over the country and forced to work obnoxiously long hours in terrible conditions," he said. "So, I asked them, 'Why on earth would you choose to be a lineworker? The results were mind-blowing."

There were three commonalities — a sense of belonging, especially to the union and the brotherhood and sisterhood of the line trade; a sense of helping others and doing something rewarding by getting the lights back on during a power outage or making sure everyone had electricity to keep their life running; and a physical and mental challenge to overcome the odds and test their limits.

"Line work is unique in the sense that it feels special to be a lineworker," Lulow said. "You are tasked with impossible odds to bring power to others, and the group belonging feel is even further connected by the challenges and obstacles you face with your crew. Risk and miserable conditions bond and connect this group even more."

He said lineworkers are often unique individuals who may have been told they weren't good enough for college and to go the trade route, which could cause some subconscious resentment for some.

"Line work provided us with a home where everyone was the same," he said. "Now we have a group mentality of bonded

individuals with a desire to help people and prove the world wrong — a band of misfits treated like outlaws who took on the outlaw persona — and lineworkers loved this label."

Management, which historically consisted of former field employees, has now been replaced by career office individuals, creating a knowledge gap from the office to the real conditions in the field, Lulow added.

"Technology now allows management to micromanage the field, demand more, and faster, turning lineworkers into a resource," he said. "Management recognizes production — it's what drives profits."

As a result, utilities and contractors often honor the high producers, which has unknowingly caused damaging consequences, he said.

"Many of these high producers are often the individuals who have an ego, have embraced the outlaw label too much and aren't true leaders," he said. "They are the individuals who may cut corners for speed, take safety risks and make dangerous decisions to compete for the 'I'm the best' title. Organizations promote these people, setting the example to other lineworkers what they should model to get promoted. This has caused a cancerous culture."

He said it's time to stop the toxic bravado and embrace psychological safety and accountability. To truly drive down the number of accidents, injuries and fatalities in the line trade, it is going to take a culture reset, he said.

"Reward the individuals who embrace the positive safety cultures and whose mission is building people and not money," he said. "Recognize the leaders in this industry who champion safety and do what is right. Make this the standard, and the toxic bravado will die out."

He likened it to a flower garden. If you don't cultivate it, it will be overrun with weeds (toxic bravado), but if you nurture your flowers (culture champions), you will wind up with a beautiful flower garden. While you may get a weed here and there, you can just pluck it from your garden before it can spread.

"It's a complex and challenging issue, and it's a commitment and a journey that must be nurtured, just like a flower garden," he said.

6. Encourage Apprentices and Experienced Lineworkers to Learn From Each Other.

Culture changes don't happen overnight. On the path to improved mental health and wellness, however, apprentices can find senior employees, or even other apprentices, who have a reputation for being safe and accident-free, Backman said.

"Watch how they work and pay attention to the decisions they make," he said. "These established habits build the foundation for a long career without accidents."

When new apprentices come into the trade, many get caught up in the cycle of a heavy workload and a lot of overtime, Backman said. Instead, they should try to truly embrace work/life balance.

"There is a great deal of pride in lineworkers' dedication, but the

PRIORITIZING SELF-CARE IN THE LINE TRADE: 12 Tips for Lineworkers

David Mendonca of the Show Up Dad Foundation offers these self-care strategies for lineworkers. By integrating these techniques into their daily routines, they can enhance their mental health, reduce stress and improve overall well-being.

1. **Take regular breaks.** Take scheduled breaks during shifts to rest and recharge, even if it's just a few minutes to step away from the work environment.
2. **Incorporate mindfulness practices.** Use techniques such as deep breathing, meditation or yoga during breaks or after work to reduce stress and enhance focus.
3. **Focus on physical fitness.** Engage in regular physical activity, whether through workouts, walking or stretching. This can help alleviate physical strain and improve overall mental wellness.
4. **Engage in health eating.** Focus on nutrition by preparing healthy meals and snacks ahead of time. Maintaining a balanced diet can boost energy levels and mood.
5. **Stay hydrated.** Drink plenty of water throughout the day to maintain physical and mental clarity, especially during long hours outdoors.
6. **Maintain a work-life balance.** Set boundaries between work and personal life. Make time for family, hobbies and activities that bring joy and relaxation.
7. **Connect with colleagues.** Foster a supportive network among coworkers. Sharing experiences and challenges can help reduce feelings of isolation and create a sense of community.
8. **Seek support.** If feeling overwhelmed, don't hesitate to reach out for professional help or counseling services. Many organizations offer Employee Assistance Programs (EAP) that provide mental health resources.
9. **Keep a journal to express thoughts and feelings.** Writing can be a therapeutic way to process experiences and emotions.
10. **Engage in hobbies.** Dedicate time to hobbies or interests outside of work. Engaging in enjoyable activities can provide a much-needed mental break.
11. **Improve sleep hygiene.** Prioritize good sleep habits by maintaining a consistent sleep schedule and creating a relaxing bedtime routine. Quality rest is crucial for mental health.
12. **Have positive affirmations.** Use positive self-talk and affirmations to boost self-esteem and cultivate a positive mindset. By integrating these self-care practices into their daily routines, electrical lineworkers can enhance their mental health, reduce stress and improve overall well-being.

HOW TO GET HELP

Lineworkers are first responders, and due to the danger and nature of their jobs, they may need help and support, especially following a personal near-miss or the fatality of a coworker. Here are some resources for mental health support for the line trade and your families.

- **Call 988:** More construction workers die by suicide than all the occupational fatalities combined, according to a study by the American General Contractors of America. If you or someone you know is in crisis, call 988 to reach a national suicide hotline for 24/7 confidential support. You can also chat at 988lifeline.org. Help is just a phone call or chat away.
- **Visit the Web site for National Alliance on Mental Illness (NAMI):** This organization provides support groups, a help line and other support and education at nami.org.
- **Connect with ResponderStrong:** You can text the word, "BADGE," to 741-741 to be connected with a trained crisis counselor. This organization serves those who are trained to serve the community in times of emergency, crisis or disaster.
- **Reach out to Safe Call Now:** This 24-hour confidential crisis referral service is for all public safety employees, emergency services personnel and their families nationwide.
- **Learn about PTSD.** After experiencing a traumatic event, such as the loss of a crew member or an injury on the job, lineworkers may be at risk for post-traumatic stress disorder (PTSD). Symptoms include, but aren't limited to flashbacks, nightmares and intrusive thoughts. The National Center for PTSD, available at ptsd.va.gov, offers research, education, videos and apps that can help those with PTSD and their families to learn how to understand the diagnosis and get help and support.
- **Get in touch with a licensed therapist, psychologist or social worker.** Psychologytoday.com allows anyone, including lineworkers and their families, to search for free for a mental health professional by location, specializations, gender, language and types of insurance. Visits are often available in-person or virtually to accommodate busy work schedules.
- **Reach out to injured or fallen lineworker organizations.** Groups such as the Fallen Linemen Foundation; the Fallen Linemen Organization; the National Sisterhood United for Journeymen Linemen (NSUJL); the National Association of Journeymen Linemen; Line Life Foundation; the Line Brother's Keeper; the Highline Hero Foundation the MTL Foundation and others can provide emotional, financial and physical assistance to fallen and injured lineworkers and their families.
- **Connect with Union Care Solutions.** This organization offers mental health trainings, peer support education and CISM teams to provide support to employees who have been affected by traumatic events in the workplace. Learn more at unioncaresolutions.org or attend Jenny Lavin's 9:30 to 10:30 a.m. session on Oct. 15, "Protection Under the Hard Hat: Mental Health and Safety in the Power Industry," Oct. 15 at the Overland Park Convention Center as part of the 2025 International Lineman's Rodeo Safety and Training Conference.

David Mendonca, the founder of the Show Up Dad Foundation, honors the hard-working dads who balance life on the line with love at home.

effect is cumulative," Backman said. "You may not feel it yourself, but there are people at home who need you and who rely on you. It's important to give them that time. It's the company's responsibility to adequately staff up for the workload, not the employees'."

Trying to achieve the perfect balance of life in the field and at home, however, can be nearly impossible for some lineworkers, especially for those new in the field, Mendonca said. For these individuals, it may be better to try to focus on being present in each environment — dedicate themselves to work when they're on the job and fully engage at home when they're there.

"If you're dealing with personal issues at home, consider asking your foreman if you can share your spouse's or a loved one's phone number with them," Mendonca said. "This way, if there's an urgent need to reach you, they can contact your foreman directly, allowing you to avoid constant distractions and worries about what's happening at home."

The challenges with mental health and balance not only apply to apprentices but also to veteran lineworkers with decades of experience in the field. For those nearing retirement, they must avoid complacency to maintain safety in the field, he said.

"Remember that complacency can be dangerous," he said. "Shift your perspective to consider, 'What could potentially harm me?' For every situation, take the time to identify hazards. By doing this, you'll have a mental plan in place for what could go wrong, which helps you stay prepared. It's important to share this mindset with the younger generation as well. Always be aware of your surroundings and prioritize safety."

Lulow said lineworkers' legacy isn't what's left in the field — it's the generations that they will influence.

"Give your legacy something to celebrate and be proud of and mentor these next generations," Lulow said. TDW

Ameren crews set a new pole and crossarm after the May 16 tornado in St. Louis.
Ameren

Extreme Storms

As severe weather ramps up in intensity and frequency, line crews are ready to restore power and rebuild communities.

By **AMY FISCHBACH**, Field Editor

Over the last year, severe storms have swallowed up poles, ripped down transmission towers and left customers in the dark. As heroes and first responders, lineworkers have swiftly arrived on the scene to restore power and rebuild communities devastated by floods, hurricanes, microbursts, bomb cyclones and ice storms.

Electric utilities often prepare for storms year-round, and before the first raindrop falls or high winds knock down a power line, they have crews in position to handle whatever comes their way. As the frequency and intensity of severe weather continue to escalate, line crews are ready to respond.

Here are the stories of some of the countless storms that impacted utilities' service territories over the past year — from a bomb cyclone in Puget Sound Energy in November 2024 to the Consumers Energy ice storm in April 2025 and tornadoes in Ameren's Illinois and Missouri service territory a month later.

1. Twister Spins Through Missouri and Illinois

The sky over Ameren's service territory suddenly turned green on the afternoon of May 16, 2025, alerting both the utility's customers and line crews to impending tornadoes. Before the twisters even touched the ground, the teams prepared to mobilize crews and resources to respond swiftly to the wrath of the storm.

In St. Louis, the EF-3 tornado had recorded maximum wind speeds of 152 mph. The tornado traveled nearly 23 miles, spinning over the Mississippi River to Granite City, Illinois before dissipating in Edwardsville, Illinois. Another tornado — classified as EF4 — had maximum recorded wind speeds of 190 mph and traveled for about 17 miles in Marion, Illinois.

The tornadoes not only caused destruction, but they also led to widespread outages to an estimated 216,500 customers in Missouri and 75,000 in Illinois. Following the storms, Ameren teams assessed damage, began restoring power and alerted customers, media, community organizations and government officials of the status of restoration.

Ameren crews partnered with contractors and mutual assistance teams from across the Midwest to replace 1,000 poles decimated by the storm and to support community recovery efforts. In Missouri alone, the storm took down 730 power poles, toppled mature trees and collapsed structures. Ameren Illinois crews and contractors restored power to communities before traveling across the state line to help

MAKING A STRONGER AND SMARTER ELECTRICAL SYSTEM: Ameren Focuses on Reliability Initiatives

Ameren, which serves customers both in Illinois and in Missouri, is focusing on ways to give its customers safe, reliable and renewable electricity for the long term. The utility is also implementing storm hardening initiatives to boost power reliability. The following are a few ways the utility is working to prevent outages.

1. **Smart grid technology:** Lineworkers are installing smart switches on overhead lines to quickly detect outages and reroute power to restore service, improving reliability by up to 40%.
2. **Composite poles:** Line crews are strategically positioning composite poles, which are said to be stronger than wood poles, to harden the system against straight-line winds.
3. **Proactive undergrounding:** By burying lines underground, the utility can reduce the number of storm-related outages to its customers and boost reliability.

Ameren Missouri lineworkers reconnect customers.

The severe weather damaged both the electric and natural gas systems. Case in point: on the electric side, about 260 Ameren Illinois sub-transmission and distribution poles were damaged or downed, and the utility experienced a significant amount of wire-damage reports and damage to substations.

Jamie Simmons, a supervisor for Ameren Illinois, said Granite City, Illinois, was hit the hardest by the tornado that touched down on May 16. Crews worked well into the evening, and within 12 hours of the storm, 55% of customers had their power restored.

"It caused significant damage to the community and our electric grid," Simmons said. "There was substantial tree damage — trees in the road, trees on houses and trees on electrical equipment — making it extremely difficult for our crews to access the area to make repairs to our poles and lines."

Amanda Brittingham, senior director of metro operations and contractor management for Ameren Missouri, said one of the biggest challenges in the days after the storm was getting safe access to damaged infrastructure due to the large amount of debris.

"Overcoming this obstacle required close coordination with emergency responders and state local partners," she said. "And thanks to the efforts of our linemen and support from peer utilities and contractors across the country, we were able to restore 100,000 customers in the first 48 hours after the tornado struck."

While the power has been restored to all homes safe for restoration, the community, particularly in north St. Louis, is still hurting from the tornado that ripped through homes, businesses and institutions. To assist with recovery efforts from the storm and tornado that hit the St. Louis metropolitan region and surrounding areas, Ameren donated $1 million in recovery efforts.

For example, Ameren is providing $750,000 to community organizations like the United Way of Greater St. Louis, the American Red Cross, the Salvation Army, the Urban League of Metropolitan St. Louis and the City of St. Louis Tornado Response Fund to help with ongoing recovery efforts. The donations will fund relief efforts for critical services like relocation assistance, tree removal, property cleanup, emergency repairs, temporary housing, food, clothing, essential supplies and transportation. In addition, Ameren will provide $250,000 in energy assistance support for income-eligible customers impacted by the storms in Missouri and Illinois.

"These devastating storms struck at the heart of our communities, impacting our customers, employees, neighbors and friends," said Martin J. Lyons Jr., chairman, president and chief executive officer of Ameren. "Seeing the damage firsthand is heartbreaking, but our crews are working tirelessly to rebuild what's been lost. This $1 million commitment is one more way we're standing shoulder to shoulder with the communities we serve as they begin the long road to recovery."

2. Bomb Cyclone Tests Emergency Response

In what meteorologists called one of the most destructive storms to hit the Puget Sound region in 40 years, Puget Sound Energy (PSE) mounted an epic response to restore power and ensure public safety during a bomb cyclone event on Nov. 19,

Crews worked around the clock to remove hundreds of fallen trees that blocked access to damaged infrastructure. In some areas, it was described as working a logging site and construction zone at the same time.
Puget Sound Energy

TAKING A TECH APPROACH to Storm Response in Washington State

Puget Sound Energy serves a community with dense vegetation, forested areas and remote locations. When a storm hit, it was challenging for the utility to gain visibility of its de-energized lines. In mid-2024, right before the bomb cyclone hit its service territory, PSE started a pilot with Gridware to identify hazards and take a proactive approach to wildfire mitigation and outage detection.

Case in point: due to the storm, power was lost to a circuit where Gridware Active Grid Response (AGR) was deployed but had not yet sustained damage. 50 minutes later, a large tree fell, causing significant damage, and then 10 minutes later and a quarter mile away, another tree went down. Rather than being notified about the tree strikes after the storm passed through its service territory, PSE was alerted in real-time, allowing the utility to more quickly prioritize repairs and expedite restoration.

2024. The storm left a path of destruction that resulted in more than 700,000 customers experiencing service interruptions, some more than once, in PSE's service area.

PSE's meteorology team identified the approaching storm system nearly a week in advance, allowing the utility to implement emergency protocols and position resources where needed. The storm's intensity, which was very compact in high urban areas, was comparable to the historic 2006 Hanukkah Eve storm, and prompted PSE to proactively open four local storm bases and its Emergency Coordination Center.

"The conditions our crews faced were extraordinary," said Ryan Murphy, PSE's director of electric operations. "In many areas, it was like working simultaneously at a logging site and a construction zone, with hundreds of fallen trees blocking access to damaged infrastructure."

The utility mobilized more than 2,700 personnel, including 164 line crews and 70 tree crews, to support restoration efforts. Despite challenging conditions that often doubled typical repair times, crews worked systematically to restore power, prioritizing life-safety issues and essential services, such as hospitals and schools.

The storm's impact extended beyond power outages. PSE's gas emergency response teams handled a 64% increase in daily emergency calls, with King County customers accounting for 57% of incidents. Teams responded to numerous broken pipelines caused by uprooted trees, carbon monoxide calls related to improper generator use and gas odor reports.

PSE's emergency response systems, including its backup operations center, proved effective during the storm.

"The greatest success of this historic and dangerous storm was that restoration was safely completed without a major injury to a community member or first responder," Murphy said.

When communication issues affected the main facility, the utility's preparation and coordinated response helped ensure community safety and quick service restoration. This event provided valuable insights for future emergency response, with PSE already implementing enhanced training and system improvements, based on lessons learned during this historic weather event.

3. Infrastructure Ices Over in Michigan

Just a half an inch of ice on a line is equivalent to the weight of a baby grand piano, according to Consumers Energy, which experienced a severe ice storm in April 2025 with up to 1 in. of ice accumulation in many areas and one-and-half in. in Elmira, Michigan, a small town in the utility's service territory.

The combination of this weight on the lines themselves, as well as on the trees surrounding them, made the initial damage severe. Because the temperatures remained cold for the first several days, it also meant that fallen debris froze together and was difficult to disentangle. In some instances, roads were impassible due to the frozen debris across it.

The accumulation of ice on equipment also made it difficult for crews to access areas to restore power. In those instances, unless crews were able to find ways to speed up the thaw, they had to wait for the ice to melt.

Before the storm even hit Michigan, it was already on the radar of Consumers Energy's in-house meteorologist, who works directly with the National Weather Service to provide regular updates on potential severe weather that could impact the grid. For this particular storm, Consumers Energy knew about a week ahead of time that not only would it be a significant event, but also that there would be multiple waves impacting different parts of the state.

"This knowledge allowed us to prepare well in advance of the most severe parts of the storm hitting," said Eric Wojciechowski, Consumers Energy's director of emergency response. "We had already located two mobile command units and thousands of workers up north by Saturday morning before the first wave hit up north. We began mobilizing additional crews as well as bringing in support crews from four other states very early in the process. Though it was not all at one time, given the multiple waves, the total number of outages we had due to the storm was just north of 390,000."

Not only ice, but also tornadoes and high winds inflicted damage. The National Weather Service confirmed that 14 tornadoes touched down in various lower portions of the state that Sunday evening.

"Many locations saw gusts of wind up to 80 mph, and in some places, 90 mph was even registered. With high winds always comes damage, whether from lines snapping or trees falling on them. Of the 390,000 total outages, more than 260,000 occurred downstate."

For example, a journeyman lineworker from Consumer Energy's Battle Creek Service Center reported trees down from the high winds and tornado. At that point during the storm response, he said the line crews were working their hardest, trying to be safe while putting up lines and wouldn't stop until every customer was restored.

Crews from Illinois, Indiana and Ohio worked alongside in-state lineworkers to restore power. The mobilization of these crews — combined with the advanced preparation to place them and their supplies in the impacted areas — allowed the

Lineworkers worked together to get the power on quickly following the severe storm, which not only included ice, but also multiple tornadoes.
Consumers Energy

utility to work quickly in the aftermath of the storm. In total, about 800 crews were staged around the state. To house and feed this many lineworkers, Consumers Energy leveraged partnerships with organizations like Camp Grayling, which hosted more than 2,000 workers Friday evening and Saturday morning as they prepared for the arrival of the storm Saturday night.

By setting up mobile command units, the utility had a centralized location for area crews and supplies to be directed, creating a more efficient flow of labor and resources as restorations occur. Once a team was done, they could quickly return to the mobile command unit and receive the next assignment, regain supplies, troubleshoot issues and provide updates from the field.

As some of the customers warmed up in special centers, organized by local non-profits and the Red Cross, Consumers Energy focused first on restoring critical infrastructure like hospitals and water treatment facilities and then zoned in on restorations that would bring the most customers back online at a time. As the number of outages began to decline, the line crews narrowed their focus to the more difficult or complicated restorations. Throughout the storm restoration effort, the tree crews, lineworkers and dispatchers were working above and beyond the call of duty.

BUILDING A BETTER GRID: How Consumers Energy is Strengthening Its System Against Storms

To better prepare for severe weather, utilities are investing in grid modernization and resiliency plans nationwide. For example, in Michigan, Consumers Energy outlined its Reliability Roadmap to reduce the duration and frequency of outages impacting its nearly 2 million electric customers.

The utility aims to one day not experience a single outage that affects more than 100,000 customers and restore all customers within 24 hours after an outage event. Here are a few of the highlights of a roadmap to strengthen Michigan's electric grid and improve reliability and resiliency:

- **Infrastructure upgrades:** The utility is making investments to replace or rebuild poles, better understand how to bury power lines in a cost-effective way and organize circuits more efficiently.
- **Forestry management:** The plan increases spending on tree trimming to keep distribution lines clear and prevent and shorten outages.
- **Grid modernization:** A blend of smart meters, sensors and automation devices will help Consumers Energy to monitor its system more effectively, improve power delivery and solve problems more quickly.
- **Resiliency:** Lineworkers will soon install poles that can sustain winds more than 100 mph without ice in the utility's service territory.

"Crews were working in frigid temperatures, in 16-hour shifts around the clock," Wojciechowski said. "There's a popular photo that circulated from a source up north of one of our workers with his beard entirely frozen."

As the weather continues to cause challenges nationwide, Consumers Energy is investing in its Reliability Roadmap, which outlines the investments the utility intends to make over the coming years in the grid. For example, the utility is planning to execute everything from increased tree trimming to infrastructure upgrades to piloting technologies like undergrounding to strengthen and prepare it to better withstand severe weather of all kinds.

"The unfortunate reality is that we know our climate is changing, and with it, so are weather patterns," Wojciechowski said. "We are seeing storms happen more frequently and with more severity, and while we cannot control the weather, we can control our response to it."

Tonya Berry, Executive Vice President and Chief Operating Officer said the number one job for Consumers Energy is to keep the lights on.

"Consistent with our commitment to improve service reliability, Consumers Energy has established new grid performance expectations that better reflect the reality of what Mother Nature is sending our way," Berry said. "We are sharing these customer service commitments for the first time, reinforcing our 'Count on Us' promise to the nearly 2 million electric customers we have the privilege of serving." TDW

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