



The Ability to Adapt

An Interview with Nicholas K. Akins,
Chairman, President, and Chief Executive Officer, American Electric Power (AEP)

EDITORS' NOTE Nick Akins is the only management representative on the AEP board of directors. He rose through the ranks at both AEP and the former Central and South West Corp. (CSW), which merged with AEP in 2000. Akins began his more than 30-year tenure with AEP in 1982 as an electrical engineer before moving up to positions of increasing responsibility. Prior to being elected AEP President in December 2010, he served as Executive Vice President, Generation. Akins also was President and Chief Operating



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Officer for Southwestern Electric Power Company, Vice President-Energy Marketing Services, and Vice President-Industry Restructuring for AEP. Before CSW's merger with AEP, Akins held various director and manager roles with responsibility for mergers and acquisitions, industry restructuring, fuels, system dispatch operations, and system planning. He earned bachelor's and master's degrees in electrical engineering from Louisiana Tech University and received additional training through executive management programs at Louisiana State University, the University of Idaho, and the Reactor Technology Course for Utility Executives at the Massachusetts Institute of Technology. Akins currently serves as Vice Chairman of the Board of Directors of the Edison Electric Institute (EEI) and is also a board member at Fifth Third Bancorp, OhioHealth, Nuclear Energy Institute, National Association of Manufacturers, Nuclear Energy Insurance Limited, Electric Power Research Institute, Business Roundtable, Global Sustainable Electricity Partnership, The Wexner Center for the Arts, and The Columbus Partnership.

COMPANY BRIEF Based in Columbus, Ohio, American Electric Power (aep.com) is one of the largest electric utilities in the United States, delivering electricity to more than 5.3 million customers in 11 states. AEP ranks among the nation's largest generators of electricity, owning nearly 38,000 megawatts of generating capacity in the U.S. AEP also owns the nation's largest electricity transmission system, a more than 40,000-mile network that includes more 765 kilovolt extra-high voltage transmission lines than all other U.S. transmission systems combined. AEP's utility units operate as AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana, and east Texas).

What has made this company so special and how have you maintained quality year after year?

The ingenuity of AEP employees has been an enduring quality, and it supports another key attribute – our ability to adapt. AEP has been in business 108 years and, throughout that time, we've addressed major changes in technology and the business climate. Our organization's ability to adapt and thrive over more than a century makes us very proud.

Operational excellence is part of AEP's DNA. We've built a reputation of credibility with key external stakeholders and audiences because we run a very tight ship based on operational integrity. The external interactions we have with lawmakers, regulators, and other key stakeholders are based on the facts, and are straightforward and truthful.

Our culture of ingenuity, adaptability, and operational excellence yields strong business performance. AEP has paid more than 400 consecutive quarters of dividends to our shareholders. We are one of just a few companies on the New York Stock Exchange that can make that claim and it makes us tremendously proud.

Going forward, it's about defining the next 100 years for AEP. We intend to remain very successful.

Is it more challenging as you grow to maintain an innovative culture?

The tremendous change happening in our industry today requires increased levels of adaptability. We see entrepreneurship as an important attribute to foster at AEP because we need employees who are both well-skilled in producing and delivering electricity in the ways we do it today, but who also have the desire and ability to adapt for the future. To foster that thinking, we're putting LEAN practices in place throughout our organization and challenging our employees to think about how we can do things differently and better.

We are focused on enhancing the culture of AEP to ensure we can continue to thrive as an organization. We want AEP to be a place that supports adaptability, entrepreneurship, and ingenuity, while maintaining our long-standing commitment to integrity and credibility.

How has technology been a differentiator for AEP?

AEP has been a technological leader in the electric utility space, and we have a long history of firsts in our industry. We built the first long-range transmission lines, the first supercritical power plant, the first large-scale 765-kilovolt transmission lines, and the first integrated carbon capture and storage project in the world. Most recently, we built the first ultra-supercritical generating plant in the United States. The list of AEP firsts goes on and on over the 108 years we've been in business.

Technological innovation continues to be important, but our focus is evolving. In today's world, this means looking at new ways to deliver energy to our customers, including distributed generation and energy storage. It also means exploring all the ways that new technologies can enhance all parts of our business.

This can be both challenging and a bit disconcerting. After all, our success historically has been centered on building and operating the best large-scale, centralized generation resources and developing the most efficient and effective transmission and distribution systems. We're incredibly good at that.

Today, being innovative means moving beyond just our core competencies and embracing the technologies customers want. It means giving our customers the ability to access electricity and energy in the way that makes the most sense to them.

How significant is your concern about cybersecurity and what have you done to address that concern?

We have been one of the leaders in the cybersecurity effort in our industry. We know we're never going to prevent every cyber attack so our focus has been on having the best measures in place to try to prevent infiltration of our systems while also having a comprehensive plan to mitigate the impact if a cyber attack is successful. This means not just ensuring we have the information technologies to respond but also ensuring there is a high level of resiliency in the electricity grid itself.

AEP and other utilities are taking actions to ensure the continued security of the grid, both to address cyber attacks and to detect and prevent attacks on the grid's physical assets. We've also put in place a more robust response system in the event an attack is successful. We understand the risks, and we're partnering with the federal government and specialists in cyber and physical security to ensure our protection and response systems are as effective as possible.

What are the broad challenges facing the electric utility industry and how is AEP tackling them?

Our current focus is on infrastructure development to create a more resilient, efficient electric grid that will enhance the tech-based customer experience and effectively integrate renewables, distributed generation, and smart networks.

We want to have a system that allows customers to receive their electric supply in the way they want, and that means we will have to effectively integrate and accommodate many types of resources.

Future success for AEP and the industry is going to be dictated by how well we are able to manage this transition and provide a customer experience that allows us to remain their valued and preferred partner for meeting their energy needs.

How important is the shale gas development to the future of the industry?

The United States has a unique opportunity to develop and use an energy resource that wasn't readily available just a few years ago. Shale gas reserves become more accessible in parts of the country each day. AEP serves 11 states, including many areas with significant shale gas resources and development opportunities.

Shale gas is a transformative resource, and we're fortunate that it is abundant in the U.S. In the Midwest states where we operate, coal has traditionally been the leading energy resource because natural gas wasn't readily available. Today, this region also has shale gas as an energy option. Energy resource diversity is incredibly important for security and price stability.

Shale gas availability gives our nation the opportunity to use natural gas as a transition fuel to support a less carbon-intensive energy

production. It also gives our country an incentive to bolster natural gas infrastructure and fortify the electric grid.

Shale gas really changes the resource mix of this country. I see it as an opportunity to balance our energy mix using indigenous resources that enhance our nation's energy security. At the same time, shale gas mitigates the impact of energy price increases to help support manufacturing growth and industrial development.

Natural gas also will be an important way to support increased use of renewables and mitigate their impact on the grid. Renewable output changes depending on how the wind blows or the sun shines. Natural gas generation will be critical to respond to the production fluctuations associated with renewable resources.

What is the public's perception of this industry today?

It often seems to us that the only time people recognize the value of electricity is when there is an outage and they don't have it.

It is getting better. Energy has become an increasingly important part of the public debate in recent years and the general public has become more educated about the issues. Still, the electric grid is incredibly complex. It's the largest machine on earth, and it requires continual, instantaneous balancing of production and demand. Most people don't understand what it takes to deliver electricity the exact second a customer needs it, whenever they need it. It's an incredible challenge. Most of the time, we do it very successfully, so people take it for granted.

There is increasing interest in the value of the electric grid, particularly as it relates to distributed generation, so we continue to share the message.

Events like Superstorm Sandy also provide an opportunity to highlight the importance of a resilient electric grid and to draw attention to cyber and physical security concerns. We are focused on being prepared for and responding as effectively as possible to storms and other natural disasters. When they are over, they provide an opportunity to draw attention to the need to invest in a more resilient, responsive electric grid.

How important is it that the U.S. creates real movement toward a national energy policy?

Currently, we see a rush to embrace renewables and to expand use of natural gas for electricity generation. However, we have a lot of large, baseload nuclear and coal-fueled generating capacity at risk. The U.S. needs an energy policy that maintains a balanced, diverse electricity generation portfolio. It can't be based on



AEP's John W. Turk Power Plant near Fulton, Arkansas (above). The 600-megawatt Turk Plant is the first and only ultra-supercritical generating unit built in the U.S. Turk Plant generates electricity more efficiently at higher temperatures, requires less coal and produces fewer emissions to generate the same amount of power as other existing coal-fueled power plants. AEP 765-kilovolt (kV) transmission tower in Virginia (lower left). AEP built the first 765-kV (EHV) extra-high-voltage transmission lines in the United States and operates more EHV transmission lines than all other U.S. utilities combined.

just renewables. We must have fossil fuels and nuclear as part of the mix. U.S. energy policy also needs to address distributed generation and the need to maintain investment in the electric grid, and it should focus on how to mitigate future price increases for customers.

U.S. energy policy also should seek to solidify our nation's position as an energy provider for the world. Today, the U.S. is in a unique position to help stabilize some of the problem areas in the world just by sharing some of our massive energy resources. Maintaining a balanced energy production portfolio and a resilient grid is not only good for U.S. security and the U.S. economy, but it has great value internationally.

What do you see as some of the advantages that Ohio offers?

Ohio has good energy infrastructure. We have significant, high-voltage electricity transmission and a diverse generation fuel mix to support the state's existing manufacturing facilities and help attract new businesses.

Ohio also provides a great distribution hub. Columbus is central to many population centers, including the major cities on the East Coast and Chicago to the west.

In addition, Ohio can benefit from its abundant energy resources – including its shale gas reserves – as long as these resources are developed wisely. There is real potential for Ohio to become one of the country's new growth areas, much like Texas is today.

How critical are the business partnerships in Ohio in helping address the social and economic needs of the state?

It's crucial for the business community to work hand-in-hand with government, along with philanthropic and association-led organizations, to effectively tackle the challenges in the state. We must work collaboratively to foster strong public/private partnerships to address not only energy-related issues but also education, hunger and other critical issues that can impact growth and future prosperity in the state. ●

