

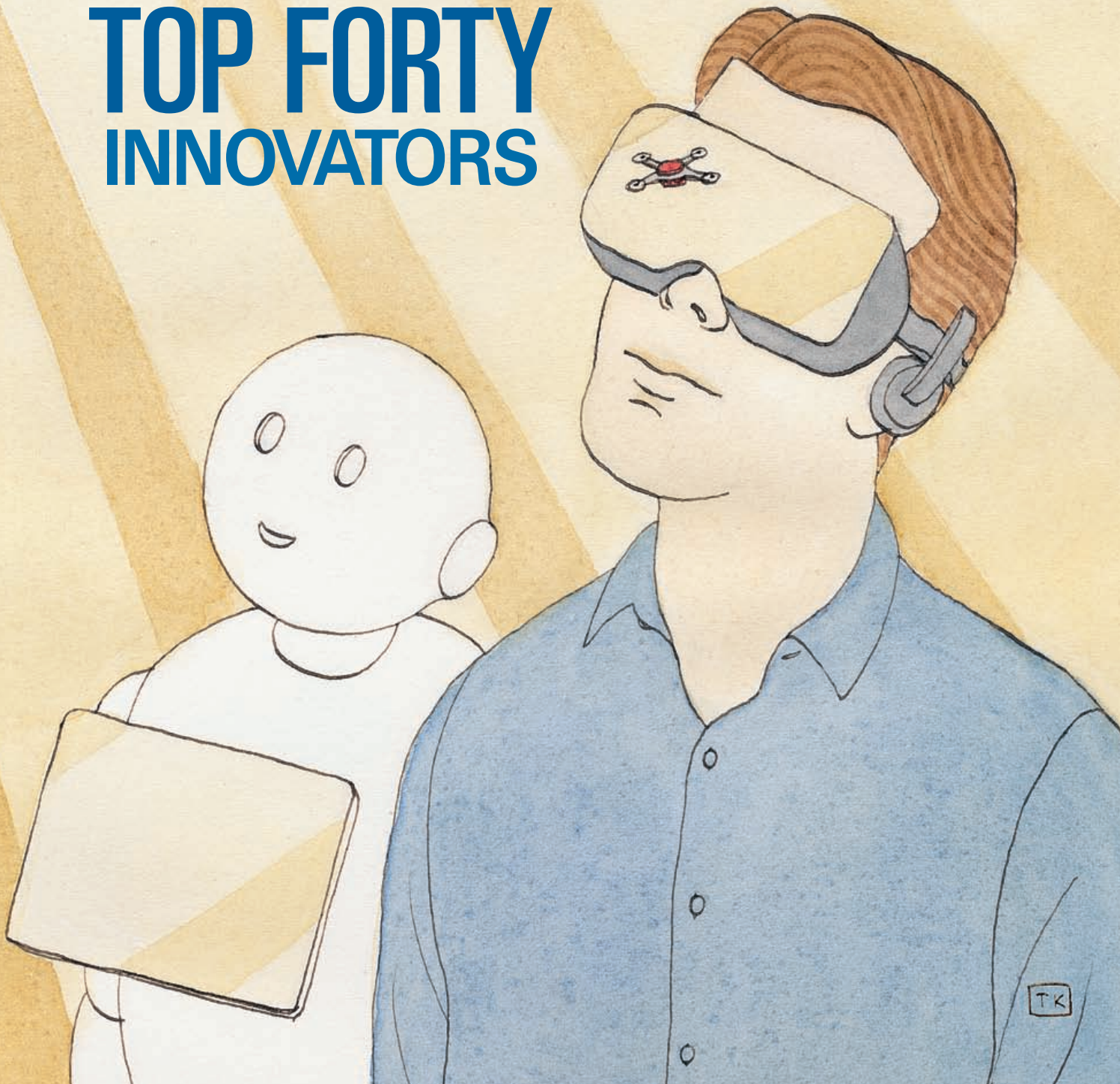
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PUBLIC UTILITIES FORTNIGHTLY

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2017 FORTNIGHTLY

TOP FORTY INNOVATORS



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Governors Also Very Interested in Energy Innovation

Leadership Lyceum Podcast

Innovation at AEP



Tom Linquist, Leadership Lyceum,
with Nick Akins,
CEO, American Electric Power



American Electric Power Chairman, President and CEO Nick Akins has volunteered for many other responsibilities. He serves on the boards of the Nuclear Energy Institute, the Global Sustainable Electricity Partnership, and the U.S. Business Roundtable. He is a civic leader in Columbus, Ohio, serving on the boards of The Columbus Partnership and the Columbus Downtown Development Corporation. Finally, he serves on the boards of Nuclear Electric Insurance Limited, OhioHealth, and publicly-traded Fifth Third Bancorp.

Tom Linquist: Last but not least, and very cool indeed, you serve on the board of the Cleveland-based Rock and Roll Hall of Fame and Museum.

Nick Akins: I do. That's the one I get asked most about.

Tom Linquist: Let's discuss the enablers - and barriers - to innovation. What specific areas affect American Electric Power from a strategic or financial standpoint? What are the potential innovations on the horizon that could be opportunities or threats?

Nick Akins: We are an industry that's transforming considerably, and our industry is focused on three primary components. The first is development of the infrastructure that supports the interaction with the grid. The interoperability of different types of components and different types of technologies.

We're also focused on many other aspects of what's going on with the industry in terms of rehabilitation of the grid, cyber security, and physical security. Those are technological components that are being added that weren't there before.

The second is this whole notion of interoperability and what role the utility plays. This is extremely important. It really goes to the fact that we've always been a system that was built around one-way flow of power.

Data flow was very limited from power generation where we made the product, then transmission to transport the product and distribution where we distributed the product. The customer interaction side was very limited as well. Customers really couldn't make decisions about how they wanted to use the product that we delivered.

Today it's vastly different. You're seeing partnerships develop. Utilities are focused on making sure that not only is there bidirectional flow of power and energy but also bidirectional flow of data. The big data analytics and those solutions are driving opportunities for us to analyze the data from the energy grid on an instantaneous basis and make adjustments that need to be made.

The third component is the additional distributed resources that are being added to the grid. There's no doubt that we're going to see a new focus on renewable technologies and storage technologies. Also ensuring that we're able to utilize the grid in very different ways to optimize power flows.

For this industry, these areas have enabled us to focus on

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Utilities are focused on making sure that not only is there bidirectional flow of power and energy but also bidirectional flow of data.



the customer experience side of things. I think that you're probably seeing a transition of the industry to a more customer-centric focus on the way they use our products, to make sure that there is that ability for customers to choose different types of resources, and the way that they use the product itself.

This is vastly different than a purely asset-driven focus. This has really come with a cultural change too. From a culture and approach dealing with assets and making sure that they're built on time and on budget, to a culture and approach of addressing customers' needs as a central focus of your business.

Tom Linquist: It seems that this innovation creates an opportunity to engage people and ignite their interest. What has been your approach to building a culture around a tremendous amount of enthusiasm? Who is at risk of getting left behind in your organization in this context?

Nick Akins: As a CEO, you must be visible, and employees should hear your message of where you want the company to go. But I also believe the converse is true. You hear a lot about the CEO being the force multiplier for the organization in terms of its ability to move forward.

I really think about it in reverse. I think the force multiplier is the energy of people who are thinking about what the future holds and about their own business and how innovation can impact it. If it's consistent with the strategy of the company, then there's a lot of excitement that's generated around that.



And getting back to your point earlier, about who is at risk of getting left behind. When we started our lean activities years ago, we would have groups of people in power plants, groups of people in our distribution organization, and they'd be looking at certain processes.

They're looking at opportunities for improvement, and they as a team start those processes. Well, probably half of the people are saying, "Okay, this is a fad that's going to go away. Just another thing that's going to have an impact on us, and we'll get past it and move on and do the same thing we're doing."

You have those people who are parked on the side. They're not ready to engage. But by and large as the process continued, you'd see more and more people become engaged, because they say, "Well, wait a minute. My counterparts are getting together to talk about these things, and these things are actually getting fixed."

And I've had thirty-five and forty-year employees be visibly emotional to the point of crying, saying, "I have never experienced something like this at this company." That's what you want to hear.

I've heard it several times, and it's because they finally see that their ideas are being adopted and discussed, and they are in control of running their part of the business. It makes a heck of a lot of sense. You get ownership, you get credibility, you get excitement, you get all those kinds of things.

And another point I'd bring out is for the young people coming in the organization. They've grown up with computers, with apps, with everything else. I go to many of these report-outs myself, because I really want to stay visible from that perspective.

You'll have a young person say, "Well, you know, I've had an app that I was using. I can use the app for this particular function," and the other participants are in awe. I'm also in awe because you're seeing the introduction of new technologies

I've had employees be visibly emotional to the point of crying, saying, "I have never experienced something like this at this company."

that the average employee wouldn't know about.

That's starting to become the norm, to have those kinds of options on the table. As we continue to develop, we've developed a strategic IT function, together with our business units, to really focus on what can tomorrow bring to us.

Tom Linquist: Is the 'force multiplier' you describe evident in Spark Tank? Please tell us about Spark Tank.

Nick Akins: Yes, the force multiplier was really around innovation, and it was around ideas, and we do indeed have a program called Spark Tank. It's a take-off on Shark Tank; bringing ideas in on how we can really drive innovation to focus on the customer experience.

Actually, awards are given out. We had six hundred employees, many in teams, submit four hundred and fifty proposals. There were about a hundred and seventy that were evaluated by our Technology Council. The Council narrowed it down to eight finalists. We announced the winner and runner-ups September 21.

Two of the finalists' ideas are being used in our innovation area

within Smart Cities Columbus, so it has been a positive thing for the employees. It's like the Google teams that come together and focus on solutions. The winners selected for the Smart Cities Accelerator focused on EV charging stations and smart street lighting.

Tom Linquist: Let's shift gears to you and your dedication to giving back by using your talent as a musician. Perhaps it is not widely known that you are an accomplished drummer. You and several other CEOs in Ohio have given your musical talent and time to charitable activities.

Nick Akins: Yes, I play in a couple of bands for fun and to raise money for charitable causes. One band includes a fellow board member from The Rock and Roll Hall of Fame, George Barrett, who is also the CEO of Cardinal Health.

The band also includes Greg Harris, the president of the Rock and Roll Hall of Fame, as well as Dr. Michael Drake, president



of The Ohio State University. The other band includes George and Michael as well, plus Joe Hamrock, the CEO of NiSource, and others. That band is called the Power Chords.

Tom Linquist: I covered the Power Chords at their Thursday, September 28 evening gig fundraiser for the Mid-Ohio Foodbank in Grove City, Ohio, outside Columbus. We were joined by multi-instrument virtuoso and CEO of NiSource, Joe Hamrock.

The CEOs and executives in the band showcased the creativity of industry leaders that's usually obscured by the conservative role associated with their positions. On closer examination, there's always much more than meets the eye.

Nick Akins and his bandmates have day jobs leading the utility and health industries, higher education and historic preservation. A rock band typically conjures up different professional expectations.

But given the extensive skill sets necessary to successfully lead in the corporate world, the versatility of the band members should come as no surprise. **PUF**

Governors' Energy Innovation Summit

(Cont. from p. 45)

we actively promote as well.

States are the laboratories of democracy, and here's another example of ways that states can think about innovation. Are they going to look at a platform-based approach to a new utility business model? Are they going to look at an energy services approach? Are they going to look at a hybrid? It's up to the states to sort through what model works best for them. That's the kind of thing that they learned about at the summit.

The transformation is already taking place, and it's going to continue accelerating over the coming years. We'll be working alongside the states to help them sort through those kinds of questions.

PUF's Steve Mitnick: What is your role when you try to promote more discussions?

Sue Gander: Our role is to help bring issues and ideas to the governors' offices, help them solve the issues that they know about,

and help identify some of the issues that they may be hearing about soon. Then they can be prepared and can be thinking about what steps they need to take. We do a lot of convenings,

States are the laboratories of democracy, and here's another example of ways that states can think about innovation.

where we bring together not just folks from governors' offices, but folks from across different state agencies. We also involve different industry and research organizations and nonprofit organizations that are working in this space as well.

We try to do as much silo busting as we can. We had a good representation of those different silos – or cylinders of

excellence, as we like to call them, at the meeting.

That's the added value of the governor's office. They will be able to look across all those different entities and think about how they each play a role, and how they can best align their particular efforts with the broader policy goals of the state. **PUF**

The Labor Department reported on October 13 that the Consumer Price Index increased 2.2 percent during the twelve months ending September 2017. And it reported that electricity prices increased 1.7 percent during that same period. What this means in plain talk is that electricity prices fell over the last year in comparison with the prices of all consumer goods and services.

Since the Labor Department's base period of 1982-1984, the CPI has increased 146.8 percent and electricity prices have increased 118.1 percent. So, prices of electricity rose at less than four-fifths the rate of prices of all goods and services, 80.5 percent. This shows that inflation-adjusted electricity prices fell over the long-term too.