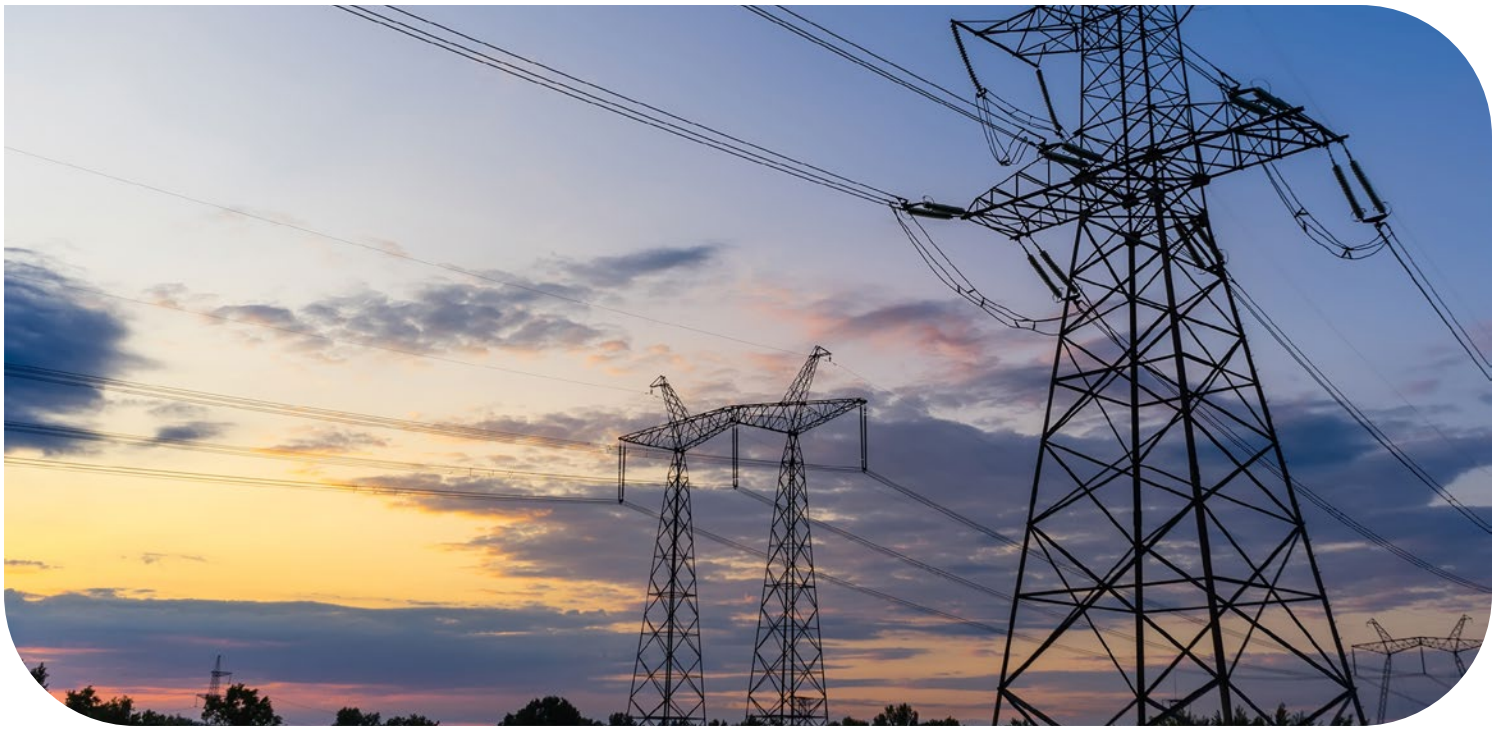
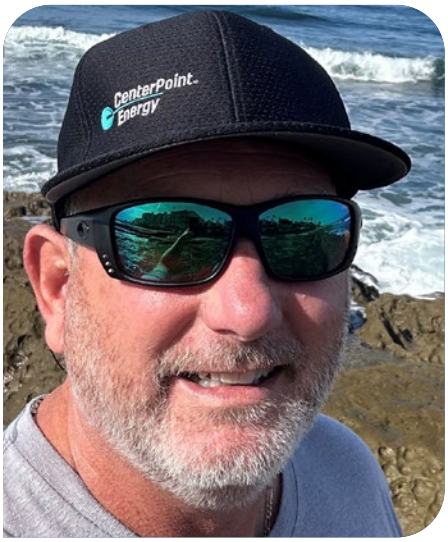


WHITE PAPER

Bold Utility Leadership
in an Era of Shifting Priorities and Workforce Challenges

An EnergyCentral/Utility 2030 PowerTalk.

This white paper draws insight from a PowerTalk hosted by Energy Central and Utility 2030, where industry leaders tackled some of the most pressing challenges facing the utility sector. Mark Streifel, Managing Director, HSI Industrial Skills and Allen Hair, Technical Training Manager, CenterPoint Energy were panelists. The session was moderated by Mike Smith, Principal, Utility 2030 Collaborative. Remarks have been edited for brevity and clarity.



Allen Hair

Allen Hair oversees technical training for Indiana Electric and Gas Storage Fields across CenterPoint. He leads a team that coordinates, leads, trains, and develops programs to provide relevant training to the CenterPoint workforce. Outside of his responsibilities at CenterPoint, Allen serves on the Utility Safety and Operations Leadership Network Executive Board of Directors, which is responsible for the Certified Utility Safety Progressional Program. Allen also chairs the Ivy Tech Community College Steering Committee and participates in steering committees for Madisonville Community College and Frontier Community College.

Mark Streifel

Mark Streifel brings more than 25 years of experience developing and delivering effective training solutions for the power industry. After earning an Environmental Biology degree, he began his career at a power plant in North Dakota, working with the permitting and training requirements that came with the release of the title five and emissions legislation. It was there he discovered a passion for the power industry. Today, Mark leads HSI's Industrial Services division, where he partners with customers to create customized, innovative training packages tailored to their unique environment and operational needs.

In your view, what are the key macro trends and pressures affecting utility leaders today and going forward?

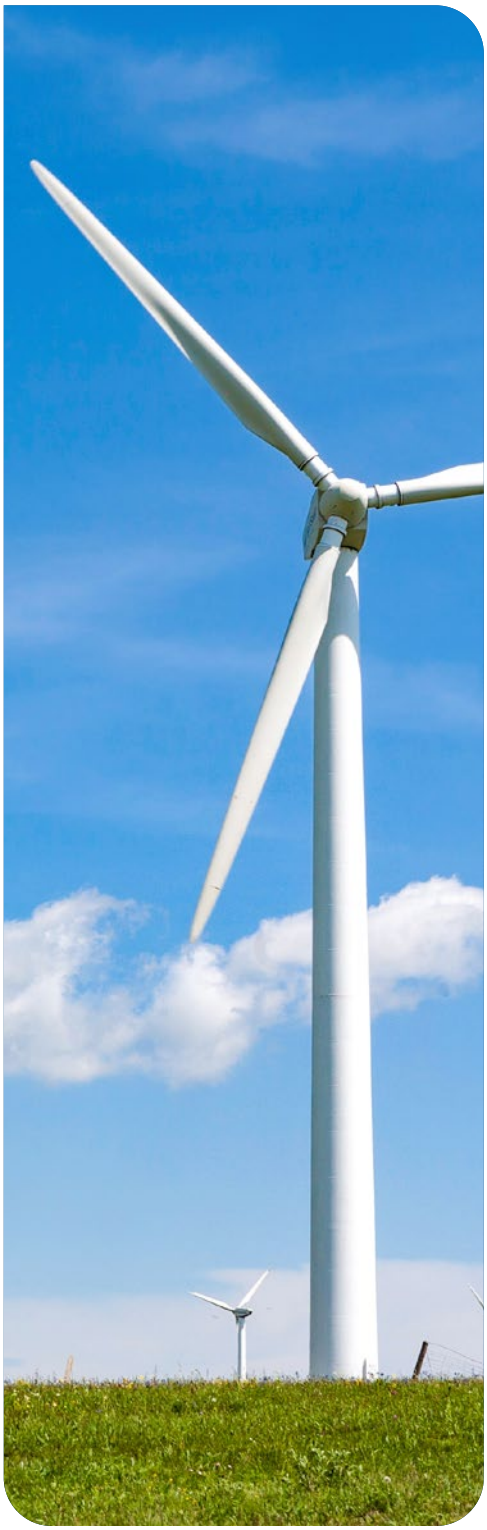
Allen: Some of the bigger issues are the integration of renewable energy, the rising energy demand in correlation with that integration, and the adoption of advanced technologies.

The shift toward renewable energy sources like solar and wind presents both opportunities and challenges. Utilities need to understand how to integrate the intermittent sources into the grid while ensuring stability and reliability.

Obviously, the demand for electricity is increasing, driven by the proliferation of electric vehicles and data centers. Utilities need to understand their capacity and forecast the growth demand by balancing the need for the infrastructure and investments with the goal of keeping electricity affordable.

Affordability is a delicate task. Utilities must manage changing customer expectations and more sustainable and reliable energy. The environment has changed, and customers can't call today and get power tomorrow, especially with the increasing challenge of hurricanes, tornados, and other storms. It takes some time to put the system back together.

Additionally, the adoption of advanced technologies such as AI and VR introduces another layer of complexity.



Mike: We're moving toward sustainability but doing so while demand is growing. We don't want to give up what we've hung our hat on for the last 110 years – reliable, safe, affordable energy. That's the trick.

I think the industry is at a point where utilities must determine how to set these priorities and do they have to shift as we move deeper into the energy transition?

Mark: It's the renewables. It's the data centers. It's the movement of base load from rural America closer to where the power is needed. The base load looks different. It's not the mammoth coal-fired facilities on the prairie anymore.

Now, we can put a combined cycle footprint right outside a metro area – an advantage given the current strain on the grid and limited capacity of existing transmission lines.

So, we need to get the generation closer to the demand areas which means moving the workforce around.

Following up with what Allen touched on, that integration of renewables – the solar, battery storage, wind, etc. – how do we dispatch it? How do we maintain it? Who maintains it? Because the technology is there.

It's difficult to find people with the aptitude and desire to do these jobs.

Mike: Interesting point you made about where to site these generation facilities because transmission networks are old and overworked right now.

I want to talk a little more about what you're seeing from these macro issues and maybe boil them down specifically to where you're seeing workforce challenges.

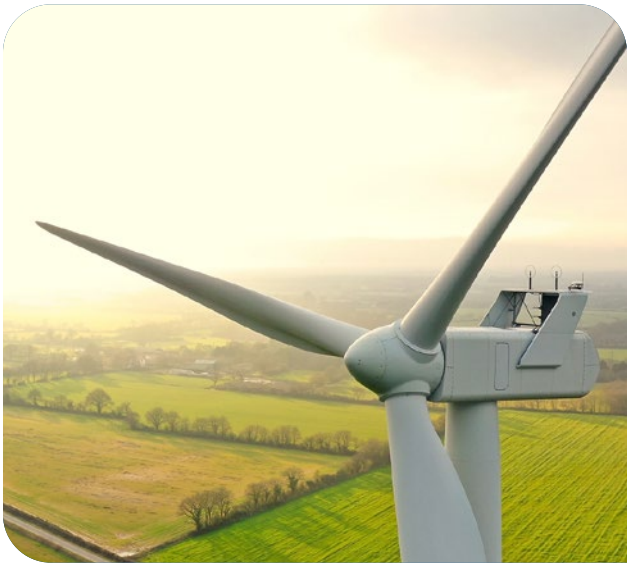
What are some of the workforce gaps you're seeing and how are utilities meeting these gaps? How does a traditional generation fleet of coal-fired or gas plants moving to 20-60% renewable energy handle the transition? They're not going to need as many mechanics as they have in the past, right? Maybe the new roles are wind turbine technicians, data and analytics people, or different skill sets on the distribution grid.

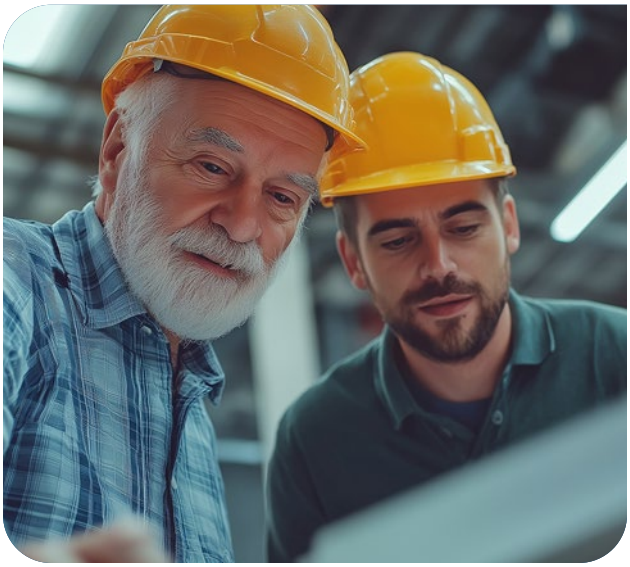
Allen: The shift toward renewables and combined cycle units requires specialized knowledge for integrating these intermittent sources into the grid. Many workers need additional training to manage and optimize renewable energy systems.

On top of that, we're finishing the transition from an older workforce to a younger one. The workforce is becoming younger as we speak.

We're also increasing our head count. One statistic shows the workforce will grow 8% over the next 10 years, which is about 10,700 employees.

So, we will add to our workforce not just because of the renewable integration, but also to maintain and replace the aging infrastructure.





Speaking of the workforce, many utilities have a large workforce, with a range of roles. Their employees are not showing up ready to work on day 1, so what does that learning curve look like? How are utilities filling the gap?

Mark: Twenty years ago, utilities would invest two years training new hires through an apprenticeship program. We're not seeing that anymore. Utilities don't have the time to train someone nor do the incoming employees want to invest two years in becoming an apprentice. They want instant satisfaction in their jobs.

Utilities are getting better at identifying tasks and skills gaps in their current workforce, which then allows them to see if someone is already performing those tasks within the industry. If not, where can we find those skills outside the utility industry, and what do we need to do to tap into that talent pool?

We see utilities trying to poach people from other industries where the skills overlap. We just did an Importation and Control class with three students who were hired from the car maintenance industry but had the base skills we could build on. They were ASE-certified mechanics but had troubleshooting capabilities.

Also, we're not necessarily training new hires to do the entire job all at once. We're task training them, going back to the old military-type training where we train someone to "stand watch" – I want you to learn this new skill for your job. Then, two weeks later, you're going to learn another new skill. Then, eventually, they're qualified and can do the entire job. They can work alone and start to look at career progression.

We do lose some benefits in not using a holistic approach – it's harder for workers to understand how all the systems interact. We can teach people to do tasks and jobs, but they struggle with troubleshooting because they don't see the overall system and how the pieces integrate.

Mike: One of the hallmarks of the utility is the reliable delivery of energy. So, hopefully, that is not in peril at some point because it's really what so much of our culture and society is driven by – will the light turn on? Will the motor start? Let's explore this just a little more.

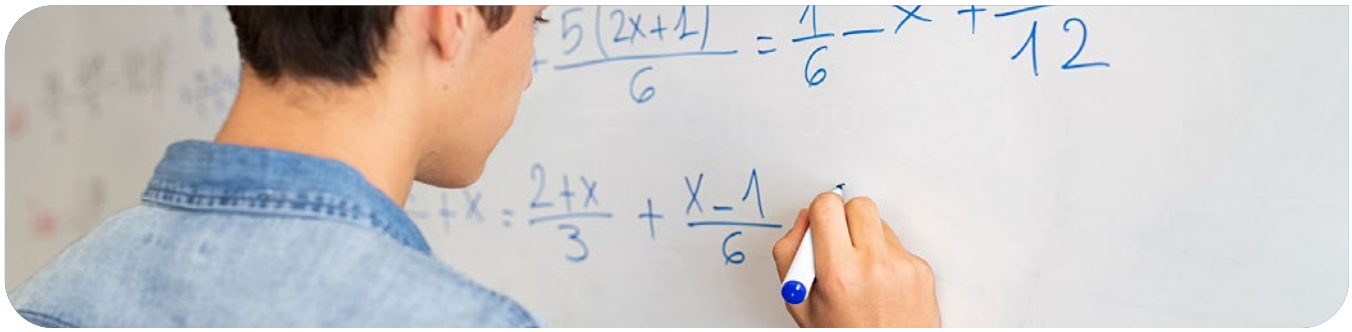
What are the specific skill sets most challenging for utilities to find as they're bringing new people in? Do you have a top three?

Mark: My number one is always math. And it comes down to how we teach math in school these days. Most people don't think they need algebra, and we don't teach applied math anymore. People don't understand how to use it in the field.

It's just like building a house. If you watch someone building a set of stairs, they have very little education, but a lot of training. They know how to do the trigonometry and figure out the math for the stairs, but they're missing the troubleshooting skills if something goes wrong.

We have to look for aptitude and other more nebulous characteristics, which makes it harder to find talent. It's more difficult to figure out where to start finding talent or who to train.

The power industry needs some promotion. Where should we recruit? How do we get kids interested? You look at all the cybersecurity opportunities – instrumentation, PLCs, etc. – and they all fit with everyone wanting to be a computer programmer. A lot of tech jobs in this industry go unfulfilled, and I think we can get kids excited about the possibilities if they know what opportunities are available.



Allen: We partner with local schools to help attract students early on. Our message is simple – we want them to come work for us, especially those in the local area. If their roots are here, they're more likely to stay here which gives us long-term stability in our workforce.

Ultimately, I want them to work for a utility, wherever it is. I want them to be a utility employee.

Utility workers must possess a solid foundation of technical skills relative to the field, which you just don't see anymore. We've gotten away from teaching the basics of even how to read a stick ruler.

Soft skills are another tangible piece. They're not directly related to their duties but are equally important.

Employees need to understand the complex challenge or unexpected situations that require them to think critically and solve problems efficiently.

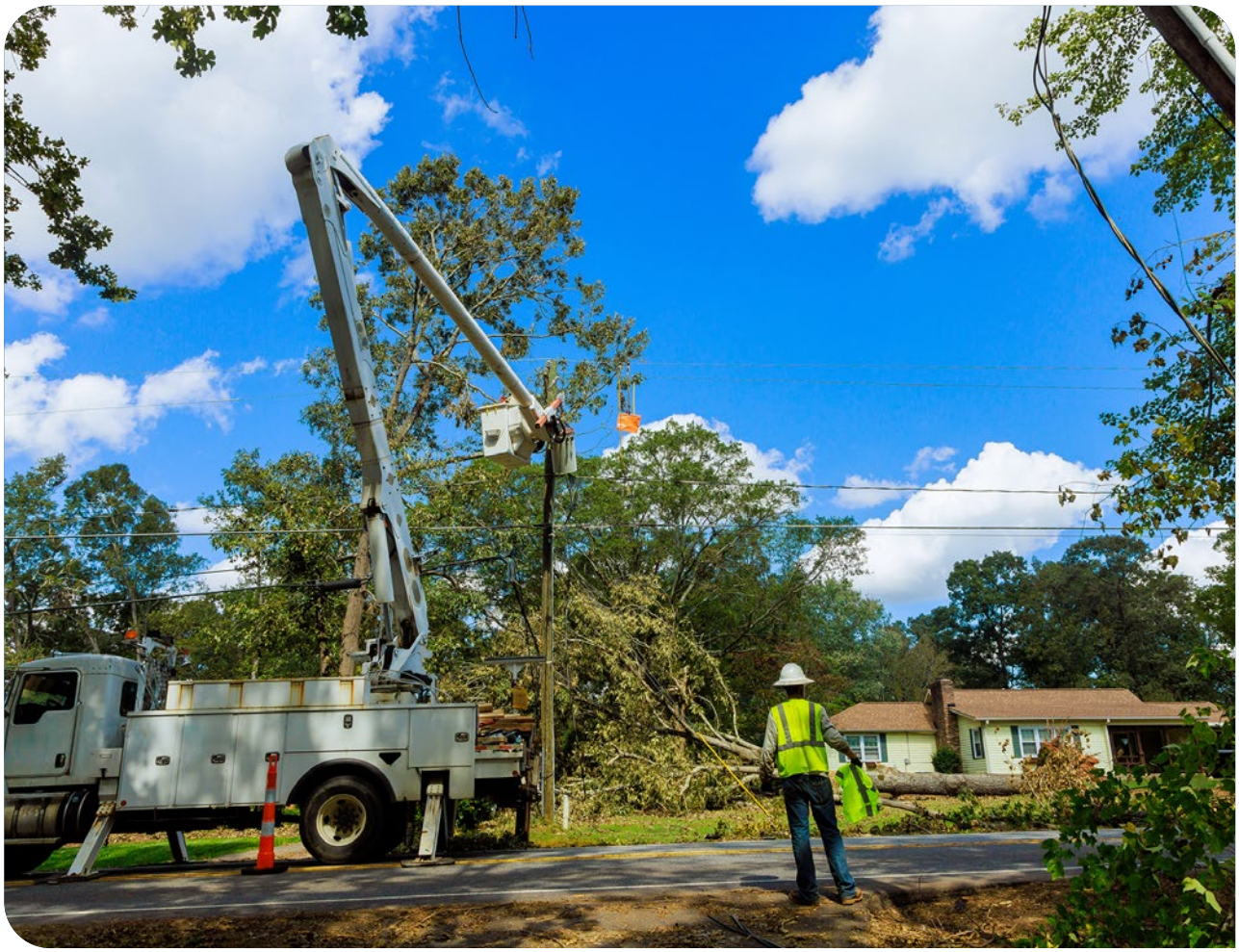
Referring to Mark's comment about the ASA mechanics, they move into a new job because they possess the skills for problem solving and identifying troubleshooting issues. It's not necessarily taking a round peg and putting it into a square hold anymore. It's finding the peg that's going to fit in the hole.

One of the key personality traits needed is the ability to adapt to an ever-changing utility industry. The difference from where it was 30 years ago to where we are today with new technology, new regulations, and an evolving work environment is significant.

Employees also need to understand the opportunities for growth and innovation. They can build careers by cultivating a skilled workforce that powers our future. That's ultimately what we want.

So, we focus on high schools and grassroot initiatives. We tell them what they can make as a utility worker and their eyes light up – "I didn't know I could do that." The other benefits, on-the-job training and apprenticeship programs, focus on getting paid while you learn. Those skills are transportable.

One utility has a clever approach to recruitment – they start the introduction the moment prospects arrive. As candidates walk through the parking lot to the classroom, they're surrounded by the types of cars and trucks linemen drive. That captures the attention of a 19-year-old who doesn't want a desk job.



What are some examples of successful recruitment? It sounds like connecting with local schools, whether high school, junior college, or university is part of it, but what are some elements that make efforts more successful?

Allen: Building early partnerships with the schools and universities can help utilities create pipelines for the future. Internships, apprenticeships, co-ops, all provide students with hands-on experience and encourage them to pursue careers in the utility industry by getting them in the door and exposing them to utilities. If they don't come to work for us, hopefully, they work for a utility somewhere in the U.S.

It's also important for us to understand how workforce plans fit into our strategic plans and goals, assessing the current gaps and creating a roadmap to address those gaps. Establishing partnerships with trade schools is an example. I'd rather have those partnerships because then the students are exposed to what we do at our utility as compared to what another utility is doing. There's a seamless integration between a trade school and a utility with some very specific skill sets.

Mark: Allen makes a good point. One of the first things we usually recommend is finding a local trade school to partner with. Along the Gulf Coast, we experience additional challenges with the primary focus on process technology for the oil and gas industry. Utilities must get into the schools and explain there's more than just refineries, but they lose some of the battle to those programs.

In the Midwest and Northeast, we can get into the schools a little more. Going through a trade school gives them more exposure to what being in a utility is like.

The other thing to look at is how to hire people from other industries.

For a while, we saw people coming in with no skills who leave an apprenticeship program or on-the-job training because the utilities aren't strategically planning their training. For the first two weeks of lineman training, one utility just had students climb poles. In the end, only the stubborn ones who like to climb poles were left. Those candidates with advanced troubleshooting skills and some of the other skill sets left for different jobs. So, the utility eliminated some of their more promising recruits because they didn't want to just climb poles.

Does CenterPoint have formal internship programs where some students at the trade school or junior college can get hands-on experience and start to build a career?

Allen: We have programs for internships. They're not necessarily for field positions. Typically, people only think about pipes and wires as what utility people do. But there's more. We have accounting, and there's even a geologist on staff. Utilities have many different facets. People can get into any area, even advertising or communications. These are all big pieces of the whole utility.

I do know utilities that offer field level internships. They'll put a senior from high school with a line crew for a summer job. That's innovative. A lot of kids don't want desk jobs – a friend's son is trained in welding technology and he's making great money and having fun. Those opportunities are out there.

If you were a utility CEO for a day, and you want to change the workforce dynamic, particularly in a competitive marketplace for young talent, what's the one thing you would do to help your organization meet those workforce needs?

Mark: I encourage every CEO to figure out what knowledge their "human assets" possess. What does every employee in your company know today? Spend time to understand that because we still have a lot of employees at retirement age and without proper planning, that knowledge is about to leave with them.

How do you get all that knowledge? You know the skills required to operate your organization, but you don't know the actual individuals who have those skills. When each person retires and you need to replace those job roles and skills, where is the knowledge and history?

Mark: You need to map your workforce's knowledge, so you know what you have. You can then plan shifts, crews, and succession.

Those strategies are basic workforce blocking and tackling. Know where you are, where you want to get to, and where those gaps are.

Allen: Actively have a plan and actively recruit. Understand where you are, what your needs are, and actively plan how to move forward. Make people want to work for your utility.

Ultimately, you want the best talent where you are. If you're not a company that people want to work for, word gets around quickly. You want to get to the grassroots piece, plus workforce mapping and actively recruiting.

About HSI

HSI is your single-source partner for EHS, Compliance, and Professional Development solutions. HSI provides integrated e-learning content, training solutions, and cloud-based software designed to enable your business to improve safety, operations, and employee development. Across all industries, HSI helps safety managers, and technical employees, human resources, first responders, and operational leaders train and develop their workforce, keep workers safe, and meet regulatory and operational compliance requirements. HSI's focus is on training, software, and services for safety and compliance, workforce development, industrial skills, and emergency care. HSI is a unique partner that offers a suite of cloud-based software solutions including learning management, safety management, chemical SDS management, and more, integrated with content and training so businesses can not only monitor and manage multiple workflows in one system, but train employees via one partner.

For more information, visit **hsi.com**