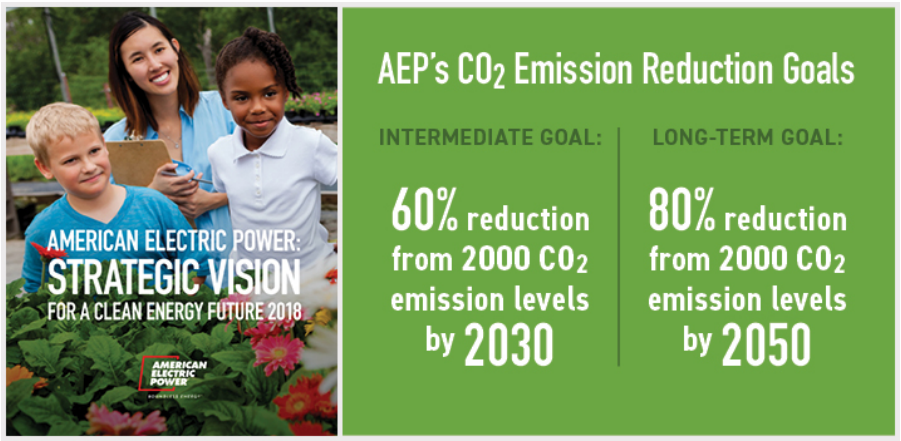
Chairman's Message

At American Electric Power, we believe a sustainable future begins with the social and economic benefits of delivering universal access to safe, reliable and cost-effective electricity every day. We are proud to have been entrusted with that responsibility and we work every day to deserve that trust. As we transition to a cleaner energy future, we remain grounded in our commitment to working with our customers and communities to build a brighter, sustainable future together.

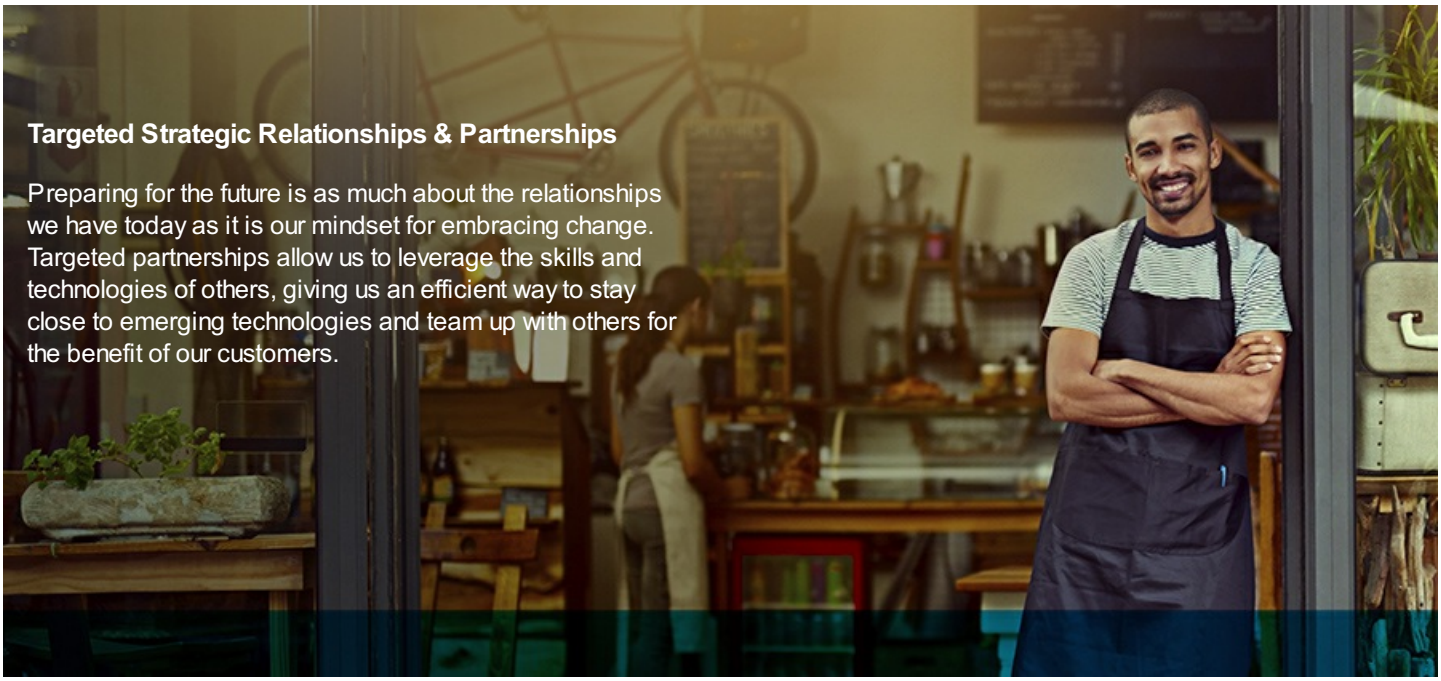


AEP's CO_2 Emission Reduction Goals

INTERMEDIATE GOAL:	LONG-TERM GOAL:
60% reduction from 2000 CO_2 emission levels by 2030	80% reduction from 2000 CO_2 emission levels by 2050

AEP's Strategic Vision for a Clean Energy Future

We believe sustainable electricity is an essential tool for managing the company's carbon emissions and reducing the broader global carbon footprint. As we seek to do this, we are evaluating business risks and potential new opportunities, from the boardroom to the customers' side of the meter. AEP's *Strategic Vision for a Clean Energy Future* report reflects our strategy to transition to a cleaner energy economy and our commitment to transparency as we move forward.



Targeted Strategic Relationships & Partnerships

Preparing for the future is as much about the relationships we have today as it is our mindset for embracing change. Targeted partnerships allow us to leverage the skills and technologies of others, giving us an efficient way to stay close to emerging technologies and team up with others for the benefit of our customers.

AEP's strategy for growth and the way we are advancing our business model are changing as we plan for a future that is constantly evolving. Today, our focus is on providing customer solutions through technology, diversifying our resources and investing in renewables; working with regulators to modernize the regulatory compact to better serve the needs of all of our customers; and preparing for the future of work and the skills our workforce will need. At the same time, we are reducing our environmental footprint, removing risk from our business and delivering value to our customers and shareholders.

2017 AEP Company Overview

Regulated & Competitive Customers (millions)	5.8
GAAP Earnings Per Share	$3.89
Operating Earnings Per Share	$3.68
Cash Dividends Per Share	$2.39
Service Territory (square miles)	200,000
Transmission (miles)	40,000
Distribution (miles)	219,000
Total Generating Capacity (owned and PPA)	31,052 MW
Total Renewable Portfolio	4,310 MW
Total Assets (millions)	$64,729

AEP's Strategic Transformation

Sustainability Goals

AEP has laid a strong foundation for a strategic transformation that positions us to be the energy company of the future.

Our strategy for a sustainable future is to ensure the production and delivery of energy enables positive social and economic change for our customers, employees, investors and communities.

Chairman's Message

It's hard to imagine what our lives would be like without electricity. At American Electric Power, we believe a sustainable future begins with the social and economic benefits of delivering universal access to safe, reliable and cost-effective electricity every day. We are proud to have been entrusted with that responsibility and we work every day to deserve that trust. As we transition to a cleaner energy future, we remain grounded in our commitment to working with our customers and communities to build a brighter, sustainable future together.

Nicholas Akins, Chairman, President & Chief Executive Officer

We're committed to creating the energy infrastructure and providing services needed to support vibrant communities. Beyond the sale and delivery of electrons, we are investing in education, helping people find programs and services to ensure a better life, collaborating with local and regional organizations to further support economic and business growth, increasing mobility in underserved neighborhoods, and supporting a host of cultural and community initiatives that are important to our customers. Our investments to create a modern, bi-directional, interconnected grid will build value for our communities in ways that we have yet to fully imagine.

We envision a future where smart systems allow us to power society in more efficient, effective ways and in ways customers expect. And that future is a lot closer than we think.

With electrification comes a responsibility to ensure the security, reliability and resilience of the grid. We are investing billions to replace aging infrastructure, making the system stronger so that when outages occur, we can restore service more quickly. We are also diversifying resources, enabling innovation, advancing technologies to plug into the grid, preparing for a digital future, planning strategically for our future workforce and reducing our environmental footprint along the way. In today's era of continuous disruption and change, energy is the common thread that bridges the past with the future.

Recognizing Our People

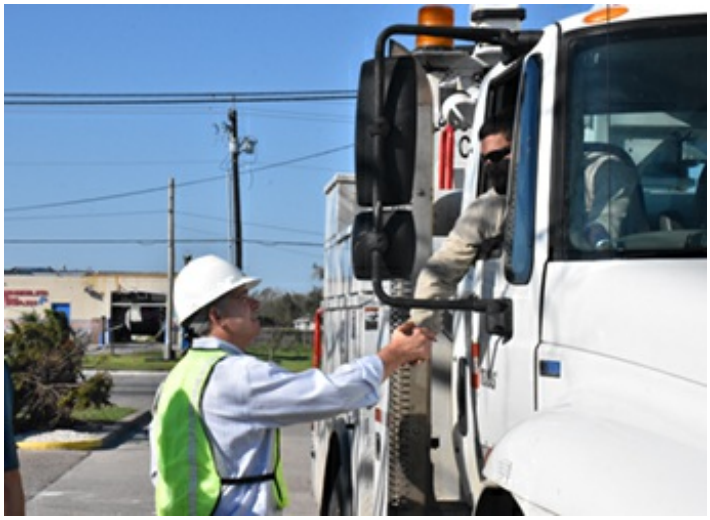
2017 was a momentous year during which our employees helped us develop new and creative thinking models, practices and innovations. Through their ingenuity, commitment to safety, continuous improvement and dedication to our customers, our path to a brighter future is clearer than ever. Our success is determined not simply by our physical assets, but by the engagement, generous spirit and talent of our people. Together, we're putting our energy to work to power a brighter, boundless future.

In 2017, the nation's electric grid took a thrashing from severe weather. AEP's system was no exception. Despite the damage and destruction left behind, the human spirit of generosity and mutual care prevailed. I am immensely proud of our line crews and support staff that traveled to restore power under difficult conditions; of those who stayed behind to keep the power on at home; and of our many employees who generously donated cash and volunteered time to help storm victims.

Restoring service proved to be a humanitarian mission of the highest magnitude in 2017, and our employees rose to the challenge every time. We owe them, and their families, a debt of gratitude for putting our customers and those in need first. Throughout these crises, the compassion shown to those in need, and the commitment to customers, reflect who we are – always doing the right

thing for our customers, each other and our future.

In Texas, our systems were severely damaged when Hurricane Harvey came ashore. The Category 4 hurricane knocked out power to approximately 220,000 of our Gulf Coast customers at its peak and caused upwards of $325 million in damage. Transmission and distribution crews and support staff from AEP's six other operating companies converged in south Texas, along with thousands more from utilities around the country, to help us restore service. Our employees also opened their hearts and wallets, donating more than $93,000 to AEP's Emergency Disaster Relief Fund for relief efforts in hurricane-ravaged portions of the AEP Texas service territory. With an additional dollar-for-dollar match from the AEP Foundation, donations exceeded $186,000 for Hurricane Harvey relief.



Nick Akins personally thanks AEP line crews for their hard work and dedication while safely restoring power during Hurricane Harvey restoration efforts.

Harvey was followed by hurricanes Irma, and Maria, which left Puerto Rico's power grid in shambles. Millions faced the stark hardship of living without electricity. As soon as the island was able to accept aid, our employees and contractors began rotating in and out of Puerto Rico, working long hours every day, helping to restore power.

Zero Harm – Because We Care

Nothing is more important to me, and to every AEP employee, than safety and health. Our goal of Zero Harm means that everyone goes home in the same or better condition than when they came to work. Two years into a five-year safety and health transformation, we are making progress toward Zero Harm. We are modifying our approach to safety and building a culture that supports and sustains world-class safety performance. This journey requires constant focus, communication, learning and continuous improvement. There is no magic solution; we must steadfastly remain vigilant day and night to ensure our personal safety and the safety of those around us, at work and at home.

Despite our efforts, two contractors working on behalf of AEP in 2017 were fatally injured when they came into contact with electrical facilities. These tragedies are unacceptable to me and to our company, and remind us that we have to work harder to strengthen our contractor safety program. We expect the same commitment to Zero Harm from our contractors, not just our own employees. This is especially important as our contractor workforce grows with our business and they are working side-by-side with our employees.

Two years into a five-year safety and health transformation, we are making progress toward our goal of achieving Zero Harm.

In 2017, there were also tragic consequences when members of the public came into contact with our facilities, causing five fatalities in our service territory. We have reinvigorated our public safety focus, implementing new programs and outreach efforts.

While many numbers we measure are lagging indicators of safety performance, we are focusing on leading actions to prevent harm and to eliminate risks before an injury or illness occurs. Our Good Catch program identifies safety risks before they result in harm, providing us with an opportunity to take corrective action. In 2017, we recorded more than 4,000 Good Catches that we shared across our business units. We have also instituted a new safety and health committee structure that engages employees and removes roadblocks to allow timely corrective actions.

Driving is a critical task for many employees, who in aggregate, average more than 91 million miles a year for work. In 2017, we implemented two important new driving-related safety policies. The Attentive Driving Policy prohibits employees from using cellphones and hands-free devices while driving for company business. We also reinforced the importance of seat belt use in saving lives. Both policies came from employee recommendations during a company-wide driving summit, which was held in response to the deaths of two employees in 2016 from motor vehicle-related accidents.

Our unwavering commitment to Zero Harm is critical because our actions on the job don't just affect our co-workers; they have a ripple effect on everyone in our lives. I am confident we can achieve Zero Harm. Work groups across the company achieve it all the time, and we must learn what makes it possible for everyone, not just some. We owe it to ourselves, our families and the

employees and contractors we've lost to be aware and take action. We are making progress but still have much work to do before we can achieve our goal of Zero Harm.

Putting Customers First

We deeply value the relationships we have with our customers and communities. As fast as technology changes and the demand for flexibility of the power grid grows, our customers' expectations are also evolving. We want to collaborate with them to deliver energy solutions and provide service that goes beyond their expectations. Today, we're taking steps to ensure every customer has a great experience whenever, and however, they interact with AEP.

In 2017, we achieved two major customer-first milestones: We launched a mobile app to make it easier for customers to do business with us and we redesigned the customer bill to make it simpler and easier to understand. Both projects are examples of how we are responding to our customers' priorities. We're working even harder to improve customer satisfaction by putting the customer first in everything we do.

In 2018, we are building a new, state-of-the-art Social Media Center to enhance and expand our ability to listen to and engage with customers and key stakeholders. Customers want to use digital channels to access information or buy services. We will pilot a new energy usage program via a digital platform. We are providing additional training to our customer operations representatives so they can provide an exceptional experience to every customer, every time.

We are working together with customers, policymakers and regulators to drive policies and reforms that enable us to serve customers in ways they expect and deserve. It is encouraging that some regulatory agencies are being proactive in establishing formal proceedings to explore the opportunities of new technologies and determine whether the current regulatory paradigm supports these changes. But many agencies are still standing on the sidelines with the belief that these changes will occur naturally. We believe that regulators must ensure that these new technologies are provided to all.

AEP is at the forefront of developing a truly sustainable, inclusive energy future that recognizes the unique needs of all customers and leaves no one behind. We will continue to advance new and innovative energy solutions, working with our customers, regulators and legislators to make the changes to support a modern and resilient grid.

Working with Our Regulators

2017 saw one of the busiest regulatory calendars in the history of the company. We had rate cases in various stages across five states, and made numerous filings at the Federal Energy Regulatory Commission (FERC), as did our stakeholders. The largest was the $4.5 billion Wind Catcher Energy Connection project, which required filings across four states and at FERC. And, there were numerous filings to support the expansion of renewable energy, energy efficiency, economic development and grid modernization.

Our regulatory case load reflects AEP's commitment to pursuing solutions that enhance the customer experience and embrace technologies that will improve our overall use of energy. To do so, we must remain financially strong to make the needed investments and to remain attractive to investors. Second, our caseload clearly reflects AEP's commitment to pursuing solutions that enhance the customer experience and embrace technologies that will improve our overall use of energy. In addition, we should expect to see more capital deployed for projects such as Wind Catcher and other grid optimization technologies that actually lower customer bills for our product.

If approved, AEP's proposed Wind Catcher Energy Connection project will be the largest wind farm in the United States delivering energy to more than 1 million customers in four states.

Preparing the Workforce of the Future

We are looking strategically at our workforce needs to support our business in the future. AEP has long been a leading engineering company; in the future, we will need to complement this expertise with more creative, entrepreneurial and data-driven skills to help us harmonize what our customers are asking for and the solutions and services we will provide.

In the next five years, we are expecting a significant turnover of talent as people retire or leave for other opportunities and we are planning accordingly. Our early work in data analytics is a good example of a new skill set we will need to deliver on our customer experience promise and continue to offer cost-effective energy solutions and services. We are helping our employees to learn and obtain the skills and experience they need to support a 21st century utility. We are also studying how innovations like automation can make work faster, easier and more effective.

We also need a diverse workforce and an environment that fully embraces inclusion. In 2017, we formed a Diversity & Inclusion Council to guide and create strategies for increasing diversity in our workforce, including at the leadership level. The Council will also ensure that diversity and inclusion are integrated in our policies, processes and practices, so that our workforce mirrors the diversity of our communities.

We are making progress but we have much more work ahead. And in the midst of current events, we have reaffirmed and reinforced our expectations concerning harassment of any kind in the workplace. Our Board of Directors also is focused on all of these workplace-related initiatives and the overall culture expectations for the company.

We want a more engaged workforce. Highly motivated and engaged employees are more productive, more likely to innovate, go above and beyond for customers, work safely, and commit to our mutual success. We continue to ensure that our culture promotes total employee engagement. Our annual employee culture survey helps us measure our success and we continue to seek new ways to ensure that we are promoting strategic participation from all areas of the company.

Finally, we expect our employees to act with integrity, to adhere to the highest ethical standards, and to treat each other with respect.

Creating a Clean, Secure Energy Future

Our customers expect safe, reliable and affordable power on demand. More and more of them want their energy to come from cleaner sources. Over the past five years, AEP has moved toward fuel sources with a lower carbon footprint, such as natural gas, wind and solar. In 2005, 70 percent of our generating capacity was from coal; today, it is 47 percent.

Our integrated resource plans that support the capacity and energy needs of our regulated utilities demonstrate this shift. While these plans will evolve, our goal is to add approximately 8,000 megawatts (MW) of additional new renewables to our regulated portfolio by 2030.

By 2030, our integrated resource plans call for us to add approximately 8,000 MW of additional new renewables to our regulated portfolio.

Investing in a clean energy future is good for society and good for our business. Our proposed Wind Catcher project in Oklahoma is an example of our commitment. We are hopeful regulators will support the economic, environmental and social benefits that Wind Catcher will bring to more than one million customers in Oklahoma, Arkansas, Louisiana and Texas. If approved, it will be the largest wind farm in the country with a dedicated generation tie line that will deliver 2,000 MW of clean energy, reduce our fuel costs, save our customers money, further diversify our energy supply, and boost the local and regional economy.

In February 2018, AEP made important and significant commitments to reduce CO_2 emissions from our generating facilities. We set new goals to reduce CO_2 emissions by 60 percent by 2030 and 80 percent by 2050 (both from a 2000 baseline). These goals emerged from more than two years of engagement with various stakeholders, including our investors. Universally, they asked if we were sufficiently prepared to make the transition to a clean energy future. AEP's Clean Energy Future report provides details about our strategy, how we manage carbon-related risk, the impact to our customers and potential scenarios that could slow or accelerate these reductions. These ambitious goals will challenge and stretch us, but these dramatic reductions are the right thing to do and I'm confident we will achieve them.

Cyber and physical security attacks are among the biggest threats to the electric grid today. The electric power industry is the only critical infrastructure sector with mandatory and enforceable cyber and physical security standards. It's not only the grid we have to protect; we must also protect AEP's business systems.

Protecting the nation's grid from constant cyber and physical security threats is a responsibility we take very seriously. Today's reality is that we cannot protect all assets from all threats. Instead, we take a risk-based approach that includes rigorous, mandatory and enforceable reliability regulations; we operate in close coordination within the industry and with government partners. We work continually to strengthen our efforts to prepare, respond and recover should an event occur.

We also learn from real-world events such as the 2015 attack on the power grid in Ukraine, multiple companies affected by data breaches and other cyber-attacks. Regulations are becoming more stringent, and more aspects of the energy system are assigned a critical infrastructure status. As we work continuously to strengthen our defensive posture, we are reinforcing offensive tools that focus on grid resilience and our ability to respond to an attack. This includes protecting the data that we collect.

Presenting New Sustainability Goals

This year, we are introducing new sustainability goals for the future. After conducting extensive benchmarking and identifying opportunities to link sustainability with our business strategy, we engaged employees to help us develop goals. Seven teams of more than 30 people in total participated in establishing three focus areas – energy and environment, social responsibility and economic impact. The goals are aligned with our corporate strategy and business initiatives, and we will report our progress annually. In addition, we are mapping our sustainability goals to the United Nations Sustainable Development Goals because we see a linkage there as well. We are excited to share these goals with you.

Smart Electrification for Social Good

Electrification – the process of powering equipment or systems by electricity – is driving innovation of commercial and residential buildings, transportation systems and industry. It is also driving innovation in the design of new energy solutions and services for our customers.

We envision a future of widespread electrification. By replacing technologies that run on combustion engines and motors with alternatives that run on electricity, we can optimize how we use the power grid and hasten the transition to clean energy. The journey is already well underway; the electricity we produce today already is much cleaner than it was a decade ago. That means every electrical device plugged into our system is using cleaner electricity with less environmental impact.

The advent of smart cities and their ecosystems of smart transportation, smart street lighting, smart buildings, electric vehicle charging stations and other technologies, has quantifiable social benefits for our communities. We are a proud partner with Smart Columbus, where we are leveraging technology in new and innovative ways to enhance public safety and improve mobility in the community.

We are investing approximately $175 million in smart enhancements to Ohio's energy infrastructure, including deployment of electric vehicle charging stations. By enhancing the transportation system, we are creating equitable access to transportation, which allows greater access to jobs, healthcare and other human services that are needed in underserved urban neighborhoods. We believe smart technology will make our communities more sustainable, resilient, efficient, livable and competitive. This emphasis on smart and sustainable communities will be our hallmark throughout our service territory.

In addition, we will create microgrid demonstration projects with nonprofit entities such as police and fire stations, medical and municipal facilities and emergency shelters. Microgrids provide resilience for the community because they operate independently from the power grid and can be called upon in times of need. By focusing on facilities that provide vital human services, such as public safety and medical care, we can optimize the grid by directing connections that provide social good.

Leveraging Innovation and Going Digital

The world is in the midst of a "connectivity revolution" that will influence how we do business in the future. To keep pace, we are changing the way we organize, behave and operate to remain competitive, better serve our customers and create sustainable value. We are adopting an agile operating model that will allow us to identify risks and opportunities with speed and precision, and to find and repeat solutions rapidly. Our five-year roadmap includes creating the position of Chief Digital Officer to help us chart the way forward.

AEP Earnings & Dividend Data

$/per share

	2013	2014	2015	2016*	**2017****
Earnings Per Share (GAAP)	$3.04	$3.34	$4.17	$1.24	**$3.89**
Operating Earnings Per Share	$3.23	$3.43	$3.69	$3.94	**$3.68**
Cash Dividends Per Common Share	$1.95	$2.03	$2.15	$2.27	**$2.39**

* The difference between year-end 2016 GAAP and Operating Earnings was primarily due to the impairment of certain merchant generation assets.

** Includes earnings impact of unregulated generation sale. Proceeds were reinvested primarily in transmission, with improved overall EPS growth rate from 4-6% to 5-7%.

Building a successful digital future also requires collaboration and innovation. AEP has a rich history of innovation, most of which was centered on the physical assets of our generation, transmission and distribution network. And while innovation to reimagine those systems remains critical, we also are focusing on innovation that more directly benefits the customer. Instead of just thinking about assets and resources, such as generation, transmission and distribution, today's technology realities extend to grid optimization through big data analytics and customer usage aggregation that helps to drive optimization and efficiency.

In 2017, to spark customer-focused innovation, we launched several initiatives, including partnering with Singularity University, a Silicon Valley think tank helping us to build breakthrough solutions. We held our first "Spark Tank" innovation challenge, encouraging employees to bring forth ideas for services and energy solutions that customers might want. Not surprisingly, our employees embraced this opportunity bringing forward nearly 400 ideas.

In March 2018, AEP became the only North American electric utility invited to join Free Electrons, the first global innovation accelerator that connects promising energy startup companies with leading utilities. I am proud of our employees who continually rise to the challenge of creating new and innovative solutions for customers.

Analytics to Drive Performance

We collect vast amounts of data that provide us with important information, from customer usage patterns to maintenance needs on the system. We continually expand our use of data and analytics to help solve problems and drive better decision-making and actions. Through our Data Science Team, we're using "big data," analysis tools, statistics and mathematics to equip us to harvest data more effectively to identify trends and help us become more efficient and resilient.

In 2017, we appointed a Chief Data Scientist to lead our efforts because advanced analytics are so important to our future. Our focus on data-driven, information-enabled decision making gives us an advantage in using analytics to better serve our customers and improve business performance. Big data opens the door to allow us to maximize all of our resources and assets to optimize the grid and deliver on our customer promise. We also take appropriate steps to protect the privacy of all the data we collect.

Leaders Lost

In 2018, we lost two long-time AEP leaders, both of whom made significant contributions to our company and to their communities. Retired AEP board member and Roanoke, Virginia business leader, Donald G. Smith, passed away in March. He was a longtime employee and executive of Roanoke Electric Steel Corporation, one of Appalachian Power's largest industrial customers. He served on AEP's board for more than a dozen years. In 2017, the AEP Foundation contributed $250,000 toward the construction of the Don and Barbara Smith Children's Museum in Roanoke.

Also in March, John E. Dolan, retired vice chairman of Engineering and Construction for AEP, passed away. Dolan was a World War II veteran, having completed 24 combat missions in the European Theater with the Eighth Air Force. He was awarded multiple air medals for his service. He joined AEP in 1950 as an engineer and had a distinguished career with the company until his retirement in 1988. The John E. Dolan Engineering Laboratory in Groveport, Ohio, bears his name. The lab celebrated 30 years of operation in 2017.

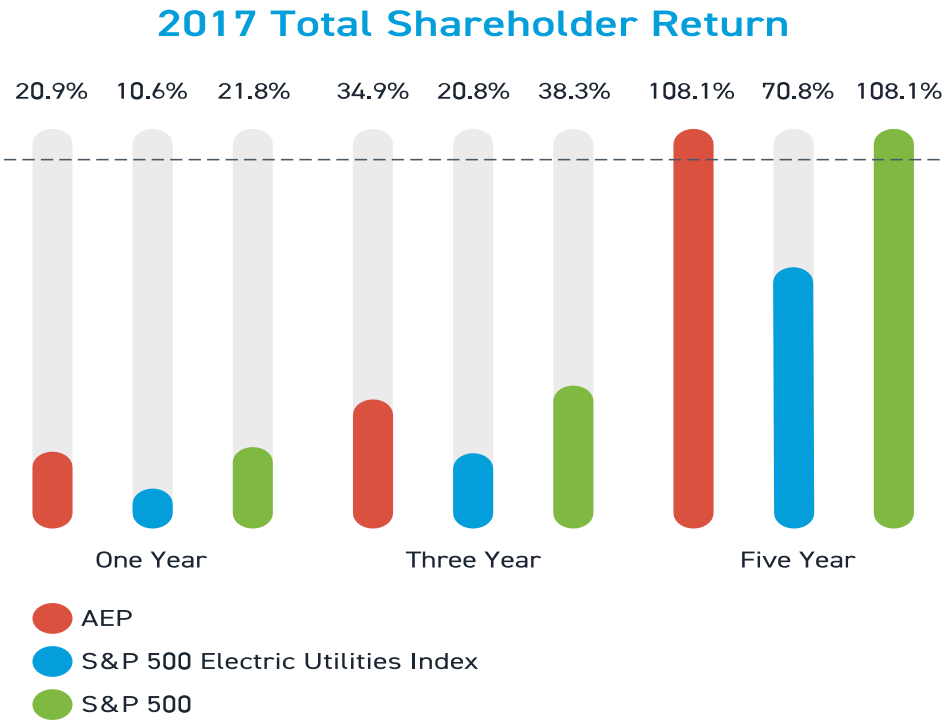
Working for a Brighter Future

We are excited about the future and the promise it holds for our customers, employees and shareholders. We know it will look nothing like our past. The disruptive changes to our business are not unique to our company or even our industry. But we are embracing change because our future success demands it. Change creates new opportunities, transforms companies and ignites growth. All are either happening now or are at our doorstep.

Fundamental to our agility and ability to adapt to the seismic changes we face is to reimagine what a leading energy company of the future looks like. And that's why we're coming together with our customers and our communities to help define and shape it so we can all be successful.

The spirit of innovation and ingenuity at AEP is stronger than ever. Our new Innovation Hub is a leading example of sharing knowledge, learning together in a relentless pursuit of making what seems impossible, probable -- settling for nothing less than excellence.

Our attention to nurturing an engaged, open, collaborative and inclusive culture is foundational to achieving our goals. We are making good progress every year. We want a diverse workforce and an environment where everyone looks forward to coming to work every day and can contribute in every way possible. We will be relentless in our pursuit of Zero Harm because we truly care about each other. And we will always keep our customers at the center of every decision we make and action we take.



We have laid a strong foundation for the future. We will continue to advocate for our customers, strengthen our relationship with them and deliver on our promise of an exceptional customer experience. We will not relent in our responsibility to provide universal access to the grid because that is how we contribute to improving quality of life for everyone.

AEP will be the model of what society should look like in the future. Much like an orchestra makes music by listening to each other and working together, we know that achieving harmony as we execute our strategy for the future requires constant coordination of diverse interests. I am confident that the men and women of AEP are up to the challenge and we will put boundless energy to work every day to build a brighter future for us all.

Sincerely,

Nicholas K. Akins
Chairman, President & Chief Executive Officer
American Electric Power

AEP's Strategic Plan

The rapid changes transforming the energy industry, thanks to technological innovation and interconnectivity, are altering the dynamics of how people interact with the power grid, turning consumers into active, not passive, participants. From decentralized power generation and electrification to digitization, disruptive innovation is reshaping our industry and our company.

AEP's strategy for growth and the way we are advancing our business model are changing as we plan for a future that is constantly evolving. Historically, our capital investments focused primarily on large, centralized plants, building new capacity and controlling existing units to comply with environmental regulations to keep them running longer.

Today, our capital investment strategy spans the value chain of generation, transmission and distribution with the customer at the center. Our focus is on providing customer solutions through technology, diversifying our resources and investing in renewables; working with regulators to modernize the regulatory compact to better serve the needs of all of our customers; and preparing for the future of work and the skills our workforce will need. At the same time, we are reducing our environmental footprint, removing risk from our business and delivering value to our customers and shareholders.

AEP's Business Model Today

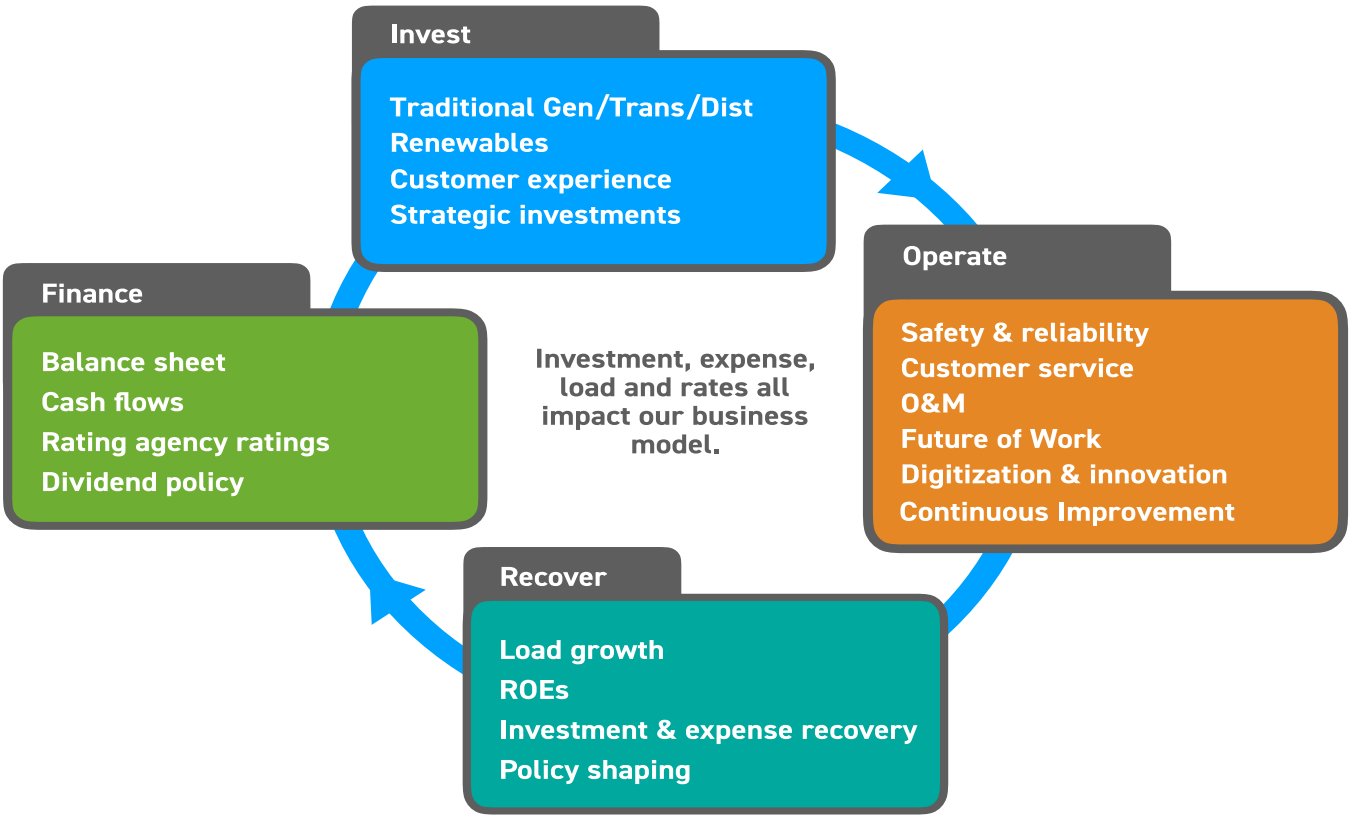
AEP Capital Investments

$ in millions

	2017 Actual	2018 Projected
AEP Transmission Holding Co.	$1,672	$1,514
Distribution	$1,449	$1,483
Transmission*	$1,523	$1,395
Generation & Marketing	$336	$416
Regulated Environmental Generation	$131	$139
Regulated Fossil/Hydro Generation	$252	$245
Nuclear Generation	$175	$179
Corporate and Other	$507	$588
Total Capital & Equity Contributions	**$6,045**	**$5,959**

* Includes Vertically Integrated Utilities and T&D Utilities.
Excludes AFUDC debt and equity and cash flow adjustments.
Excludes Wind Catcher.

Business Model



AEP's Strategic Transformation

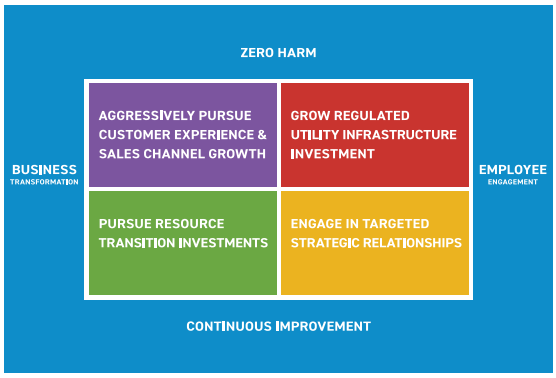
AEP has laid a strong foundation for a strategic transformation that positions us to be the energy company of the future. We have managed through significant earnings challenges due to the deregulation of our generation assets in Ohio; completed the sale of merchant power plants to reduce the risk from the volatility of unpredictable capacity markets; spun off businesses that were not core to our regulated utility business; diversified our resource portfolio to meet the needs of a clean energy future; set new carbon emissions reduction goals; expanded our business beyond our traditional regulated footprint; embraced continuous improvement to manage our financial resources and improve efficiency, reliability and customer focus; and transformed our culture.

We have established strategic goals and initiatives to shape our future and continue to make progress year over year. Our 2022 vision to be the energy company of the future provides mileposts that are essential to our success. These include grid reliability and modernization, advancing technology and innovation, exceeding customers' expectations, growing our regulated and contracted renewables, preparing for the workforce of the future and partnering with our regulators to shift the regulatory paradigm to support these activities.

Corporate Strategic Goals & Initiatives - 2017 progress

Goal: Aggressively pursue customer experience and sales channel expansion

Initiatives: We are implementing our customer experience roadmap and have committed significant capital investments to deliver exceptional service to our customers. By engaging with our customers, we have a better understanding of their needs. We are working to enhance every touchpoint they have with AEP, developing new communication and digital marketing channels to connect with them. A diverse team, led by our Chief Customer Officer and Customer Experience Board, is implementing an integrated customer experience strategy that includes development and delivery of energy solutions and services for all types of customers. This includes the addition of a Social Media Listening & Response Center, technology upgrades for our customer operations centers and new training to empower employees to meet and exceed customer expectations.



To achieve AEP's strategic goals we need a high level of employee engagement to transform our business, continuous improvement and a commitment to Zero Harm.

Goal: Grow our regulated utility infrastructure investment

Initiatives: We will continue to grow our regulated transmission and distribution investments and expand beyond our traditional service territory through investments in competitive transmission projects. Investments in our core, regulated businesses to enhance service to customers support our strategy to modernize the power grid while delivering cost-effective, reliable energy. At the same time, we are hardening the system to improve resilience.

Grid modernization initiatives include replacing aging infrastructure based upon condition, performance and risk and continuing to make investments that optimize the use of the grid, and enabling the integration of distributed energy resources and real-time digital technologies, such as Volt VAR Optimization (VVO), electric vehicle charging stations and energy storage. Distributed technologies deployed for system and community benefit can create a new platform for offering customer-focused energy solutions and services.

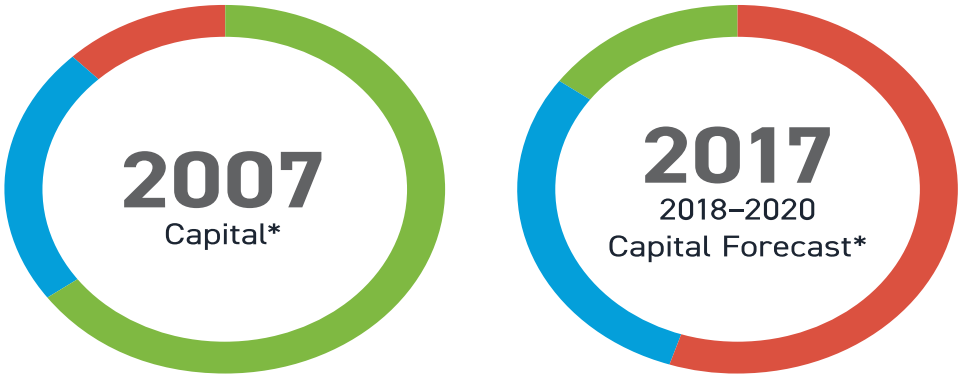
Between 2018 and 2020, AEP plans to invest about $17.7 billion in capital (excluding Wind Catcher) to modernize and make the electric system more reliable, resilient and secure. Of this, approximately $3 billion per year will be invested in transmission to address aging infrastructure, improve local reliability, relieve congestion on existing lines, and enable the growth of distributed generation technologies and renewable resources.

Through joint ventures such as Transource®, a partnership to invest in competitive transmission projects, AEP is well-positioned to expand transmission investment outside of our traditional service territory. So far, these joint ventures have enabled us to expand our transmission footprint to 13 states with projects under development in two additional states.

Between 2018 and 2020, AEP plans to invest about $17.7 billion in capital (excluding Wind Catcher) to modernize and make the electric system more reliable, resilient and secure.

Focusing on Wires

A Tale of Two Companies



2007 Capital*	2017 2018–2020 Capital Forecast*
65% Generation	**55%** Transmission
23% Distribution	**30%** Distribution
12% Transmission	**15%** Generation
• Focus on environmental retrofits • Transmission expansion just beginning	• Focus on wires • Approximately $9 billion on transmission over 3-year forecast period

* Includes corporate allocations to each category on a weighted average basis. Capital Forecast excludes Wind Catcher.

Goal: Pursue resource transition investment opportunities

Initiatives: Making the transition to a balanced, diverse portfolio will help mitigate risk for our customers and shareholders, ensuring a more resilient and reliable energy system in the future. We are doing this through our regulated utilities and through company-owned and long-term contracted renewables. Our competitive renewables businesses – AEP Renewables and AEP OnSite Partners – plan to invest up to $1.2 billion in contracted renewables between 2018 and 2020. By 2030, our current integrated resource plans project we will add more than 8,000 MW of wind and solar to our regulated portfolio. Between 2018 and 2020, we will invest approximately $500 million in renewable wind and solar in our regulated utilities. These plans will evolve and investments are subject to regulatory approval. Today, approximately 11,900 MW of renewable energy is interconnected to AEP's transmission grid, delivering clean energy across America.

AEP has proposed the $4.5 billion Wind Catcher Energy Connection project, which includes a 2,000 MW wind farm in the panhandle of Oklahoma that will be the largest wind farm in the United States. Wind Catcher also includes construction of an approximately 350-mile dedicated generation tie line to the Tulsa area, where nearly 9 million megawatt-hours of new, low-cost wind energy per year will be delivered to more than 1 million customers in four states. Regulatory review of this project is well underway. If approved, Wind Catcher would accelerate the addition of 8,000 MW of renewables in our regulated utilities.

As the grid changes, our resource planning process is changing with it. Once dominated by coal-fueled generating capacity to meet demand, today's resource plans are now largely comprised of wind and solar and natural gas generating resource investments. We have significantly reduced our business risk and the volatility of future earnings by exiting the merchant generation business and focusing on our regulated business. By developing integrated generation, transmission, distribution and energy storage solutions, we can compete for new business opportunities to partner with our customers.

Goal: Develop targeted strategic relationships and partnerships (technology, innovation, workforce)

Initiatives: Preparing for the future is as much about the relationships we have today as it is our mindset for embracing change. Targeted partnerships allow us to leverage the skills and technologies of others, giving us an efficient way to stay close to emerging technologies and team up with others for the benefit of our customers. In addition, strategic partnerships help us to advance innovation and prepare our workforce for the future.

In 2017, we launched our first enterprise-wide innovation challenge, and we are creating organizational processes focused on accelerating new customer products, services and digital capabilities.

For example, we partnered with Singularity University (SU) to sponsor the Smart Cities Accelerator in Columbus, Ohio, to drive innovation and entrepreneurship to transform the smart city of the future. The SU Smart Cities Accelerator supports local start-ups focused on mobility, connectivity, data and analytics, infrastructure and energy and manufacturing and production. One of the ideas that came out of AEP's enterprise-wide innovation challenge in 2017 was submitted to the Smart Cities Accelerator for development. The electric vehicle (EV) subscription program will increase mobility, especially in underserved neighborhoods, as

well as help to establish EV infrastructure.

We have many targeted partnerships to help advance technology to improve operational efficiency and the customer experience. For example, we invested in Greensmith Energy to grow grid-scale energy storage systems. In 2017, AEP and Greensmith teamed up to pair advanced energy storage technology with two hydro plants in southwest Virginia to provide ancillary services to the grid. The integration of energy storage with hydroelectric power plants is seen to be the world's first hybridized system of its kind to provide those services to the PJM frequency regulation market. The system is due to come online in 2018.

As we redefine the future of energy and develop innovative solutions, we cannot continue doing business as usual. We are defining AEP's future in two ways: Updating the tools and technologies we use and helping our employees prepare through strategic work planning. In 2017, we completed a project to look at what the future of work will be and how to get the work done. We are taking what we learned and developing a strategy for a digital future – changing how we organize, behave and operate to best serve our customers.

We are also working with regulators to develop a model of utility involvement and participation in customer technology advances that supports this new paradigm and allows us to compete for new business opportunities, inside and outside of our traditional service territory. In addition, we need changes that allow us to respond more quickly and efficiently to customer desires for their energy supply needs.

Sustainability Strategy & Goals

In 2016, we chartered a strategic initiative to develop AEP's next-generation sustainability goals. The objective was to measure how we create shared value – for AEP and our stakeholders – through our investments in sustainable development of clean energy infrastructure. One of our first steps was to define the AEP Strategy Framework for Sustainable Development, which provides context for our core business and a roadmap to implement throughout our value chain. Our new sustainability goals provide the metrics and methodologies to measure performance against our business plan – across our business – providing structure to communicate the return on investment (ROI) and the shared value we create for AEP and all our stakeholders.

Our strategy for a sustainable future is to ensure that the production and delivery of energy enables positive social and economic change for our customers, employees and communities as we collaboratively shape our future. This is grounded by our culture of safety, continuous improvement and customer focus. We commit to aggressively support economic development, develop innovative solutions, champion education and make smart infrastructure investments that power our communities and improve lives. AEP will lead by example by setting strategic performance targets and goals, and we will be guided by these key principles:

Be a catalyst for change – We will use our knowledge, voice, skills and relationships to enable innovation, bring new technologies to market, modernize the grid to be the ultimate optimizer of all resources and technologies, and develop a diverse, inclusive workforce for the 21st century.

Advance environmental stewardship – As we transition to a cleaner energy future, we will seek to continuously improve operations across our business to reduce, mitigate or eliminate the resulting impacts on the environment.

Help to build strong local communities – We have a responsibility to create shared value – for our customers, employees and the communities we serve. Our philanthropy is focused on helping people in our communities access nutritious meals and safe, affordable housing, and develop the skills they need to build a sustainable future for themselves. Our economic development activities seek to enhance and support communities through the expansion of economic opportunity by minimizing unemployment and supporting an adequate tax base for critical community institutions.

Develop a brighter energy future – We seek to work together with our customers and communities to help them navigate energy and technology choices, give them accurate and timely information they can act on, provide safe, reliable and affordable electricity, and remain continuously engaged to ensure optimal alignment with customers' expectations.

The goals design process is being led by a team of subject matter experts within AEP's businesses and through partnership with The Analyst Desk, who helped us design the project, conduct benchmarking and perform expert analytics to inform goal design and implementation plans. This work is the culmination of capturing feedback from stakeholders over the past few years with investors, customers, and non-governmental organizations (NGOs). The stakeholder feedback focused on issues such as climate change, carbon risk, energy efficiency, renewable energy, advanced technologies, and diversity and inclusion.

In 2017, more than 30 employees worked in teams to develop a set of draft sustainability goals. The process was informed by three key steps:

1. **External Performance Benchmarks:** External benchmarking of utility sector peer companies, global best-in-class and investor disclosure expectations (mainstream and socially responsible/ESG investors)

2. **Internal Performance Drivers:** Driven by input from the Goals' teams, numerous performance improvement opportunities were identified that could be realized through implementation of the proposed new sustainability goals. The ideation focused on measures/goals that would drive innovation, risk management and/or growth opportunities.
3. **Vetting for Alignment with AEP Business Strategy, Goals and Strategic Initiatives:** Prospective goals were vetted for alignment with AEP's strategy framework for sustainable development, its corporate goals, strategic initiatives and future outlook.

The cumulative work of our employees' effort to set sustainability goals for the future that reflect our commitment to the environment; efficient use of energy; safety, health and well-being of our workforce and the public; supplier diversity; community building; the customer experience; and economic development was published with the launch of our 2018 Corporate Accountability Report.

On a parallel path, AEP developed new carbon reduction goals based on our current business strategy and integrated resource planning models. In February 2018, we announced our goals in February 2018, which call for reducing carbon dioxide emissions (CO_2) from AEP generating facilities by 60 percent by 2030 and 80 percent by 2050 (based on a 2000 baseline). Learn more about the carbon goals and AEP's Strategic Vision for a Clean Energy Future.

In addition to business and cultural alignment, AEP's sustainability goals are aligned with the U.N. Sustainable Development Goals (SDGs). We believe this is important to demonstrate how AEP creates shared value for our business and for society.

Sustainability Governance

There is heightened demand for transparency and expectation that leadership adopt holistic, long-term approaches to managing environment, social and governance (ESG) performance. Companies are judged on performance and how well they link tangibles (such as financial capital and physical assets) with intangibles (such as reputation, brand, customer loyalty, risk management, trust and credibility) and show bottom line benefits.

There is no one-size-fits-all approach to sustainability governance, but AEP believes it is fundamental to building and strengthening sustained business value. Good governance ensures transparency, fairness and accountability and gives us a structured way to manage the challenges of a changing society.

Through AEP's Enterprise Sustainability Council and with oversight from executive management and the Committee on Directors and Corporate Governance of the Board of Directors, we have clear guidance on our ESG responsibilities for sustainable business development. The Council is made up of some of AEP's top leaders and decision-makers, representing functional units from across the company.

Executive sponsors of the Enterprise Sustainability Council include the Chairman, President and CEO; Executive Vice President, General Counsel and Corporate Secretary; Chief Administrative Officer; and Executive Vice President of External Affairs.

The Council provides a forum for key decision-makers to come together and reflects the maturity of sustainability and the reporting process at AEP. It is embedded in AEP's business strategy, supporting our culture and our values.

In 2017, the Council helped develop AEP's Strategy for Sustainability Development, which laid the foundation for setting new sustainability goals. The Council also provided oversight for the development of our sustainability goals. Their leadership, expertise and focus on continuous improvement helped us identify the focus areas for goal-setting. Employees from across the organization helped develop the goals. Through research, benchmarking and engagement with leaders, we developed

sustainability goals that are aligned with our corporate strategy to create shared value for AEP and our communities.

In addition to the Council, the Committee on Directors and Corporate Governance of the Board of Directors reviews the Corporate Accountability Report annually. The Committee provides feedback and develops the Board statement supporting AEP's commitment to sustainable business development and performance accountability; the statement is published in this report each year. The combined governance from the Board of Directors and the Enterprise Sustainability Council, along with process improvements initiated in 2017, help us ensure that our disclosure undergoes a disciplined review and validation process that is more efficient and effective.

While these issues are discussed by the Board of Directors throughout the year, we formally report to the Committee on our sustainability-related activities twice per year. In addition, the Lead Director of AEP's Board of Directors participates in our annual outreach to engage with investors on important governance, environmental and social matters.

The governance structure we have in place supports AEP's commitment to transparency and addressing stakeholder concerns.

Chief Customer Officer	Enterprise Security
Information Technology	Regulatory Services
Corporate Communications	AEP Energy
Supply Chain & Procurement	Human Resources
Ethics & Compliance	Environmental Services
Economic & Business Development	Customer & Distribution Services
Corporate Planning & Budgeting	Resource Planning
Legal	Corporate Finance
Technology Business Development	Transmission
Commercial Operations	Generation
Safety & Health	Public Policy
NERC Compliance	Investor Relations
Continuous Improvement	Real Estate & Workplace Services
Audit Services	

Learn more about climate risk governance in our report: American Electric Power: Strategic Vision for a Clean Energy Future.

Regulatory and Public Policy

The electric utility industry is one of the most highly regulated sectors of the U.S. economy. The industry is undergoing a major transformation to modernize the grid, making it more reliable, resilient and customer friendly. Through this evolution, we continue to work with our customers, regulators and policymakers at the federal, state and local levels.

In 11 states, AEP operates within a variety of jurisdictional regulatory frameworks. Those frameworks primarily are governed by state legislatures that direct state regulatory commissions to achieve overarching policy goals. These regulatory and legislative environments, in conjunction with federal regulation and legislation, define the parameters of AEP's business and planning models.

Our focus always is on a safe and reliable grid that is resilient and adaptive. Our generation, transmission and distribution system investments directly affect our customers and shareholders. These investments must coexist with regulation and policy considerations such as environmental rules and affordability. As we transition to a clean energy future, we are reshaping our asset base in a reliable and affordable manner for our customers while managing the financial risk for our shareholders. The changes we are making must be compatible with the regulatory frameworks in which we exist on the wires (transmission and distribution) side of the business.

However, regulatory frameworks must be responsive to today's technology and customer preference environment. AEP is at the forefront of evaluating and deploying technologies to improve the customer experience. Regulations must be progressive enough to allow the utility to provide these solutions for customers. The customer must be the center of our focus and analysis and regulatory policy decision-making.

Regulatory Compact

The regulatory compact is a term used to describe traditional regulation of vertically integrated utilities. It is the regulatory paradigm in which a regulated utility makes prudent investments to ensure a safe and reliable electric service universally to all customers. The utility applies to its state regulatory commission for cost recovery on its investments. The commission then approves the prudent expense, including an opportunity to earn a fair rate of return on the investment. This was the way virtually all electric utilities did business from the time the industry was regulated in the 1930s until the deregulation trends of the 1990s. Now we have a patchwork quilt of states that have varying levels of competition. In those states where competition exists, the generation or access to the retail customer is competitive. However, even in those states the regulatory compact still exists in the regulation of the wires.

AEP is at the forefront of evaluating and deploying technologies to improve the customer experience. Regulations must be progressive enough to allow the utility to provide these solutions for customers.

AEP embraces the regulatory compact but also sees a need to increase flexibility through alternative ratemaking models and to alleviate regulatory lag (the time it takes to recover investments) and uncertainty. This is referred to in the industry as the regulatory paradigm shift. AEP is among the industry leaders calling for regulatory reform that will allow us to more nimbly respond to technological changes necessary to meet today's more complex consumer and societal demands while still preserving the need to provide service to all customers.

Today's technologies are evolving into creative new solutions that were not envisioned just a few years ago. We need regulatory models that give utilities the ability to explore those new solutions as they determine what technological configurations will best serve the customers of today and tomorrow.

As we look at the regulatory future of our industry, we see a need for dramatic changes. Utilities need the ability to offer customized goods and services to some customers while still preserving their universal service provider obligations. We need to revisit the demarcation of behind-the-meter and front-of-meter technologies. The classifications of generation, transmission and distribution need to be revisited, as those boundaries are becoming blurred with new technologies. And we most definitely need to consider transition issues as utilities move from central station generation to cleaner, more distributed, energy resources.

Public Policy and Issue Management

Similar to other companies, AEP has a public policy strategy that seeks to influence decisions being made at Congress, FERC, state legislatures and regulatory commissions. We do this to mitigate our risk exposure and to help us achieve our business objectives.

In 2017, AEP formed the Policy Advisory Team (PAT) to better manage public policy issues. This team is composed of senior executives across AEP, including some of those who represent the company in Washington, D.C., and the state capitals in our service territory.

The PAT considers policy options on issues of relevance to the company. The multi-departmental, cross-function structure of the PAT supports internal policy analysis and debate. The approach helps ensure that AEP is speaking with one voice on important public policy considerations and that all employees, and ultimately external stakeholders, are clear on our policy positions and objectives. The goal of the PAT is to ensure a smoother, more consistent policy strategy across the company.

In strategic discussions about how we can best align ourselves to maximize the customer benefits of new technologies, we talk about "future-proofing" our company. The pace and scope of change underway in the utility sector is indisputable. In order to adapt and bring the most value to customers, utilities require a regulatory and legislative framework that allows them the flexibility to incorporate new technologies, including those we've not even envisioned yet. We need a regulatory paradigm that fosters rapid deployment of creative energy solutions.

Currently, there are two models at play in this country – one in which the utility is transformed into a platform provider at the distribution level, effectively turning over the customer relationship to the energy market, rather than with the utility. This model is playing out in New York with its Reforming the Energy Vision (REV). The second model, which we believe is the better approach, is the utility as a platform that works in concert with the customer relationship and technology providers (e.g., charging stations). This important to ensure universal access for all customers to clean energy resources and new technologies and to provide the scope and scale that technology providers need – that a utility can offer – to accelerate environmental, operational and efficiency benefits from new technologies.

One example of the need for change is unfolding in Texas. In 2016, AEP Texas sought approval to install lithium-ion batteries on its distribution system in a rural area that experiences more outages, for longer periods of time, compared with the rest of the service territory. Battery installation would be a more cost-effective solution than traditional transmission and distribution upgrades.

In January 2018, Texas regulators rejected our request. However, they acknowledged that the docket raised important issues about the use of technology to cost-effectively address reliability. They agreed to open a separate rulemaking to develop a framework that takes these options into account. We support the commission's opening a rulemaking because it paves the way for the type of rule changes we believe are needed to cost-effectively and efficiently use non-traditional technologies to solve reliability issues. But we also have to ask ourselves: "What about the customer? Do they have to wait longer for a solution? What do they do in the meantime?" We must center our decisions and timing on a framework that works for all customers.

Some commissions are becoming more curious. In 2017, the Public Utilities Commission of Ohio (PUCO) launched an initiative called PowerForward to study grid modernization in the state. The PUCO is focusing on new technologies and regulatory innovation that could benefit customers in the future while modernizing the grid. Through this process, the PUCO has acknowledged customers' desire for more technology and innovation in the electric sector, along with the need for a modern regulatory road map to make it happen. This is the type of structured stakeholder conversation that is needed to enable the paradigm shift to occur.

New Models

Traditionally, distribution service has been totally within the purview of the local electric utility. This is true whether the retail model in a state is regulated or competitive. It provides the utility with a direct customer relationship. AEP thinks that relationship is invaluable for both assuring universal service and in optimizing service delivery; therefore, we want to do everything we can to preserve it.

New models, however, have arisen. New York and California have led the way in creating energy market platforms at the retail level very similar to regional wholesale markets. By doing so, these models allow entrants other than utilities to have full retail access to the customer. This includes those areas that traditionally have been preserved for the distribution/wires utility. It is clear that technology and potentially competitive opportunities for new entrants are challenging the existing regulatory paradigm. As distributive, non-wires and behind-the-meter technologies evolve, so will competition where appropriate. It is imperative however that the traditional utility not be precluded from participating in these new markets, thereby ensuring that that these technologies are available to all and are deployed consistent with customer demands.

States within the AEP footprint are exploring other models, such as Ohio with its PowerForward Initiative. AEP believes conversations between the utility and regulators early in the process, similar to those ongoing as part of PowerForward, provide for an optimal model design to seamlessly enable these technologies to customers' benefit.

Tax Reform

In late December 2017, Congress and President Trump enacted The Tax Cuts and Jobs Act – a major overhaul of the federal tax structure. AEP supports these tax provisions, which provide benefits to our customers, our communities and our employees. We believe the tax changes may help to stimulate the economy to support much-needed growth in our service territory.

The reduction in the corporate tax rate from 35 percent to 21 percent, effective in 2018, will significantly benefit our customers. The tax bill also maintains the federal income tax deduction for interest expense for regulated electric companies and preserves the federal income tax deduction for state and local taxes paid by businesses. Customers will continue to benefit from these tax deductions. In fact, benefits from federal tax reform have already begun to flow to our customers through lower rates in some of our jurisdictions.

We are working closely with our regulators to analyze the options for delivering tax benefits to all of our customers, while ensuring the continued financial health of the company.

Increasing Grid Reliability and Resilience

Continuing to provide a safe, reliable grid remains the core objective of all public policy and regulatory initiatives. Resilience – the ability of the grid to recover from the impact of a disruptive event – differs from reliability, which is the ability of the power system to deliver electricity in the quantity and with the quality demanded by users. The resilience topic has renewed interest from the recovery efforts that have followed major natural disasters in recent years, long-term load planning to meet demand growth, and concerns over potential grid vulnerability to terrorist attack. AEP is involved in a number of policy initiatives geared toward increasing grid resilience.

NERC Oversight

Compliance with regulations to protect the reliability and resilience of the power grid is complex, and the rules are becoming increasingly more stringent and numerous. How we manage these issues directly influences our business. The North American Electric Reliability Corporation (NERC) develops and enforces the rules and standards that protect the North American bulk

power system. To ensure compliance, NERC conducts annual reliability assessments, monitors the bulk power system and educates, trains and certifies industry personnel. In 2016, this involved extending physical and cyber protection to a broader set of AEP assets now considered critical.

As a result of this increasing focus on NERC compliance, AEP has revamped its compliance program with increased staffing and improved governance. In 2018, we restructured our NERC governance to ensure direct line of sight with business units responsible for compliance. Through this restructuring we are seeking to establish an industry-leading program that collaborates as one enterprise to meet or exceed all obligations of the NERC Reliability Standards. To achieve this, our intent is to fully adopt a risk-based approach, seek common solutions and continue to fully cooperate with regulators.

The new structure consists of three layers of governance with distinct responsibilities. The Reliability Compliance Committee (RCC), which is composed of AEP's top executives who have accountability for compliance programs, establishes the vision, mission and culture expectations for AEP's NERC compliance program.

The Reliability Compliance Strategy Team (RCST) is made up of compliance program senior executives who are charged with program strategy, health, and developing cross-business unit solutions. The RCST advises the RCC and directs the Reliability Compliance Implementation Team (RCIT). The RCIT consists of director-level program stakeholders representing compliance and operations. This group focuses on implementation, advises the RCST and engages subject matter experts and compliance teams across AEP. We strive to maintain an open, collaborative and transparent workforce that raises issues when necessary and focuses on operational excellence that goes beyond a culture of compliance and "doing the right thing" consistently.

DOE/FERC Grid Initiative

The Department of Energy (DOE) recently initiated a nationwide conversation about the resilience of the U.S. electric grid. In August 2017, DOE published the Staff Report to the Secretary on Electricity Markets and Reliability, in which the Department concluded market distortions threaten the resilience of the grid. To address these threats, in September 2017 DOE released a formal proposal for FERC to implement reforms that would eliminate the undervaluation of generation assets that contribute to the resilience and reliability of the grid. The proposal sought to minimize the premature retirements of resources that provide critical attributes to the grid.

Subsequently, in January 2018, FERC established a docket directing transmission system operators to provide information as to whether FERC and the markets need to take additional action on system resilience. The goal of the proceeding was to develop a common understanding among FERC, industry and others of what resilience of the bulk power system means and requires; to understand how each transmission system operator assesses resilience in its geographic footprint; and to use this information to evaluate whether additional FERC action regarding resilience is appropriate. AEP is actively involved in these critical discussions.

AEP is advocating for the use of engineering studies and taking a measured approach to maintaining grid reliability as we transition to the next generation of power generation and delivery.

PJM's Capacity and Energy Reforms

PJM will be proposing changes to the energy market in 2018. Although these reforms are still in the stakeholder discussion phase, they appear to be designed primarily to address price formation during peak load conditions. In addition to dispatch price signal changes, PJM indicates it will likely try to create additional reserve products to provide more operator flexibility, particularly during peak load times. PJM believes these reforms will help with grid resilience in generation by providing more accurate market-based pricing signals for generators. AEP is working both in the stakeholder process and in FERC-related dockets on these price formation issues and how they affect grid resilience.

On April 9, 2018, PJM filed another set of changes to the Reliability Pricing Model capacity construct. The new filing is meant to address concerns PJM and FERC have over state initiatives to subsidize certain types of units outside of the market (e.g., the Illinois zero emissions credit program from nuclear units). The potential impact to AEP is minimal as long as we continue with the self-supply Fixed Resource Requirement (FRR) capacity plan. However, we will provide comments in this docket supporting states' rights with regard to long-term supply planning.

Our generation, transmission and distribution system investments directly affect our customers and shareholders. These long-lived investments must coexist with prevailing policy considerations such as environmental rules, affordability and reliability. As we transition to a clean energy future, we are reshaping our asset base in a reliable and affordable manner for our customers while managing the financial risk for our shareholders and recognizing that the transition will take some time to fully execute.

Lobbying and Political Contributions

The electric utility industry is undergoing a fundamental transformation driven by a number of factors, including new regulations and public policies. For the benefit of all stakeholders, we actively participate in the political process and in lobbying activities at the national, state and local levels.

The investments needed to modernize the power grid are in the billions of dollars, and the stakes have never been higher. To

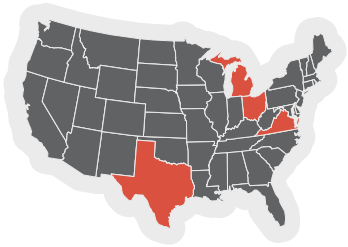
understand the policies and regulations that could affect our business, we participate in a number of organizations, lobby on our customers' behalf and contribute to political candidates.

Each year, AEP publicly discloses lobbying activities and political contributions. We also annually report on the portions of membership dues paid to organizations such as the U.S. Chamber of Commerce and Edison Electric Institute (EEI) that go toward lobbying. We post our lobbying policy online and we discuss political contributions annually with AEP's Board of Director's Committee on Directors and Corporate Governance.

We have been asked by stakeholders why we belong to some organizations whose positions may conflict with AEP's. In general, we believe it is better to be at the table and engaged in the discussion whether we are in total agreement or not. When we disagree, we voice our concerns and work to change the position. Sometimes we prevail, and sometimes we do not, but we strive to reach an appropriate position, based on the facts available. In addition, many of our customers belong to these organizations, and this helps us better understand their concerns and needs.

We believe in transparency and active participation in public debate. Our experience is that open, candid discussion and a good-faith attempt to reach common ground is the best way to do business.

Lobbying by the Numbers – 2017



We maintain five PACs that are run by our employees (one federal and four state PACs)

$479,600
Contributions to candidates for public office

$6.4 million
internal and external lobbying expenses

Ethics and Compliance

At AEP, we are committed to health, safety, financial, operational and environmental compliance, while holding ourselves to a high standard of ethical conduct – always doing what is right. We believe that when it comes to doing the right thing, there is no other option. We are guided by high standards of ethics and rigorous legal compliance because we believe it is unacceptable to bend the rules.

AEP's Principles of Business Conduct places responsibility for acting legally and ethically with every individual – from the Board of Directors and management to employees on the front line. We want employees to speak up, ask questions and report potential violations without fear of retaliation. Our culture supports the interests of both employees and AEP by maintaining a vigilant approach to practicing compliance and acting with integrity. We will continue to build a reputation of trust by holding people accountable and taking appropriate actions when necessary.

In 2018, we updated the Principles of Business Conduct to reflect our cultural journey and to provide stronger direction on our expectations. For example, we enhanced the section on social media to remind employees that they are brand ambassadors, even when off the job. We also added a section on our supplier diversity initiatives and enhanced our code of conduct with respect to both sustainability and protection of personally identifiable information.

As our business makes the transition to a clean energy future, we want to be more closely connected with our customers and to be a good corporate citizen. It is important to us that our employees are engaged members of their communities because they carry AEP's reputation with them wherever they go. We strongly urge our employees to uphold our values beyond the workplace and further our commitment to acting with integrity.

All employees must complete annual training on the Principles of Business Conduct to ensure they understand their responsibilities as AEP employees. AEP's Board of Directors will also take the training on the updated Principles of Business Conduct. This training includes evaluation of several distinct scenarios in some of our higher-risk areas, including conflicts of interest, appropriate use of company assets, fraud, management of personally identifiable information, intellectual property and insider information and trading. It also provides real-world examples and resources. AEP also offers a confidential 24/7 hotline that allows employees to report concerns anonymously or to seek guidance on ethical, safety or compliance matters.

Enterprise Security and Risk Management

Like all major infrastructure, the nation's electric power grid is subject to an array of threats, from naturally caused phenomenon such as extreme weather to vandalism, terrorism and insider risks that jeopardize reliability, safety and data security. The stakes are high; our response to an event affects our customers, our reputation and the reliability of the power grid.

Growing risk from third-party products and services has prompted new regulations to protect the grid's resilience and reliability. As threats have become more sophisticated and massive breaches have occurred, such as the multiple data breaches that have occurred elsewhere at companies globally, the reality is that it is a continual struggle to achieve total, complete security. Faced with this reality, our comprehensive security strategy – known as "Defense in Depth" – assumes a broader range of possibilities, such as physical theft, unauthorized access to data, and incidental threats as a result of dangers that do not specifically target protected systems or assets.

In 2017, we incorporated cyber and physical security risks into the new enterprise risk management framework. This provides a more comprehensive approach to understanding these risks in relation to other enterprise risks. This allows us to make security decisions based on the level of the risk posed to AEP by looking at our total risk profile and making more informed decisions based on our priorities and resources.

Cyber and Physical Security

New threats and security risks for the electric power grid are constantly emerging as we continue to connect the Internet of Things (IoT), including sensors, routers and smart devices that are essential to a modern grid and 24/7 business transactions. Increased connectivity creates new entry points for potential attackers and poses new challenges for grid security. It is up to each utility to be prepared to contain and minimize the consequences of cyber and physical security incidents.

The growth of smart energy devices, which are increasingly decentralized and interconnected, create more entry points for bad actors who want to cause harm. Increased distributed energy resources (DER) are an example of a growing resource type that will open more opportunity for increased exposure to the grid. As a result, we will need mechanisms to secure company software and physical assets to protect the bulk electric system (BES) from attacks.

AEP learns from and takes actions based on real-world scenarios affecting global companies such as Sony's ransomware attack, Target's third-party risk, the Equifax data breach and the attack on Ukraine's electric grid. Our Defense in Depth approach to cyber and physical security allows us to deal with threats in real time. These strategies include: monitoring, alerting and emergency response; forensic analysis; disaster recovery; and criminal activity reporting. Through rapid notification and response when attacks and disasters are underway, we can delay cyberattacks and avoid or mitigate the damage before the full effect of the threat is realized.

Mitigating these risks requires a coordinated approach to monitoring, response and employee education, the use of cyber tools and physical protection systems, as well as critical partnerships with the public sector, peer utilities and other industries.

The cyber and physical security of the BES is regulated by the federal government through the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) Reliability Standards. We are routinely audited for compliance with federal standards in both cyber and physical security. In addition, the Board of Directors' Audit Committee reviews our cyber and physical security efforts, which also are reviewed annually with the full Board.

To ensure our security controls are comprehensive, effective and in compliance with regulatory requirements, we have established a robust, collaborative security policy management program that aligns with the National Institute of Standards and Technology (NIST) Cybersecurity Framework. Our resulting policies and standards are jointly developed with AEP's business areas to maximize adoption and implementation of standard controls, thereby reducing security risk to AEP.

AEP classifies all of its BES facilities based on their criticality to determine the level of security needed. This approach allows us to design security controls for new infrastructure from the start, building the costs into capital projects as needed. It also allows us to be more proactive with new and existing infrastructure while balancing risks with mitigation solutions.

AEP classifies all of its bulk electric system facilities based on their criticality to determine the level of security needed. This approach allows us to design security controls for new infrastructure from the start.

AEP's third-party risk governance program was developed to identify potential risks introduced through third-party relationships, such as vendors, software and hardware manufacturers or professional services providers.

Our most important partner in securing AEP's cyber and physical security is our people. AEP's Security Awareness program reduces risk by promoting security best practices and providing awareness education to the AEP workforce. The success of our program depends on constant communication and reinforcement. Our goal is to protect AEP assets and information, enable the business to work securely, and assist each employee and contractor in knowing what is necessary to keep AEP secure.

We provide annual training on enterprise security as well as NERC compliance. We also conduct regular phishing email tests and share trending security initiatives with employees and contractors. Our training is tailored to each audience and covers policies and standards, domestic violence, workplace aggression, personally identifiable information (PII), password protection, cyber hygiene, phishing and active shooter situations. Our awareness materials also address on-trend security topics, such as how to identify phishing emails, classify data and protect personal devices against new vulnerabilities.

We deliver security education through annual web-based training, security-focused newsletters and articles, enterprise security alerts, local lobby events, and security road shows that engage AEP employees and contractors throughout our regions. We cultivate face-to-face interaction and communication through our Security Champions program, as well as through AEP leadership-level security round-table events. Our Security Ambassadors help educate project teams and business areas on the risks introduced by new initiatives and identify ways to reduce those risks.

In 2018, we initiated a two-year project to assess security risks by evaluating vendors that partner with AEP. By assessing their security controls through a series of questionnaires and on-site assessments, we will seek to mitigate AEP's exposure to excessive risk and comply with supply chain reliability standards.

In addition, FERC is proposing to approve new mandatory reliability standards to protect the BES from cybersecurity risks in the supply chain. FERC is seeking to expand NERC compliance standards that will help protect the grid from risks such as tampering, theft, insertion of malicious software and poor manufacturing and development practices.

Coordinated by NERC, GridEx is a biennial threat simulation aimed at coordination efforts during, and recovering from, a wide-scale cyber and/or physical attack. These exercises simulate attacks on the entire North American electric grid operation functions. It is a nationwide event encompassing more than 6,000 stakeholders from utilities, NERC and U.S. government partners. In November 2017, approximately 200 people from across AEP participated in the GridEx IV event. By design, GridEx is intended to challenge even the most prepared and mature organizations.

While GridEx is a simulation, the threat is real. More than 200,000 customers in the Ukraine lost power in 2015 when hackers successfully attacked that country's electric grid. Every day in the U.S., hackers are probing utilities' computer networks looking for weaknesses. Exercises such as GridEx help utilities both prepare for and guard against a potentially catastrophic attack.

Physical threats to our electric infrastructure could target substations, office buildings and our people. Our four priorities for physical security are workplace violence, attacks on employees by customers, attacks on substations and vandalism/copper theft. We address these priorities through employee training, access control at our facilities and the use of security technology where appropriate.

Managing Risk

Today's era of disruption from distributed energy resources, digital technologies, and the electrification of other sectors require a consistent and data-driven Enterprise Risk Management (ERM) framework. Having a comprehensive implementation plan helps us to identify risks, address critical gaps and develop a culture that recognizes risk and is empowered to take appropriate action. AEP's ERM process looks at all risks, actual and perceived, across all aspects of operations through an integrated risk management framework. This is the process we use to identify risks, assess the risks and controls, plan mitigation strategies and monitor the risks. This process informs and prioritizes asset replacement strategies, and enables us to make risk-based investment management decisions.

AEP's risk framework has four major categories:

- **Strategic** – These are risks that affect our long-term or overall business goals and ability to achieve them.
- **Financial** – Potential risks that affect our financing needs, financial standing, and/or reporting requirements.
- **Operational** – Those risks that affect our ability to operate the power grid.
- **Regulatory** – Risks that affect our legal and compliance requirements.

When assessing risks, AEP categorizes risk impacts into six sub-categories – reliability, compliance and legal, reputational, financial, safety and strategic – and scores them based on the severity of potential consequences. This approach to risk management gives us the flexibility we need to respond to events or risks as they unfold.

From a governance perspective, these risks are reported from the appropriate business units or operating companies into the ERM process. The Chief Risk Officer reports a summary view of risks to the Risk Executive Committee, which is composed of senior leaders, to illustrate risk ranking and remediation dates and, ultimately, gain consensus on an action plan. This summary is then reported to the Audit Committee of the Board of Directors. The catalogue of risks is assigned to a specific Board committee or the full Board. At the end of the year, the Committee Chair and Lead Director review it to ensure the appropriate discussions have occurred.

Learn more about AEP's risk management approach, including how we manage climate-related risk, in our report *"American Electric Power: Strategic Vision for a Clean Energy Future."*

Business Continuity and Resilience

Business continuity is about being prepared – having plans in place to respond to an unexpected event, such as a cyberattack or natural disaster. Business continuity plans mitigate risk to acceptable levels and allow the business to continue functioning regardless of circumstance.

AEP's business continuity program is a partnership between our Enterprise Business Continuity & Resilience (EBCR) team, business units, operating companies, corporate functions, the Crisis Response team and the Infrastructure & Business Continuity (IBC) team. The IBC, EBCR and Crisis Response teams provide support, project management, expertise and tools to help business units develop robust plans to minimize business disruptions by decreasing response time, limiting financial impacts and maintaining customer confidence during a business interruption.

Business continuity planning helps us be prepared when an event happens that disrupts our operations. The threat of a cyber or physical attack or workplace-related incident is a risk for AEP, as are many other events that could interrupt business operations in one or all of our facilities.

We have an obligation to maintain service for our customers while keeping our customers and our employees safe. We test our plans to continuously improve our ability to effectively respond and recover in the event of an emergency. Business continuity must stay at the forefront in the workplace; our reputation is not based simply on whether we respond, but how effectively and thoroughly we respond and recover.

We continue to mature our business continuity practices by further aligning resilience functions with operational risk management through an annual assessment and refinement process that includes:

- Business impact analysis
- Exercises and drills to test plans
- Regular Business Continuity Plan review and updates
- Resilience assessments
- Semi-annual executive crisis management exercises

- Roadmap to increase maturity of the business continuity program

Data Privacy & Protection

AEP collects a lot of personal data from customers, employees and business partners. When they share information with us, they expect that we are taking every step possible to protect it. We take that responsibility seriously. AEP's PII (personally identifiable information) Data Protection Program seeks to protect and secure the personal data we hold related to customers, employees and contractors.

This includes several protective measures such as blocking outbound emails containing unencrypted PII, monitoring employee access to PII, encrypting PII data when the data is "at rest" (not being used actively), and implementing a PII asset certification process. Every year we ask data owners to confirm that the PII in their possession is necessary for business and that it is properly protected. Removing unnecessary or duplicate information is an important step in protecting our customers and others, and for reducing the risk of a loss of PII data.

We launched a Personal Data Portal, which allows PII to be securely transferred into AEP. This includes information that was previously transmitted via email or telephone. In 2017, we also created a management position dedicated to data protection and privacy. This position sits within the Enterprise Security organization to strengthen our commitment to protecting both AEP's sensitive corporate data and the privacy of our customers, employees and business partners.

While AEP collects significant amounts of data, we take appropriate steps to protect the privacy of all the data we collect.

Statement of AEP's Board of Directors

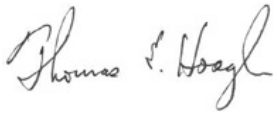
The AEP Board of Directors has assigned responsibility for overseeing the company's sustainability initiatives to the Board's Committee on Directors and Corporate Governance. This report marks the 12th year that AEP has provided a comprehensive account of its performance, integrating financial with sustainability reporting. The Committee fully supports this approach. Stakeholders have expressed approval and appreciation for AEP's leadership with this integrated approach to corporate reporting.

Throughout the year, the Committee and company management reviewed the company's sustainability objectives, challenges, targets and progress. The Committee reviewed and discussed the final text of this report before its adoption of a formal resolution approving the report.

The 2018 Corporate Accountability Report reflects robust disclosure about AEP's 2017 performance as well as the company's strategic plan. This report outlines AEP's transition to a clean energy future, including new carbon dioxide emissions reduction goals; how the company is becoming more agile to drive innovation; advancing technologies for the maximum benefit of our customers and for grid optimization; and the efforts to prepare our workforce for the future.

The AEP Board of Directors receives frequent reports from management about the company's sustainability initiatives and financial reporting, policy matters, and economic performance. These issues are the subject of active discussion at Board meetings and Board committee meetings.

The Committee believes this document is a reasonable and clear presentation of the company's plans and of its environmental, social and financial performance. The Board has emphasized that management will continue to be evaluated by its success in executing the company's strategic plan to meet stakeholders' and the Board's expectations, including being agile in responding to changing circumstances while respecting the commitments in this report.



Thomas E. Hoaglin
Lead Director of the AEP Board of Directors
May 2018

Audit Statement

AEP Audit Services performed a limited review of selected company performance statements contained within the 2018 AEP Corporate Accountability Report.

- Financial information was reconciled with AEP's audited financial statements and with other sources deemed appropriate.
- Non-financial statements were reconciled with source material and confirmed to be supported.
- Forward-looking information was verified as consistent with other public information disclosed by AEP.

Based upon our limited review, we believe the performance information contained within the Report is appropriately stated, and that the processes followed in accumulating both the financial and nonfinancial information were reasonable.

Andrew B. Reis
Vice President, Audit Services
April 27, 2018

Contact Us

We welcome your feedback about this web site and about our reporting. Hearing from our various stakeholders helps us understand what concerns them. Please share your comments with us!

For questions regarding AEP's Corporate Accountability Report or sustainability initiatives, please contact:

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Melissa Tominack
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Material Sustainability Issues

In our view, reporting on AEP's "sustainability performance" is just as important like financial disclosure, and benefits investors and other stakeholders, including business partners, suppliers and capital providers.

The evolution of corporate sustainability disclosure and reporting has become more detailed and complex, as stakeholders demand deeper levels of transparency. Stakeholders want to know more about the direct impacts of AEP's business, as well as broader social, environmental and governance (ESG) issues and trends. Because sustainability considers a broader scope of actions and issues, our approach to integrated reporting is one way we emphasize the connections between financial and nonfinancial performance, as well as demonstrate a high degree of transparency.

Understanding which issues are most important to AEP and our various stakeholders also helps us to identify potential operational and strategic risks, and issues such as license to operate, regulatory requirements and brand value. We also take an industry view of priority issues. In 2017, the Electric Power Research Institute (EPRI) published its second report on Priority Sustainability Issues for the North American Electric Power Industry (which AEP participated in).

Also in 2017, AEP engaged with Datamaran, a business intelligence tool using big data and artificial intelligence, to help us identify and prioritize material issues by scanning the competitive, regulatory and media landscape. A focus group of internal and external stakeholders validated the universe of issues and shared their perspectives on relative importance, based on stakeholder interest, regulatory and policy trends, and societal and business imperative.

Stakeholder insights are being analyzed through the lens of AEP's risk framework to help us categorize risk impacts and/or opportunities based on six sub-categories: reliability, compliance and legal, reputational, financial, safety, and strategic. Our analysis is also informed by our own ESG business intelligence gathering, peer company/industry research and stakeholder interviews and/or surveys.

Preliminary results indicate internal AEP stakeholders see Workforce Safety & Health, Data/Cyber Security and a Clean Energy Transition strategy as most important, while external stakeholders see Electricity Efficiency, Stakeholder Dialogue & Engagement and Climate Change Strategy as most material. What is commonly important to all stakeholders is that we address climate change and execute a strategy to transform our business toward a clean energy future.

When complete, the analysis will help inform our ongoing strategy for reporting, risk management and stakeholder engagement. In addition, the material issues analysis will also provide context for development of our new sustainability goals, which link strategy with operations and financial performance measurement.

2018 Priority Issues:

Sustainability Pillar	Issues
Environmental	Air Emissions Clean Energy Transition Electricity Efficiency Energy Reliability and Resilience Environmental Performance Greenhouse Gas Emissions Sustainable Procurement Practices Waste Water
Social	Community support and economic development Employee safety and health Engagement and collaboration Job satisfaction Public safety and health
Economic	Economic viability of electric utilities Energy reliability Energy affordability Skilled workforce availability

Global Reporting Initiative

AEP's 2018 Corporate Accountability Report was prepared according to the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 4 (G4), and developed in accordance with a core adherence level. The GRI guidelines provide a voluntary reporting framework used by organizations around the world as the basis for sustainability reporting. We are using the G4 standards, as well as the Electric Utility Sector Supplement, for reporting on industry-specific information.

In 2016, GRI migrated from being a voluntary framework to a set of standards. AEP is not reporting against the standards in this report. We will evaluate the use of the new standards and determine how to apply them in the future to our already robust disclosure.

- AEP's 2018 GRI Report
- AEP's 2017 GRI Report
- AEP's 2016 GRI Report
- AEP's 2015 GRI Report

Carbon Disclosure Project

AEP's commitment to transparency includes responding annually to Carbon Disclosure Project (CDP) surveys on carbon, water and supply chain. We have been reporting to CDP for more than a decade on the carbon survey and have participated in the water survey since it began. These surveys are important to some of our stakeholders, including investors.

CDP is an international, not-for-profit organization providing a global system for companies and cities to measure, disclose, manage and share vital environmental information. To ensure easy access to our responses for our stakeholders, we are providing a three year archive of our CDP reports.

2017:

- Carbon Disclosure Project - AEP's 2017 Response (PDF)
- CDP Water Disclosure Project - AEP's 2017 Response (PDF)
- CDP Supply Chain - AEP's 2017 Response (PDF)

2016:

- Carbon Disclosure Project - AEP's 2016 Response (PDF)
- CDP Water Disclosure Project - AEP's 2016 Response (PDF)
- CDP Supply Chain Disclosure Project - AEP's 2016 Response (PDF)

2015:

- Carbon Disclosure Project - AEP's 2015 Response (PDF)
- CDP Water Disclosure Project - AEP's 2015 Response (PDF)
- CDP Supply Chain Disclosure Project - AEP's 2015 Response (PDF)

2014:

- Carbon Disclosure Project - AEP's 2014 Response (PDF)
- CDP Water Disclosure Project - AEP's 2014 Response (PDF)
- CDP Supply Chain Disclosure Project - AEP's 2014 Response (PDF)

EEI ESG Pilot

AEP is among several Edison Electric Institute (EEI) member companies piloting the voluntary environmental, social, governance (ESG) and sustainability-related reporting template for investors. This voluntary effort is in response to the desire for information from investors and other stakeholders. The template is consistent across the electric sector in terms of accessibility, content, timing, and presentation. The template includes both qualitative and quantitative information, consisting of five focus areas: governance, strategy, portfolio, emissions and resources.

The template was developed by EEI under the guidance of an ESG/Sustainability Steering Committee and an ESG/Sustainability Investor Group. AEP is a member of the EEI ESG/Sustainability Steering Committee and the GHG Subcommittee.

“We are transforming AEP in a world that is in the midst of a massive social, economic, technological and connectivity evolution that will influence how we do business in the future. By 2022, our goal is to “be digital” – to change the way we organize, behave and operate to remain competitive, better serve our customers and create sustainable value.”
-Nick Akins, *Chairman, President & Chief Executive Officer*

ENERGY & TECHNOLOGY
PERFORMANCE SUMMARY

Renewable Energy

We invite customers to join us in creating solar solutions that are low-cost and provide universal access to all customers.

Grid Modernization

At AEP, we understand that the growing demands of the 21st century economy will require smart, comprehensive and sustainable infrastructure solutions.

Sustainable Electricity

Today's age of technology, innovation and disruption is transforming the electric industry. A changing fuel mix, falling power prices, increasing demand for renewables, the surge of distributed energy resources, and a deeper focus on cybersecurity and resilience are the catalysts for change. We have to be agile, innovative and more efficient to respond to this rapidly changing environment and stay relevant to our customers. We see sustainable electricity as being cleaner, technologically advanced, cost-effective, and efficient.

We are diversifying our resource mix to serve our customers' needs, with an eye to the future of an electrified economy – the use of electricity to power buildings, transportation systems and industrial processes. Our investments to modernize the grid, making it more secure, reliable and resilient, will enable us to deploy advanced technologies to seize new opportunities for growth. As we make this transition, we are reducing our environmental footprint – including carbon dioxide (CO_2) emissions.

The leading energy company of tomorrow will create new opportunities through diversified service offerings, efficiency gains and access to new markets, positioning us for sustainable growth. Our vision for a sustainable electricity future means:

- Redefining our relationship with our customers
- Building a more intelligent network to enable two-way flows of power and information
- Meeting the challenge of a changing workforce and adapting to the future of work
- Helping customers use energy more efficiently
- Diversifying our resources
- Strengthening the security of our assets and information

When we think about sustainable electricity, we look across the value stream to include fuel resources as well as transmission and distribution, energy efficiency, advanced technologies such as battery storage, distributed resources and data analytics that give us the information we need to proactively operate and maintain the grid more efficiently. That's what our "all of the above" strategy is all about. At the center of this is our commitment to deliver an exceptional customer experience.

Moving toward a clean energy economy must be managed carefully to protect the reliability and resilience of the electric grid. At the same time, we envision a future where electrification across industry sectors creates new opportunities for economic and business growth, fewer CO_2 emissions economy-wide, greater transportation mobility and optimization of the grid for all resources and technologies.

While this transformation presents extraordinary opportunities for innovation and growth, it also carries risk and responsibility. The traditional utility business model doesn't accommodate this new paradigm shift. We need new, forward-looking policies that allow us to keep pace with today's environment.

Energy Transformation

The issue of sustainable electricity has been a topic of discussion with our stakeholders for more than a decade. These discussions have included investors, customers, regulators, environmental groups, credit rating agencies, lenders and public policymakers, among others. Stakeholders want to know about AEP's strategy for transitioning to a cleaner energy future.

They ask us about resource diversity, advanced technologies that enable more efficient use of energy, regulations and public policies that could affect future operations or investments, and our plan for a modern, smarter infrastructure that empowers customers and creates a more resilient and robust system. Across the board, the question we are asked most frequently is whether we are sufficiently prepared for the transition to a cleaner energy economy.

Our first obligation is to serve our customers with safe, reliable, reasonably priced electricity and to maintain the reliability and resilience of the power grid. AEP's current business strategy and resource plans reflect a comprehensive and diverse plan to meet those needs efficiently and cost-effectively. Our plan includes:

- Near-term investments in renewable energy within and outside of our traditional service territory
- Technology deployment (e.g., energy storage)
- Modernization of the grid to optimize all resources and technologies with significant investments in our transmission and distribution systems
- Increased use of low-carbon-emitting generation resources, such as natural gas
- A variety of ownership options such as Purchased Power Agreements (PPAs)
- Advancement of our integrated resource plans with regulators

- Energy efficiency and savings through technology, load management and conservation programs on both sides of the meter
- Demand response programs
- Increased integration of distributed resources, including community and large-scale renewables
- Optimization of our existing generating fleet
- Support for advancing low-carbon fossil technologies

AEP has already made significant progress in reducing carbon emissions, from our early commitment as a founding member of the Chicago Climate Exchange. In February 2018, AEP announced new CO_2 emissions reduction goals – to reduce CO_2 emissions from AEP generating facilities by 60 percent from 2000 levels by 2030; and a longer-term goal to reduce CO_2 emissions from AEP generating facilities by 80 percent by 2050, including our plan for achievement.

These goals reflect our current business strategy but will challenge us as our operating environment evolves. A combination of factors gives us confidence in our ability to achieve these reductions, including an aging coal fleet, our growing investments in clean energy and the potential of new and emerging technologies to make the power system more efficient, more decentralized, fully integrated and digitized. Read more about this in American Electric Power: Strategic Vision for a Clean Energy Future.

Resource Planning & Diversity

Our vertically integrated utilities are obligated to have an adequate supply of generating capacity and energy to meet their customers' needs. To meet this obligation in a cost-effective manner, they engage in long-term resource planning. AEP's planning process helps our states plan their energy and capacity needs over time and considers available resource and market options to achieve the right mix of resources at reasonable costs for our customers.

Integrated Resource Plans (IRP) provide a snapshot of a potential future generating mix, based on today's assumptions. An IRP is not a commitment to a specific course of action, as the future is uncertain and decisions relating to AEP's generation resources are subject to regulatory approval. Rather, it is a roadmap that shows the amount, timing, cost and type of potential future resource additions that meet the customers' future resource needs at a reasonable cost.

Our publicly filed IRPs use a planning horizon of 10 to 20 years. They demonstrate how we will meet customer demands for reliable and affordable energy and allow us to estimate future emissions from our generation resources. Our current plans project that we can achieve a 60 percent reduction in CO_2 emissions from 2000 emission levels by 2030 by focusing on near-term investments in renewable energy, and incorporating an assessment of potential future carbon costs and expected lives of our generating resources in all of our planning and investment decisions. The potential for carbon regulation has been part of our IRP process for many years and provides an important market signal when we are determining resource needs and costs.

To develop our IRPs, we systematically evaluate and balance multiple issues, including the increasingly complex existing and pending environmental regulations, technology advancements, changing pricing fundamentals, load growth forecasts, energy efficiency advancements, growth in customer-adopted distributed resources and other complexities. Many IRP processes also include stakeholder outreach.

Once an IRP is developed, it is filed with the state regulatory commission. In some states, the commission will approve the IRP, determining that the plan is reasonable and in the public interest for its intended purpose. AEP's resource planning, as reflected in our IRPs, sets a clear path forward to reducing our carbon footprint.

Renewables

In 2017, more than half of new generation sources brought online in the U.S. were renewables, according to the U.S. Energy Information Administration (EIA). Historically, hydroelectric power provided the largest share of renewable energy in the U.S. If the growth of wind generation continues as projected, it will surpass hydroelectric power in 2018 for the first time.

Renewable energy is an important part of our strategy for a clean energy future. Our new sustainability goal is to increase regulated renewable energy on our system by approximately 8,000 MW (per our integrated resource plans and pending regulatory approval) by 2030 and continue to expand competitive, contracted renewables. This goal supports our energy transition sustainability goals and directly supports our carbon reduction goals.

AEP is further developing its renewable portfolio within our Generation and Marketing business segment. Activities include working directly with wholesale and large retail customers to provide tailored solutions based upon market knowledge, technology innovations and deal structuring. This could include distributed solar, wind, combined heat and power, energy storage, waste heat recovery, energy efficiency, peaking generation and other forms of cost-reducing energy technologies. AEP's Energy Supply team also develops and/or acquires large-scale renewable generation projects that are backed with long-term contracts.

Although many states set voluntary or mandated renewable

portfolio standards, the driving forces today behind renewable development are that it is economical and many customers want clean energy at a reasonable cost. And, they are asking their energy companies to work with them to make it happen.

As technology advances, we envision universal solar or wind projects that incorporate low-cost energy storage to minimize or smooth intermittency on the grid. We are working with some of our large customers on this type of approach because it can provide a dual benefit of clean energy and resilience for the customer and the grid.

For example, AEP is a member of the World Resources Institute's Clean Power Council. This group of utilities and some of their largest commercial and industrial customers are engaged in a two-year collaboration to enable rapid deployment of a low carbon energy supply through innovative and mutually beneficial solutions.

As technology advances, we envision universal solar or wind projects that incorporate low-cost energy storage to minimize or smooth intermittency on the grid.

We believe we are best positioned to meet our customers' clean energy needs. We are also committed to being agile to meet the different needs of all of our customers. It's important to AEP that we achieve the economies of scale that individual customers cannot, because we can ensure universal access to clean energy while realizing the same environmental benefits and providing more effective integration with the grid. We have the knowledge and expertise to cost-effectively and efficiently develop universal solar projects to expand access to clean energy to more customers rather than the few who can afford private solar panels. We are also forming strategic partnerships to build upon our expertise and offer more choices to our customers.

We invite customers, large and small, to join us in creating solar solutions that are low-cost and provide universal access to all customers, including those without the financial means or those who don't have "solar friendly" property.

Renewable Portfolio and Energy Efficiency Standards

Energy Efficiency Standards

ARKANSAS (mandatory)
0.9% of 2015 retail sales in 2017 and 2018;
1.0% of 2015 retail sales in 2019.

LOUISIANA (voluntary)
Voluntary 2-phase EE plan.

OHIO (mandatory)
22% reduction of retail electricity sales by 2027 phased in beginning in 2009.

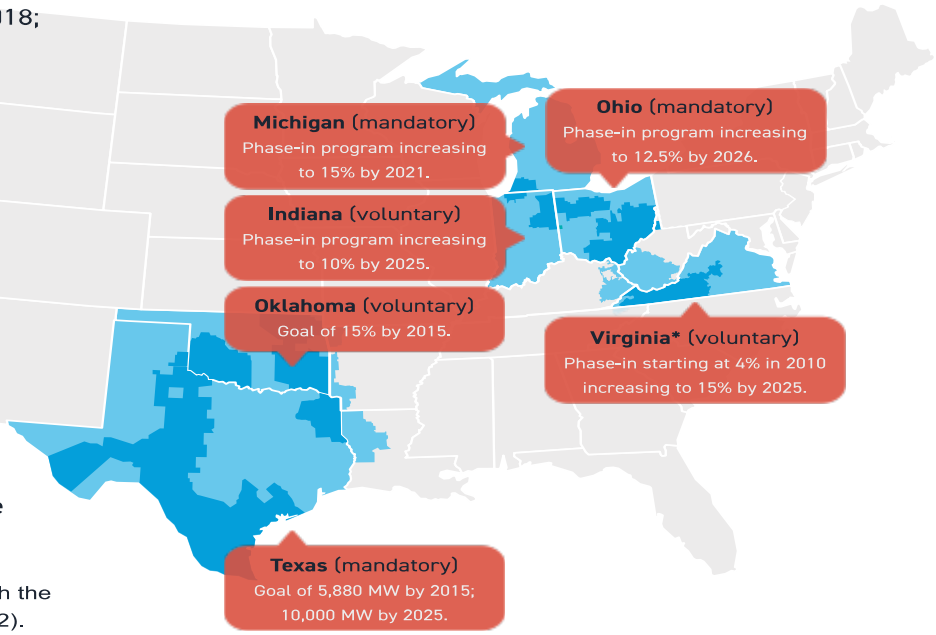
MICHIGAN (mandatory)
1% annual reduction of previous year retail sales in 2012 to through 2021.

TEXAS (mandatory)
30% reduction in annual growth in demand until the goal is equal to 0.4% of previous year peak demand.

VIRGINIA* (voluntary)
10% electricity savings by 2022 relative to 2006 retail sales.

Note: Indiana EE goals are determined through the Integrated Resource Planning Process (SB 412).

Renewable Portfolio Standards



There are currently no energy efficiency standards in Kentucky, Oklahoma, Tennessee or West Virginia.

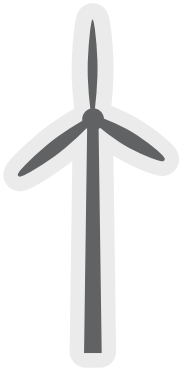
There are currently no renewable portfolio standards in Arkansas, Kentucky, Louisiana, Tennessee or West Virginia.

* Virginia: Senate Bill 966, which will take effect on July 1, 2018, requires APCo to make and/or seek approval for investments in certain renewable projects and energy efficiency programs.

Regulated Renewables

AEP took major steps in 2017 to expand its regulated renewable portfolio throughout its service territory. The largest project is the proposed Wind Catcher Energy Connection, which includes the acquisition of a 2,000 megawatt (MW) wind farm in the Oklahoma Panhandle and construction of a dedicated generation tie line to the Tulsa area, where the existing electrical grid will deliver "congestion free" wind energy to customers.

The Wind Catcher facility, being developed by Invenergy, will be the largest contiguous wind farm in America. If approved by regulators, the $4.5 billion project will deliver nearly 9 million megawatt-hours of new, low-cost wind energy per year and produce significant savings to more than 1 million customers in Oklahoma, Arkansas, Louisiana and Texas. Wind Catcher is expected to save customers more than $6 billion over the 25-year life of the wind farm. The Public Service Company of Oklahoma (PSO) will own 30 percent of the project, and Southwestern Electric Power Company (SWEPCO) will own 70 percent.



APPROXIMATELY
11,900MW
OF RENEWABLE GENERATION
INTERCONNECTED ACROSS THE U.S. VIA
AEP'S TRANSMISSION SYSTEM TODAY

PSO and SWEPCO held 17 open houses in communities along the initial power line study route in late 2017 and early 2018. Landowners, community members and elected officials were invited to in-person conversations with planners, engineers, routing experts and right-of-way and construction representatives. Over 1,500 people attended the open house events. Local field representatives continue to respond daily to inquiries from the public and attend local community events to provide more information about the many benefits of the project.

Wind energy is a great economic driver for this region of the country since it can coexist with agricultural production and provide farmers and ranchers with additional income for the use of their land. In some cases, this arrangement has helped customers save their family farms. Additional property tax revenues from new investments will provide rural communities with funding for local needs.

There are also clear environmental benefits. The wind farm would not produce carbon emissions and would not require water to generate electricity, which is important in a region that is often prone to droughts.

The project is subject to review by utility regulators in Oklahoma, Arkansas, Louisiana and Texas, as well as the Federal Energy Regulatory Commission. Regulatory reviews began in mid-2017 after PSO and SWEPCO filed applications with their state commissions. Hearings continue in the various jurisdictions and decisions are expected this spring. In February 2018, SWEPCO announced a settlement agreement with stakeholders in Arkansas, including the Arkansas Public Service Commission (APSC) staff, State Attorney General, Walmart Stores, Inc. and Sam's West, Inc. The agreement includes a number of project performance guarantees. A final decision by the APSC is pending.

In March 2018, PSO announced a settlement with Walmart that also includes performance guarantees. With the guarantees, SWEPCO and PSO are demonstrating their commitment and ability to deliver customer benefits from Wind Catcher.

AEP's Renewable Portfolio

Hydro, Wind, Solar & Pumped Storage	Owned MW	PPA MW	Total MW
AEP Ohio	—	209	**209**
Appalachian Power*	816	575	**1,391**
Indiana Michigan Power	36	450	**486**
Public Service Company of Oklahoma*	—	1,137	**1,137**
Southwestern Electric Power Company	—	469	**469**
Competitive Operations	443	175	**618**
Total	**1,295**	**3,015**	**4,310**

*Some RECs are monetized and not retired on behalf of AEP regulated customers.

As of February 2018.

In April 2018, SWEPCO announced a settlement agreement in the Louisiana Public Service Commission's (LPSC) review of the project. The agreement includes SWEPCO, the LPSC General Staff, Walmart and Sam's West, Inc. It includes several guarantees, including a cap on construction costs and qualification for 100 percent of the federal Production Tax Credits.

In April 2018, PSO, Oklahoma Industrial Energy Consumers (OIEC) and Walmart reached a settlement agreement on the project. Together, PSO, OIEC and Walmart are asking the Oklahoma Corporation Commission to approve the project under the terms of the settlement agreement, which imposes limits on construction costs, improves performance guarantees and guarantees customer savings over at the least the first ten years, even if natural gas prices stay at historically low levels and if federal tax changes occur that affect the economics of the project. Reviews are still pending in Texas and at the FERC as well.

In January 2018, Appalachian Power Company (APCo) began receiving 120 MW of new wind generation from a universal wind farm in Indiana, serving customers in Virginia and West Virginia. Through a 20-year purchased power agreement, the energy from the Bluff Point Wind Energy Center in Indiana increased APCo's total wind generation to 495 MW and is consistent with its forward-looking resource plans to serve customers.

In 2017, APCo laid the groundwork for its first photovoltaic solar generation project to be built in Rustburg, Virginia. The 15 MW Depot Solar Center will be built and operated by Coronal Energy. APCo signed a 20-year purchased power agreement to receive the energy from the solar array to serve its customers. The Depot Solar Center is expected to be operational by December 2020 and will be interconnected directly to APCo's system at its Rustburg substation.

This proposed project will support economic growth in that region from companies that want to receive energy from renewable energy resources. Customers will benefit through cost savings and reduced risk and exposure to the volatility in the PJM wholesale power market.

Today, APCo produces 1,900 gigawatt-hours of energy annually from wind- and hydro-power – enough power to supply 150,000 homes. APCO continues to evaluate opportunities to increase the amount of renewable energy it provides to serve its customers.

In 2017, AEP Ohio sought proposals for 400 MW of universal-scale solar energy generation resources and 250 MW of wind generation resources in the state. These proposals would help fulfill a 2016 agreement approved by the Public Utilities Commission of Ohio (PUCO), enabling AEP Ohio to pursue development of more solar and wind energy in the state, including 400 MW of solar and 500 MW of wind generation. All projects must be approved by the PUCO.

Customers in Ohio currently receive renewable generation service from the Wyandot Solar Farm near Upper Sandusky, Ohio, Fowler Ridge in Benton County, Indiana, and Timber Road in Paulding County, Ohio. Wyandot produces 10 MW of energy, and Fowler Ridge and Timber Road each produce about 100 MW.

These projects are reflective of customer requests for clean energy, as well as the economic development potential they provide for our communities. These examples also reflect some of the many transitions our operating companies are making toward a sustainable clean energy future.

Contracted Renewables

As AEP seeks to balance its resource portfolio, we are looking beyond our traditional service territory for investments. Our advantage is that we bring a low cost of capital and project structuring expertise to create solutions that are attractive to customers. This is especially appealing to companies, universities and municipalities that often have their own renewable energy goals.

Between 2018 and 2020, AEP intends to invest up to $1.2 billion in contracted renewables to provide the energy solutions that customers want and deliver a cleaner emission profile in the process.

Contracted Renewables

$1.2 Billion Capital Allocated 2018–2020

	AEP ONSITE PARTNERS An AEP Company	AEP RENEWABLES An AEP Company
Renewable Generation Asset Owner	✓	✓
"Behind-the-Meter" Energy Assets	✓	—
Universal Scale Energy Assets	—	✓
Key Customers	Schools, Cities, Hospitals and Commercial/Industrial Accounts	Utilities, Municipalities Corporations and Cooperative Accounts
Key Technologies	Distributed Generation, Renewables, Storage, Substations and Combined Heat & Power	Wind and Solar

We are doing this through our two energy subsidiaries – AEP OnSite Partners and AEP Renewables – that work with large users of energy to help them achieve their specific goals. Activities include working directly with wholesale and large retail customers to provide tailored solutions that include distributed solar, wind, combined heat and power, energy storage, waste heat recovery, energy efficiency, peaking generation and other forms of cost-reducing energy technologies.

OnSite Partners offers energy solutions for customers that could include applying a technology, such as combined heat and power, reducing emissions or lowering a customer's cost and energy profile. The company is building a portfolio of distributed energy solutions and currently owns projects operating in 12 states, including 57 MW of installed solar capacity, and another 19 MW of solar projects under construction.

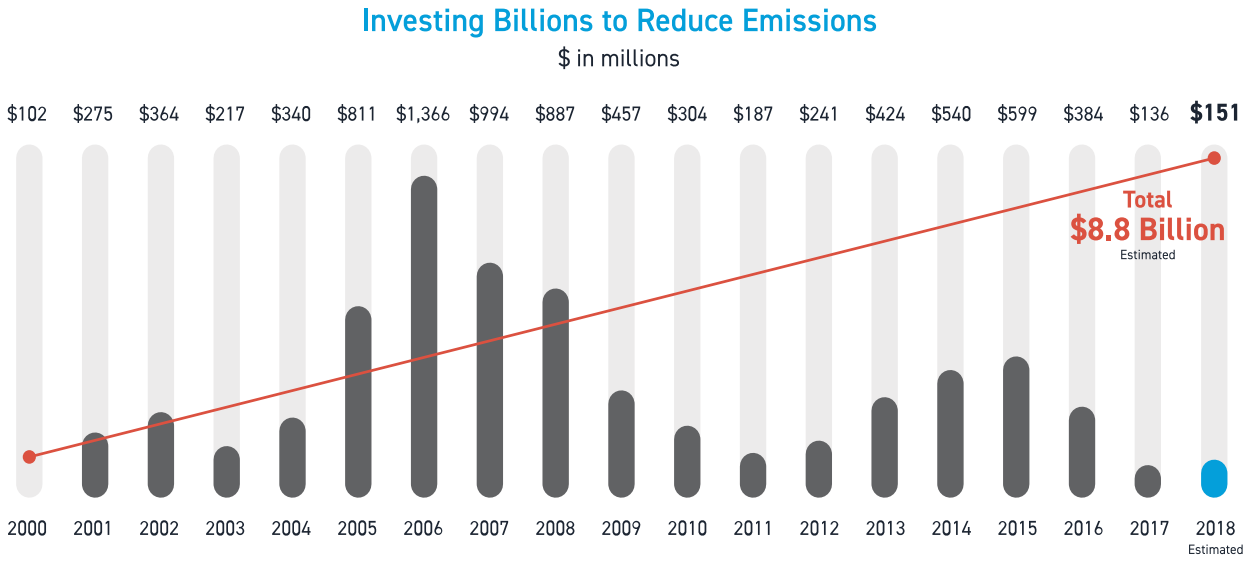
Many of the investments made by AEP Renewables and AEP OnSite Partners are outside of our traditional service territory, which allows us to grow beyond our regular footprint. For example, OnSite Partners has joined with the unregulated subsidiary of PNM Resources to invest in additional renewable generation solutions for customers and other public power entities, primarily in the state of New Mexico.

AEP Renewables invests in large-scale renewable projects backed by long-term contracts. During 2016 and 2017, AEP Renewables acquired 90 MW of solar projects in California, Nevada and Utah.

In early 2018, AEP's competitive business formed a joint partnership to repower 311 MW at two previously wholly-owned Texas wind farms. AEP now owns 79.9 percent of each wind farm.The non-affiliated partner contributed full turbine sets to each wind farm in exchange for a 20 percent interest in the partnership.

Coal Fleet Optimization

While coal is a smaller portion of our fuel portfolio today than in the past, it remains an important resource and will be for the foreseeable future. Flexibility in generation resources is important to managing the intermittency of distributed energy resources and maintaining grid reliability. In February 2018, coal represented 47 percent of AEP's generating capacity, compared with 70 percent in 2005.



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Coal-fueled generating facilities have the ability to store coal onsite to supply power as required. In contrast, natural gas generating facilities rely on gas as a "just in time" fuel that is delivered in real time, without backup, unless the plant has the ability to run on dual fuels. Even in that case, the backup supply is typically only a few days and does not equate to the resilience of coal inventory on site at a coal plant.

In a significant event that impacts grid reliability, we rely on a variety of resources to meet increased electricity demand. We know from experience that the system is best able to meet demand when there are diverse, resilient generation resources to draw from.

In the PJM region during the first cold spell in January 2018, coal and nuclear-fueled generation made up as much as 65 percent of the resources available and able to meet higher levels of power demand. Natural gas, which is increasingly used as a 24/7 resource for baseload power generation, provided less than 25 percent of the electricity load during that time.

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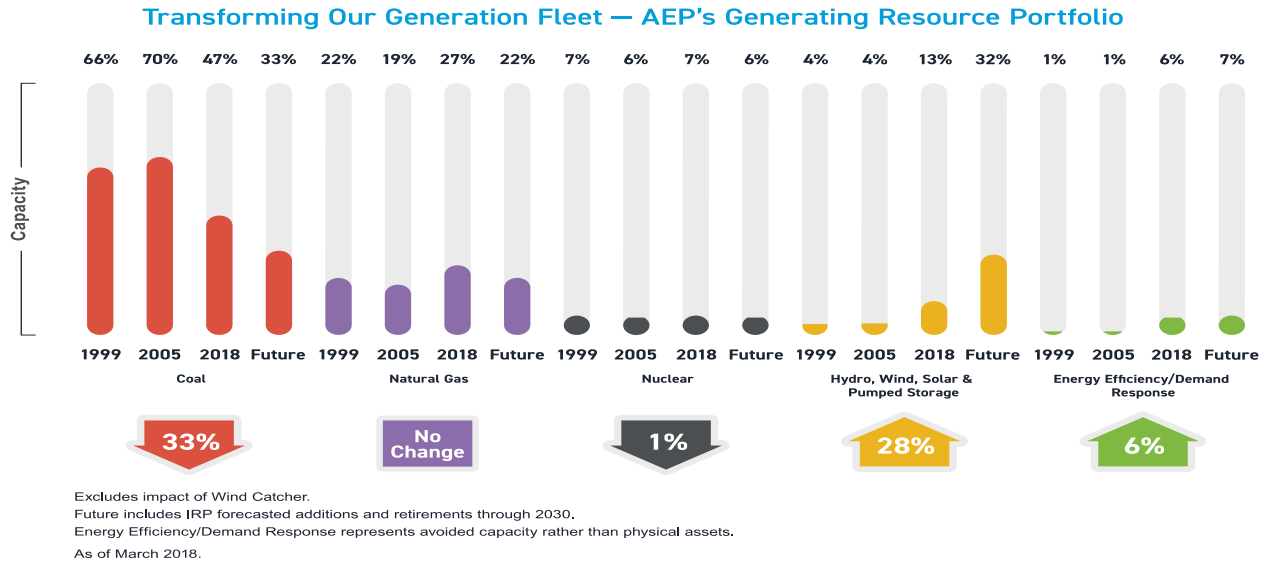
AEP has retired about 25 percent of its coal-fueled generating capacity. The remaining coal units in the fleet are equipped (or are in the process of being equipped) with environmental controls to assure compliance with current regulations. These units provide critical 24/7 capacity and other services to the grid that ensure reliable, uninterrupted electricity for customers. At the same time, the use of coal will change in the future. Lower natural gas prices, operational cost structures and seasonal capacity needs will dictate when coal units are dispatched to serve customers.

Because coal will continue to be important to a reliable, diverse and secure energy mix, we have planned additional investments

from 2018 through 2025 to comply with new environmental regulations that keep our fossil-fueled generating capacity available to serve customers.

However, we are managing the investments in and operation of our coal fleet differently than in the past, based on the remaining life of these important assets. By 2030, more than one-half of AEP's coal units will be within a decade or less of their typical useful life of 60 years. When they are retired, they will be replaced with cleaner forms of generation, including renewables and highly efficient natural gas. Until that time, we need these units to serve our customers for as long as is economically and operationally appropriate.



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Today, we manage the remaining coal fleet to reduce the need for capital investment over time, allowing us to optimize the operation of the units, as well as investment and depreciation rates. This approach delivers value to both customers and shareholders.

Although we have no plans to build another coal plant, we continue to monitor the development of technologies for carbon capture and storage and utilization. Should any of these technologies be demonstrated commercially to improve the scalability and cost-competitiveness of low-carbon fossil-fueled power generation in the future, we would want to have those technology options available for consideration.

To support development, demonstration and deployment of these technologies, the industry, along with the Electric Power Research Institute, the U.S. Department of Energy, technology suppliers and academia, is working to develop state-of-the-art processes, equipment and components, new metal alloys, alternative materials, and advanced manufacturing techniques, all of which could have beneficial impact on the industry.

Learn more about AEP's strategic vision for reducing carbon emissions

Natural Gas

In 2017, natural gas accounted for 31 percent of fuels used to generate electricity in the United States. According to the U.S. Energy Information Administration (EIA), natural gas has surpassed coal as the main fuel for electricity generation and will continue to grow its share of power production through 2050. AEP's consumption of natural gas to generate electricity by our regulated utilities in 2017 was down by 17 percent from 2016, largely due to higher natural gas prices, which caused natural gas plants to be dispatched less frequently. As natural gas becomes an increasingly important baseload resource for the future, price, availability and security of supply become higher priorities.

Natural gas is fundamental to our resource portfolio as we seek to diversify while maintaining the reliability and resilience of the power grid. As wind and solar capacity increases, they need a back-up source of power to ensure the grid operates uninterrupted. Natural gas provides the flexibility renewables need due to their intermittency. Natural gas is also cleaner than coal and is abundant.

Natural gas emits approximately 50 percent less carbon dioxide emissions compared with coal when burned to generate electricity. And high-efficiency combined-cycle natural gas plants can be built and operated with fewer environmental control systems than a coal-fueled plant. Since 2005, AEP has added over 3,000 MW of natural gas generating capacity to our portfolio, and we anticipate it will continue to grow.

We remain concerned that an overreliance on any single resource comes with great risk to the power grid and our customers. If our industry becomes overly dependent on natural gas generation and, at the same time, the transportation sector ramps up natural gas use and exports of domestic natural gas production continue, our customers will be more exposed to this historically volatile natural gas market. This is why we strongly advocate for an appropriate resource mix.

The deliverability of natural gas is critical, especially during peak demand periods and when variable resources, such as renewables, are not available. This is why several of our natural gas plants are connected to at least two pipelines or have alternative fuel capabilities. This gives us greater access to competitive supplies and reliable delivery. We continue to work with regulators to align the needs and interests of the gas and electric industries to gain more certainty and flexibility when procuring and scheduling natural gas for our units.

Currently, the majority of gas industry security issues (cyber and physical) are addressed through voluntary guidelines, which is concerning to AEP. The North American Electric Reliability Corporation (NERC) was created by FERC through the Energy Policy Act of 2005 as the protector of electric grid reliability and security, a function NERC takes very seriously. However, NERC currently does not have jurisdiction over the natural gas industry. As the electric industry becomes ever more reliant on the natural gas industry, the disparity in regulation is of growing concern.

Appalachian Power's Clinch River Plant began removal of the three precipitators at the plant that were installed in 1975 to remove more than 99 percent of dry ash from the exhaust gas produced by the Plant's coal burners. Two of the plant's three coal units have been converted to natural gas; one unit was retired in 2015.

Natural Gas – AEP System Plants

	2015	2016	**2017**
Total Delivered (billion cubic feet)	89.7	103.9	**86.3**
Average Price Per MMBtu of Purchased Natural Gas	$2.80	$2.77	**$3.37**

Nuclear and Hydroelectric Power

For decades, carbon-free electricity has been part of AEP's generating portfolio. Customers in several states benefit from AEP's operation of nuclear and hydroelectric generation.

Nuclear energy is one of the most reliable sources of electricity that is carbon-free. AEP's Donald C. Cook Nuclear Plant in Bridgman, Mich. can provide 2,278 MW of electricity when operating at full power. The plant's two units are located along Lake Michigan's eastern shore, producing electricity to serve our customers in Michigan and Indiana.

Cook's two units were originally designed for a 40-year life, but in 2005 the licenses were extended by 20 years to 2034 for Unit 1 and 2037 for Unit 2. At the end of 2017, Unit 2 entered its new 20-year license renewal period, after completing 40 years of reliable service to the region. In early 2017, Unit 2 completed a refueling outage that lasted for 89 days. In addition to refueling the reactor and performing regular maintenance and testing work, we replaced the main turbine and baffle bolts, which support internal components of the reactor vessel. In March 2018, Unit 2 began its twenty-third refueling outage.

A $1.16 billion Life Cycle Management (LCM) project was initiated to determine which components would need to be replaced for the longer plant life. Unit 1 turbines were replaced following a blade failure in 2008, so Unit 2's turbine replacement became the centerpiece of the 117 LCM projects.

Nuclear energy is one of the most reliable sources of electricity that is carbon-free. AEP's Donald C. Cook Nuclear Plant in Bridgman, Mich. can provide 2,278 MW of electricity when operating at full power.

The Cook Plant is part of an industry wide multi-year strategy to transform the industry and ensure the plant's long-term viability for customers and to protect the environment. The strategy, called Delivering the Nuclear Promise, identifies efficiency measures; adopts best practices; and applies new technology solutions that improve operations, reduce costs and drive regulatory and market change to ensure nuclear energy facilities are fully recognized for their value and don't succumb to premature reactor

retirements.

Another clean energy resource serving our customers for more than a century is hydroelectric power. AEP has 884 MW of hydro and pumped storage on its system, serving customers in five states.

Energy Efficiency & Demand Response

Today, the efficient use of energy goes beyond turning the lights off, changing light bulbs or turning down the thermostat. We view energy efficiency as a readily deployable, relatively low-cost and clean energy resource that provides many benefits to customers and the environment.

Energy efficiency reduces consumption by incorporating energy efficiency improvements in customers' homes and businesses; the trade-off is the up-front investment in building, appliance and/or equipment modification in upgrading or switching to new technology. Beyond changing human behaviors, we are also deploying smart technologies such as Volt VAR to improve efficiency on the distribution grid. And we are exploring new ways to manage load on the distribution system that are more efficient, can delay the need for new generation sources and provide incentives to customers. We are currently piloting new customer programs to test new technologies.

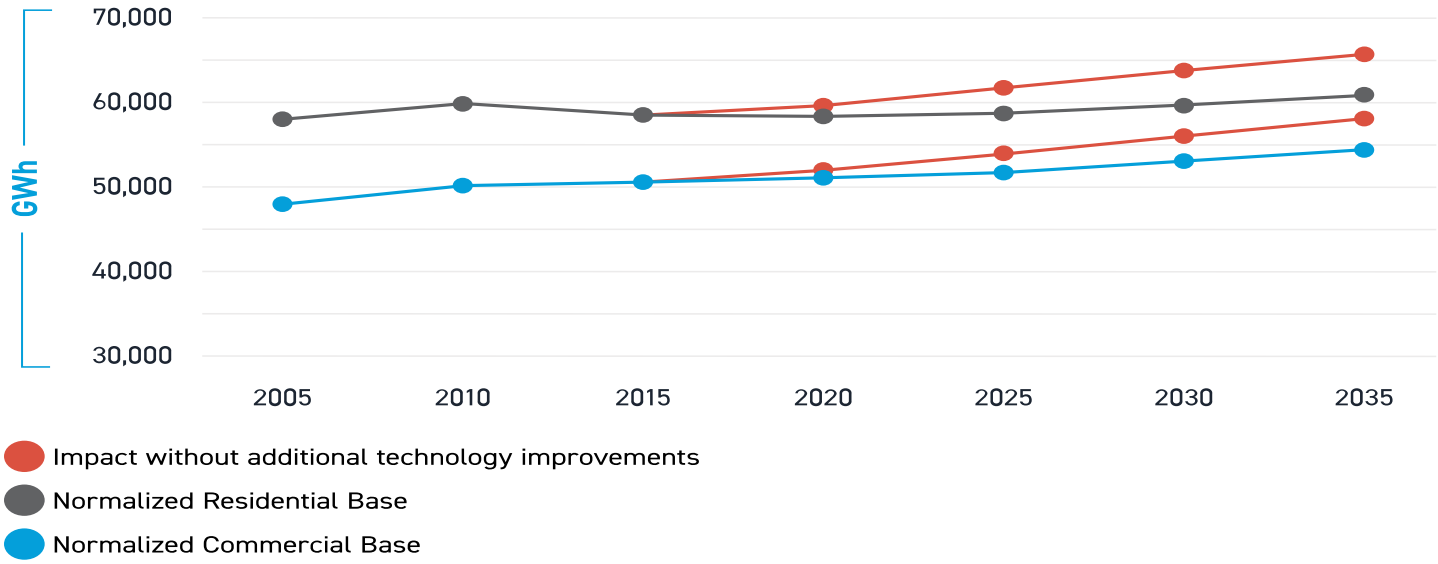
Residential customers of AEP Ohio who have smart meters can participate in a home energy management program that allows them to manage their energy use in real-time. Through the *It's Your Power* program, customers can download an app that allows them to automate and control smart devices as well as receive minute-by-minute updates on the energy their home is using. Other benefits of the program include the ability to remotely adjust their thermostat, set a budget goal for electricity usage and pay their bill online.

In January 2018, AEP Ohio launched a new online energy efficiency marketplace, a one-stop shop for its customers to save energy, money and time. The AEP Ohio Energy Efficiency Marketplace analyzes data on more than 50,000 energy-efficient products, such as appliances, televisions, smart thermostats and water heaters. Customers can go online and find prices, consumer ratings, energy efficiency ratings and product details in one convenient spot to help them find the most efficient products at the lowest prices.

IM Home, Indiana Michigan Power Company's innovative home energy management program allows customers to use a mobile app and Wi-Fi-enabled thermostat to control their energy use at any time. The program can automatically pick the best time to cool the home, using the least amount of energy, according to the customer's comfort preferences. The smart thermostat program gives customers year-round energy savings.

IM Home began in Indiana in May 2017 and has been expanded to Michigan customers. As we analyze results from these initiatives, we are taking a hard look at the long-term viability of the different technologies that are in the market today, many of which are not yet proven. While technology is critical to our digital future, we have a responsibility to invest in the right technologies that support the grid and serve customers' needs. However, we recognize there are risks associated with these investments, and we manage them carefully. To create the future we envision and that enables the highest customer value, risk and reward go hand-in-hand.

Energy Efficiency Technology Impacts to AEP's Sales Forecast



This chart reflects forecasted impacts of energy efficiency on residential and commercial sales within AEP's service territory. The red line represents what our residential and commercial sales would have been if not for the increasing energy efficiency that is assumed will occur.

2017 Energy Efficiency Results

Today, AEP offers customers over 115 energy efficiency programs. In 2017, these programs were credited with more than 1 million megawatt hours (MWh) of energy reduction and more than 250 megawatts (MW) of demand reduction, with associated program costs of approximately $185 million.

Since these programs began in 2008, the energy efficiency programs we have implemented have reduced annual consumption by over 7 million MWh and peak demand by approximately 2,280 MWs. We estimate our companies have spent approximately $1.2 billion during that time to achieve these results.

We have also taken measures to reduce energy consumption in nearly 280 AEP office buildings and service centers. The kilowatt-hour (kWh) usage, when normalized for weather, was reduced by 32 percent in 2017 as compared to the 2007 baseline. The dollar savings from the reduced energy consumption was approximately $6.4 million in cost savings in 2017. We achieved these energy consumption reductions mostly through equipment investments, such as new lighting, heating and cooling systems, along with employee education.

In April 2018, the U.S. Environmental Protection Agency announced its annual ENERGY STAR® awards for businesses and organizations that have made outstanding contributions to protecting the environment through superior energy efficiency achievements. AEP Ohio and Southwestern Electric Power Company (SWEPCO) were recognized as ENERGY STAR Partner of the Year – Sustained Excellence winners. Public Service Company of Oklahoma (PSO) received the ENERGY STAR Partner of the Year – Energy Efficiency Program Delivery award.

2017 AEP System Energy Efficiency Results and Estimated Avoided CO_2 Emissions

Operating Company	Annual Energy Savings (MWh)	Annual Demand Savings (MW)	Avoided CO_2 Emissions (Metric Tons)
AEP Ohio	500,000	73.5	485,000
AEP Texas	76,000	52.0	50,000
Appalachian Power	85,000	19.0	71,000
Indiana Michigan Power	170,000	30.0	132,000
Kentucky Power	25,000	4.0	28,000
Public Service Company of Oklahoma	110,000	77.0	71,000
Southwestern Electric Power Company	66,000	30.0	49,000
Total	**1,032,000**	**285.5**	**886,000**

In 2017, the Kentucky Public Service Commission suspended most of Kentucky Power Company's energy efficiency programs, pending a review of program costs. The suspension took effect in January 2018 and includes a monthly bill credit for customers. Kentucky Power previously was required to increase spending on energy efficiency to $6 million annually on all of its energy efficiency programs. The PSC ordered the discontinuation of that obligation while it reviews the cost-effectiveness of the program. Low-income programs were kept in place.

Demand Response

Demand response supports reliability of the power grid by helping to reduce load during peak demand periods. Demand-side management includes company-sponsored programs and rate structures that encourage customers to reduce energy consumption during these peak demand periods. Within each of AEP's state-integrated resource plans, demand-side resources and other smart grid-related projects such as Volt VAR Optimization (VVO) are modeled on the same economic basis as supply-side generating resources.

Peak demand is reported in megawatts and is the amount of power used at the time of maximum power usage. Peak demand periods vary across AEP's service territory. For example, Appalachian Power Company's system peak generally occurs on a winter weekday morning, when electric heating and appliance usage are happening at the same time that commercial equipment and industrial machinery are ramping up electric use. Public Service Company of Oklahoma's system, on the other hand, peak typically occurs in the afternoon of a summer weekday, as people get home from work or school and increase their use of air conditioners and fans while the demand from commercial and industrial customers remains high.

Historically, as peak demand grows with the economy and population, new capacity would ultimately be needed. AEP can defer building new power plants by developing interruptible contracts with customers to allow AEP to "interrupt" their power consumption during peak times in exchange for reduced rates.

Distributed Energy Resources

Integrating distributed energy resources (DER) into the grid presents both challenges and opportunities for the electric power industry. This requires changes to traditional business models, strategic partnerships and regulatory reforms – all while maintaining reliability and security of the grid. To fully optimize the power grid, we need to play a role in how these technologies are integrated.

DERs are smaller power sources that can work together – such as advanced renewable technology, small natural gas-fueled engines, turbines and fuel cells – to meet demand. Widespread deployment of DERs requires planning and coordination to integrate them with the grid. These are often deployed as demand-side technologies by our customers.

As power from more and more alternative energy sources enters the grid, we face significant operational challenges. These include maintaining grid reliability when voltage levels vary, and managing different interconnection standards that exist in different parts of the country. The power industry is focusing on how to balance load when excess power is generated and flows back through the grid from different technology interfaces.

AEP's Transmission, Distribution and Generation teams are collaborating to address these changing grid dynamics. For example, Transmission and Distribution are participating in discussions at the regional transmission organization (RTO) and industry level to address the opportunities and challenges that high penetration of DERs on the grid creates. Increasing amounts of DER can change how the distribution system interacts with the transmission system and may transform distribution systems into active sources for both energy and essential reliability services.

The number of net energy metering (NEM) customers in AEP's footprint is relatively modest but is growing. We continue to advocate for fair, equitable and sustainable solutions to NEM.

We need to understand and plan for these dramatic changes, which can alter the flow of power as well as the responses to various types of disturbances, so we can integrate them in the planning and operation of the grid. Existing processes in forecasting, modeling, operations, system protection and planning will all need review to adapt to changes that will occur as DER penetration increases.

Large industrial and commercial customers have been the early adopters of local generation, where energy managers want more control over their systems, lower costs and increased reliability of the power that drives their businesses and keeps them competitive. The economics of local generation, particularly private solar, continue to improve, increasing their adoption rate.

Examples of local generation systems in use by residential, commercial and industrial customers

Residential sector	Commercial and Industrial Sector
Solar photovoltaic panels	Solar photovoltaic panels

Small wind turbines	Wind
Natural gas fuel cells	Natural gas or biogas fuel cells
Emergency backup generators	Reciprocating internal combustion engines, including back-up generators
	Combined heat and power systems

Net Energy Metering

As distributed generation (DG) continues to grow, debate over the continued need for and structure of net energy metering (NEM) rules continues in both regulatory and legislative arenas across the country. The number of NEM customers in AEP's footprint is relatively modest but is growing.

At the end of 2017, 4,464 net metering (solar and wind distributed generation and other net metering) installations with a capacity of approximately 92 MW were on the grid in AEP's service territory. Most of them are private solar generators who have installed rooftop solar. The discussion focuses on the value of the grid and who pays to use it.

AEP continues to advocate for fair, equitable and sustainable solutions to NEM. We believe the policies around NEM should ensure that all customers pay for the grid services they use, thus ensuring that all customers pay a just and reasonable rate. We continue to review compensation policies and mechanisms in other states to learn what would work best for our customers.

State legislatures are beginning to take action on this complex electric rate issue. In Indiana, legislation that would phase out net metering in that state by 2047 was signed by the governor in May 2017. In January 2018, legislation was introduced in Kentucky to lower the amount paid to DG customers and to require them to pay their share to maintain the regional electric grid.

Electrification

Electrification of end-use technologies and services in industry, buildings and the transportation sector, combined with cleaner electricity from the grid, creates a clear pathway for a low-carbon future and universal access to clean energy. The road to electrification is complex and challenging, but the long-term reward is significant for the environment, society and business. Electrification technologies are impacting the grid and require a measured approach to ensure the technology and infrastructure are in place to meet customers' needs, as well as have the right policies and regulations in place to support them. AEP is working with technology and research partners, customers, policymakers and other stakeholders to understand the implications and opportunities of large-scale electrification as we transform to a digital economy.

AEP's current electrification program educates commercial and industrial customers about the benefits of electric technologies. It empowers customers to make more informed energy decisions that lead to better productivity, lower total cost of ownership, greater competitiveness, improved workforce safety and, in many cases, fewer environmental impacts.

While forklifts have historically used internal combustion engines and fossil fuels, electric technology advancements allow users to achieve substantial benefits.

In 2017, we partnered with the Electric Power Research Institute (EPRI) to create an Electrification Implementation Plan, based on the results of a previous market potential study. Through the study, we learned that four technologies present the highest market potential throughout AEP's service territory, providing significant benefits to customers. These include:

- **Infrared (IR) curing and drying** - IR is commonly used to dry textiles and paper products, heat metals and plastics, and dry and cure paint. Electrifying this process is more energy efficient and flexible in terms of achieving the desired heating intensity compared with using natural gas.
- **Pipeline compression** – Compressor stations for natural gas pipelines serve as a type of engine that compresses gas (increases its pressure) to provide the energy needed to move the gas through the pipeline. Electrification of compressors can improve efficiency and operations, as well as reduce air emissions.

- **Induction surface treatment** – Induction hardening uses electromagnetic fields to induce electric currents into metal, rapidly heating the steel and then rapidly cooling (quenching) it to increase hardness and durability. The power and frequency of the electromagnetic fields can be adjusted to regulate the depth and temperature of surface heating. Underlying metal layers remain unaffected.
- **Forklifts** – While forklifts have historically used internal combustion engines and fossil fuels, electric technology advancements allow users to achieve substantial benefits. In addition to being more energy efficient, they are better for the environment, allow service in challenging enclosed spaces, and reduce noise while increasing safety.

We are currently working with customers who have electrification opportunities as well as exploring additional electrification technologies that would benefit our customers, optimize the grid and provide growth opportunities for AEP.

Electric Vehicles

Our objective is to increase adoption of electric vehicles in our service territory and encourage EV charging that optimizes the use of the grid so that all customers benefit.

There is an electric mobility revolution underway that is reshaping business models, spurring more investment in new infrastructure and sparking new and innovative solutions to provide flexibility and resilience to the grid. Electric vehicles (EVs) are a crucial component of our future sustainable economy, and utilities are uniquely positioned to support their use.

EV adoption and the use of electric vehicle supply equipment (EVSE) (e.g., chargers) are increasing. EV adoption at-scale promises substantial environmental and economic benefits for society. It will also have substantial impacts on many major industries, including the electric utility industry. Increased EV penetration will bring challenges and opportunities for AEP, such as the need to manage operational grid impacts, and the creation of a new frontier of engagement with customers. How AEP addresses these issues can help to realize our goals of increasing the number of electric vehicles in our service territories, and incentivizing EV charging to optimize the grid.

To date, the market has not been able to develop the EV infrastructure needed on its own. That's why we think AEP is well-positioned to play an important role in supporting EV market development. Lack of charging infrastructure is a critical barrier to the electrification of transportation. We believe that policymakers can leverage the inherent and unique attributes and capabilities of regulated electric utilities to help jumpstart and support development of EV charging infrastructure.

AEP must maintain the distribution system to meet the needs of an expanding EV marketplace. We are uniquely positioned to manage impending demand impacts on the grid.

AEP EV/EVSE initiative objectives:

Customer Engagement Objectives:

- Provide a vehicle charging **customer experience that is valuable, positive, and low-stress**.
- **Support mobility customer transportation needs** with respect to sustainability, energy efficiency, cost, etc.
- Develop and provide **energy solutions and benefits that are shared by all customers**.

Strategic/Operational Objectives:

- Enhance our strategic position as the **enabler and integrator of energy solutions** into the grid.

Business Model Objectives:

- Future load growth will help **offset the need for rate increases**.
- Develop programs and price signals to optimize the programs.

AEP must maintain the distribution system to meet the needs of an expanding EV marketplace. We are uniquely positioned to

manage impending demand impacts on the grid. AEP can optimize existing fixed grid assets by managing load impact through offering our customers options and rates that encourage the efficient use of the grid. An added benefit would be improving reliability and resilience. These efforts can also be efficiently integrated with ongoing grid modernization activity. The result of such integration not only reduces costs for the individual customer but for all of AEP's customers.

Broader EV adoption represents potential for all areas served by AEP, from regulated states where we serve customers with fully integrated electric service, to states where our distribution grid serves as the platform integrator. The goal is to simplify the charge-at-home options and enable the most economical charging for customers. To accomplish these goals, we are actively testing technology solutions and time-of-use pricing options that would manage the charging of EVs to optimize the use of the grid. We believe we can provide these benefits cost-effectively for our customers, using the smart grid platform that we've already built to support it. AEP first began exploring and learning about EVs and EVSEs nearly a decade ago. In 2011, AEP Ohio and Walmart installed the first free public charging station in Columbus to learn about the impacts it would have on the grid. More recently, thanks to the Smart City initiative, central Ohio continues to be the primary incubator for EV and EVSE technologies in our service territory.

In April 2018, AEP Ohio received regulatory approval to implement an EV charging station rebate program, among other advanced technologies, as part of its Electric Security Plan. Created in coordination with the Smart Columbus initiative, the program will offer incentives for up to 375 charging stations. AEP Ohio requested the implementation of a rebate program to encourage the installation of fast charging stations at government and non-government owned properties, workplace charging, multi-housing-unit buildings and low-income neighborhoods.

We look forward to working cooperatively with our customers, regulators and technology partners to develop the EV charging infrastructure that supports increased adoption of EVs.

Following a legal settlement between Volkswagen and the federal government over violations of the Clean Air Act, Volkswagen agreed to a settlement that included $2 billion to support zero-emission vehicle investment across the U.S. and an additional $2.7 billion allocated to the states for environmental mitigation projects (a portion of which would be eligible for states to support EV adoption and EVSE infrastructure investment in their states). AEP is engaging with stakeholders and working with our states to plan for the deployment of EV charging infrastructure to take advantage of this resource.

With regard to the use of settlement dollars, we are advocating for sufficient funding of EVSE infrastructure, the equitable allocation of those funds across states, support of transportation corridor EV fast chargers, involvement of utilities in planning where to locate chargers, and access to data to help plan and operate the grid to support this charging infrastructure.

Grid Reliability & Modernization

AEP began laying the groundwork for a modern grid with our smart grid initiative about a decade ago. Today, we are building upon our legacy infrastructure and modernizing it to create a system that is accessible to all, an optimizer of all resources and technologies, and an enabler of innovation. Energy infrastructure modernization is necessary if we are to realize the many potential benefits of the smart grid. For example, a smart grid supports and integrates renewable and distributed energy resources, empowers customers with real-time information about their energy usage, and helps energy companies manage the system more efficiently while improving reliability.

The modern grid provides the necessary infrastructure to implement technological advancements in generation, transmission and distribution. These advancements are required to become the leading utility of the future and improve the overall customer experience. This includes making the system smarter and more efficient to better serve our customers' needs. As we deploy these foundational technologies, we are strengthening the grid's reliability and resilience. For example, AEP continues technology advances, including smart substations, smart meters, self-healing distribution, more efficient transmission, and smart generation that optimizes energy production.

Today, we are building upon our legacy infrastructure and modernizing it to create a system that is accessible to all, an optimizer of all resources and technologies, and an enabler of innovation.

Reliability Performance

The electric power grid is essential to the economic vitality and well-being of society, making reliability of the system a social priority. It is our responsibility to operate and maintain a reliable, secure and resilient grid for all customers that meets these needs.

Overall, the reliability of the power system is excellent. According to reliability metrics measured by AEP and the industry, electricity is available to our customers, on demand, more than 99 percent of the time.

However, there are times when reliability does not measure up to our customers' expectations. Factors such as falling trees and tree limbs, severe weather and aging infrastructure do cause outages that, depending on the event, can have negative impacts on our customers. We work continually to prevent this from happening, but that is not always possible. The investments we are making in the transmission and distribution system improve reliability for customers and operating efficiency for AEP while preparing the system for new technologies of the future.

With the advent of new technologies such as energy storage, we must reconsider the antiquated view that customer connections only means the distribution service alone. A broader definition is needed to include other technologies that enhance customer reliability even if a distribution outage occurs.

Annual AEP Systemwide Reliability Indices

	2015	2016	2017
SAIFI[1]	1.468	1.428	**1.389**
SAIDI[2]	229.5	216.3	**215.0**
CAIDI[3]	156.3	151.5	**154.8**

[1] System Average Interruption Frequency Index is the average number of sustained interruptions experienced by customers in a year.

[2] System Average Interruption Duration Index is the average number of minutes customers are without electric service in a year.

[3] Customer Average Interruption Duration Index represents the average time required to restore service after a sustained interruption occurs.

Reliability Metrics

There are three key metrics by which we measure the reliability of our system.

- The System Average Interruption Duration Index (SAIDI) measures the minutes of an outage that an average customer experiences in a given year. Our performance in 2017 improved by 10.6 percent compared with 2016 (excluding major events). Vegetation growing or falling into power lines accounted for 33 percent of SAIDI results, while 19 percent was related to distribution line equipment issues.
- The System Average Interruption Frequency Index (SAIFI) measures the number of power interruptions per year experienced by customers. During 2017, SAIFI improved 2.7 percent compared with 2016. Again, vegetation and equipment failures were major contributors to performance.
- The Customer Average Interruption Duration Index (CAIDI) reflects the time it takes to restore power. In 2017, CAIDI deteriorated by 2.2 percent compared with 2016. The severity of damage to our equipment most often dictates the length it takes to restore service.

The first thing a customer wants to know when the lights go out is when they will be on again. Being able to provide customers with a global estimated time of restoration (ETR) is essential to customer satisfaction. According to the J.D. Power Residential Electric Survey, customer satisfaction increases if power is restored before the ETR. Similarly, it decreases if power is not restored by our estimate.

During the past two years we have developed new tools to make it easier for our customers to report an outage when it occurs and to track estimated times for service restoration. For example, customers can get information about their ETR by text message or email if they sign up for their utility company's alerts. The ETR alert system is giving customers better information about service restoration timing. Because it is so important to our customers, we are constantly seeking ways to keep customers apprised about outages and to improve the ETR.

In December 2017, AEP debuted a new mobile app. By downloading it onto their smart phones, customers can pay their bill and report and monitor power outages. The app is one example of how AEP is working to make it easier for customers to interact with us. It also provides an important channel for reporting and sharing information during outage events.

In addition to the app, customers can access an online interactive map that makes it easier to get detailed information about power outages. The outage map features:

- Greater transparency about restoration progress for customers, media and community leaders who need this information.
- Easily accessible and more detailed information, such as unplanned power outages, always available, without the need to log into a customer account.
- Interactive maps that are mobile-friendly and allow users to zoom in to see power outages by street or neighborhood. Outages are displayed as color-coded icons and area polygons. Users can search for details by street, city, zip code or

county, without logging in.

Vegetation Management

Managing vegetation in and along our rights-of-way (ROW) underpins our strategy for maintaining transmission and distribution system reliability.

Vegetation-related outages and equipment failures are among the biggest challenges to AEP's service reliability. AEP manages the trees and vegetation around power lines using a combination of performance-based (such as targeting low-performing circuits) and cycle-based maintenance strategies. Maintaining a regular tree-trimming cycle is a significant expense that directly affects customer bills and satisfaction.

During the past five years, AEP has spent more than $1.64 billion in vegetation management, including $343 million in 2017. The issue of reliability has prompted several states to consider or implement shorter intervals between tree trimming programs.

Trees from outside of the traditional ROW are a major threat to reliability. When a heavy tree hits a power line, the poles and wires are generally broken, extending the time it takes to restore service to customers. In 2017, falling trees accounted for approximately 22 percent of the total AEP customer minutes of interruption and, over the past five years, we have seen the number of these outages increase by 15 percent.

Vegetation growing into and trees falling onto power lines are the major cause of power outages which is why managing vegetation in and along our rights-of-way (ROW) is part of our strategy for maintaining system reliability.

The increase is primarily driven by environmental issues that are weakening or killing trees. For example, the ash tree population in Ohio has been decimated by the emerald ash borer insect. Dead ash trees have been a contributing factor to a 65 percent increase in Ohio's outages due to trees from outside the ROW over the past five years. To help control and prevent the damage that trees outside of the ROW can cause, we work to identify and remove trees that are dead, dying or leaning precipitously toward our lines. In 2017, approximately $75.8 million was dedicated to tree removals; and in the mountains of West Virginia, an additional $5.8 million was dedicated to widening "up-the-hill" ROWs in targeted areas above transmission lines.

We are always looking for more efficient, safer, cost-effective and environmentally friendly ways of managing vegetation in our ROWs. The terrain in some parts of our service territory is particularly challenging because it is so mountainous. Appalachian Power regularly uses helicopter contractors for aerial spraying of herbicides, inspections and tree trimming using an aerial saw. In the rugged mountain terrain of McDowell County, W.Va., helicopter use not only saves the time of driving from ridge to ridge, it's a lot safer for workers because many of the older structures put our employees who must climb them at risk. In addition, helicopter use impacts the environment a lot less because it eliminates the need to build access roads to each structure in the mountains.

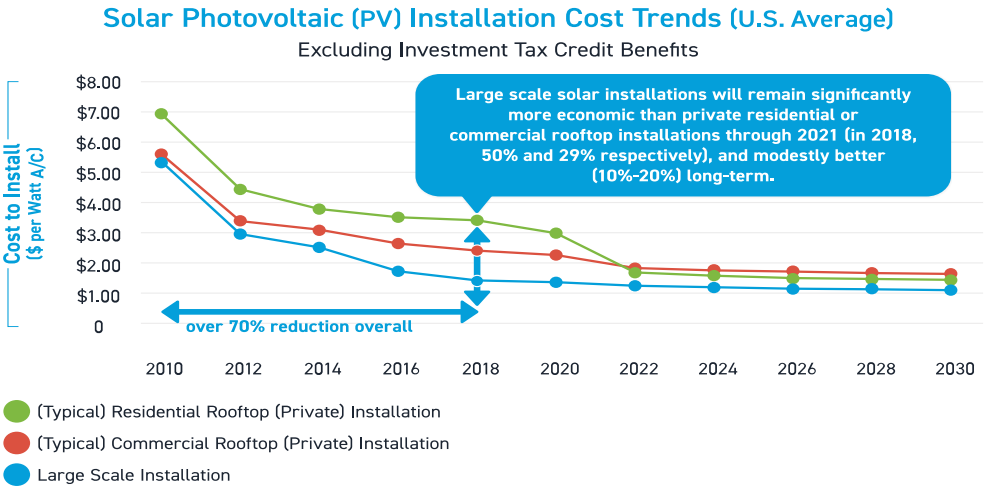
Severe weather events have made it clear that electric distribution and transmission systems need to be made more resistant to damage from vegetation during major storms. Over the past several years, our operating companies have received approvals from state commissions in West Virginia and Kentucky to implement more aggressive vegetation management programs, moving tree-trimming and other vegetation management to cycle-based programs. Vegetation management cycles have already been established in Oklahoma and Ohio.

2017 marked the third year of cycle-trimming vegetation management in West Virginia, where vegetation growing into and trees falling onto power lines are the major cause of power outages. The improvement to reliability is significant with the number of outages related to vegetation in the rights-of-way down by 32 percent over the past five years. In addition, the frequency of outages is down 40 percent, and the customer minutes of interruption are 43 percent lower. By the end of 2017, the new cycle program had been applied to more than 12,300 miles of distribution and transmission lines.

DERs and Grid Reliability

Distributed energy resources (DERs) can provide energy security, resilience and a way to reduce emissions. But it also means that more of the grid's energy and capacity is spread across more sources. As local generation penetration grows, there is greater urgency in upgrading energy infrastructure to integrate these resources safely and efficiently.

Nearly all customers, including those who have installed private generation, rely upon the grid for fundamental services. Capacity



Note: All costs reflected in 'normal' (as-spent) dollars with wattage (denominator) reflected on an "alternative current" (A/C) basis.

Source: AEP (Based on Bloomberg New Energy Finance Projections).

+ click to enlarge

(the obligation to provide energy and meet demand when needed) is an essential service provided to all customers who are connected to the grid. This includes times when private generation sources are not producing energy, such as when a cloudy day prevents private solar customers from producing sufficient energy to meet all of their needs, or when their system is not operational. Conversely, they also need the grid to take excess electricity when their system produces more energy than they need.

The grid also provides voltage control, frequency support and other services that are essential to reliability and all the devices we are connected to in our lives. Without these fundamental services, all customers would face challenges to operate and maintain the electrical equipment in their homes or businesses.

There have been bold predictions that the electric utility industry would be too slow to adapt to the changing energy landscape and become obsolete. While it is true that the future will likely require us to build fewer central generating stations, we will continue to rely upon 24/7 capacity as a cost-effective and reliable source to maintain the reliability of the grid.

We are making substantial investments to prepare the grid, most significantly in our transmission and distribution systems, to accommodate the multitude of resources that will need to connect to our system. The smart grid initiatives we began a decade ago are one example of how we have laid the foundation for a modern grid. Building new infrastructure is only part of the solution. Today, we are exploring new ways to partner with our customers to manage available resource capacity in ways that are mutually beneficial.

Managing Aging Infrastructure

The aging condition of the U.S. transmission and distribution grid will require investment well into the next decade. Across the U.S., transmission and distribution lines and substations are nearing the end of their useful lives. According to the American Society of Civil Engineers 2017 Infrastructure Report Card, "most electric transmission and distribution lines were constructed in the 1950s and 1960s with a 50-year life expectancy." The average age of AEP's transmission lines is 48 years and the average age of transmission transformers is 37 years. Some transmission line facilities still in use today were put in service as far back as 100 years ago.

On AEP's distribution system, the average age of distribution poles is 32 years, and the expected life is 45 years. Throughout AEP's service territory, there are over 86,000 miles of small conductors that are at least 40 years old and are in need of upgrade. Re-conductoring these lines will improve capacity and reliability, and can facilitate connecting circuits together to automate them.

The Report Card also says that without greater attention to aging equipment, "Americans will likely experience longer and more frequent power interruptions." To prevent this from happening, AEP is taking a number of steps and making investments to upgrade the power grid.

For example, we conducted a system-wide review of our transmission grid to identify those transmission facilities with performance conditions and risk of failure that warrant upgrade or replacement. We prioritize projects based on several factors to ensure that dollars are invested where they are most needed.

AEP's Transmission Project Prioritization

AEP is constantly evaluating the performance and condition of its transmission grid and is committed to maintaining a reliable system. AEP prioritizes its investments by identifying the aging facilities that have historically caused customer outages and targets them for upgrades or improvements.

Customer Inputs

Collect customer and stakeholder feedback and incorporate in AEP's project prioritization.

Performance

Review reliability & availability metrics and evaluate assets' contributions to performance results.

Condition

Perform site inspections, assess physical characteristics of assets, and analyze condition data from monitoring systems.

Risk

Evaluate probability of asset failure and the potential impact on customers.

The investments we are making to modernize the grid will improve reliability and resilience, as well as lower the age of the system. Here are examples of how our investments are making a difference for customers:

In Michigan's Kalamazoo County, an approximately $30 million transmission project to build a new substation and transmission line will significantly improve reliability to the area. The Vicksburg-Schoolcraft area improvements are essential due to frequent power outages and interruptions caused by the 1970s vintage substation serving the region. Over the last three years, the older line and substation were the cause of approximately 5 million customer minutes of interruption per year.

In West Virginia, a project is underway to upgrade the transmission system in four counties to replace aging infrastructure and improve reliability. The Meadow Bridge Transmission Line Upgrade in Fayette and Greenbrier counties, Carbondale Transmission Line Upgrade in Kanawha and Fayette counties and Pineville Area Power Improvements in Wyoming County will involve rebuilding more than 50 miles of transmission line and upgrading substations. Replacing the aging infrastructure, which has caused over 13 million customer minutes of interruption over a three-year period (2013-2016), will reduce outages, make the system more resilient and improve restoration times.

In Arkansas, SWEPCO is rebuilding approximately 19 miles of existing 69-kilovolt transmission line in Scott and Sebastian counties. The estimated $19 million North Huntington – Waldron Transmission Line Rebuild Project will replace old wooden poles and transmission line with single steel poles and new conductor. This line has contributed to the second-most customer minutes of interruption in the past decade in SWEPCO's service territory.

Asset Health Center

Real-time performance monitors installed and managed by the AEP Transmission Asset Health Center (AHC) have enabled us to swiftly prevent transformer failures, saving the company up to $20 million, plus the time to install a replacement. The AHC is one example of AEP's early adoption of digital technology to improve grid efficiency and reliability through proactive and predictive maintenance of our physical infrastructure.

There are two main components to the AHC – an analytical software platform with algorithms that provide health indices, risks of failure, and actionable notifications; and a fleet-wide installation of asset monitoring devices that provide instantaneous data through a robust communication infrastructure, allowing us to monitor the system in real-time.

In 2017, several accomplishments were credited to the AHC project, including deployment of monitoring on 107 extra-high voltage transformers/reactors; creation of a standard for circuit breaker monitoring; and partial discharge monitoring on underground cables. We have integrated AHC information with our Reliability Analysis Tool to allow for more informed decision-making on asset renewal and asset replacements. This helps to ensure we are making the right investments in the right places to replace aging transmission infrastructure proactively.

We are able to manage this as part of a regional reliability project portfolio. In addition, the AHC data has helped us to reduce safety risks to our employees in the field because we can identify safety risks in real-time. The transmission team is now working with predictive algorithms and the data collected from our sensors to see if we can anticipate equipment failures sooner.

In early 2018, AEP Transmission engineers authored a white paper outlining how the company is using the AHC to help design and operate the grid of the future. CIGRE, the Council on Large Electric Systems, which is an international organization that promotes global collaboration to improve electric power systems of today and tomorrow, recognized the AEP team with its 2017 CIGRE Grand Prize for the importance of the AHC to the industry.

Reliability Investments

Maintaining the approximately 260,000 miles in our transmission and distribution network comes with an array of challenges while we are upgrading the infrastructure to meet modern day needs. These challenges include the age of our infrastructure, the threat of external interruptions, the transformation of our generation fleet, the difficulty of siting new facilities, new and future environmental regulations, and the magnitude of investments needed. In response, we are investing in infrastructure and using technology and data analytics to predict, prevent and mitigate service disruptions and to better communicate with our customers.

AEP's investments to modernize transmission infrastructure provides direct long-term reliability benefits to our customers. Improved reliability is one of the most important benefits that electricity customers receive from transmission investments. Based on a sampling of 14 transmission line rebuild projects that have been completed, customer outage duration was reduced by 97 percent from pre-investment levels.

In a report commissioned by AEP from the Brattle Group on the direct and indirect impact of our transmission investments, Brattle applied this historical effectiveness to a sample of 62 transmission local reliability upgrades targeted for completion in the 2012-to-2019 capital budget. The report concludes that the investments will yield an estimated customer outage reduction benefit of approximately $75 million per year and a net present value of $1.4 billion of benefits over the lifetime of these local transmission investments. Learn more about valuing the grid. (link to section)

Regional Transmission Organizations (RTOs) often determine upgrades to the transmission grid and assign companies, such as AEP, these projects to improve reliability. Recently, the Midcontinent Independent System Operator (MISO) approved construction of a new 765-kilovolt (kV) transmission line stretching approximately 70 miles across northern Indiana to maintain reliability in that region, assure access to regional sources of competitively priced power and provide additional energy to the area.

The project is being built by Northern Indiana Public Service Company (NIPSCO) and Pioneer Transmission, a joint venture between AEP Transmission and Duke Energy. The 70-mile line approved by MISO is the first segment of a larger 290-mile proposed transmission project in that region. The new Greentown-Reynolds project is one of 17 priority projects approved by MISO; it is expected to be in-service in mid-2018.

Transource Energy, a partnership between American Electric Power and Great Plains Energy, is building a new overhead electric transmission project in Pennsylvania and Maryland to increase consumer access to more affordable power in the region.

Through joint ventures such as Transource®, a partnership to invest in competitive transmission projects, AEP is well-positioned to expand transmission investment outside of our traditional service territory. So far, these joint ventures enabled us to expand our transmission footprint to 13 states with projects under development in two additional states. In 2017, Transource announced plans to develop the Independence Energy Connection (IEC), a new overhead electric transmission project in Pennsylvania and Maryland, to increase consumer access to more affordable power in the region. The $320 million project will connect two existing 500-kV transmission lines in Pennsylvania to two existing substations in Maryland.

As AEP continues to improve the reliability of the grid, one of the most recent advances came in the Transmission Operations Center. Our transmission system operators use a State Estimator tool to view grid behavior for system overloads in real-time and under certain conditions. In the past, the tool had only data associated with AEP's transmission system and minimal information about how neighboring systems were functioning. AEP began modeling neighboring utilities' transmission systems in the State Estimator to get a more accurate view of overall grid behavior.

Being able to "see" how neighboring utilities' transmission systems are behaving allows us to more effectively plan and complete our own transmission projects. As we invest large amounts of capital, we face challenges with coordinating outages with other utilities. This information now gives us a clearer view of these situations that put stress on the grid. In addition, these improvements give us a competitive advantage to better prepare system operators to monitor and operate in regions outside of our traditional service territory. This is important as we grow our footprint through our Transource business unit.

Severe Weather

One of the greatest threats to reliability of the power grid is weather. In 2017, severe weather took center stage when Hurricane Harvey barreled ashore in Texas. The storm, with triple digit wind gusts and heavy rain, battered part of the AEP Texas service territory, leaving hundreds of thousands without electricity and testing our Incident Command System (ICS) and business continuity plans.

Hurricane Harvey was the largest storm to hit the AEP Texas service territory in 44 years. The Category 4 storm made landfall in Rockport, Texas, knocking out power to approximately 220,000 customers at the height of the event. The damage was extensive to poles and wires, substations and service centers. AEP Texas estimated that at least 5,726 utility poles and 766 transmission structures were damaged or knocked down by Harvey. Approximately 5,600 utility workers from across the country mobilized to assist AEP Texas in restoring service – the most resources ever used by the company during a single recovery event. AEP Texas also became the first operating company within AEP to use ICS during a major storm recovery effort. And while power was restored to most customers within 14 days, a number of learning opportunities were identified to prepare us even more for the future.

Social media played a critical role during the crisis, sometimes providing the only communication link with our customers. We were able to communicate with key stakeholders, officials and customers who wanted and needed timely information about restoration efforts.

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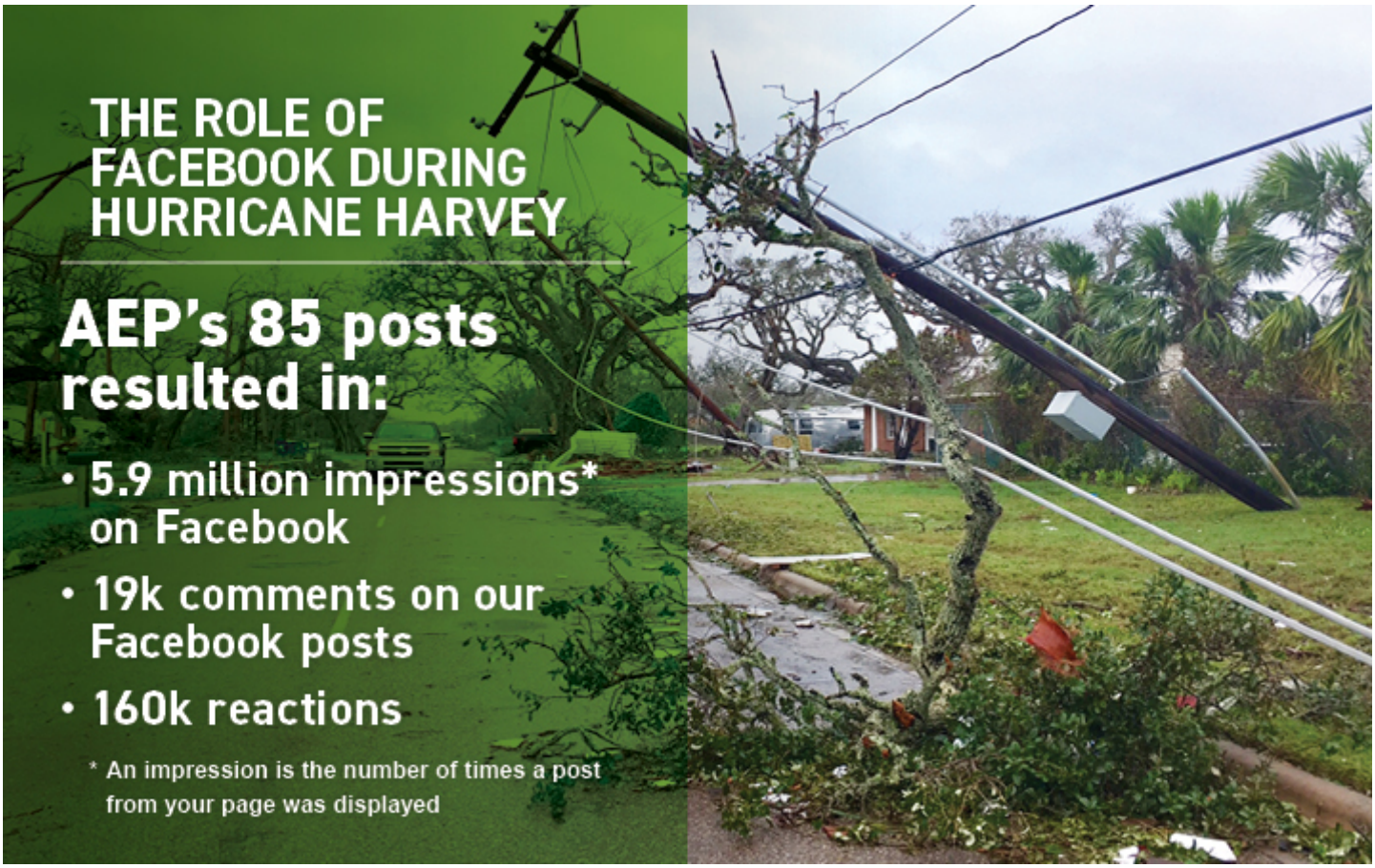


Sadly, a line contractor working on behalf of AEP to help restore power was fatally injured during the outage restoration effort. Following that event, AEP Texas temporarily halted operations with all employees and contractors to ensure everyone remained focused on safety as they continued to restore power.

Technology played a vital role in the recovery effort. Drones and helicopters, along with their digital mapping capabilities, were used to facilitate damage assessments in areas that were not accessible due to damage and flooding. In 2017, drones were used to help restore power following the Category 4 Hurricane Harvey that struck the Gulf Coast, proving to be a cutting-edge technology for use in disaster recovery.

The damage caused by Hurricane Harvey was significant to both the transmission and distribution systems, with an estimated cost of approximately $325 million to $375 million, respectively. Approximately 70 percent of customers in the Corpus Christi district were left without power after the storm. The amount of

transmission and distribution conductor that had to be replaced extended over 700 miles.

The storm may be history, but the work is not over. AEP Texas has embarked on a long-term program to harden the distribution system to reduce outages and minimize future tropical storm damage. This includes larger pole diameters and shorter spans of lines.

In January 2018, AEP Texas announced it would expedite rebuilding a vital power line from Aransas Pass to Port Aransas that was devastated by Hurricane Harvey. The work will strengthen the local transmission grid and provide storm-hardening for the existing infrastructure. The new line is expected to be re-energized this year.

In August 2017, an outbreak of severe thunderstorms in Oklahoma spawned four tornadoes in and around Tulsa in one day.

AEP employees stepped up to help their neighbors in Texas. Two Public Service Company of Oklahoma (PSO) power plants – Tulsa Station and Oklaunion Power Station – donated supplies of MREs (Meals Ready to Eat) to help feed victims in areas ravaged by Hurricane Harvey in Texas and Hurricane Irma in Florida. Employees also reached into their wallets to help storm victims. AEP set up a Hurricane Harvey Fund, administered through The Salvation Army, to collect donations from employees and retirees. The AEP Foundation pledged to match employee contributions dollar-for-dollar up to $50,000 but when employee donations exceeded that amount, the Foundation increased its match. The final combined donation to help victims of Hurricane Harvey was $186,252.

Employees and contractors across the AEP system not only helped to restore power in Texas, they also went to Florida and Georgia after Hurricane Irma. And in December 2017, AEP answered Puerto Rico's call for help to restore power there after the island's grid was destroyed by Hurricane Maria, leaving more than 3 million people without power for more than five months. In addition to sending teams of employees, AEP sent materials and equipment to the island.

Once Puerto Rico issued a formal request for help from the American Public Power Association and the Edison Electric Institute, it paved the way for our industry on the mainland to fully support the restoration efforts on the island. AEP and its subsidiaries are among several U.S. mainland energy companies providing resources and workers in Puerto Rico. Recovery of costs will be funded through the Federal Emergency Management Agency (FEMA).

Mutual assistance is a hallmark of the electric utility industry because we know how important it is to restore service as quickly as possible after a major event such as a hurricane. The Edison Electric Institute (EEI) honored AEP with seven Emergency Response Awards, which recognize member companies that show outstanding efforts to restore service after severe weather or natural disaster. This distinction acknowledges AEP's 2017 efforts to help customers impacted by Hurricanes Harvey and Irma.

AEP Texas received an Emergency Recovery Award for its response after the Category 4 Hurricane Harvey hit the state. This award is for member companies directly impacted by a severe weather event.

Six AEP operating companies received Emergency Assistance Awards for providing outstanding support to other companies during Hurricane Irma. AEP Ohio, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power, PSO and Southwestern Electric Power Company (SWEPCO) were all recipients of this award.

We don't do this work to receive awards, but recognition of the work our employees do to restore power for others is gratifying.

Hurricane-force winds were not the only major event that impacted AEP's service territory in 2017. In August, an outbreak of severe thunderstorms in Oklahoma spawned four tornadoes in and around Tulsa in one day. The twisters, one of which registered as an EF2 tornado (winds of 111-135 mph), caused severe damage to homes and businesses and service disruptions for more than 14,000 PSO customers.

Grid Resilience

In 2017, major weather events tested the resilience of the grid and its ability to recover. Through massive hurricanes, tornadoes and other destructive storm events, we learned that the investments we are making to storm-harden the grid are making a difference by enabling quicker restoration. At the same time, the events that occurred were a sobering reminder of the magnitude of aging infrastructure still on the system – and the magnitude of investments still needed.

Resilience is focused on risks and consequences that can come from anywhere. In this case, the risk to resilience of the grid comes from many things, including cyberattacks, electromagnetic disturbances, terrorism, theft, vandalism and supply chain disruptions. All of these things could change how we design and harden the system.

AEP's investments in local reliability projects enhance grid resilience by replacing vulnerable assets, upgrading the telecommunications network, maintaining spare parts and implementing physical and cyber security standards. Our efforts also improve storm hardness by upgrading older and more susceptible facilities, such as replacing wood structures with steel or improving flood prevention at substations. Telecom system upgrades and AEP's programs to purchase spare parts also help the company respond to outages faster by identifying problems on the system more quickly and stockpiling the parts needed to bring assets back online following an outage.

One example is when Hurricane Harvey struck the AEP Texas service territory on August 25, 2017. In recent years, new transmission lines in hurricane-prone areas have all been built to modern standards, able to withstand wind speeds up to 140 miles per hour.

During Hurricane Harvey, transmission lines built to these modern standards sustained little to no damage, while many of the lines that suffered damage were older, less-resilient structures, such as wood poles. For example, two parallel lines in the Rockport, Texas area, which was hit by the eye of the hurricane, experienced two very different outcomes.

One of the greatest threats to reliability of the power grid is weather. In 2017, severe weather took center stage when Hurricane Harvey barreled ashore in Texas.

One of the lines used predominantly older wood poles with only seven steel poles (which were installed to replace deteriorated wood poles). The wood poles all failed in the storm, while only one of the seven steel poles was damaged. The damaged steel pole was only bent and stopped the series of failed wood poles from cascading any further. Across the highway, the parallel line's steel structures—built to modern standards—remained unharmed.

AEP Texas is now in the process of rebuilding the damaged line to modern standards. AEP's multi-million-dollar investment to inspect and maintain thousands of wooden power poles and underground electrical structures, along with miles of overhead electrical lines, will help us improve resilience of the distribution system. In addition to the pole program, the overhead line and underground facility inspection programs are designed to identify issues that present potential public safety concerns or likely causes of customer outages.

Hardening, reliability and grid modernization initiatives have garnered support from state utility commissions. This is critical to improving system reliability for all customers.

In 2017, the U.S. Department of Energy (DOE) proposed a new rule to the Federal Energy Regulatory Commission (FERC), attempting to improve grid reliability and resilience by providing financial incentives aimed at sustaining certain baseload generation plants. While AEP strongly supports the need to maintain a safe, reliable and resilient grid, the industry needs more time to incorporate stakeholder input and develop effective solutions. In January 2018, FERC issued a new order initiating a new proceeding to holistically examine the resilience of the bulk power system.

Transmission is a major contributor to grid resilience and should be included in the evaluation of the grid and potential solutions. We do not believe that resilience should focus solely on generation outages. Investments such as transmission may be a more cost-effective solution to addressing resilience issues than deferring generation unit retirements. AEP believes resilience issues are best handled under a regulated cost-based approach in cooperation with state regulators and FERC – and this is how we've provided a reliable and resilient system to meet our customers' needs for more than a century.

Grid Modernization

Today, customers expect the transmission and distribution systems to be smarter, more flexible, efficient and affordable. They want the level of reliable service they often receive from popular consumer-facing brands. As we invest to modernize and strengthen the grid to meet these needs for today and the future, we are creating a more sophisticated electric ecosystem that provides universal access to low-carbon, cost-effective power and energy solutions.

AEP's operating companies began deploying two-way communicating AMI meters and supporting infrastructure as early as 2008. Since then, we have continued to deploy these foundational smart grid assets based on an increasingly strong customer business case and subsequent regulatory approval in some jurisdictions. With 1.9 million AMI meters currently deployed and nearly 1 million planned over the next several years, AEP's operating companies will continue to migrate toward full deployment in the long term. Future deployment will likely occur in smaller increments as AMI is evolving to an industry-standard technology, replacing older infrastructure.

The fundamental value in having AMI infrastructure is the robust data set that is captured (as often as every 15 minutes) across many dimensions including energy usage, voltage and temperature. This enables advanced analytics to proactively identify issues and offer customers programs and services that are unique to their usage patterns. We have achieved several successes by leveraging AMI data. These include:

- Proactive identification of temperature anomalies and/or unsafe conditions
- Transformer failure prediction
- Multiple methods to proactively identify and address customer theft of service
- More timely identification, communication, and restoration of customer outages
- Increased customer education and control via robust data availability through web portals and mobile applications
- Enablement of energy efficiency and/or other approaches to help customers manage their specific energy usage

AEP continues to invest in modernizing and strengthening the grid by deploying AMI meters which can help proactively identify issues and offer customers energy saving services.

Modernizing Distribution

The distribution grid is complex and will become more so as more technology is deployed on the distribution side of the grid and as customer systems continue to grow. AEP has adopted advanced planning tools to help us better understand how variable resources will impact conditions on the system as they change. We are also coordinating with transmission planning to understand how the changes in distribution affect the transmission grid.

Many of the investments we are making in our distribution systems are to accommodate and use increased levels of distributed energy resources (DER) and to provide higher levels of reliability and resilience. Modernization projects include:

- Increasing electrical capacity of substations and circuits for higher levels of DER hosting capacity and to manage electric vehicle charging load to optimize the grid. An added benefit gives us greater ability to restore service to customers by reconfiguring circuits during outages.
- Physically relocating and strengthening circuits to make them less vulnerable to weather-related damage and to limit damage to equipment that requires long repair times, such as poles.
- Replacing aging infrastructure in substations and on circuits.
- Installing Distribution Automation Systems that provide automated circuit reconfiguration that will restore service to customers in undamaged sections of a circuit while repairs are being made to the damaged section(s).

Known as Volt VAR Optimization (VVO), this technology has proven its technical viability in achieving demand and energy savings.

- Installing Volt VAR Optimization (VVO) systems to give us tighter control of voltage levels to achieve energy efficiency that reduces consumption by customers and helps the grid to balance DER hosting capacity.
- Installing Supervisory Control and Data Acquisition (SCADA) on the distribution system to provide visibility of system conditions, remote control, and data that can be analyzed to more efficiently operate the system.

- Installing sensors to more quickly identify damaged line sections and to provide system condition data for analytics that could allow us to predict risks in advance, allowing us to be proactive.
- Providing back-up sources to remote areas that have historically been prone to outages when an upstream section of the power line is damaged. The sources being considered include new substations, new circuits, new circuit ties and DER. DER sources being considered include photovoltaic solar, fossil generation, and energy storage, depending on local site conditions.
- Continued expansion of Automated Metering Infrastructure (AMI) to provide customers more information and choice about their energy use, and to provide data to help us more efficiently operate the system as levels of DER continue to increase.

The speed of implementation and level of investment vary by operating company, as companies review customers' needs to ensure the right mix of projects, with maximum customer benefit, and affordability. We continue to actively discuss the application of these technologies with regulators and stakeholders because their support is essential to make the investments that meet customers' needs today and in the future, without financial harm to AEP.

For example, we developed new hardening standards for distribution lines. This includes increasing the basic pole size and strengthening guy wires and conductors. Each operating company is evaluating the aged and aging infrastructure on their systems and making capital investments annually in projects to replace and upgrade those facilities that pose the greatest threat to reliability.

In some cases, we have relocated overhead facilities to underground in neighborhoods in order to improve local reliability. This included a multi-year program in Oklahoma and other smaller, targeted areas across AEP's service territory. In addition, we have installed Distribution Automation (DA) on approximately 5 percent of circuits system-wide to reconfigure the circuits to reduce the number of customers affected by circuit outages. Our regulated companies have targeted plans to continue expansion of DA during the next several years.

Grid Modernization Activity Summary

Company	Smart Meters	DACR Circuits	VVO Circuits
AEP Ohio	151,167	86	17
AEP Texas	1,067,987	26	0
Public Service Company of Oklahoma	572,070	47	38
Indiana Michigan Power Company	12,612	34	33
Kentucky Power Company	N/A	12	26
Appalachian Power Company	55,277	44	3
Southwestern Electric Power Company	N/A	26	0

Smart Grid plans are continuously evolving. Data is approximate/estimated.

DACR – Distribution Automation Circuit Reconfiguration. VVO – Volt VAR Optimization. As of March 2018.

AMI/Smart Meter data through 2017.

Modernizing Transmission

AEP's financial commitment to modernizing the grid, replacing aging facilities, targeting poorly performing assets, and improving grid security helps to partially mitigate future costs to maintain the electric power system. Our investments also ensure the reliability and security of the grid for customers today. A large portion of AEP's investment is focused on replacing or upgrading facilities that have been identified as underperforming or obsolete. These aging facilities require more frequent and costly maintenance; replacing them reduces those costs. In addition, AEP is investing in projects that enhance grid security and modernize the telecommunications network along the electric system. These improvements allow us to locate, diagnose and respond more quickly when reliability issues occur.

We studied a sample of 84 line reconductoring projects and analyzed the line loss decrease that occurred from these investments. For the sample studied, we found that losses decreased by 55 percent, on average. Reducing transmission losses, means that AEP needs to produce or purchase less power to serve its load – which directly reduces the cost of serving our retail customers. Our study concluded that the net present value of savings due to lower power consumption caused by lower line losses would be an

estimated $127 million over the lifetime of the investment.

In addition, reduced line losses during peak demand hours would also provide customer savings through reduced capacity needs. The Southwest Power Pool (SPP) has estimated the value of capacity, and, according to SPP's assumption, customers would realize additional capacity savings of approximately $114 million (present value terms) over the lifetime of the investments in the sample study. These are significant financial and reliability benefits for our customers, as well as operational improvements for how we manage and modernize the grid.

BOLD® Advantages

On July 19, 2017, AEP energized the Reynolds-Meadow Lake 345-kV transmission line in northwest Indiana – the second line on our system using AEP's Breakthrough Overhead Line Design® (BOLD®) technology. It was also the first BOLD line to use a lattice structure design to support the compact line configuration. With electric demand straining the system in that region, the new line supports growth and enhanced reliability. The first BOLD line was energized near Fort Wayne, Indiana, in November 2016. Additional projects are underway across the AEP system.

What makes BOLD so attractive? The compact BOLD 345-kV design provides advantages such as lower tower heights and increased capacity in the same right-of-way. The cleaner visual line and elegance of a BOLD structure and line is a creative and conscientious design option in response to public objections to taller and more imposing traditional towers.

We are now developing a virtual reality presentation of the BOLD line to support our siting and outreach teams. This will allow us to show landowners and regulators what the line would look like before it is built. Our strategy is to market the technology to other utilities; partner with and license engineering firms who support our industry to promote and use the BOLD technology for their clients; and work with suppliers of BOLD materials and structures to drive down manufacturing and construction costs.

BOLD stands out as an example of groundbreaking innovation designed to improve reliability, grid resilience and services for customers. In 2017, AEP Transmission received several prestigious awards recognizing the importance of BOLD to the industry globally.

BOLD stands out as an example of groundbreaking innovation designed to improve reliability, grid resilience and services for customers.

In June 2017, AEP received the prestigious Edison Award for the Robison Park-Sorenson rebuild project using BOLD in Fort Wayne, Ind. The Edison Electric Institute (EEI) award honors "distinguished leadership, innovation and contribution to the advancement of the electric industry for the benefit of all." It was the second year in a row AEP received this award. The Fort Wayne BOLD line became the world's first operating BOLD transmission line, replacing a 1940s era 138-kV line. The new line is helping to ease grid congestion in that region.

In September 2017, the BOLD tower design received the "International Tower Design Award" from CIGRE/KEPCO and was selected over 26 other tower designs from around the world. The judges recognized BOLD for its practical and environmentally friendly design, blending performance with aesthetics. In November 2017, the National Association of Regulatory Commissioners (NARUC) presented BOLD with its 2017 Utility Industry Innovation in Electricity award. This was the first year NARUC presented innovation awards.

Our employees were also recognized for their own bold innovation. One of our employees was named as one of the Top Forty Innovators for 2017 by Public Utilities Fortnightly. The honor recognizes his efforts to bring BOLD from whiteboard concept to reality. We are proud of our employees who are leading the way as we transform our company – and the industry – for the future.

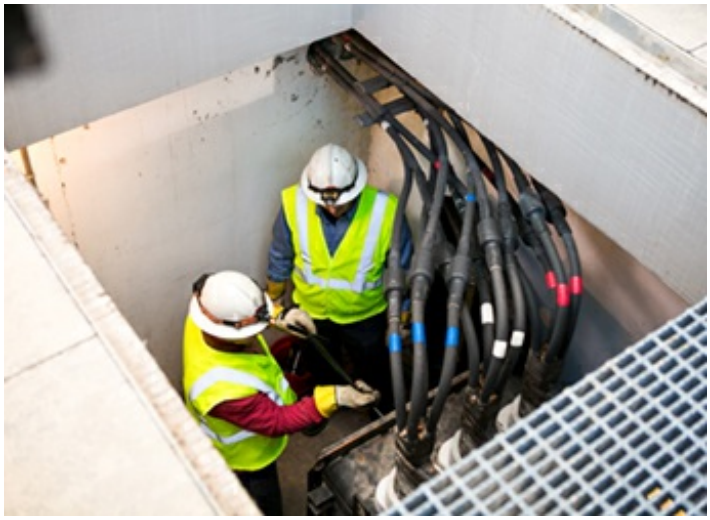
Underground Network Monitoring

In 2018, a multi-year initiative at six operating companies to modernize and reinforce AEP's 21 underground electrical networks will be complete. The Underground Network (UGN) Monitoring project is already changing the way we collect, communicate and use information and data to support the Operations, Engineering and Planning functions of the operating companies' critical UGN systems.

The approximately $84 million project gives us the capability to monitor the networks in real time using fiber optics and cutting-edge sensor technology to capture data in five-second intervals. This gives us a real-time view of the distribution grid. The energy company of the future will need this capability as the distribution system becomes a more diverse, flexible system, allowing all resources to connect and manage demand at the same time.

With sensors and state-of-the-art telecom technology, we have a view of the underground system that we've never had before, allowing us to proactively manage the system. The insights we get from monitoring the system in real-time will also give underground network line crews more information about the facilities before they enter and as they prepare to perform their work, making it a safer work environment.

In addition, having the data to eventually be able to predict and prevent failures, the Engineering and Planning groups will be able to use the data to support load forecasting and other engineering needs. This transformational network was designed to support technologies that can be added in the future, too.



AEP's multi-year underground monitoring initiative gives us the capability to monitor underground networks in real time using fiber optics and cutting-edge sensor technology to capture data in five-second intervals.

Energy Storage

As we introduce more wind and solar power into our energy mix, the need to invest in energy storage grows. Energy storage helps maintain a constant flow of power when the wind isn't blowing and at night or on cloudy days when the sun isn't shining. Storage technology also supports local reliability for our customers and is integrated into our distribution and resource planning processes. Today, we are also testing new ways of combining storage with hydroelectric power to support the grid.

Sometimes, pairing the old with the new can result in something groundbreaking. In 2017, AEP partnered with Greensmith Energy to integrate a 4 MW energy storage system with the Buck and Byllesby hydroelectric power plants in southwest Virginia. The hybrid system combines advanced energy storage and software with hydroelectric generation to provide ancillary services to the grid; it is due to begin operation in 2018.

Once it comes online, the programmable energy storage system will serve PJM's frequency regulation market, which helps to balance the transmission system as it moves electricity from generating stations to retail customers. The Buck and Byllesby facilities are operated by Appalachian Power and have been in operation since 1912.

The concept of energy storage is not new, but the need for reliable, cost effective solutions has never been more critical. We are exploring new ways of using energy storage to manage demand and support the interoperability of the grid, including investing in technology companies to accelerate development and deployment. Today, as the energy landscape transitions to more distributed and intermittent resources, we need the ability to store energy from such resources. Batteries are a relatively modular solution that can be mobilized and relocated if they are needed elsewhere on the system.

Distributed Energy Storage Applications

- **Reliability improvements** - Batteries can provide back-up power in case of an outage. For example, a total of three 2-MW NaS (sodium sulfur) batteries were deployed in Appalachian Power, Ohio Power and Indiana Michigan Power in 2008. Each battery is capable of providing islanding (backup power) for more than seven hours when loss of power from the substation occurs.
- **Frequency regulation** - Batteries have the ability to rapidly respond to frequency regulation signals on the grid. Regional transmission organizations are recognizing the need for greater amounts of frequency regulation to maintain system stability with the increased integration of variable generation resources.
- **Firming of renewables** - Wind and solar often do not generate energy when and where it is needed most. Deploying batteries to combine with wind and/or solar energy can allow for better use and management of variable renewable energy sources.
- **Peak shaving** - Batteries can provide power during peak demand times to lower customer demand and alleviate strain on the power grid.
- **Power quality** - Batteries are capable of conditioning the flow of power so it can be used to protect sensitive electronic equipment.

AEP's experience in deploying batteries to support the power grid

Year Deployed	Project	Benefits to Grid Achieved
2002	First U.S. demonstration of sodium sulfur (NaS) battery in the United States at AEP	Tested the combined power quality and peak shaving capabilities of the NaS battery
2008	Three 2 MW/14.4 MWh NaS batteries	Provided peak load shaving and demonstrated increased reliability by providing backup power in Milton, W.Va., Churubusco, Ind., and Bluffton, Ohio.
2010	4 MW/ 24 MWh NaS battery	Transmission capital deferral while providing back-up power to the town of Presidio, Texas
2018 (Expected)	4MW energy storage combined with hydro	Hybrid storage/hydro system at the Buck and Byllesby hydroelectric power plants in southwest Virginia to provide ancillary services to the grid

New policies, such as those recently put forth by the Federal Energy Regulatory Commission, support energy storage and recognize the variety of services these resources can provide. Additionally, storage technologies will become more cost-competitive as the industry matures, similar to what has happened with wind and solar. We will continue to explore opportunities to leverage the unique aspects of energy storage resources for expanded use in transmission, distribution and wholesale market applications.

Energy storage can sometimes be the most cost-effective, efficient solution to a reliability issue.

Advancing Technology & Innovation

At AEP, we understand that the growing demands of the 21st century economy will require smart, comprehensive and sustainable infrastructure solutions. That is why, as one of the largest electric utility companies in the U.S., we are working every day to identify innovative solutions to meet the rapidly evolving needs of our customers and our business.

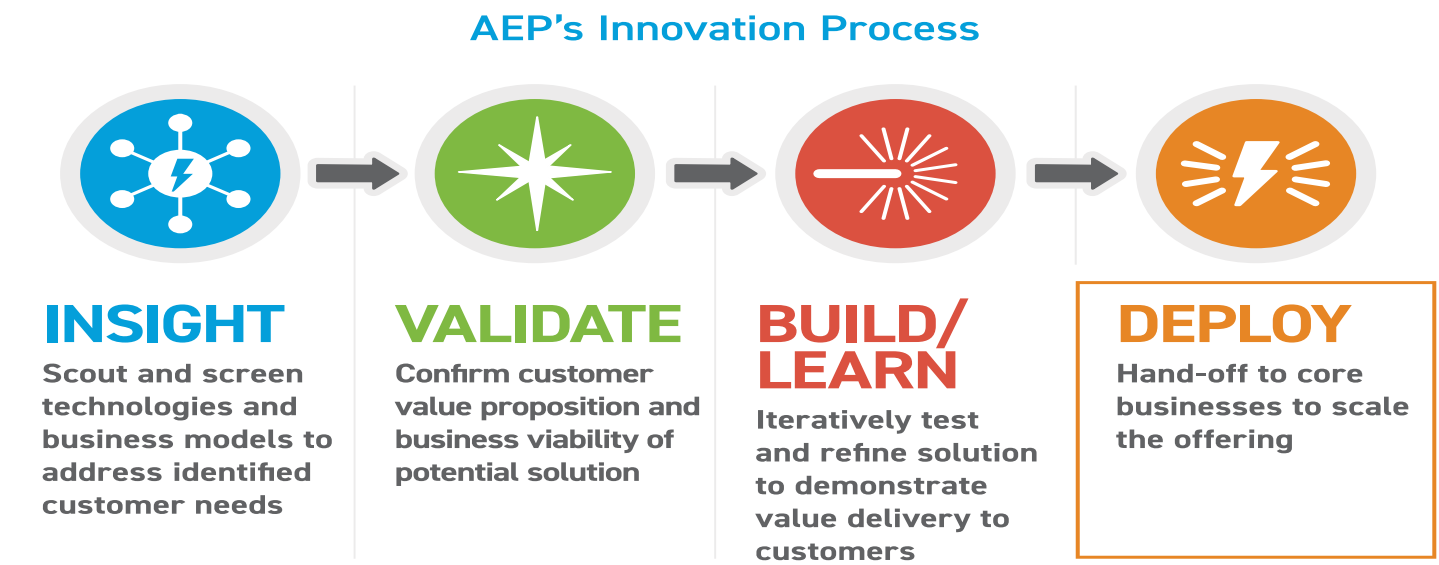
For AEP, this means getting ahead of the curve through advanced energy infrastructure and preparing for advancements in transportation and other major catalysts for economic growth – before they come online. Innovation has been part of the fabric of AEP for more than a century, and, in 2017, we took bold steps to create new avenues for corporate-wide innovation. We believe AEP is well-positioned to leverage our scale, industry experience and skilled workforce to provide our customers with a comprehensive package of innovative energy solutions.

This strategy allows us to embrace mobility, analytics and automation, and gives us the room to take prudent risks. Today, we are adjusting our mindsets and embracing new strategies to navigate this evolving environment and shifting our focus to a different type of innovation that is more customer-centric. We are at the start of this journey, and we know it will take time, but our commitment is clear.

Innovation Hub

To encourage and support innovation at AEP, we created The Innovation Hub as a mechanism to speed up our problem-solving processes, using a continuous improvement/start-up approach to

create new products and services or change existing ones in days instead of weeks, months or even years. At AEP, the innovation process comprises four phases:



Becoming Digital

A revolutionary change is underway as companies seek to transform digitally and fundamentally alter how they organize, operate and behave to deliver the most value to their customers, shareholders and employees. Today, consumers have already adopted digital practices in their daily lives, including shopping online from their mobile devices, operating their home security systems via mobile apps and remotely starting their vehicles with smart phones. These conveniences required innovation, technology and marketing to succeed. Companies that effectively make the digital transformation are more likely to deliver the experience consumers expect and win the battle for customer loyalty.

At AEP, we are learning what digital means for our company. As we plan for the future, we are changing the way we organize, behave and operate to remain competitive, better serve our customers and create sustainable value. This agile operating model gives us a place to test insights and develop valuable products, services and solutions for customers. This could mean abandoning long-standing business practices in order to create new and lasting value, enacting process efficiency improvements, digitizing the customer experience to seamlessly connect customer interactions across channels, and using predictive analytics to understand customer attributes and behaviors to develop the solutions and services they value most.

At AEP, we are building a collaborative mindset that sparks creativity and innovation – staying true to our heritage of innovation.

In some cases, digitization has already begun to grow organically at AEP. Examples of digital accomplishments include the modernization of our underground monitoring networks, the introduction of a customer mobile app and the creation of an app to give power plant managers real-time data to optimize how we operate and invest in our remaining coal fleet. In our workforce, we have established an Innovation Hub and continue to transform our culture to achieve the level of engagement we need because culture is foundational to our digital future.

Employees must be agile, willing to challenge the status quo to test new ideas and insights, and accept failure as part of success. Our progress toward a more engaged workforce is an enabler of this changing business dynamic. In preparation, we are undertaking strategic workforce planning as we learn more about the future of work – what the work will be and the skills that are needed to be successful.

For example, AEP developed and tested five process automations designed to make time-consuming manual tasks faster and easier. In one case, an automation solution has reduced the time spent on generating system IDs for new contractors by more than 90 percent. Typically 30 to 50 requests come in each day for these types of IDs, which required a manual process to assign them. Automating this process frees up people to do work that is more strategic to our business.

In another case, we are using automation to improve the customer experience. When a customer's bill has something wrong with it, a manual review is required before the bill can be mailed. These bills were stored in the billing system, making it time consuming to find and address them. By automating the process, we can spend more time on reducing bill issues for customers instead of finding the work and then assigning it for resolution.

We are establishing a transition team to establish the digital operating model for AEP, which will include a governance structure to accelerate the scale of digital operations and solutions. Through digital, we will develop a portfolio of projects to remain competitive, better serve our customers and employees, and create sustainable value. By understanding the future of work, we can develop the skills and processes we will need to repeat successful solutions more quickly, reduce risk, strengthen our core business and evaluate new opportunities to improve the customer experience.

As we continue our culture transformation, we are creating opportunities for employees to stay curious, test ideas and innovate. We are building a collaborative mindset that sparks creativity and innovation – staying true to our heritage of innovation. We have established new work spaces that encourage testing of new ideas, developing those that show promise and having an avenue for fast-tracking them to market when they are ready. We are also giving employees tools such as mobile apps, augmented and virtual reality environments, and automated controls and sensors that provide real-time data to improve network operations, resilience and safety.

Digital transformation is a massive undertaking, and we are developing a five year roadmap to align our actions, as well as create a new organizational and governance structure, and a strategic workforce plan.

Data Analytics

Companies are advancing how analytics can be used to solve problems and drive better decisions and actions. For example, being able to automatically detect what caused a network fault on the grid without having to assess it in the field is one of the many advantages of data analytics. AEP's Data Science team is using data, analysis tools, statistics and math to tackle these issues, helping AEP succeed as a next generation energy company.

Beginning in 2016, AEP put organizational changes in place to develop internal analytics communities, where best practices are shared and promoted across AEP:

- Central Analytics Services team provides data science, data governance and architecture resources needed to develop, automate, deploy and sustain sophisticated analytical models.
- Advanced analytics teams within the business units (e.g., Customer and Grid Analytics, Transmission) enable agile identification, prioritization and execution of use cases with internal customers.
- Cross-Functional Analytics Board brings leaders together from across the enterprise to promote and prioritize analytics,
- Analytics Center of Excellence brings together data scientists from all business units to share best practices.
- Analytics Executive Advisory Board provides strategic direction and advocacy for analytics.

In addition, AEP created a new Chief Data Scientist position to provide data leadership across the company. This role will advise all data scientists across AEP, finding synergies between different departments to leverage the skills and knowledge in place and to expand upon them.

We have already scored early wins. For example, the Data Science team is using analytics to help the Telecommunications team. Employees used to manually review telephone bills to find errors. Through the use of data analytics, we identified a new automated process to help us detect more errors with less effort. Other projects include predicting meter failures so a service order can be automatically generated before the failure happens, and improving the performance of Generation assets in the PJM regulation market.

We have invested in building an analytics foundation to enable further advancement of our capabilities, with far-reaching impacts on core and strategic projects.

Smart City

In 2016, the City of Columbus – home to AEP's corporate headquarters – won the U.S. Department of Transportation's (DOT) Smart City Challenge. Smart Columbus has a vision that starts with the reinvention of mobility, positioning central Ohio for a future beyond what anyone has yet imagined. Goals include:

- Improving people's quality of life

- Driving growth in the economy
- Providing better access to jobs and job opportunities
- Becoming a world-class logistics center
- Fostering sustainability

As part of this initiative, AEP Ohio will help drive consumer adoption of electric vehicles (EVs) by removing barriers and investing in and supporting the deployment of electric charging station infrastructure. AEP was one of several partners to sign on to the challenge with the City of Columbus. The collaborative focuses on modernizing the transportation network and reducing carbon emissions in both the transportation and electric power sectors. While the partnership focuses on central Ohio, the lessons we take away will benefit all of AEP.

As part of the effort to transform Ohio's capital city into a model for urban planning and development in the 21st century economy, AEP Ohio has invested approximately $1.5 million in fleet electrification since 2016 and installed nearly 60 EV charging stations in 2017. In addition, the project includes installing nearly 900,000 smart meters in Columbus and across the state of Ohio. We are also pursuing a plan to invest approximately $175 million to improve energy efficiency, advance clean energy and energy storage, and usher along the electrification of transportation systems throughout the state.

In April 2018, the Public Utilities Commission of Ohio (PUCO) approved AEP Ohio's Electric Security Plan (ESP), supporting expanded access to electric vehicle (EV) charging and renewable generation, while continuing to enhance distribution grid reliability.

Under the ESP, a program to expand EV charging station availability will be created as part of the Smart Columbus initiative. The project creates a rebate incentive program for the hardware, network services, and installation of charging infrastructure for up to 300 level 2 charging stations and 75 DC Fast charging stations. The $10 million program offers rebates for site owners to install charging stations, with 10 percent of the stations to be located in low-income areas. It is believed to be the first approved rebate for EV charging in the Midwest.

AEP's Smart Columbus Goals

Drive Economic Growth

- Future-proof our economy by attracting and creating new jobs in emerging industries.
- Increase research, innovation, and entrepreneurial activity in the region.
- Prepare our existing workforce for the future.
- Incorporate "smart thinking" into real estate development.
- Become the nation's most efficient and innovative logistic hub.

Improve People's Quality of Life

- Connect people to employment and opportunity: including improving access to healthcare and fresh food.
- Increase personal mobility efficiency.
- Attract and retain talent with a desirable lifestyle.
- Alleviate the daily stresses of traffic and congestion.

Foster Sustainability

- Decrease GhG emissions with high adoption of alternative transportation fuels, particularly EVs.
- Decrease dependency on personal car ownership.
- Encourage fewer vehicles on the road, more efficient vehicle use.
- Support more and better transportation and mobility services.
- Modernize the grid and increase use of renewable energy sources in the Columbus region.

Improve Safety

- Reduce vehicle collisions as well as collisions with other vulnerable road users (e.g., pedestrians, bicyclists) caused by human error with self-driving vehicles.
- Reduce traffic snarls and coordinate efficient road use.

Smart Columbus goals directly align with AEP's strategic direction.

Smart City Accelerator

The Singularity University Smart City Accelerator provides a forum to bring emerging technology companies together to commercialize their ideas to support the Smart City initiative in Columbus. AEP has engaged Singularity University as its innovation partner. SU works with individuals and organizations to tackle the world's biggest challenges by helping them

understand rapidly accelerating technologies and how to apply them.

AEP is among the companies that have sent internal teams through the accelerator to innovate on their own projects. This unique collaboration with the city, the U.S. Department of Transportation (DOT), startups, and other corporations is designed to catalyze new innovations in the smart city space. Ideas from our employees were submitted to the Smart City Accelerator. One would create an electric vehicle subscription program, and the second would establish a smart street lighting program.

A total of 13 startups participated in the program, including participants from AEP, where the program helped either launch their company or further their ideas into a business. The accelerator was designed for companies that fit within the focus areas of the DOT's Smart City Challenge initiative which looks to:

- Integrate transportation technologies
- Improve accessibility to transportation
- Create a cleaner environment

Results of these efforts include:

- A partnership with a company to build analytics that can bring further intelligence to our systems. This will help us operate the AEP electrical systems more efficiently today and in the future.
- A partnership between AEP Ohio and a company to deliver energy benchmarking services to customers.
- An AEP Electric Vehicle (EV) Charging Subscription Plan, AEP's first start-up offering under Kyte Works. With this service, we will improve the customer experience for faster car charging by providing Level Two charging (6x faster) with just one call.

Kyte Works

To facilitate the process of taking innovative ideas from concept to viable business product or service, AEP created a separate company called Kyte Works LLC. Kyte Works is a wholly owned subsidiary of American Electric Power and will act as our innovation company. Through Kyte Works, we will be able to operate like a start-up company to validate offerings and provide new value to customers. Kyte Works will enable us to go to market faster, to gain confidence, intelligence and the data needed to satisfy the customers of tomorrow.

The new company gives AEP employees from different disciplines a place to turn their ideas into real-world business products and services. Through Kyte Works, employees can take their ideas to customers for early feedback, make changes and confirm that a viable market exists. When an idea takes off, Kyte Works collaborates with AEP's business units to determine when and how to roll out a new service to customers.

Visitors to the Kyte Works website can learn about AEP's latest innovations and sign up for email updates.

Global Innovation

In early 2018, AEP was invited by the governing board of Free Electrons, a global energy startup accelerator program, to become a member. Free Electrons was formed to connect energy startup companies with leading utility companies around the world. AEP became the first North American utility member.

Joining the Free Electrons accelerator program gives us access to the world's most innovative technology entrepreneurs in the energy space. Our long-term strategy includes building smarter energy infrastructure and delivering new technologies and custom products and services to our customers. Free Electrons allows us to help cultivate the cutting-edge energy solutions that are being developed around the globe.

Spark Tank Challenge

In 2017, AEP challenged its nearly 18,000 employees to collaborate, amplify and implement their innovative ideas as products or services that customers will want today or in the future. The plan was to develop these ideas into revenue streams for AEP that bring value to those we serve. To ignite thought, creativity, collaboration and customer focus, AEP launched its first enterprise-wide Spark Tank Challenge.

As technologies advance at an unprecedented pace, our customers want us to use innovation and technology to move us into the future – and they want to take the journey with us. The Spark Tank Challenge gave us a mechanism to engage employees and establish an enterprise-wide innovation and technology focus. Approximately 600 employees submitted nearly 400 ideas; eight employee teams were invited to pitch their ideas to the AEP Spark Tank judges. The ideas were evaluated by AEP's Enterprise Technology Council before being presented to a panel of internal and external judges. A handful of ideas made it to the last round, some were reserved for future development, and others offered continuous improvement value.

The winning entry was "AEP SMART Buildings, a five-star concierge service for energy management." The onsite energy management program would target municipal, university, school and hospital customers, who want these types of personalized services from AEP because they trust us and know we can deliver results.

A second proposal, "AEP Plus Consumer Resilience," aims to install a customer-centric network of energy storage devices to provide customers with greater resilience and potentially lower the cost of service for their neighbors.

To ignite thought, creativity, collaboration and customer focus, AEP launched its first enterprise-wide Spark Tank Challenge for employees to share innovative ideas that could be developed into revenue streams.

A third proposal, "Customer Connectivity," also earned special recognition. AEP will further develop this proposal which calls for delivering fast, reliable internet service to customers over fiber-optic wires because information is now a fundamental building block for modern living. Although it is not core to our traditional business model, ideas like this reflect new opportunities to serve our customers' needs.

Innovation Blitz

In 2017, AEP's Generation business unit developed the concept for an Innovation Blitz, a cross-functional, three-hour event encouraging employees to bring their best ideas forward around a pre-determined innovative topic or technology. Two Generation Innovation Blitz events were held in 2017 on the topics of mitigating power plant wastewater streams and using augmented/ virtual reality. Participants came together from multiple AEP business units to capture ideas to support the generating fleet, enhance the customer experience and help secure our vision as the energy company of the future. The theory behind these events is that when we address challenges in an open and collaborative setting, our ideas grow exponentially.

Over 100 ideas were generated during the two events, and two of those ideas are being further developed for potential use cases. The first centered on an idea that selenium, a heavy metal found in flue gas from coal combustion, may be more easily separated from the flue gas stream with a drop in flue gas temperature. To learn more, the Generation team began a research project to validate this theory; if it works, it could lead to more cost-effective selenium removal options.

The second idea focused on using an augmented reality (AR) application (app) using GPS capable of displaying real-time power plant equipment information on a mobile device. The idea was that an employee could point their device at the equipment and gather the data they need instantaneously. This could be used to support equipment troubleshooting, operations and maintenance. Working with IT and a third-party mobile app developer, the team created an AR app that is now in limited use at the Mountaineer Plant in West Virginia.

The value already gained from our efforts in 2017 is the catalyst for plans to host additional Innovation Blitz events in 2018.

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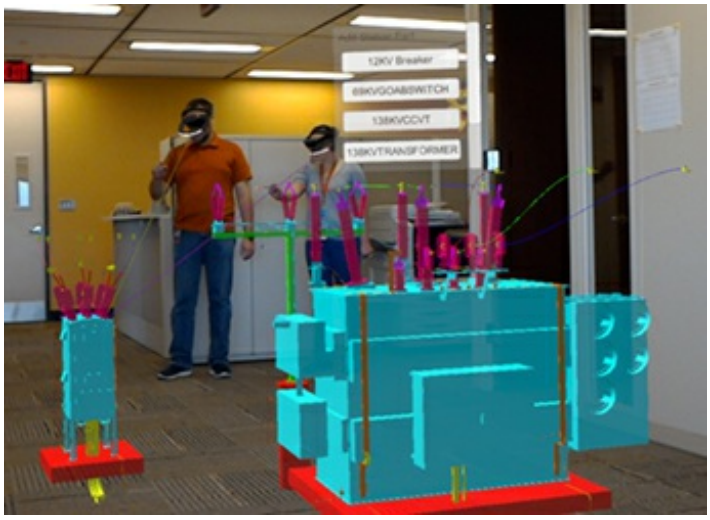
Technology Application

Augmented/Virtual Reality

The techno-generational divide between the legacy analog power grid of the past and the modern, digital grid of the future may lie in the three-dimensional and colorful world of augmented and virtual reality (AR/VR). We are learning how AR/VR and its wearable technology can help us bridge the real world with the digital to become as common as iPhones and tablets, saving money and time while enhancing safety and training.

In 2017, a partnership between AEP's IT and Transmission Engineering teams led to an AR/VR proof of concept. Employees pitched the idea of AR/VR as a business tool for virtual site visits of field operations. One of the project's deliverables was a white paper to document what employees will need to know in order to use AR/VR technology to meet a business need. AEP also signed on to an Electric Power Research Institute (EPRI) study identifying practical AR/VR applications in the industry.

The proof of concept project investigated whether physical site visits by transmission stakeholders can be done virtually. Through a virtual site visit, a single employee equipped with the AR/VR goggles can enter a station and interact with stakeholders remotely through web streaming. A key finding of the project was that people who wear the goggles and immerse themselves in the experience of AR/VR actually forget they are not physically there and start solving problems through what they are seeing. It demonstrated that we can collaborate remotely, using technology to "see" our way to a solution. In addition, being able to study and possibly identify defects in construction projects before they are built would save time, money and keep employees safe.



We are learning how AR/VR and its wearable technology can help us bridge the real world with the digital and possibly save time, money and keep employees safe.

The success of the proof of concept led to three new capital projects for Transmission and Generation. The first Transmission effort will focus on validating new Transmission substation standards by visualizing aspects such as clearances and safety concerns. This allows engineers to iterate and improve on the design prior to construction eliminating costly rework. The second Transmission project will create a virtual reality presentation of the BOLD® design, showing potential customers the technological advantages over traditional transmission structures. Learn about the project in Generation that came from the 2017 Innovation Blitz.

Drones in Flight

Drones are an effective means of inspecting power lines. In 2017, Indiana Michigan Power and AEP Transmission started using a camera-equipped drone for power line patrols to test how well the drones work for inspections. Among the expected advantages include:

- Cameras can rotate 180 degrees, allowing them to capture images underneath components on the structure, such as insulator assemblies, compared to helicopter pilots and observers, who can only look down;
- Increased safety by not having people climb a tower or ride in a helicopter;
- Drones can access hard-to-reach areas possibly not accessible by helicopter;
- Drones are quieter than helicopters, which is a benefit when flying in populated areas.

We also use drones to conduct inspections of generation, transmission and distribution equipment. Drones can also help us assess damage more quickly after an event that causes an outage; they were an important tool after Hurricane Harvey caused severe damage to our transmission and distribution system in Texas.

The use of drone technology is beneficial for a variety of inspection applications across our generation, transmission and distribution system.

Multi-Dimensional Modeling

Finding the right solution is easier when you can see the

problem. When developing or updating standards for transmission substations, a set of drawings is generated to provide guidance to support different stakeholder needs within the production environment. As needs change, the drawings and guidance have to keep pace with the changes. Creating these updates is time consuming and relies on the ability of stakeholders to mentally translate a two-dimensional drawing into a real-world application so it can be reviewed for accuracy.

We are creating a new three-dimensional (3D) model before developing the drawings, allowing us to use augmented reality for a more effective visual review of the standards. By creating an immersive experience, experts in multiple locations can simultaneously review the work, reducing the risk of errors and the time it takes to complete the job.

This type of modeling also creates an opportunity for people who work in substations every day to physically move around in a 3D model environment to look at something that does not yet exist. This gives our workers the opportunity to “see” and “feel” if something needs to be changed in their designs, based on their experience in the model.

Ground-Penetrating Radar

Upgrading underground infrastructure sometimes requires finding it first. AEP’s transmission team identified a business need for a more efficient and cost-effective way of locating underground structures that were built decades ago, so they went about finding a solution. They recognized Ground Penetrating Radar (GPR) devices’ improved accuracy, making 3-D modeling easier. The “lawn mower-like” device, equipped with GPS, moves across the ground without causing damage and saves time and money while improving safety. It is also a more environmentally-friendly solution for brownfield projects. AEP Transmission applied this technology for the first time to update a 1960s vintage substation in Ohio.

The GPR allows engineers to see clear images, comparing what they are seeing to existing diagrams, so they can optimize the routing of new underground facilities. Construction crews can also use the data from the GPR to potentially minimize the amount of hydrovac for digging a trench. Hydrovac is a slow and time-consuming excavation technique that uses high pressure water to “dig” inside substations, while avoiding damage to underground cables. The resulting wastewater and soil have special disposal requirements. This new technology can minimize that need.

The GPR technology is cost-effective because it can reduce the amount of hydrovacing, and reduce any waste/spoils, that would have to be removed.

Remote-Controlled Robot

In 2017, a revolutionary method for inspecting the internal components of power transformers was piloted by AEP Transmission using a decommissioned 1950s-era transformer. Normally, internal transformer inspection and maintenance requires downtime and the time-consuming and expensive process of draining the large amounts of oil from inside. Once the oil is removed, a specially trained employee then has to squeeze inside to physically examine the components.

The team, working with the Electric Power Research Institute and software vendors, tested a remote-controlled robot that could be lowered through the top of the oil-filled transformer. The robot was maneuvered to “swim” through the oil to inspect the various components. What testers saw was a game changer. Rarely seen, clear images of internal transformer components were captured allowing engineers to conduct an inspection without putting a person inside the transformer. The data collected will give us useful end-of-life information about the condition of internal components and may help with evaluating future maintenance needs. Most importantly, it improved the safety environment for our employees.

Prefabricated Transmission

AEP Transmission continues to improve upon the way projects are designed, engineered and built. In 2017, we continued experimenting with prefabricated packages to build transmission substations more efficiently. An added benefit is that this approach also reduces waste normally occurring in traditional construction methods.

We built five prefabricated projects in 2017 (Indiana, Oklahoma, Texas and two in Ohio) and currently plan to pilot 40 more projects during 2018 and 2019. As we increase the amount of prefabricated projects in our pilot, we continue to find more areas where this application is beneficial. Among the 40 projects included prefabricated packages to build buses, foundations, substation service tertiary structures, modular high margin cap banks, and more. We are planning to extend this approach to substation configurations and transmission line installations.

We first considered prefabricated packages as a way to reduce the number of construction labor hours on the site for

AEP uses prefabricated packages to build transmission substations more

efficiently while reducing cost, waste and length of outages for construction.

each project. The first Pre-Fab Station Installation in Appalachian Power demonstrated that the use of a major pre-assembled component, factory-built and transported to the station site, improved field safety and significantly reduced construction time. It took 10 hours to install the pre-fab station, compared with three to four weeks using traditional construction methods that involve installing and welding 516 parts on the site. This approach also generates significantly less waste that would have to be removed.

With each pre-fab project, we are learning there are more ancillary benefits than just reducing construction labor hours. These include:

- Reduced length of outages for construction
- Faster installation
- Construction is less dependent on weather because it is fast-tracked
- Reduced risk of missing parts
- Enhanced safety as workers are exposed to fewer risks associated with construction
- Reduced waste from packaging, which reduces environmental impacts at job sites
- Minimal material management required because the station comes prefabricated

EPRI Technology Transfer Awards

In early 2018, several AEP employees received prestigious Technology Transfer Awards from the Electric Power Research Institute (EPRI) for their achievements in research and development. The awards recognize industry leaders and innovators who help companies deliver safe, affordable, reliable and environmentally responsible electricity through collaboration and research that has a transformative impact in the utility industry. The awards to AEP employees involved:

- Development of smart chemistry alarms that can be activated during a chemistry event, such as a condenser leak, to notify plant operators to take immediate action to minimize the risk of equipment damage.
- Research evaluating different forms of mercury in wastewater discharge at a coal-fired power plant. The alternative form identified was accepted by the Ohio Environmental Protection Agency for wastewater discharge permitting, serving as a national model for alternative mercury limits.
- Creation of a one-of-a-kind database of fish and shellfish eggs and larvae that can be used to holistically examine power plant impacts on fish populations and track the spread of invasive fish species in the Ohio River.
- Development of a robot that autonomously inspects high-voltage transmission lines, sending information back to the utility. The robot expands inspection capabilities, increases cost-effectiveness and improves workplace safety. AEP deployed the robot as a permanent installation on a 90-mile transmission line.

We will use our knowledge, voice, skills and relationships to enable innovation, bring new technologies to market, modernize the grid to be the ultimate optimizer of all resources and technologies, and develop a diverse, inclusive workforce for the 21st century. We will do this safely and efficiently and by working with our customers, communities and regulators.

Developing Our Workforce

Transformational change requires a more progressive and thoughtful approach in how we train, develop and retain employees. This includes identifying new ways to work and reinventing how people, automation, and technology work together.

Safety & Health

Zero Harm is at the heart of everything we do at AEP. It means we believe all occupational illnesses and injuries are preventable *Because We Care* that everyone goes home in the same or better condition than when they came to work.

Safety and Health at AEP

Zero Harm is at the heart of everything we do at AEP. It means we believe all occupational illnesses and injuries are preventable Because We Care that everyone goes home in the same or better condition than when they came to work. We Care about our people, our customers and our communities.

In 2017, AEP began the second of a five-year safety and health transformation effort toward our goal of Zero Harm – zero injuries, zero occupational illnesses, and zero fatalities. We have established several programs and activities that serve as the foundation for our journey. Our objective is to take our safety and health culture from good to great by making it personal and holding each other accountable.

Zero Harm Means We Care

We know we can achieve Zero Harm because work groups across the company achieve it every year. We are creating a learning-centric safety culture where events are looked at objectively and used as opportunities to prevent future harm, while learning from those who do it well. It's a culture that focuses on communicating, learning and continuously improving so the same events aren't repeated. Our efforts include:

- Building a comprehensive governance structure that allows us to be more proactive and remove obstacles to preventing harm
- Enhancing training to objectively evaluate safety-related events
- Implementing employee recommended policies to make driving safer
- Making safety and health information more accessible through online platforms
- Analyzing and sharing injury data and trends with business units
- Producing video messages to educate employees
- Coaching employees to have meaningful conversations about safety and health

Despite increased attention on safety, we tragically experienced two contractor fatalities in 2017 and one in 2018. The loss of any life is immeasurable, as it leaves a significant void in the lives of co-workers, family and friends. Contractors are an important part of the workforce, and we want them to go home without harm from the work they do on our behalf. Although these heartbreaking events can never be undone, each loss strengthens our resolve to work harder toward Zero Harm.

2017 Workforce Safety and Health Performance

No aspect of our work is more important than safety and health, whether it is an AEP employee or an AEP contractor. One way to ensure we are living the values of Zero Harm is through performance measurement. We use several methods to track and measure the success of our safety and health efforts. More importantly, we analyze the results to identify trends and opportunities for improvement or prevention.

In 2016, AEP transitioned from the Injury Severity and Recordable Injury rates to the industry-accepted DART (Days Away/Restricted or Job Transfer) rate to track and measure work-related injuries for both employees and contractors. The DART rate allows AEP to identify more serious events and place additional emphasis and focus on those that cause more serious harm. In addition, AEP established DART rate improvement goals using a three-year average of historical DART rates.

Our 2017 employee safety and health results show that we are making improvements as a result of our efforts. In 2017, the DART rate for AEP employees was 0.44 compared with 0.50 in 2016 – which is a 12 percent improvement. This is good progress, but we still have work to do. In 2017, AEP employees experienced 4,164 days away/restricted or job transferred days and 83 events where a work-related injury or illness took them away from their job. Slips, trips, falls, sprains and strains and stepping in holes (STFSS) accounted for more than 50 percent of all DART cases. These types of injuries continue to be the top cause of harm to our employees and contractors. See Transforming Safety & Health to learn about our prevention efforts.

We strive for Zero Harm with our entire workforce, which includes contractors. We invest time and resources to ensure the safety and health of our contractor workforce and we hold them accountable for their performance. This has become critically important as our contractor workforce expands as we grow our business.

DART Rate = *Days Away, Restricted or Job Transfer Cases x 200,000/hours worked.* DART Rate is an industry-accepted measure that allows companies to isolate more serious events.

We track separate DART rates for our contractors to monitor performance and focus on areas needing improvement. AEP contractors' DART rate for 2017 was 0.58 compared with 0.59 in 2016. In addition, we experienced two contractor fatalities due to electrical contact events. In response, AEP worked collaboratively with our contracting partners to identify the root cause of the events and build mitigation strategies to prevent future recurrences. However, we still have work to reach our goal of Zero Harm among those who work on our behalf.

To help our contractors achieve Zero Harm, we have a rigorous contractor pre-qualification process that sets clear expectations for compliance and commitment. We are beginning to incorporate leading indicators into the contractor safety management program and proactively address trends. In addition, we meet regularly with our contractors and set an expectation for them to align with our value of Zero Harm. We will continue to look for ways to remain actively engaged through our AEP employee and contractor safety management systems. There will be additional focus on contractor safety in 2018, as AEP works to enhance its contractor safety management program.

We also calculate a combined DART rate for employee and contractor performance, which gives us a total picture of the progress our entire workforce is making toward Zero Harm. The combined DART rate was 0.51 in 2017 compared with 0.54 in 2016. We experienced a 6 percent improvement which shows that we are making progress towards our goal of improving our performance by 10 to 20 percent. In addition, 78 percent of AEP's work-reporting locations did not experience a DART event.

We are proud of the progress we have made so far; however, we know that reaching Zero Harm doesn't happen overnight. No single solution or activity will improve AEP's safety and health performance. However, we are confident that the programs, policies and procedures we have in place will make a difference in the lives of our employees, contractors and their families

Transforming Safety & Health

Nothing takes higher priority at AEP than the safety and health of our employees, contractors and the public. We have made good progress during the past decade, but we have yet to achieve our goal of Zero Harm.

We have shifted our approach to safety and health by focusing on engagement, accountability, proactive hazard identification and correction, and continuous improvement. As a result, we have established several programs and activities that serve as the foundation for our safety and health transformation. These include:

Following a company-wide evaluation of our safety and health culture in 2015, we launched a five-year journey to shift our approach to safety and health.

Good Catch Program

The Good Catch program encourages employees to proactively share information about unsafe conditions or events where there was no resulting harm or damage. Through the program, situations are reported and corrected, and learnings are communicated throughout the organization. In 2017, more than 4,000 Good Catches were reported, compared with 2,809 in 2016.

This year, through ongoing continuous improvement programs, measures were devel¬oped to assess and improve the quality of Good Catches so that we share lessons learned across AEP. The data also is being used to identify areas where we need to improve our recognition of hazards, such as slips, trips, falls, sprains and strains and stepping in holes (STFSS). STFSS accounted for more than 50 percent of all Days Away/Restricted or Job Transferred (DART) cases but only a small percentage of Good Catches in 2017. One opportu¬nity to reduce STFSS events is to identify and report hazards related to these issues.

Shadow of the Leader – CORE Visit Training

A CORE visit is a leadership tool that can be used to assess a variety of activities. CORE stands for Coaching through Observation, Recognition and Engagement. The visits connect employees with their leaders in a two-way dialogue to improve engagement and performance. Even though safety and health is the focus, the interactions can include discussions on continuous improvement, work expectations and opportunities to develop standard work. Expanding the discussion has been particularly helpful in low-risk work environments. This provides leaders with more ways to build trust and engage with their team members. More than 3,500 leaders have participated in CORE visit training since 2016. In 2017, more than 4,300 CORE visits were documented.

Site Inspection Program

In 2016, following a fatal crash between a train and an AEP vehicle at a private rail crossing leading into one of our construction laydown yards, we began inspecting sites across our service territory in effort to identify potential safety hazards that could put the safety of our workforce at risk. More than 3,700 sites were inspected, which included substations, laydown yards, generation plants and office facilities.

As a result of this effort, more than 400 risk mitigation plans were developed for the highest-risk sites. These included physical projects, such as moving entrances or high-visibility barriers, and revised work practices, such as prohibiting left-hand turns onto busy streets and requiring smaller vehicles to arrive first to help direct larger vehicles into stations, or a combination of both. In 2018, we will continue implementing the plans and prioritize the next set of sites to receive mitigation.

Occupational Health

Zero Harm means that everyone has the right to work in a healthy environment. AEP's occupational health efforts have involved a number of initiatives to protect employees from exposure to chemical, physical and biological agents. Focus areas include respirable crystalline silica, ergonomics and heat-related illness.

Noise-induced hearing loss remains a challenge for AEP. Moving forward, industrial hygiene experts will begin increasing awareness of this issue. Individuals who work in loud environments will learn how to more effectively use their individual personal protective equipment (PPE) to protect their hearing by undergoing a hearing protector fit test. Fit testing provides measurable results and identifies opportunities for individual education.

Driving Safety

Driving is a critical task for many people at AEP. On average, our employees collectively drive more than 91 million miles a year for work. In August 2017, AEP implemented a new Attentive Driving Policy, which prohibits the use of cellphones and hands-free devices while driving for company business. In addition, we refocused attention on the importance of seat belt use to saving lives. Both of these changes came from frontline employee recommendations during AEP's driving summit in April 2017.

In 2018, we are starting to implement new telematics tech¬nology across our fleet to make operating vehicles safer for our employees and the general public. The information gathered from the technology will help improve driver skills and minimize hazards for employees. In addition to the safety benefits, the program will help to reduce fuel usage, vehicle maintenance and vehicle claims costs.

Communication & Engagement

In addition to CORE visits - Coaching through Observation, Recognition and Engagement – we are expanding the ways in which we communicate with our employees about safety and health. We have implemented several web-based communication platforms for instant and easily-accessible safety-related information. For example, a new safety and health dashboard on our internal website provides employees with instant information on Good Catches, DART events and other recordable events. We also created a private Facebook page where valuable safety and health information is shared and to recognize safe behaviors at work or home. Through the newly created Safety and Health Video Channel, valuable safety messages are shared monthly across AEP. The messages elevate awareness around AEP's greatest safety challenges while featuring employees from across the company.

These efforts are a few examples of how AEP is working to build a learning-centric culture that focuses on communicating, learning and continuously improving so everyone goes home in the same or better condition than they came to work.

Public Safety

AEP is committed to serving our customers without putting members of the public in harm's way. We are always looking for better ways to provide important safety information to our neighbors. We use multiple communication channels to educate the public about recognizing hazards and provide guidance of what to do when a potentially risky situation occurs.

Even with increased education and outreach efforts, five public fatalities occurred in the AEP service territory in 2017 because of electrical contact.

We have revitalized our public safety efforts and increased education and awareness of how to stay safe around AEP facilities. Part of this effort included working with first responders who are often the first ones on the scene in an emergency. These included:

- Electrical safety awareness events
- Electrical safety programs in schools
- Social media to provide the public with safety information

Stay Away From All Overhead Lines

- New videos and reference materials with graphics to promote public safety
- Promote awareness and use of “Call Before You Dig”

Workforce Safety & Security

AEP’s quest for Zero Harm reaches beyond occupational safety and health to include employee security and workplace aggression. While in the field or in the office, we believe every employee should come to work feeling safe and secure. In response, AEP has developed policies, procedures and training to increase employees’ ability to recognize, report and respond to workplace aggression.

Examples of Workplace Safety & Security Efforts:

In late 2017, AEP implemented a new mandatory self-reporting policy that requires employees to report within 24 hours to their immediate supervisor and/or their local Human Resources representative the following events:

- An arrest, charge, indictment or conviction of a felony or misdemeanor criminal charge (except minor traffic offenses that will not result in incarceration)
- Service of a protection order or restraining order when the employee is listed as the subject of the protection or restraining order.

While in the field or in the office, we believe every employee should come to work feeling safe and secure.

A thorough review of the reported event is conducted by an internal team consisting of Human Resources, Legal, Ethics and Compliance, Security, and the impacted Business Unit. Typically, we may not learn about these events until several months later due to the lag in legal reporting systems. The mandatory self-reporting policy allows us to become aware of these events sooner and allows us to prepare for events that could potentially put our employees or our operations at risk. It also allows for us to conduct a proper review to determine if immediate action is required, such as termination, to protect our employees and financial assets.

AEP also has several workplace safety training initiatives available to our employees. In early 2018, we launched an Active Shooter Response table-top exercise to train our employees on how to handle active shooter situations. For our field employees, we provide a face-to-face Customer Threat and Aggressive Behavior training, which was recently modified to include de-escalation techniques that can be used with difficult customers who threaten the safety of our employees. We also launched a video version of this training for those who are unable to attend in-person.

At AEP, it is our responsibility to do everything we can to protect the safety of our employees. By putting these efforts in place, we stay true to our commitment to providing a safe working environment for all employees.

Managing Performance

Internal audits of our safety and health management system and compliance processes are part of our quest for Zero Harm. The audits help flag potential hazards that could lead to harm, allowing us to take proactive preventive action.

Safety and health programs were audited at more than 30 locations in 2017. In addition, a system-wide audit of some aspects of the safety and health program transformation was conducted. In response to findings, corrective action plans are developed, which are tracked to closure by the audit team. Audit results are shared with business unit leaders and safety professionals across the company to leverage lessons learned.

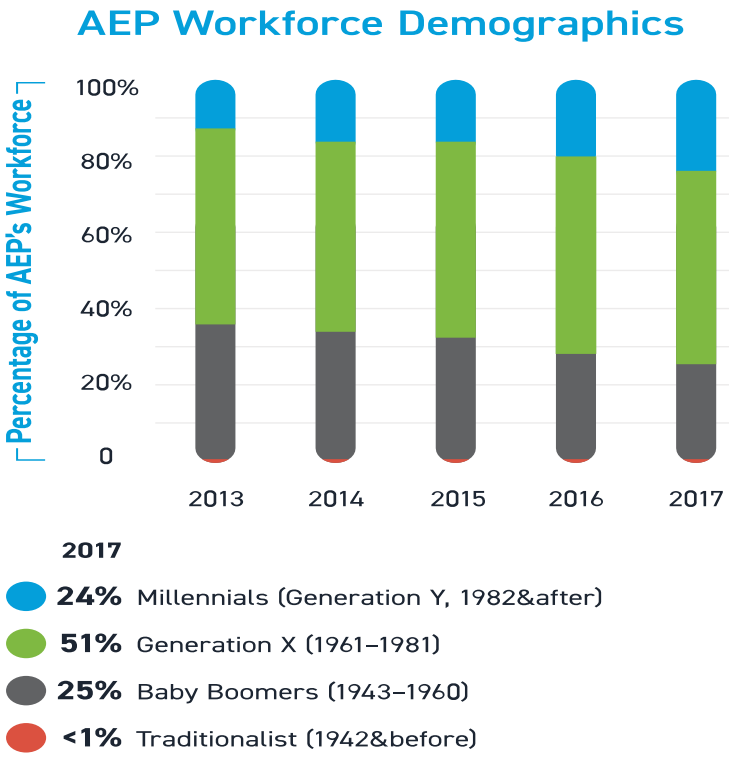
We continue to review our processes for sharing information and lessons learned to ensure there is consistency across AEP and

that important information to prevent harm is shared with every employee and contractor.

The Future of Work

As the energy industry continues to transform, so will the needs, skills and expectations of our workforce. New technologies, digital systems and process automation are changing the way we get work done as well as changing the expectations of our customers and employees. In addition, as we continue to focus on the customer experience – offering new energy solutions while providing an exceptional customer experience – we need the tools and resources to deliver. In response, we are focused on defining what the future of work at AEP looks like and how we prepare for this change through strategic workforce planning.

We undertook an aggressive inspection of approximately 3,750 sites across the AEP system to identify safety risks that could result in harm to our employees.



As a leading energy company, we are committed to continuous improvement and learning while reinventing how people, automation and technology work together. This is important to achieve our mission of redefining the future of energy and developing innovative solutions. This means a paradigm shift in the way we do business.

In 2017, AEP completed a 10-week project within shared services that looked at what the work of the future will be and how works gets done. One aspect was exploring how automation can make work faster, easier and more effective. We looked at several time-consuming, manual tasks that could quickly be designed and built in a test environment. We learned that the process automations would help employees do these processes faster, easier and more effectively, allowing them to focus more time on strategic work activities. For example, one team looked at scrap metal billing and management. They found that process automation freed up employees from coordinating the scrap metal process at their locations and sped up the process, which allows AEP to get paid much faster.

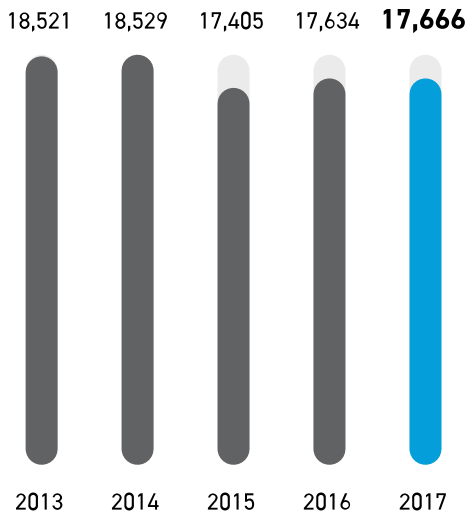
We are looking at how to prepare employees for the future of work. This includes forecasting new roles and skills that will be required as jobs change and looking at different technology solutions that would allow work to be more streamlined and efficient. We are also looking at the needs and expectations of our current and future workforce, such as expanding telecommuting and contingent work arrangements that would allow for more flexibility and a type of crowdsourcing of resources, as we need them.

Although our annual employee turnover rate remains steadily low at approximately 6 percent, we anticipate that a significant portion of our workforce will retire or leave for other opportunities within the next five years. Our focus on the future of work allows us to prepare for this shift. Whether through succession planning,

investing in new tools, technologies and process automation, or capacity-building and training for emerging skills critical to our industry, we are developing a long-term plan so that we are prepared.

Number of AEP Employees*

year-end



* Does not include Dolet Hills Lignite Mine employees.

Developing Our Employees

Transformational change requires a more progressive and thoughtful approach in how we train, develop and retain employees. This includes identifying new ways to work and reinventing how people, automation, and technology work together.

As jobs begin to change, so do the skillsets needed, experience required and knowledge necessary to remain competitive. New technologies, changes in the way we are regulated, our sharpened focus on the customer experience, and competition for a skilled workforce are all factors that are shaping our industry. Our goal is to prepare our company and workforce for those changes so that we are aligned with our future strategy. AEP provides a broad range of training and assistance that supports lifelong learning and transition development. This is especially important as we move toward a more digital future that requires a more flexible, innovative and diverse workforce.

As AEP focuses on the customer experience, we want our employees to have the necessary tools, technologies and training needed to be successful. One example of how we are preparing our employees to deliver an exceptional customer experience is through newly created frontline training. All of our Customer Operations Associates are receiving training to help guide conversations, tackle hard issues and adapt to a range of customers' communication styles. As we look to move away from a transactional type of relationship with our customers, this multifaceted training is critical to preparing our employees for the skills we need now and in the future.

AEP provides development opportunities for employees at every level, whether through mentoring programs or educational assistance.

To develop a talent pipeline for our future workforce needs, AEP has training alliances with various community colleges, universities and vocational and technical schools across our 11-state service territory. We work with these institutions to develop academic programs needed to prepare employees for upward mobility opportunities and to attract external job seekers interested in careers in our industry. Our education partners include The Ohio State University, Columbus State Community College, Mid-East Career & Technical Center, Texas State Technical College, Morgan State University, Tennessee State University and Oklahoma State University Institute of Technology, among many others.

Our knowledge and skills development strategy is accomplished through our processes for ongoing performance coaching, operational skills training, resources to support our commitment to environment, safety and health, job progression training, tuition assistance, and other forms of training that help employees improve their skills and become better leaders. In 2017, AEP employees completed nearly 1 million hours of training, as tracked in our corporate-wide learning management system.

There are many training programs that are not tracked but account for significant additional hours of essential training to keep employees safe, remain in compliance with laws and regulations, and provide important refreshers of critical skills. For example, new employees in our Call Centers receive 7 weeks of training, while a program in Transmission, called Cross Exposure, provides an immersive learning experience for employees outside of their work group or department. The goal is for experiential learning to take place which enhances the employee's contribution as well as giving them an opportunity to add value to another department.

AEP also provides development opportunities for employees at every level, whether through informal professional development opportunities, AEP's educational assistance program or formal targeted development plans. Several of AEP's AEP's Employee Resource Groups and utility professional groups, such as Women's International Network of Utility Professionals (WiNUP), sponsor programs and events that focus on employee education, career advancement, and personal and professional

development.

A more formal program, called Targeted Development, provides specific opportunities for employees who exhibit the desire and long-term potential for success in higher leadership roles within the company. The programs provide AEP with an ongoing talent pool for future leadership opportunities and ensure we have the right talent to lead the organization in the future. In 2017, approximately 140 employees participated in targeted development programs across the company. Rotational and mentoring programs are available within some of our business units as well.

For example, the Regulatory Rotational Consultant Program provides an opportunity for employees to gain exposure to multiple departments within AEP's regulatory division. As employees complete projects, they learn about different industry activities and gain a better understanding about the state and federal jurisdictions and standards under which our companies operate. This allows employees to use this knowledge and experience to be more effective in achieving AEP's goals in today's complex regulatory environment.

AEP provides education assistance for all active, full-time employees. In 2017, AEP provided a total of $1,915,561 in tuition assistance, supporting more than 1,000 employees in their pursuit of higher education.

Supporting Our Veterans

AEP actively supports, recruits and hires military veterans, and educates, trains and prepares them to successfully transition into rewarding energy industry jobs. Veterans bring important skillsets to the workforce, including leadership, discipline, teamwork and reliability. They also bring a mindset of safety, which is a core value of AEP's business, making them attractive recruits for our company.

Just over 10 percent of AEP's 17,666 employees are military veterans, and almost 8 percent of AEP's new hires are veterans. Veterans have the technical training, experience and personal characteristics that make them a great fit for careers in the energy industry. We hold open houses for veterans so they can learn about skilled craft positions within the company and watch live demonstrations of line mechanic work. They also get a preview of the different technologies used to operate the grid. We encourage veterans to actively seek and apply for jobs at AEP that match their training and skills.

In early 2017, AEP joined the U.S. Army Partnership for Youth Success (PaYS), a program designed to accelerate the transition of veterans to careers in the private sector.

In early 2017, AEP joined the U.S. Army Partnership for Youth Success (PaYS), a program designed to accelerate the transition of veterans to careers in the private sector. Through the Army PaYS program, active and reserve servicemen and servicewomen in the Army and Army Reserve Officers' Training Corps (ROTC) are matched with civilian job opportunities that require the skills acquired during their military service. Soldiers who qualify with a skills match are guaranteed an interview for the job by participating companies.

We also support our military veterans through our benefits program. Military veterans and reservists are allowed paid time off to attend funeral services for a service member with whom they have served. This is in addition to AEP's regular employee bereavement policy. We understand that a fellow service member is often as close as a family member, and the loss is deeply felt by our veterans. We also provide pay differential for employees in the Reserves or National Guard who are ordered to active duty in emergency situations.

AEP's Military Veteran Employee Resource Group (ERG) is another way we support our more than 1,800 military veteran employees. The mission of the Military Veteran ERG is to promote the roles and contributions of veterans and active-duty military employees, provide professional development and networking opportunities for our members and serve as a liaison between AEP and the veteran and military communities.

We are proud of our work to support military veterans. AEP was one of six energy companies that developed the Troops to Energy Jobs initiative to provide veterans with a career path for jobs in the energy industry. AEP also participates in the Veteran Jobs Mission, which has grown to more than 200 companies. The coalition is committed to hiring veterans and has collectively hired more than 436,000 veterans since its inception in 2011.

Labor Relations

More than one fourth of AEP's workforce is represented by labor unions. We value the relationships we have with our unionized

employees and believe in a trusting, collaborative and respectful partnership. We are working with our labor partners to strengthen these relationships to ensure we have a culture that attracts and supports employees who can adapt to the rapid changes occurring in our company and industry. Our partnership with labor unions is critical to meeting the growing expectations of our customers and adapting to the challenges of rapidly changing technologies.

We negotiated three-year collective bargaining agreements and wage packages in 2015 with the International Brotherhood of Electrical Workers Union and the Utility Workers Union of America. We have begun another cycle of negotiations and we expect to have three year agreements with all of the unions who represent AEP personnel by the end of 2018.

Our relationship often goes beyond the confines of a contract. Together, we're expanding our focus on safety while enhancing productivity. We are also working together with labor leaders to support the President's focus on infrastructure development across the nation. Our labor-management relationship continues to grow as our workforce becomes more flexible, creative and engaged.

2017 Organized Labor at AEP

Labor Unions	Number of Employees
International Brotherhood of Electrical Workers	**3,221**
Utility Workers Union of America	**747**
United Steelworkers of America	**372**
United Mine Workers of America	**134**
International Union of Operating Engineers	**2**
Total	**4,476**

Culture of Engagement

A strong and healthy culture fosters engaged employees and creates the foundation for long-term success. Company culture is known to drive performance. An engaged, collaborative and empowered workforce not only will improve morale and performance, it will fuel innovation, spark ingenuity and drive continuous improvement. At AEP, we continually work to foster a culture that supports the agility and focus needed to succeed in a fast-paced, changing work environment. This includes building on our commitment to customers, safety, operational excellence and innovation.

To measure our progress, AEP conducts employee culture surveys through Gallup, Inc. In 2017, our employee culture survey showed positive, steady improvement in several areas, including an 89 percent participation rate compared with 74 percent in 2014, the survey's first year. We strive for 100 percent participation because we truly believe that every voice counts.

In 2017, we saw a significant improvement in the overall grand mean score placing AEP in the 69th percentile compared with the 55th percentile in 2016, and 12th percentile in 2014. We also saw an improvement in our Employee Engagement Index, which compares the number of engaged employees to the number of actively disengaged employees, with 50 percent of employees being engaged compared with 45 percent in 2016 and 27 percent in 2014.

In 2017, we established an Inclusiveness Index in our culture survey. Our Inclusiveness Index score was 3.99, which places us in the 68th percentile. We are confident that this score will increase as we continue to build our diversity and inclusion efforts and roll out corporate goals in mid-2018.

To continue building momentum to keep employees actively engaged, work groups develop culture action plans each year that help keep our employees focused on culture.

At AEP, we continually work to foster a culture that supports the agility and focus needed to succeed in a fast-paced, changing work environment. We measure our progress through employee culture surveys.

We encourage our employees to be mindful of their behaviors and leadership styles through our Power up & Lead culture leadership workshop. Since the workshop began in 2013, more than 17,000 employees have completed Power Up & Lead. The workshop equips them with knowledge, tools and resources to be a more collaborative, effective and engaged workforce. We will continue to offer Power up & Lead workshops to employees and new hires in 2018.

Continuous Improvement

As AEP continues to build on the continuous improvement culture it has been cultivating for several years, our future focus will be the alignment of continuous improvement efforts to high level strategic objectives. This strategy-driven continuous improvement approach is linked to AEP's strategy and includes three- to five-year objectives for the organization, associated balanced scorecard metrics relevant at every level, and annual project plans associated with meeting goals. The metrics will be vertically

aligned and will drive problem solving to the right level within the organization. Also, leaders will continue to develop their skillsets to effectively coach their teams to solve problems, achieve their culture and performance goals, and sustain the continuous improvement culture. AEP will also continue to drive cross-functional value streams aligned with core value drivers.

Examples of Success:

One priority value stream is the Fleet Vehicle Acquisition – Vehicle Request to Vehicle Delivery – the process for buying new vehicles. AEP operates over 12,000 vehicles and the processing cycle to replace a vehicle can exceed two years. In March 2017, a cross-functional team from Corporate Procurement, Supply Chain, Fleet Operations and the Supply Chain Center of Excellence created a value stream map to better understand all of the activities that produce this lengthy lead time.

To buy a new fleet vehicle, there are 43 major steps that are performed by 11 organizations. To shorten the lead time to ensure more timely acquisition and delivery of vehicles, 22 improvement opportunities were identified. One of these opportunities is the standardization of vehicle platforms and options by job function. For example, AEP Ohio's Distribution organization was offering 12 hydraulic vehicle platforms with multiple options to choose from. After the improvement event, eight platforms with standard specifications and minimal options are now offered, resulting in cost and lead time reductions. For example, for one type of digger derrick, the cost savings for the 11 vehicles to be purchased in 2018 is approximately $84,000. In addition, the group reduced the lead time by approximately 24 percent.

The foundation for continuous improvement is standard work, and AEP is committed to strengthening our focus on developing standard work for priority business functions and critical processes.

As a result of the successes in Ohio, similar improvement events are scheduled for the balance of AEP's Distribution organizations. To build a continuous improvement culture and use the team's problem-solving capabilities for future improvements, such as vehicle standardization, the value stream leaders and their teams meet on a regular basis to discuss their progress, challenges and barriers to success.

The foundation for continuous improvement is standard work, and AEP is committed to strengthening our focus on developing standard work for priority business functions and critical processes. In 2017, the Work Planning Process for Distribution developed standard work for the identification and planning of field work, which will be used across our operating companies by the summer of 2018. By developing standard work and applying it across the organization, we can make more informed operational investment decisions, thereby increasing reliability for our customers and allowing best practice sharing.

Diversity and Inclusion

Our leadership team supports and serves as the foundation for establishing a more inclusive workforce that breaks down silos and creates a trusting, engaging and thought-provoking work environment. Diversity and inclusion have become increasingly important concepts not only to AEP but also to our employees, shareholders, suppliers and customers.

AEP values an inclusive and diverse business environment for our employees that also reflects the diversity of the communities where we live, work and operate. We are committed to providing a pathway for employees to advance and unlock the power of perspectives to better serve our customers, drive innovation, and generate sustainable growth for AEP.

As we continue to position AEP for the future, we view diversity and inclusion as a vital part of our business strategy to remain competitive and to attract and retain the best talent. A diverse, inclusive and highly engaged workforce not only improves performance, it also improves company culture – creating an environment that welcomes different experiences, beliefs, backgrounds and thoughts.

AEP is committed to the inclusion of a broad base of stakeholders in everything we do. This is reflected through several external commitments focused on advancing diversity,

Our Vision – We envision a culture where diversity is the norm and employees, customers, suppliers and stakeholders of all identities are valued, respected and engaged.

Diversity – We embrace diversity by respecting the differences, similarities as well as the cultural experiences, backgrounds, talents, and ideas of employees, customers, suppliers, and stakeholders. This includes race, ethnicity, religion, sex, gender identity & expression, national origin, sexual orientation, age, physical ability, etc.

Inclusion – We intentionally focus our efforts to leverage differences and similarities in our communities and business. We believe we can meet customer expectations, while developing innovative solutions that improve lives.

inclusion and equity. Signature commitments include: Paradigm for Parity®, the CEO Action for Diversity & InclusionTM pledge, and the Columbus Commitment: Achieving Pay Equity.

In 2017, we developed a five-year Diversity and Inclusion Strategic Plan – The Roadmap to 2022. The plan focuses on four key areas:

1. **A Diverse Workforce:** Build a diverse, high-performing workforce that reflects the communities we serve. Eliminate barriers that prevent employees from maximizing opportunities and potential.
2. **Inclusive and Engaged Workforce:** Cultivate a collaborative and inclusive work environment that empowers all employees. Integrate Employee Resource Groups (ERG) across the enterprise and empower them to be brand ambassadors supporting employee recruitment and retention; career/professional development, as well as customer and community connections.
3. **Sustainability & Accountability:** Establish accountability measures to ensure that AEP's management and leadership teams model the behavior that advances diversity and inclusion initiatives.
4. **External Partnerships:** Foster relationships with external partners and stakeholders to broaden access to diverse talent by building partnerships with educational institutions, diverse community organizations, and professional associations.

Each of the four goals is accompanied by strategies and measures designed for successful company-wide implementation. In addition, a shared accountability structure was created to ensure progress and outcomes. This includes: the accountability of AEP's leadership team for implementation and management of this plan; the Diversity and Inclusion Advisory Council, which is responsible for ongoing development and review of initiatives and strategies; and employees who are responsible for living AEP's culture to achieve these objectives. Progress will be measured, tracked and reported annually in this report.

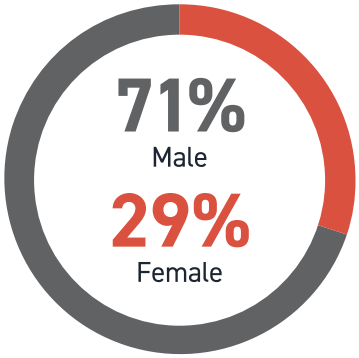
Leadership Diversity

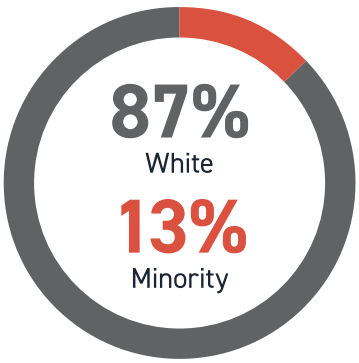
It is important to us that we become even more diverse and inclusive from the board room to the front line. Having employees who represent different experiences, thought processes, generations, genders and racial and ethnic backgrounds helps us gain a broader perspective on business issues, challenges and solutions. It moves us to a place of viewing differences as strengths. It also solidifies our commitment to building a high-performing workforce that reflects the diverse communities we serve.

In 2017, AEP was recognized as a 2020 Women on Boards Winning "W" Company by the 2020 Women on Boards campaign. The mission of the campaign is to increase the percentage of women who sit on U.S. company boards to 20 percent or greater by 2020. Today, 25 percent of AEP's Board of Directors is composed of women.

Currently, AEP's leadership diversity is made up of 27 percent women and 13 percent minorities due to recent leadership changes. At the end of 2017, our Board of Directors, AEP leadership team and regional utility presidents included nine women, two African Americans and two Hispanics. Women made up 29 percent and minorities 13 percent of this group. Leadership diversity lays the foundation for enabling a more inclusive workforce that breaks down silos and creates a trusting, engaging and thought-provoking work environment. While we are making progress, we know we can do better – and we will. Our Diversity and Inclusion Roadmap will provide additional focus on the diversity of our leadership ranks through new targets and accountability goals.

AEP Leadership Diversity





Includes AEP's Board of Directors, AEP Leadership and Regional Utility Presidents in 2017.

AEP Employee Representation*

as of Dec. 31, 2017	Employees	Females	%	Minorities	%
Total Employment	17,716	3,299	19%	3,014	17%
Officials & Managers	3,228	457	14%	363	11%
Professionals	5,413	1,433	26%	995	18%

as of Dec. 31, 2016	Employees	Females	%	Minorities	%
Total Employment	17,701	3,222	18%	2,712	15%
Officials & Managers	3,176	419	13%	312	10%
Professionals	5,119	1,349	26%	821	16%

* Does not include all AEP subsidiaries, co-ops and interns, AEP Energy and employees on unpaid leave-of-absence.

Partnerships for Success

Our diversity efforts are fueled by a number of internal and external initiatives, programs and partnerships. Whether through educational institutions, professional associations, community organizations, employee resource groups (ERGs) or leadership development forums, we are focused on building and fostering partnerships that give us greater access to diverse talent.

In addition to Paradigm for Parity®, the CEO Action for Diversity & Inclusion™ pledge and the Columbus Commitment: Achieving Pay Equity, we currently have other relationships with organizations such as the Center for Energy Workforce Development (CEWD), Direct Employers, Prospanica, National Society of Black Engineers, American Association of Blacks in Energy, and the United Negro College Fund to assist us with our diversity efforts. These partnerships not only expose AEP to more diverse talent, but also help AEP become a recognized partner and leader among potential employees.

We have alliances with several colleges and universities that broaden access and reach to diverse candidates. Through our Diversity and Inclusion Roadmap, we are working on a plan to implement a companywide targeted college recruiting initiative that focuses on partnerships with schools representing Historically Black Colleges and Universities, Hispanic Association of Colleges and Universities, and women's colleges and universities, as well as working with Offices of Diversity and Inclusion at other colleges and universities. We have also set a goal that by 2022 at least 10 percent of new hires into full-time, entry-level jobs come from targeted high school development programs, technical colleges and/or universities (based on available opportunities).

Employee Resource Groups

One of the best ways for AEP to demonstrate its commitment to a trusting and inclusive work environment is to empower employees to form and participate in Employee Resource Groups (ERG). Our ERGs reflect the diverse makeup of our workforce and communities that we serve. They contribute to the company's diversity and inclusion objectives and business goals in several key areas to include recruitment, retention, professional development, customer education and community outreach. Through our ERGs, we gain valuable insight into the diverse communities that we serve. They also serve to increase employee engagement by providing employees with a safe space to discuss workforce-related issues and to develop innovative solutions to help improve the work environment and the overall success of our company.

AEP's Employee Resource Groups

- Asian American Employee Partnership
- Hispanic Origin-Latin American (HOLA) Employee Resource Group
- African American Employee Resource Group
- Military Veterans Employee Resource Group
- AEP Pride Partnership [for lesbian, gay, bisexual, transgender and questioning (LGBTQ) employees and their allies]
- Abled and Disabled Allies Partnering Together (ADAPT)
- Native American Employee Resource Group (NAERG)

- Multi-Cultural Employee Resource Group (new in 2018)

Open to all employees, the ERGs sponsor programs and events focused on culture, education and personal and professional development. They are active community volunteers supporting efforts such as Project Mentor and Make a Difference Day. ERGs also play an active role in AEP's diversity and inclusion efforts, including recruitment.

One of the key factors that contribute to the success and growth of our ERGs is the support they receive from senior management. Senior leaders are selected by the groups to serve as executive sponsors who advocate for the ERG and its issues, provide strategic guidance, enlist the support of other senior leaders and connect ERG members with relevant stakeholders. In addition, the executive sponsors ensure that the ERG program gains visibility and support across the enterprise.

Employee Resource Groups support AEP's values and goals while contributing to the company's diversity and inclusion objectives.

Fostering an Inclusive Place to Work

At AEP, we value and take deliberate actions to create a working environment that values every individual and group and embraces the diversity and richness of the backgrounds and perspectives of our people. An inclusive environment allows us to leverage the diverse talent of our workforce for business success. In turn, employees who are accepted and respected are more likely to be engaged, to have an increased propensity for innovation and creativity, and to be high-performing contributors. It also says a lot about who we are.

We participate in a number of benchmarking surveys that measure our progress and identify opportunities for improvement.

For the second year in a row, AEP received a perfect score on the LGBT Equality Index. We are proud that this resulted in AEP being ranked among the 2018 Best Places to Work for LGBT Equality. AEP's perfect score was supported by our strong and active Pride Partnership ERG, as well as inclusive benefits coverage. AEP provides health and welfare benefits for same-sex married couples and their dependents. We also offer coverage of transition-related care, based on medical necessity, to individuals who identify as transgender.

AEP values an inclusive and diverse business environment for our employees that also reflects the diversity of the communities where we live, work and operate.

AEP was also recognized for the second year in a row as one of the nation's 2017 Best Places to Work in the Disability Equality Index (DEI) Annual Survey performed by the U.S. Business Leadership Network. The DEI is a national, transparent, annual benchmarking tool that offers businesses an opportunity to receive an objective score on their disability inclusion policies and practices. AEP's Abled and Disabled Allies Partnering Together (ADAPT) ERG was one of the driving forces behind our continued recognition. In addition to facilitating networking and information-sharing for employees and contractors with disabilities, ADAPT also supports the company's efforts to recruit and accommodate employees with disabilities.

For the first time, our employee culture survey included an Inclusiveness Index. According to the latest Gallup research, the most engaged employees are those working in an open, fair and diverse environment. On a scale of one (1) to five (5), our mean score was 3.99. This year's score will set a baseline for improvements from year to year.

Supplier Diversity

AEP's diversity and inclusion efforts extend beyond our workforce to the customers and communities we serve, including our supplier base. Small and/or diverse suppliers enable innovation, increase competition, improve savings and enhance the AEP brand. We want our pool of suppliers and business partners to reflect the diversity of our communities by making it easier for diverse suppliers to do business with us. We are transforming our supplier diversity strategy into two main focus areas: the Small Business Program and the Supplier Diversity Program.

Small Business Program

Our Small Business Program focuses on maximizing opportunities for small business suppliers to provide goods and services to AEP. Goals are established and measured annually for all areas of small business concerns.

Supplier Diversity Program

The Supplier Diversity Program focuses on maximizing opportunities for diverse businesses, which include: Women-owned businesses; Minority-owned businesses, including Hispanic, African American, Asian, Native American; Veteran-owned businesses; LGBT; HUBZone; and Service-Disabled Veteran-owned businesses. We have set a goal to generate a pool of diverse strategic suppliers and business partners that mirror the customers we serve by reaching a 10 percent* diverse spend for Tier 1 (or prime) suppliers by 2023. Targets will be proportionally adjusted to include Tier 2 (subcontractors) information once data is collected.

We also established a Tier 2 program which allows us to understand the supplier diversity spend impact we are having through our direct suppliers. The Tier 2 program demonstrates the importance AEP is placing on further understanding how our spend impacts the communities we serve.

To support our supplier diversity efforts, our Supply Chain and Procurement team formed a multilevel governance council to focus on AEP's procurement practices and commitment. This council is also part of our enterprisewide Diversity and Inclusion Advisory Council, which is responsible for ensuring that all diversity and inclusion goals, objectives and initiatives are integrated into corporate policies, processes and practices as a core element of our business mission.

We are proactively seeking opportunities to build relationships with diverse suppliers. We plan to connect with suppliers through industry and diversity events. We are also encouraging all suppliers to register with AEP in our supplier database. AEP's supplier diversity team works with other teams across the enterprise to enable diverse suppliers to participate in the sourcing process with AEP.

Supplier Diversity – 2017

$7 billion
total corporate spend on goods and services in 2017 (compared to $6.2 billion in 2016)

45 percent
of total corporate spend on locally based suppliers

12 percent*
of total corporate spend on goods and services from small businesses and diverse suppliers in 2017* (compared to $641 million in 2016)

* Figures reflect the federal government's fiscal year. Diverse suppliers are classified as Small Business, Small Disadvantaged Business, Women Owned Small Business, HUBZone Small Business, Veteran Owned Small Business, and Service Disabled Veteran Owned Small Business. The time period for this data is based on annual GSA reporting period of 10/1/16-9/30/17.

Enhancing the Customer Experience

We deliver a product that makes modern life possible. We are experts at producing and delivering safe, reliable electricity to our customers. However, we want to be much more than that. At AEP, our goal is to provide world-class customer service while creating a positive lasting relationship with our customers. We want to be the people that our customers and communities turn to first when they have energy needs. We also want to meet our customers in the communication channel of their choice while providing unique solutions that create value to the customer, each and every time.

Our Customer Experience Strategy includes a variety of initiatives over multiple years focused on developing people, processes, technology and customer-driven insights to help us meet and exceed our customers' growing expectations and changing needs. This includes improving the experience customers have when they interact with us. From first contact, to each transaction, to delivery of service, we are studying each touchpoint we have with our customers to help them effortlessly navigate across these journeys.

Identifying and applying new technology systems and tools and expanding customer communication channels are a main focus of our Customer Experience Strategy. Technology is essential in our ability to provide a variety of options for responsive

communication and effortless engagement. In 2017, we launched a new customer app that allows customers to conduct business with us on their mobile device, whether paying a bill, monitoring usage or reporting/checking the status of an outage. This fulfills one of the most frequent requests received from our customers and demonstrates we are listening and responding to their needs.

We also redesigned our customer bills to make them more user-friendly – a priority for customers. In 2017, AEP launched a new bill format to make it easier for customers to find important information, including what they owe and when it's due.

In 2017, AEP launched a new bill format to make it easier for customers to find important information, including what they owe and when it's due.

As we change how we interact with and serve customers, we are engaging, training, coaching and challenging our employees at all levels to keep the customer front and center of everything we do. In 2017, we introduced the "Effortless Customer Experience" training for our Customer Operations employees, providing advanced frontline skills training. The skills they learned will help guide conversations, anticipate and resolve customer issues, and adapt to a range of customers' communication styles. Approximately 60 percent of our customer operations staff received the training in 2017. The remaining employees will complete the training in 2018.

Our strategy and focus on the customer experience is a journey that never ends. As technologies and our customer expectations evolve, we will continue to research, innovate, test and deliver energy solutions and services that are reliable and affordable and provide value.

Customer Engagement

Customer expectations and enhancements in technology are changing the way we interact with our customers. Although we continue to see an increase in online transactions - customers conducted more than 22 million online transactions in 2017, or a 9 percent increase over 2016 - we are finding that some of our customers are active consumers, looking for cleaner, smarter energy solutions that require more personalized and complex customer care.

We are in the second of a three-year project to install a new Customer Operations Center technology platform that will enable us to work across multiple channels to serve customers. For example, a customer service agent can respond to email, phone calls, text messages and social media, and manage online chat sessions. A pilot system was installed in the Fort Wayne Operations Center in late 2017. Installations for the remaining five centers are scheduled throughout 2018.

From first contact, to each transaction, to delivery of service, we are studying each touchpoint we have with our customers to help them effortlessly navigate across these journeys.

As the expectations and demands of our customers continue to change, so too will the metrics we use to measure our performance and success. In the past, we prided ourselves on quick customer service. However, as we work to improve the overall customer experience, we are considering our customers' unique needs, understanding that quick service isn't always the best service. We are taking a fresh look at our metrics and expect to implement new ones that better align with our focus on excellence.

In 2017, our Customer Operations Centers handled nearly 19 million calls, a slight decrease from the number of calls received in 2016. Mild weather and an increase in electronic channels, such as online bill payment, web-enabled payment agreements and our new customer mobile app, resulted in lower call volumes. As AEP continues to offer more enhanced energy and service options, we expect those numbers to continue to decrease as customers use more self-serve options. When the new Customer Operations Center technology comes online in 2018, we will be better equipped to respond to customers' individual needs, more efficiently and cost-effectively.

Communicating With Our Customers – 2017

18,234,086
alerts sent through email, text or both

2,070,268
customers who signed up to receive mobile alerts

30%
of customers signed up for paperless billing (compared to 28% in 2016)

Approximately
54%
of customer bill payments being processed online and electronically

Social Media

Customers decide how, when and where they interact with us. Increasingly, they are using a variety of social media platforms to connect with us. Because they are always plugged in, they expect immediate response from us 24/7, similar to many other online experiences. This is especially true during outages, when customers want real-time, accurate information about restoration efforts.

Between 2016 and 2017 we experienced a 29 percent increase in Facebook fans and a 13 percent increase in Twitter followers. We are developing a long-term plan to give us a stronger social media presence that includes a better listening platform, expanded monitoring, reporting and analysis of social channels and a centralized social media center that will allow us to engage more effectively with customers and other stakeholders on social media channels.

AEP Social Media – 2017

170,456 followers

54,110 followers

39,980 followers

Our expanded social media strategy will help us enhance the service we provide to our customers who expect to be able to interact and conduct business with us when it is convenient for them. Our social media customer strategy focuses on:

- Customer engagement – customer support and response;
- Social listening – online monitoring and brand protection; and
- Proactive messaging – crisis management, storm and outage updates and marketing campaigns.

In 2017, AEP managed 16 Facebook pages, 14 Twitter handles, eight YouTube channels, three Instagram accounts and one corporate LinkedIn page. Through our social media efforts, we had a total of 72 million Facebook impressions and 15.7 million Twitter impressions. Impressions are the number of times a post from our page was displayed. Investor-related information and power outages were the two most-talked-about categories via social media, followed by company news and environmental-related posts.

Customer Satisfaction

Customers judge their experience with any company in terms of quality, reliability, billing and payment. Today, electric customers also want choices, reasonably priced electricity and greater control of their energy use. And they are more likely to engage publicly, increasingly through social media posts, when they are unhappy. Their perceptions of how well AEP is delivering on their expectations can directly impact our reputation, as well as influence financial and regulatory outcomes.

Demonstrating that we care about our customers in every interaction is the hallmark of a positive customer experience. Providing reliable and reasonably priced service is just the beginning. We have to understand and anticipate what our customers want and make it easier for customers interact with us in their channel of choice. One way to measure our performance is through customer satisfaction surveys.

J.D. Power Electric Utility Customer Satisfaction Study

AEP regularly engages with residential, commercial and industrial customers using a variety of phone and online surveys, including the J.D. Power Electric Utility Residential Customer Satisfaction StudySM. The 2017 survey measured satisfaction among 137 electric utility brands in the U.S. Satisfaction is evaluated according to a variety of factors: power quality and reliability, price, billing and payment, corporate citizenship, communications, and customer service. AEP's results show that overall customer satisfaction continues to increase; our operating companies recorded improvements in overall customer satisfaction from the prior year. However, we can do better, and we are committed to improving our customer satisfaction results.

At AEP, our goal is to provide world-class customer service while creating a positive lasting relationship with our customers.

In 2017, we set a customer satisfaction goal for most of our operating companies to be ranked in the top quartile of the J.D. Power Electric Utility Residential Customer Satisfaction Study within their respective industry segments over the next three years. Although we are currently ranked below several of our peers, we are confident that through our Customer Experience Strategy and newly implemented customer solutions, such as our customer bill redesign and mobile app, we will achieve our goals. In addition, this goal has been directly tied to incentive compensation.

Residential Customer Panel

Sometimes we need to take the pulse of our customers to test an idea for a service or solution we're considering. Having a forum to test insights and ideas among customers is very valuable, especially as we work to become a more agile company.

AEP partnered with Bellomy Research to create a proprietary online panel of more than 5,500 residential customers across our service territory. Randomly recruited panelists typically have the opportunity to participate in one to two surveys monthly. Survey topics vary based on our research needs. In 2017, we surveyed customers on a range of issues, including outage notification enhancements, novel rate designs and energy efficiency. Compared with traditional market research projects, the advantages of having an online panel include lower cost, greater survey design flexibility, and shorter turnaround to get actionable results.

Customer Satisfaction – Recognition and Awards

Indiana Michigan Power (I&M) and Public Service Company of Oklahoma (PSO) were two of a select group of electric-only utilities named 2017 Residential Customer Champions in a Cogent Reports study by Market Strategies International. I&M ranked second among electric-only companies in the Midwest and PSO ranked fourth in the South. The study surveyed almost 60,000 customers from the 130 largest U.S. utility companies. The Customer Champion distinction was awarded to 17 of 60 electric-only utilities plus 32 other natural gas and electric companies. This distinction is an example of how customer value and satisfaction is actually being realized through our continued focus on improving the customer experience.

AEP Ohio earned top honors in the 2017 Large Business Gap and Priority Benchmark survey by E Source. More than 1,300 large business customers were surveyed in E Source's nationally recognized benchmark, which measures utility key account customer satisfaction. AEP Ohio received high scores for reliability, which was identified as the quality considered most important to large business customers when it comes to utilities. AEP Ohio also earned high marks in other areas, including customer satisfaction and perceived value of its account management team. The team was specifically praised by large business customers for being trustworthy, easy to contact, and providing appropriate communication, especially during energy emergencies.

AEP's National Accounts team was also recognized for its excellence in customer satisfaction by the Edison Electric Institute (EEI), winning the 2017 Outstanding National Key Accounts Customer Service award. In addition, two employees were recognized with the National Key Accounts Executive Award for Sustained Excellence in Outstanding Customer Service. These awards align with AEP's strategic goal of improving the customer experience by offering innovative energy solutions and excellent customer service.

Customer Excellence

Measuring and monitoring customer satisfaction is something we do all the time, asking our customers for their opinions of AEP in online or phone surveys. There are 15 customer relationship attributes we ask customers to grade us on, from how easy it is to do business with AEP to their understanding of their bills. When customers say they are very satisfied with their overall experience and rate AEP as "excellent" on all 15 attributes, then we have created a "magical moment." We celebrate these magical moments with our employees because it means that we did everything right in meeting or exceeding customers' expectations.

Examples of Magical Moments:

"They have always done a good job in the community. When they are out working on our street, you can go out and ask those guys what's going on. They will tell you exactly what's going on. They always tell you when they are going to turn your power off, and for how long."

- 12/14/17 AEP Texas, Residential Customer

"When there's a power outage, AEP responds quickly to restore power. They provide neighborhood lights for my safety in this dangerous neighborhood. When my bill was incorrect, they found the error and corrected it. They make available Homeserve warranties. Their technicians are personable and knowledgeable and treat me with courtesy, understanding my needs for better lighting around my house. The rate is the best, for I've tried other aggregate companies, and I always paid more. I love and trust AEP."

- 2/23/17 AEP Ohio, Residential Customer

"The service people they have in the Wilburton area take care of people very well. As a matter of fact, they come by and check on us once in a while to make sure we are doing well. Their service man takes good care of the area, checks with the customers, and stays involved with the community."

- 3/1/17 PSO, Commercial Customer

"Kentucky Power responds in a very timely manner. I feel, considering the obstacles that the company has to overcome to provide power to me where I live in Eastern Kentucky, that they are doing a superb job. Thank you Kentucky Power for a job well done!"

- 2/1/17 Kentucky Power, Commercial Customer

Energy Assistance

From time to time, customers may experience financial hardships and need assistance paying their energy bills. These hardships can put customers in a tough situation where they have to make tough choices between electricity and other basic human needs. AEP has several initiatives and resources that help customers manage their electricity bills and reduce their energy consumption, including energy efficiency programs, rebates and incentives, monthly payment plans and energy assistance grants and programs.

The funding available to support energy assistance programs comes from various sources, including the government, social service agencies and even customers in some cases. Income guidelines determine eligibility. The funding level of different programs can fluctuate from year to year based on several factors, including improvements in the economy that lessen demand for aid, increased or decreased government funding of energy assistance programs, and other contributions or grants awarded to support these programs.

Government-sponsored energy assistance programs provided approximately $63 million in federal and private energy assistance in 2017. In addition, there were more than 18,000 pledges totaling $3.7 million in energy assistance from our self-serve agency websites.

In early 2018, call volumes increased significantly as customers received their bills from heating their homes during extended cold spells at the beginning of the year. We anticipated this and increased our communications with customers about bill payment programs and other options for managing their high bills.

In response to customer need, Kentucky Power's Home Energy Assistance Program (HEAP) will nearly double the number of low-income families who can be helped in 2018. An order from the Kentucky Public Service Commission increased customer contributions to the HEAP program from 15 cents to 30 cents a month. Kentucky Power will match the customer contributions dollar for dollar with shareholder funds. Together, the program will generate nearly $1 million this year to provide heating and cooling assistance to about 2,500 customers in the region.

HEAP funds are distributed to customers who meet income requirements set by community action agencies.

In addition to federal and private energy assistance, the AEP Foundation also contributes financial support to help our customers meet basic energy needs. In early 2018, the AEP Foundation awarded a $50,000 grant to assist low-income residents in Eastern Kentucky. The grant to Christian Appalachian Project will help fund the nonprofit's Elder Housing and Family Housing programs. Both programs make home repairs or install weatherization measures to achieve safe, warm and dry living conditions for families and individuals who cannot afford repairs. The Christian Appalachian project currently has a waitlist of approximately 560 families in need.

AEP provides several options to help qualifying low-income customers reduce costs while keeping their homes comfortable and safe. Learn more about some of the many energy assistance programs offered across AEP's service territory:

Energy Assistance Provided Through AEP to Help Customers Pay Their Electric Bills

in millions

	2015	2016	**2017**
Appalachian Power	$24.6	$26.6	**$26.0**
AEP Ohio	$15.7	$13.0	**$10.2**
Public Service Company of Oklahoma	$9.1	$9.9	**$10.1**
Indiana Michigan Power	$8.3	$6.9	**$7.0**
Southwestern Electric Power Company	$5.7	$6.1	**$5.9**
Kentucky Power	$2.5	$2.8	**$3.6**
Totals	**$65.8**	**$65.3**	**$62.8**

- Low Income Home Energy Assistance Program (LIHEAP)
- Appalachian Power: Take Charge Virginia, West Virginia Utility Assistance Program, Neighbor to Neighbor Fund
- AEP Ohio: Ohio PIPP Plus, Community Assistance Program, Neighbor to Neighbor Program
- Public Service Company of Oklahoma: Light A Life Fund
- Southwestern Electric Power Company: Neighbor to Neighbor Fund

Stakeholder Engagement

Our ability to make informed decisions and to drive and embrace change is predicated on the relationships we have with our various stakeholders and our commitment to transparency, collaboration and action. At AEP, stakeholder engagement is a strategic priority. From our day-to-day operations and planning for the future to delivering an exceptional customer experience and meeting our regulatory obligations, stakeholder engagement is core to our business.

Fundamentally, stakeholder engagement is about relationships and dialogue, and recognizing that our success is dependent on multiple constituencies – from customers, investors and regulators to employees and non-governmental organizations (NGOs). It builds rapport and a foundation of trust, which fuels buy-in, action and success. Through effective and ongoing engagement, we gain valuable insights about our business, the impacts we have on society and the environment, our strengths, potential risks, and opportunities for collaboration.

As interest in environment, social and governance (ESG) issues has increased, we have seen conversations with stakeholders evolve. For example, more and more investors are looking at ESG performance. Customers want to know that our sustainability values align with theirs – and that we can help them achieve their sustainability goals. Landowners are engaging with us as we replace aging infrastructure in their communities. Investors are asking how we are managing carbon risk and about our mitigation strategy. Still others want to know how they can collaborate with AEP to achieve the clean energy transition we are all seeking.

As we invest to modernize and improve reliability, resilience and security of the grid it's important that we understand our stakeholders' concerns and priorities and strive for mutual understanding and seek opportunities for collaboration.

Stakeholder Engagement

Stakeholder Groups

Investors

Every year, our Lead Director of AEP's Board of Directors engages in a proactive shareholder outreach program with interested investors, along with a small company management delegation, to discuss matters from environment, social and governance (ESG) issues to governance issues and other areas of interest.

In October 2017, we were invited by the U.S. SIF (Social Investment Forum) to share AEP's transformation story and ESG performance to their members. We intend to organize similar calls annually as a "fifth quarter" call.

In 2017, AEP piloted a new ESG/Sustainability reporting template that helps provide electric industry investors with more uniform and consistent ESG and sustainability-related metrics. The qualitative and quantitative report was developed by member companies of the Edison Electric Institute (EEI). The first formal launch of the template will be issued in 2018; the pilot gave companies a chance to test the format and data collection process and receive valuable feedback from investors, credit rating agencies and research organizations.

AEP is a member of the steering committee that helped to lead the effort in collaboration with institutional investors who specialize in asset management, ESG/sustainability, investment banking, and buy-side and sell-side research. Electric company officials from various disciplines, including accounting, environment, ESG/sustainability, finance, treasury, investor relations and legal developed the pilot metrics collaboratively. See AEP's EEI ESG/Sustainability Reporting Pilot Template.

AEP Transmission's project outreach team uses open house events to gather input from the the public and land owners.

Customers

Customers are increasingly engaging AEP around sustainability. They have business goals that include renewable energy, reducing greenhouse gas emissions, efficient energy management, and a sustainable supply chain. Customers want to partner with AEP to help them achieve these goals and, most importantly, empower them to manage their energy use and costs. Through our regulated companies and competitive businesses, we are working with our customers to find solutions that match their needs.

In 2017, AEP joined the World Resources Institute's Clean Power Council. This group of utilities and some of their large commercial and industrial customers are collaborating on a shared goal to achieve an efficient and economic transition to clean energy resources. The Council is also focused on enabling technologies that reduce greenhouse gas emissions—while growing

their businesses across America. Participants represent technology, automotive, retail, and manufacturing sectors.

Non-Governmental Organizations

AEP regularly engages with non-governmental organizations (NGOs) within the environmental community on issues ranging from our carbon profile, to new technologies, energy efficiency, renewable energy, and the evolution of our business model. In 2017, we held one large group meeting and followed up with additional one-on-one meetings or conference calls throughout the year.

These are important touchpoints to ensure we understand their issues and they have accurate information about AEP. For example, in 2017, we facilitated a tour of the Mountaineer Plant in West Virginia for the Ohio Environmental Council. Seeing first-hand the complex process of producing electricity can be informative and spark productive dialogue and potentially lead to collaboration.

Communities

From hosting open houses to launch new transmission projects to developing a resource plan that meets a community's energy and capacity needs, AEP is committed to being open, accessible, honest and responsive. AEP Transmission's project outreach team is an example of the type of proactive outreach we engage in across our business. Community outreach is very important to AEP's transmission business unit, where significant construction impacting the public is under way. AEP Transmission's project outreach team uses open house events, interactive project websites and other tools to gather input and work with the public, land owners, government agencies, regulators and siting agencies. This proactive approach promotes transparency and two-way communication; ensures compliance with laws and regulations; and gives affected individuals and communities a voice throughout the process. In 2017, project outreach specialists supported 308 AEP projects and hosted 82 community open house events, inside and outside of our traditional service territory.

Community Outreach for Other Projects

Outside of the AEP system, we use similar principles to engage the community and evaluate feedback. In 2017, Transource's Independence Energy Connection project in parts of Pennsylvania and Maryland presented hundreds of miles of route options for communities and landowners to review during two rounds of open house events. Through mailers and public notices, Transource publicized the events, and more than 1,000 people attended the 10 open houses, providing more than 2,500 comments. We make every effort to be responsive.

Another avenue of stakeholder engagement occurs in our integrated resource planning (IRP) process. Most of our states have formal stakeholder processes for developing these resource plans, while others are more informal. In all cases, the intent is to be inclusive, listen to stakeholder ideas and concerns, answer their questions and consider their input as we develop resource plans for our jurisdictions.

What We Learn from Stakeholders

Through ongoing dialogue with our many different stakeholders, we learn about what is important to them, what they think of AEP and where the potential opportunities for collaboration exist. Key learnings are:

- Awareness of AEP's transformation progress is not as high as we would like, making proactive engagement valuable for AEP and our many stakeholders.
- Increasingly, there is greater interest in the "S" in ESG – social issues.
- Engaging the public is critical to a project's success; people want to be included, informed and heard.
- Stakeholders want a voice in determining their energy future.
- Outreach and transparency are important to building trust.
- Customers appreciate AEP's commitment to a clean energy future and want to collaborate with us to help them achieve their sustainability goals.
- Social and governance issues are increasingly important to many different stakeholders.

Next-Generation Stakeholder Engagement

As stakeholder needs change, we are evolving our approach to engagement. Stakeholders are engaging with us in different communication channels on a broader range of issues, and we are adapting to those changing needs. While face-to-face engagement is the most effective and desirable, it is not always possible. We need to continually communicate AEP's transformation story and hear diverse views from customers, investors, and employees, regulators, NGOs and others. The changing scope and complexity of stakeholder interests as AEP transforms to being the leading energy company of the future requires a fresh strategy that meets these new dynamics.

In 2018, we are developing a new stakeholder engagement strategy. Our objective is to establish guiding principles for the future, measurable outcomes, transparency and accountability. We want our new strategy to reflect the needs and expectations of our stakeholders, as well as our own business needs.

We have a strong foundation from which to build. AEP's commitment to stakeholder engagement spans more than a decade. During that time, we have cultivated a commitment to engagement and transparency by being accessible, responsive, honest and open with those with whom we engage. We seek to foster healthy, trusting relationships that turn conflict into cooperation and, ultimately, into partnership and collaboration.

Giving back to our communities by investing in our local economies is a fundamental component of our company vision of powering a new and brighter future for our customers and communities. AEP is proud to support the vibrancy and resilience of the communities that we serve — as an energy company, as a utility and as a system of community support and economic development.

Economic Development

AEP's investments in economic development will enable those living in our communities to develop the skills and resources needed to build a sustainable future for themselves.

Community Support

Giving back to our communities is a fundamental component of our company vision of powering a new and brighter future for our customers and communities.

Corporate Giving

Giving back to our communities is a fundamental component of our company vision of powering a new and brighter future for our customers and communities. Through volunteerism and corporate giving, AEP is proud to support the vibrancy and resilience of the communities that we serve – as an energy company, as a utility and as a system of community support. In 2017, AEP and the American Electric Power Foundation donated approximately $16.8 million to support more than 1,520 community organizations.

A significant focus of our philanthropic giving is on education, especially STEM (Science, Technology, Engineering and Math) programs, and basic human needs, such as hunger and housing. Focusing on STEM provides a pathway out of poverty for urban and rural youth. Many 21st century jobs will require proficiency in STEM courses, and these jobs have a high likelihood of delivering a living wage. Complementing the focus on education is a commitment to work with the public and private sectors to help those students, and their families, have access to nutritious food and a secure, safe place to live. We also support many

cultural and community initiatives important to our customers.

Investing in Our Future through Education

AEP's most significant area of philanthropic investment is STEM education. Credits Count℠, the signature program of the AEP Foundation, addresses the issues of college preparedness and affordability for underserved urban and rural students who wish to seek STEM-related career opportunities. In December 2017, the AEP Foundation awarded a $1.58 million Credits Count℠ grant to reach approximately 2,200 students in Kanawha County, West Virginia, through partnership with BridgeValley Community and Technical College. AEP's total commitment to the program to $14.2 million ($5.3 million paid through 2017) across seven states within AEP's service territory.

Nitro High School and Riverside High School, as well as their respective feeder middle schools, will work with BridgeValley to support students in pursuing college-level STEM education while completing their high school diplomas. At the end of the program, students will graduate from high school with at least 12 credit hours toward a career-ready certificate or towards an associate's degree in a STEM field. BridgeValley is the seventh recipient of the AEP Foundation's Credits Count℠ program.

Credits Count℠, the signature program of the AEP Foundation, addresses the issues of college preparedness and affordability for underserved urban and rural students who wish to seek STEM-related career opportunities.

Lynchburg Beacon of Hope, an organization focused on providing resources and tools for post-secondary educations to public school students in Lynchburg, Virginia, was awarded a $20,000 grant from the AEP Foundation in December 2017. Beacon of Hope aims to empower students by building pathways between high school and higher education, subsequently addressing barriers that prevent students from accessing opportunities of higher education. This grant will fund the Future Centers program, which provides resources that support financial aid, college admissions, and after school technical training programs to public high school students.

The Boys & Girls Club of Bartlesville, Oklahoma, is an organization that enables young people, especially those who are most in need, to reach their full potential. In August 2017, the AEP Foundation granted $75,000 in support of the organization's new Science, Technology, Engineering, Art, and Math (STEAM) Laboratory, which opened in December of 2017. This facility features computers for academic research, robotic coursework, and hands on experimentation through STEAM programming. With this resource, the Boys & Girls Club will be better equipped to help students tap into their full potential, especially as demand for this programming grows.

AEP established the Teacher Vision Grant program in 2003 to provide better opportunities for student academic achievement and creativity. Teachers of pre-K through grade 12 receive funding to help implement classroom projects that enable students to achieve these goals. For example, in May 2017, 199 teachers received a total of $69,000, including 15 teachers who received grants totaling $7,500 from AEP's Southwestern Electric Power Company throughout its three state service area. Specifically, these teachers are implementing projects that focus on science, mathematics, technology, electrical safety, energy efficiency, and the balanced study of energy and the environment.

Investing in Basic Human Needs

Community organizations play a pivotal role in the well-being of individual community members, as well as the social fabric of the community itself. These organizations provide assistance for shelter, food, education, skills training, and more. We realize that investing in the resources of community organizations bridges the gap between the potential of an individual to be independent and the obstacles to success that they might face. When we elevate and invest in our communities, we are helping to build a brighter future.

In December 2017, the AEP Foundation awarded $50,000 to initiate a workforce development and housing opportunity program run through the organization MOSAIC, which serves the community of Benton Harbor and Berrien County, Michigan. This program, called MOSAIC Develop, will connect individuals in its workforce development programs to home renovation projects in the community. Six to 10 homes per year will be renovated, providing affordable housing options and investments for local low income residents. The program is expected to be 80 percent self-supporting within the first three years.

The YMCA of Greater Fort Wayne, Indiana, accepted a $100,000 grant from the AEP Foundation in November 2017 to build a new facility. The facility is specifically focused on promoting wellness for people living with intellectual and developmental disabilities. These resources provide recreational and social opportunities for people with disabilities that are not traditionally available in community wellness activities.

Philanthropic Giving

Corporate & AEP Foundation

	2015	2016	**2017**
Arkansas	$39,000	$156,106	**$206,181**
Indiana	$1,228,797	$1,127,127	**$825,889**
Kentucky	$253,617	$346,380	**$913,229**
Louisiana	$699,827	$645,145	**$1,277,686**
Michigan	$192,146	$514,302	**$518,117**
Ohio	$6,943,820	$12,619,206	**$7,913,164**
Oklahoma	$432,352	$736,367	**$1,455,584**
Tennessee	$18,400	$510,694	**$45,950**
Texas	$1,538,932	$1,614,117	**$1,137,950**
Virginia	$446,033	$552,211	**$704,271**
West Virginia	$920,528	$933,808	**$1,226,449**
Other*	$806,628	$1,134,458	**$547,790**
Total	**$13,520,080**	**$20,889,921**	**$16,772,260**

* Giving to organizations outside AEP's Service area or those that benefit multiple states.

Volunteerism

Supporting community projects and programs requires more than financial support; it requires time and labor to make progress possible. Every year, AEP employees from around our service territory donate time, talent and financial sponsorship to a variety of organizations throughout our states. We are proud to call our employees social change agents, and we are continuously inspired by commitment within our communities. Our employees are consistent in their efforts, both when times are good and when hardship strikes.

The value of employee volunteerism to our communities and our company is long-lasting and impactful. With our new sustainability goals, we will strive to increase our presence in our communities through employee volunteerism to enhance the quality of life, advance and expand education opportunities for underserved populations and create shared social and economic benefits. Through these efforts, we hope to better serve our local communities and enable them to prosper.

We were reminded of the importance of community giving as natural disasters devastated parts of our service territories and beyond. In 2017, $122,533 in special relief donations were given by our employees to The Salvation Army through the AEP Emergency Disaster Fund. The AEP Foundation matched 100 percent of the employee contributions to help relieve the impacts of Hurricane Harvey in Texas and Maria in Puerto Rico.

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Other Community Contributions

Make a Difference Day (MDD) has been a fundamental component of employee volunteerism since its launch in 2005, where AEP provides up to $300 to assist employees in implementing service projects throughout our service territories. In 2017, all seven of AEP's operating companies participated in MDD, spanning nine states, 21 different projects, and hundreds of employee volunteers. These projects support a variety of agencies, including recreation centers, youth resource centers, animal rescue programs, veterans care centers, low-income family support centers, food pantries, and community beautification initiatives.

In 2017, active and retired employees came together to build a new home in the Linden area of Columbus, Ohio, through a grant from the AEP Foundation and in partnership with Habitat for Humanity. This is the 20th home built in central Ohio by AEP

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employees, with volunteers contributing their time on a weekly basis from spring to fall. The home was built to green building standards, which helps to maximize energy and resource efficiency – and thus affordability – for the homeowner. The use of energy-efficient building materials, designs and appliances results in lower energy use and cost savings through lower utility bills, by as much as $400 annually.

For 13 years in a row, AEP employees in central Ohio have participated in the Meals on Wheels Corporate Route program through the agency LifeCare Alliance. Through the program, AEP volunteers deliver meals to older adults and chronically ill people who are unable to provide meals for themselves. Nearly 100 AEP employees participate in this program, using their lunch hours to provide this service. LifeCare Alliance saves more than $26,000 annually due to the contribution of AEP's volunteers, which improves their ability to address the community's need for health and nutrition services.

In December 2017, Public Service Company of Oklahoma (PSO) was presented with the 2017 Excellence in Volunteer Mobilization STEM Mentoring Award by US2020, a government organization that promotes STEM mentorship in 52 participating U.S. cities. PSO employees volunteer in classroom settings and through mentorship programs in support of STEM teaching. One program is "Me & My Math Mentor" (M4) at Tulsa Public Schools' Chouteau Elementary School, a math mentoring program through the Tulsa Regional STEM Alliance. Employees serve as math mentors, but also as coordinators for the program, which includes collaborating with other Tulsa-area companies that participate in M4.

Economic and Business Development

Building strong, vibrant and sustainable communities requires innovation, investment and collaboration among state, regional and local business partners. AEP's Economic & Business Development (E&BD) team puts its expertise and partnerships to work supporting economic development and growth within our local communities. Whether through supporting business expansion or relocation, community training and education or financial support – we are connecting customers with communities to create shared value for all.

AEP provides comprehensive location advisory services to companies looking to expand or locate new operations. This includes property searches and screening; custom community and site analysis; and introductions to local economic development partners and industry resources. In 2017, we supported 125 projects that will bring more than 18,000 jobs to the local economies across our 11-state service territory. Economic development helps our communities in several ways, including increasing the tax base, job development, economic diversification and capacity-building for long-term sustainability.

Business Development

We have a focused effort to generate business development opportunities from prospective and current customers. AEP's National Accounts team manages corporate relationships with many of our largest customers. The team works closely with these large energy users on expansions and energy solutions and services that can optimize their consumption and costs.

Beyond current customers, we have staff and a network of consultants focused on proactively identifying and managing business relationships with companies in target industry sectors to secure investment in new facilities across the AEP system. In addition to pursuing domestic companies, our efforts include attracting foreign direct investment (FDI) to our service territory. FDI is a key source of capital, job creation and innovation.

According to the U.S. Department of Commerce, the U.S. remains an attractive FDI destination due to its large consumer base, workforce productivity, legal protections and innovative business environment. The 2017 Federal Tax Reform puts the U.S. corporate tax rate more in line with those levied by other major developed nations, which is also favorable for our ability to attract foreign investment.

We work with consultants in target markets in Europe, Asia and North America and participate in events in key international markets to identify and engage with prospective international companies. One event is the SelectUSA Investment Summit. Sponsored by the U.S. Department of Commerce, this summit brings together global executives and business leaders, targeting companies looking to grow in the United States. AEP has participated as a sponsor of this summit since its inception in 2014.

Our work with Sofidel, S.p.A. - a leading manufacturer of domestic and hygienic tissue paper based in Italy, is one example of how we can support international companies. Conversations about their interest in U.S. expansion began during the 2015 SelectUSA Summit. With assistance from AEP Ohio and a large coalition of economic development organizations representing the central Ohio region, Sofidel selected Circleville, Ohio, as the location for its first U.S. greenfield investment, a nearly $300 million integrated paper mill. The 280-acre site selected by Sofidel required major infrastructure work to prepare the site for construction, including moving an AEP transmission line that ran through the middle of the property. The facility is scheduled to begin operations in 2018 and will employ approximately 300 workers.

In March 2018, Sofidel further expanded its U.S. presence by announcing a second greenfield investment to build an integrated plant in Inola, Oklahoma. The land for the new facility is owned by Public Service Company of Oklahoma and is part of AEP Quality Sites program. The $360 million investment in the new Oklahoma facility is expected to support 300 jobs and to be operational by mid-2020. PSO worked with Rogers County and Inola leadership to prepare the site, which was the location of a canceled nuclear power plant.

Quality Sites Program

A primary focus of our activities is the development of build-ready industrial properties across our 11-state territory. AEP's Quality Sites Program identifies sites that have infrastructure and utilities in place and have completed due diligence studies to help growing businesses minimize overall site location risk, save time and reduce development costs. In 2017, we added 16 new industrial properties to our Quality Sites Program, bringing the total number of sites to 45. We also sold five sites to support business expansion and relocation in our service territory:

- Daleville, Virginia – Botetourt County Greenfield Industrial Park - Eldor
- Findlay, Ohio – Midwest I-75 Logistics Park – Campbell Soup Company
- Tulsa, Oklahoma – Cherokee Expressway Industrial Park Site – Allen Edwards Construction
- Longview, Texas – North Business Park - Dollar General

The E&BD team provides comprehensive location advisory services to companies looking to expand or locate new operations.

2017 AEP Economic Impact

Employees (year-end)	**17,666** [1]
Wages	**$2.3 billion** [2]
Capital Investments	**$6,045 million** [3]
Local Taxes	**$817 million**
State Taxes	**$353 million**
Federal Taxes	**$198 million**
Goods & Services (does not include fuel)	**$7.02 billion**
Goods & Services from Small Businesses and Diverse Suppliers	**$849.5 million** [4]
Total Corporate Spend on Locally Based Suppliers	**$3.1 million**
Remaining Value of all Contracts	**$3.64 billion** [5]
Philanthropic Giving	**$16.8 million** [6]
Economic Development Contributions	**$621,000** [7]
Number of Jobs Brought to Local Economies	**18,000** [8]

[1] Includes subsidiaries of AEP.

[2] Includes wages, incentives and fringe benefits (expensed and capitalized) and AEP's portion of certain payroll taxes.

[3] Includes Vertically Integrated Utilities and T&D Utilities. Excludes AFUDC debt and equity and cash flow adjustments.

[4] Diverse suppliers are classified as Small Business, Small Disadvantaged Business, Women Owned Small Business, HUBZone Small Business, Veteran Owned Small Business, and Service Disabled Veteran Owned Small Business. The time period for this data is based on the annual GSA reporting period of 10/1/16-9/30/17.

[5] Supply chain purchased contracts and inventory system.

[6] Includes Corporate and AEP Foundation grants.

[7] Includes all grants and contributions by utility units to support economic development.

[8] Based on projects and efforts from AEP's Economic & Business Development team.

- Ashland, Kentucky – EastPark Industrial Site – Braidy Industries

Economic & Business Development Awards

In 2017, AEP was named one of the nation's top utilities for economic development by Site Selection Magazine, for the sixth consecutive year. AEP was recognized for its effort to cultivate commercial and industrial business development and for creating new jobs. The magazine reviewed end-user project activity, website tools and data, innovative programs and incentives for businesses, and the utility's own job-creating infrastructure and facility investment trends.

In 2017, AEP was awarded the Bronze Excellence in Economic Development Award for its redesigned website, in the General Purpose Website category, from the International Economic Development Council (IEDC).

Redesigned in 2015, aeped.com is the digital platform for AEP's Economic & Business Development organization. The responsive website was built to provide relevant and timely information through a user-friendly interface to key audiences – site selectors, expanding companies and community economic development partners.

Customer Connections

One of our target industry sectors for growth is data centers. AEP's transmission reliability and capacity, coupled with availability of fiber and pro-business environments, makes our 11-state region an attractive business location for this industry. We proactively reach out to growing technology and enterprise companies to share our region's strengths and AEP's capabilities via industry tradeshows, social media and direct marketing.

Two major project announcements in 2017 were from Facebook and TierPoint. In August, Facebook announced the location of a new data center in New Albany, Ohio expected to open in 2019. The project that led to Facebook's plans to invest $750 million to construct a 970,000-square-foot facility began in 2014 and became active again in the spring of 2017. It required close collaboration between E&BD and transmission planning to meet Facebook's compressed project schedule. In May 2017, TierPoint, a provider of information technology and data center services, announced its investment of $20 million into its second Tulsa data center. The facility went online in February 2018. Cost-competitive power was cited by TierPoint as a key reason for selecting Tulsa.

In addition to enterprise and co-location data centers, we're also pursuing data center industry opportunities related to the growth of edge computing and blockchain technology.

Shale Gas

AEP's service territory overlaps five of the seven major shale formations in the United States (as identified by the U.S. Energy Information Administration). The abundance of these natural gas and related liquid resources provides important growth opportunities that support local economic and business development and create new jobs.

For example, increased shale gas drilling and production in Northern West Virginia prompted MarkWest Energy Partners to expand its plant and increase load at its Majorsville midstream natural gas processing facilities southeast of Wheeling. MarkWest, the largest processer of natural gas in the Marcellus shale region, needs additional electrical capacity to support its expansion, which is scheduled to be complete in late 2018. AEP responded promptly to meet the customer's load growth by identifying upgrades in the area to prevent overloads and voltage issues to be completed in the same timeframe.

As oil and gas drilling activities have increased in shale gas-rich regions of the country, the incidents of earthquakes have also been increasing, causing concern in affected communities. The U.S. Geological Survey and others have tied the process of wastewater disposal from oil and gas extraction activities to surges in earthquakes in eight states – including four states in AEP's service territory (Arkansas, Ohio, Oklahoma and Texas). As we rely more heavily on natural gas for 24/7 power generation, we will look to that industry to ensure responsible practices are in place to minimize environmental impacts, and address earthquake concerns.

The abundance of natural gas and related liquid resources provides important growth opportunities that support local economic and business development and create new jobs.

Community Training,

Education & Support

AEP helps communities prepare for growth by offering economic development training and assisting them in developing assets to make them more attractive to companies seeking new locations. In 2017, we sponsored three web-based economic development training courses with industry consultants on the topics of sales and marketing strategies and site development. Approximately 175 individuals from partner organizations participated in the webinars.

AEP's operating companies provide scholarships for local economic development partner organizations to attend economic development courses. Our support helps them build capacity for long-term sustainability. In 2017, our operating companies provided 27 scholarships for partners to attend training courses, including the University of Oklahoma Economic Development Institute, the University of Central Arkansas Community Development Institute, and other courses offered by state economic development associations.

AEP employees provide additional support to local, regional and national economic development organizations through participation on their boards and councils. In 2017, AEP employees contributed in this advisory capacity to over 70 organizations.

Economic Development Grants for Growth

Several AEP operating companies provided grant funding to local and regional economic development organizations in 2017 to spur economic growth and create jobs. These grants focus on workforce development and job preparedness programs to increase the competitiveness of our local communities.

APCO EDGE Grants:

- Eight organizations received grants ranging from $5,000 to $20,000 through the company's Economic Development Growth Enhancement (EDGE) program. A total of $91,000 was awarded. EDGE Grant recipients in 2017 included:
- Martinsville–Henry County Economic Development Corporation: $20,000 for the development of comprehensive marketing materials for the Commonwealth Crossing Industrial Park and the Commonwealth Centre for Advanced Training (CCAT), which will enable companies to recruit, hire, and train employees at a new facility in the park.
- Robert C. Byrd Institute (RCBI): $13,000 to RCBI, part of the Marshall University Research Corporation, to support research and a feasibility study of an aerospace maintenance, repair and overhaul facility (MRO) for the Tri-State Region of West Virginia, Ohio and Kentucky.

AEP OHIO LEAP Grants:

Twenty one organizations were awarded a total of $162,000 through AEP Ohio's Local Economic Assistance Program (LEAP). With increasing shortages in skilled trades, communities are focused on workforce development and many of our LEAP grant recipients are on the leading edge of workforce development trends in Ohio. LEAP Grant recipients in 2017 included:

- Wyandot and Crawford Counties: $8,000 for the development of an online job preparedness resource for high school students.
- Fostoria Economic Development Corporation: $5,000 for the creation of a jobs campaign focused on employee recruitment and workforce development.

Kentucky Power Grants:

Kentucky Power KEAP and K-PEGG Grants: Kentucky Power awarded 19 grants totaling $674,870 in 2017 through its two grant programs, Kentucky Power Economic Development Growth Grants (K-PEGG) and KEAP (Kentucky Power Economic Advancement Program). Recipients included:

- One East Kentucky: KEAP grant of $88,200 to fund the development of a helicopter painting facility at the Big Sandy Regional Airport for Thoroughbred Aviation Maintenance. Once constructed, the Thoroughbred facility will be the only helicopter paint facility within 400 miles.
- Eastern Kentucky Advanced Manufacturing Institute (eKAMI): KEAP grant of $50,000 toward repurposing a facility to re-train out-of-work coal miners in skills necessary for advanced manufacturing.
- Shaping Our Appalachian Region, Inc. (SOAR): K-PEGG grant of $25,000 to help SOAR fulfill its mission of expanding job creation; enhancing regional opportunity, innovation, and identity, improving the quality of life and supporting all those working to achieve these goals in Appalachian Kentucky.
- Southeast Kentucky Economic Development Corporation: K-PEGG grant of $60,000 to assist four companies in

obtaining quality control certifications necessary to compete for subcontracting work to major military and government contractors.

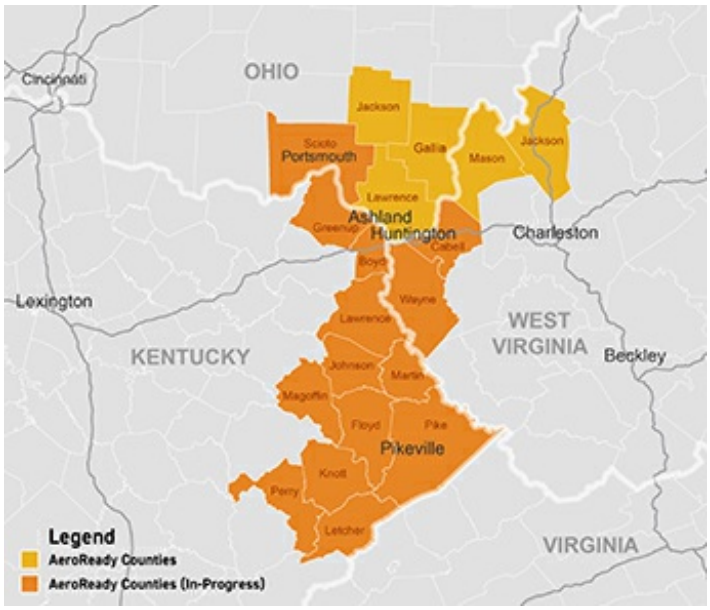
Supporting Appalachia

Through AEP's Economic & Business Development (E&BD) efforts, we are building stronger partnerships with our local communities to help revitalize some of the hardest hit communities from the changes in the coal industry. Three states in the heart of Appalachia have been particularly impacted. Kentucky, Ohio and West Virginia experienced job losses, the loss of tax revenue to support local public services, and the loss of indirect economic benefits of having a locally employed workforce. In response, AEP's E&BD team established targeted efforts to revitalize those communities by attracting new industry and jobs, and empowering them to take the lead in rebuilding their communities.

In addition to serving customers and maintaining operations in Appalachia, we live and work in these communities. It is important to us that these communities recover and thrive because their strength and growth is also good for AEP.

In 2017, AEP and our regional economic development partners launched Appalachian Sky – an initiative that began in AEP's Kentucky territory and grew to encompass AEP territories in the Tri-State region (eastern Kentucky, southwestern Ohio, and western West Virginia). The initiative's purpose is to aggressively attract aerospace and aviation industry to AEP's central Appalachia service region. Appalachian Sky was inspired by the intelligence and work ethic of the coal mining and steel working communities as captured in the movie "October Sky" and chronicled in the memoir "Rocket Boys" by West Virginia native Homer Hickam.

The genius of Appalachian Sky was sparked by the completion of a comprehensive regional workforce analysis in AEP's Kentucky territory. The research showed that coal miners, many of whom have lost their jobs due to recent mine closings, have the skills that aerospace and advanced manufacturing companies need. The study, which was funded in part with Kentucky Power economic development grants, concluded that the region had eight times the national average of skilled metal workers - recognizing the potential of the aerospace industry to diversify the central Appalachian economy.



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AEP then commissioned a leading aerospace consultancy to determine the viability of aerospace in Appalachia's coal and steel country. The consultancy certified 14 counties as AeroReady in the Tri-State region furthering the belief that aerospace can thrive in Appalachia. Five additional counties are working toward certification in 2018. We have also focused on preparing sites in the region through our AEP Quality Sites Program and other site development work.

In the short time of the Appalachian Sky initiative, the region has already seen an uptick in prospective companies considering or committing to expansion in Central Appalachia. For example, Kentucky Power has been able to actively market the region with state and local partners, resulting in six key manufacturing project announcements for the region in 2017:

- Braidy Industries, aluminum rolling mill, 550 jobs (plus 1,000 construction jobs), Ashland, KY;
- Silver Liner, a tanker truck manufacturer, 300 jobs, Pikeville, KY;
- AppHarvest, an agricultural grow operation, 140 jobs, Pikeville, KY;
- EnerBlu, advanced battery manufacturer, 875 jobs, Pikeville, KY;
- Wright-Mix Materials, liquid chemicals, grouts, cement products, 130 jobs, Greenup County; and,
- Thoroughbred Aviation, aircraft maintenance, avionics, painting, 15 jobs, Martin County.

Beyond the successes in Kentucky Power, we continue to encourage and support the development of the Tri-State aerospace initiative. Visit Appalachian Sky for more information.

Supporting the Federal Sector

Military and other federal government agencies/facilities are an important customer segment and growth area for AEP. In 2017, we

expanded our team to include a dedicated resource to pursue business development opportunities within this sector. Our focus is on three areas of interest –Utility Energy Services Contracts (UESC) within our regulated footprint; various business development opportunities outside of our regulated service territory with our competitive utilities (e.g., AEP Energy Partners); and Utilities Privatization (UP) of military facilities both within and outside our regulated footprint.

In all, AEP provides electric service through our regulated business to over 3,500 federal accounts. Thirty of those accounts are associated with larger facilities, which may present opportunities for UESC-type work. UESC provides federal customers with comprehensive energy and water efficiency improvements and demand reduction services. UESC projects can encompass a broad range of energy conservation measures (ECM), including system upgrades and recommissioning, deep retrofit projects, renewable energy, cogeneration plants and microgrids. The work is performed through third-party energy service companies (ESCOs). AEP has Master Service Agreements with six energy services companies (ESCOs) – Ameresco, Brewer-Garrett, Energy Systems Group, Honeywell, Noresco and Siemens. AEP is tracking several UESC opportunities that may be released in 2018.

Identifying and bidding on federal opportunities outside our regulated service area is a key business development focus. This initiative competitively aligns AEP with its peers. In collaboration with AEP's competitive affiliates, our strategy is to identify federal acquisitions supporting AEP Energy's overall business goals and objectives while maximizing their core strengths. An example of this collaboration strategy was the award of a $362 million contract with the Defense Logistics Agency (DLA) Energy in February 2018 to provide over 6.5 terrawatts (TW) of electricity to various U.S. government and military installations operating in the PJM Interconnection over a five year period beginning in 2019.

We are also partnering with military facilities to offer solutions to privatize their on-base utility systems (electricity, natural gas, water, and wastewater). These opportunities allow AEP to operate and maintain the facilities electricity systems. Privatization of such utility systems is important because it results in safe, reliable and efficient utility services for military installations and relieves installation commanders of activities performed more efficiently and effectively by AEP. Two examples of existing UP contracts are with Goodfellow Air Force Base, San Angelo, TX and Red River Army Depot, Texarkana, TX.

Grid Investments Support Local Growth, Reliability

AEP's financial commitment to modernizing the grid supports growth and investments from commercial and industrial customers and helps us manage future maintenance costs while improving reliability. A large portion of AEP's investments are committed to replacing or upgrading underperforming or obsolete transmission facilities. These aging transmission and distribution facilities require more frequent and costly maintenance; replacing them reduces those costs. In addition, AEP is investing in projects that enhance grid security and modernize the telecom network along the electric system.

From 2017 through 2019, AEP is investing approximately $9 billion in transmission infrastructure. These investments will focus on replacing aging facilities and making the grid more resilient. They will also help reduce the costs associated with meeting the growth needs of our commercial and industrial customers in the future. These investments y increase reliability and resilience of the grid today while providing capacity for future load growth or reducing the cost of expanding the system in the future. When we make improvements, a net benefit is the reduction in the amount of energy lost as power flows through the lines and substations (also known as line losses).

AEP's investments in upgrading transmission infrastructure directly and indirectly support communities through increased tax base, economic activity and employment.

To measure and quantify the direct and indirect economic benefits of AEP's transmission infrastructure investments, AEP Transmission commissioned a study from The Brattle Group, an economic consulting firm. The report analyzed the transmission investments made, or planned to be made, by AEP from 2012 through 2019 in all eleven states where AEP serves retail electricity customers. The report identifies significant regional and local benefits – directly and indirectly – from AEP's transmission investments, including new jobs, local business growth, and tax base enhancements.

The analysis recorded a total of $19.2 billion in investments, with $10.2 billion invested between 2012 and 2016, and an additional $9 billion in investments from 2017 through 2019. These transmission investments provide significant benefits directly to AEP's customers and to the states where the company operates.

The analysis also looked at the efficiency gained by replacing aging infrastructure. The Brattle Group studied a sample of 84 transmission line reconductoring projects and analyzed them by how much line loss decrease occurred due to these investments. For the sample studied, we found that losses decreased by 55 percent, on average. Reducing transmission line losses could

mean that AEP needs to produce or purchase less power to serve its load – which directly reduces the cost of serving our retail customers. The study concluded that the net present value of savings due to lower power consumption caused by lower line losses is estimated to be nearly $110 million over the lifetime of the investment.

In addition, reduced line losses during peak demand hours would also provide customer savings through reduced capacity needs. The Southwest Power Pool (SPP) has estimated the value of capacity, and, according to SPP's assumption, customers would realize additional capacity savings of approximately $127 million (present value terms) over the lifetime of the investments in the sample study. These are significant financial and reliability benefits for our customers, as well as operational improvements for how we manage the grid.

The Brattle report found that AEP's projected $9 billion investment in transmission infrastructure in 2017-2019 is estimated to support on average over 34,000 full-time-equivalent jobs during each of those years. According to the Brattle report, AEP's planned investments during this timeframe "are estimated to stimulate $12.7 billion of economic activity, or about $4.2 billion per year." When the analysis looked at all of AEP's transmission investments between 2012 and 2019, the impact was significantly larger.

AEP Transmission Investment & Benefits Summary of 2012–2019

AEP Investment (in billions)	**Historical 2012–2016**	**Planned 2017–2019**	**Total 2012–2019**
Local Reliability	$2.9	$5.2	**$8.1**
Regional	$4.8	$2.1	**$6.9**
Customer Interconnection	$2	$0.4	**$2.4**
Resilience	$0.5	$1.3	**$2.4**
Total	**$10.2**	**$9**	**$19.2**
Economic Stimulus Benefits			
Average Jobs Supported per Year	23,000 FTE	34,000 FTE	**27,000 FTE**
Economic Activity Stimulated	$14.6 billion	$12.7 billion	**$27.3 billion**
Average Annual State & Local Taxes (2012–2019)	$174 million/year	$208 million/year	**$245 million/year**
Additional Property Taxes (2020 forward)	$160 million/year	$106 million/year	**$266 million/year**
Cumulative Property Tax Revenues (2012–2019)			**$1,073 million/year**
Customer Benefits			
Regional:	• Improvement in Regional Reliability • Market Efficiency Due to Congestion Relief • Integration of Renewable Energy Resources		
Local:	• Reduced Customer Outages • Enhanced Grid Resilience • Mitigate Operation and Maintenance Costs • Reduction in Line Losses • Increased Load Serving Capability		

Source: J. Chang, J. Pfeifenberger, P. Donohoo-Vallett, and J. Tsoukalis, *Benefits of AEP's Transmission Infrastructure Investments,* December 2017.

Sustainable Procurement

We work with our suppliers at the local, regional and national levels to drive continuous improvement and efficiencies within the supply chain while improving environmental and safety performance.

Non-fuel Suppliers

AEP buys billions of dollars in goods and services every year, ranging from chemical solvents and office supplies to vehicles and industrial equipment from national, regional and local suppliers. As a large company, we are able to manage costs by negotiating prices, being strategic about sourcing and managing inventory. By applying a procurement category management model, we are able to look at the whole value chain from sourcing through inventory.

We continue to improve efficiency through strategic sourcing - optimizing what we buy and how we buy it. Our procurement team is getting involved earlier in the purchasing process and standardizing the process by educating employees on best procurement

practices.

We continue to leverage technology through e-commerce solutions, software and tool consolidation and standardization, which includes exploring robotic process automation.

Protecting the bulk electric system includes extending cyber security protections to the supply chain. AEP has developed a third-party risk governance program to identify potential risks introduced through third-party vendors. And, in January 2018, the Federal Energy Regulatory Commission (FERC) proposed approving new mandatory Reliability Standards to mitigate cyber security risks associated with the supply chain products connected to grid-related cyber systems.

Sustainability in the Supply Chain

We have seen an increased interest from our supply chain in our Environmental, Social and Governance (ESG) performance. In 2018, AEP conducted an online sustainability assessment of our company, at the request of two of our largest customers. We attempt to be responsive whenever possible while also being mindful of the value-add for completing these assessments, as these assessments require significant effort, including time and resources. We also try to be transparent in our performance reporting through our annual Corporate Accountability Report as well as through other surveys, such as the CDP and our Global Reporting Initiative (GRI) Report.

We respond annually to the CDP's Supply Chain Survey. This survey aims to drive action on climate change among both purchasing companies and their suppliers. The survey provides us with a different platform for being transparent about our sustainable supply chain efforts and collects business-related climate change information from our suppliers.

"The energy industry is in an era of transformation, moving rapidly toward a cleaner energy economy. American Electric Power is at the forefront of this transition to modernize the power grid, diversify our resources and deliver cost-effective, reliable electricity to customers and value to our shareholders. Our business strategy and resource planning have created a path forward that will result in the clean energy our customers want and, consequently, lower carbon dioxide emissions."

-Nick Akins, *Chairman, President & Chief Executive Officer*

Coal Combustion Residuals

AEP is committed to handling coal ash disposal areas in a way that puts safety first while protecting the environment, minimizing impacts to the communities and managing our customers' costs.

Clean Energy Future

AEP's strategy for a clean energy future includes new carbon dioxide emission reduction goals and investments in renewable resources and advanced technologies to enhance the efficiency of the power grid.

Environment, Safety and Health Philosophy

No aspect of operations is more important than the health and safety of people. Our customers' needs are met in harmony with environmental protection.

Environment, Safety and Health Policy

AEP is committed to social responsibility and sustainability. We are proactive in our efforts to protect people and the environment by committing to:

- **M**aintain compliance with all applicable Environment, Safety and Health (ES&H) requirements while pursuing the spirit of ES&H stewardship.
- **E**nsure that people working for or on behalf of AEP understand and integrate ES&H responsibilities into their business functions.
- **S**upport continual improvement of environmental performance and pollution prevention.
- **H**azard elimination through employee involvement and continual health and safety improvement.

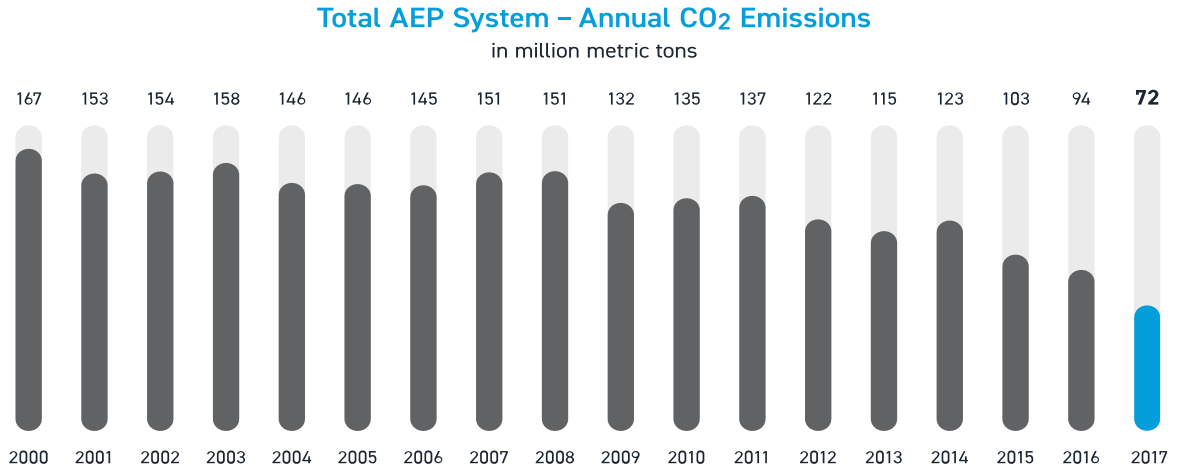
Carbon & Climate

Here is an excerpt from Chairman, President & CEO Nick Akins in AEP's new clean energy report – AEP's Strategic Vision for a Clean Energy Future:

The energy industry is in an era of transformation, moving rapidly toward a cleaner energy economy. American Electric Power is at the forefront of this transition to modernize the power grid, diversify our resources and deliver cost-effective, reliable electricity to customers and value to our shareholders. Our business strategy and resource planning have created a path forward that will result in the clean energy our customers want and, consequently, lower carbon dioxide emissions.

We have been engaging stakeholders on AEP's long-term sustainability for more than a decade. This dialogue includes the efficient use of energy, our evolving business model as the grid is modernized, the reduction of our carbon footprint as we diversify our resource portfolio and the way we manage risk. Different stakeholders have different concerns, but universally we are asked about our preparedness to transition to a clean energy future. This is a fair question.

View our AEP: Strategic Vision for a Clean Energy Future

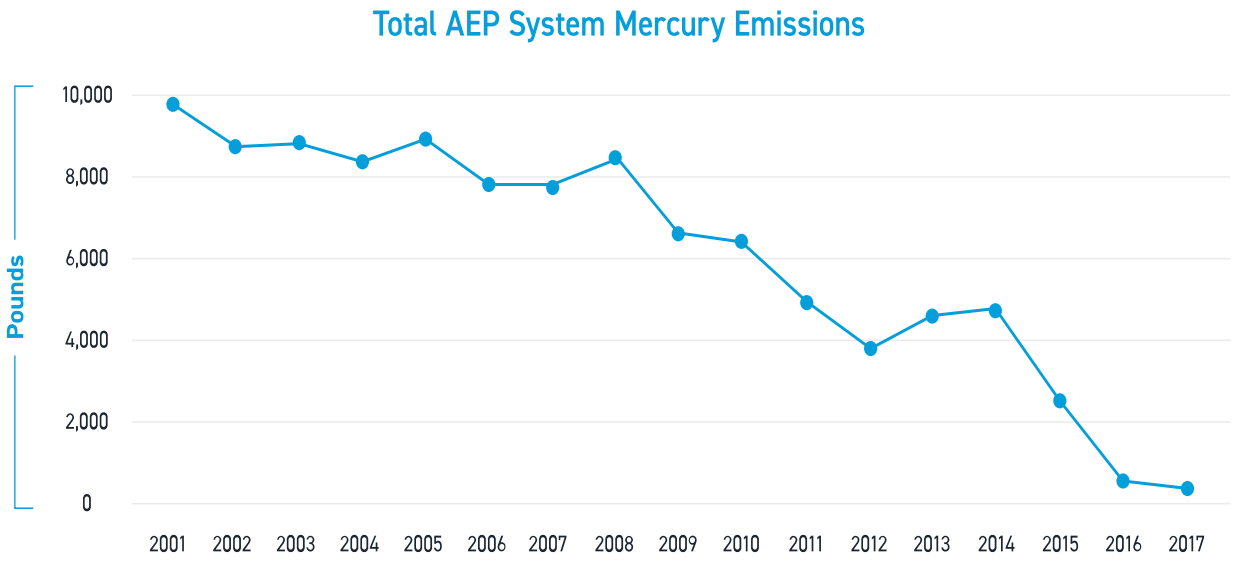


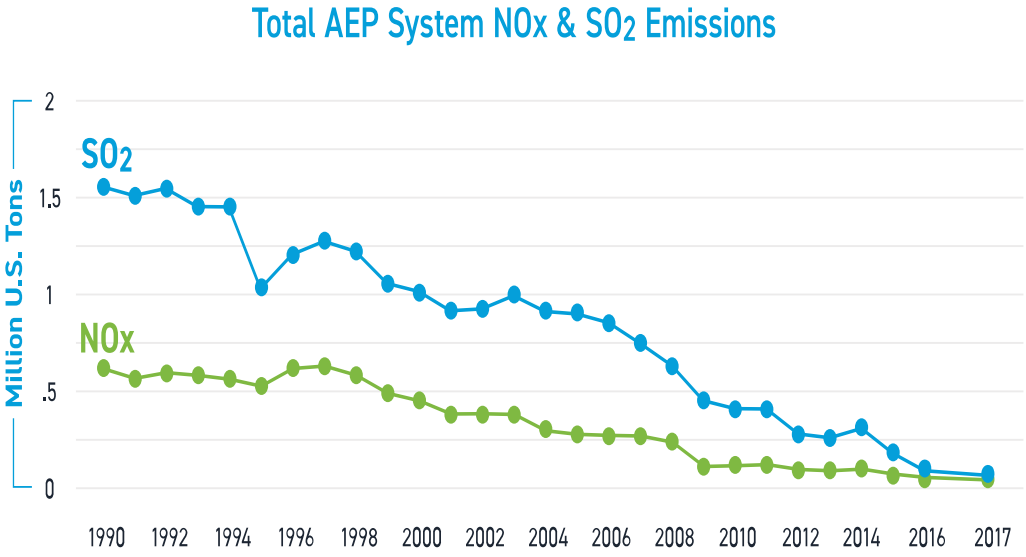
Emissions reflect AEP owned generation from assets in place for a given year. The sale of assets or coal plant retirements resulted in significant reduction in generation and emissions. This includes: the sale of TXC assets in 2004; a number of coal plant retirements in 2015/2016; the sale of Gavin, Lawrenceburg, Darby, Waterford, and adjustment to AEP's share of Zimmer and Conesville 4 in 2017.

Emissions

AEP has made significant long-term investments in environmental controls to reduce the impact of how we generate electricity. Between 2000 and 2017, AEP invested approximately $8.6 billion in environmental controls, primarily related to the Clean Air Act, that have significantly reduced emissions. Since 1990, AEP reduced its annual emissions of sulfur dioxide (SO_2) and nitrogen oxide (NOx) by approximately 95 percent and 92 percent, respectively. Since 2001, AEP reduced its annual mercury emissions by approximately 95 percent.

Mercury emissions information is reported to the EPA under the Toxics Release Inventory program.





Environmental Performance

As our business changes, some things remain constant. One of those is our commitment to environmental excellence and stewardship. To help us achieve the level of excellence we strive for, we push ourselves toward prevention, accountability, engagement and continuous improvement.

Our facilities are subject to environmental regulatory and permitting requirements at the federal, state and local levels for which we must demonstrate compliance. Our goal is zero enforcement actions – zero violations of environmental regulations or laws. We are also subject to routine environmental inspections of our facilities through scheduled – and unannounced – visits. During these visits, regulators inspect physical facilities and monitor our compliance with regulatory requirements, permit limits and record-keeping obligations.

Whenever agencies identify concerns, we work with them to address those issues in a timely fashion. This could include identifying and implementing any corrective measures that may be needed to mitigate future risks. One way we check on our own compliance is through audits. Audits provide additional focus on controlling risks and providing assurance that robust compliance processes are developed and implemented system-wide. In 2017, we conducted internal audits of environmental programs at more than 30 locations.

Environmental compliance is a high priority for the lifecycle of every project we undertake. Our goal is zero enforcement actions – zero violations of

Environmental audits reveal areas where performance related to regulatory requirements and company policies may be improved such as recordkeeping details, inspection criteria, training topics and equipment configuration. Auditors also work to recognize practices that go beyond requirements to bring about robust and sustained compliance. Although reports are site specific, results are aggregated and shared system-wide to improve performance throughout AEP.

environmental regulations or laws.

Our responsibility to environmental compliance will continue for requirements that remain effective at AEP-owned properties where generating units have been retired. This includes many existing state environmental requirements, in particular, those related to the management of water and coal-combustion byproducts. We continue to work closely with regulators as we move through the decommissioning process.

Measuring Performance to Drive Improvement

For many years, AEP's Generation business unit has used metrics to encourage self-reporting of events and to improve environmental performance. An Environmental Performance Index (EPI) was established to set annual goals related to opacity, water discharge permits and oil and chemical spills at our generation facilities. In the past, the EPI tracked only events over which we had immediate and significant control.

In 2017, we expanded the EPI to include all reported events specific to NPDES permit expectations and spill events. By expanding the focus to all events, we are increasing awareness on prevention, which encourages sharing as we learn and drives us to be more proactive.

We set targets focusing on continuous improvement as we strive for zero enforcement actions and zero events. In addition, we started a program for good catches for environmental performance, similar to our safety and health Good Catch program. This demonstrates AEP's commitment to an engaging and accountable culture – using knowledge-sharing and lessons learned to prevent future non-compliance events.

Environmental compliance is a high priority for the lifecycle of every project we undertake. In our Transmission business, where a large part of construction work is taking place, we developed a mandatory environmental compliance training program for all members of the project teams, and we provide support from environmental specialists and engineers to achieve full compliance with environmental permit requirements. This is important to us as we invest approximately $3 billion annually during the next three years to modernize transmission infrastructure across the country.

New Source Review

In 2007, AEP signed a court-approved settlement of New Source Review (NSR) litigation. In 2013, a modification to the decree was approved by the U.S. District Court for the Southern District of Ohio, Eastern Division. The modification lowered a systemwide SO_2 emission cap for AEP plants that becomes increasingly stringent through 2029.

We report annually on our compliance with the consent decree requirements. Below is an archive of our NSR Annual Reports:

- 2017 NSR Annual Report
- 2016 NSR Annual Report
- 2015 NSR Annual Report
- 2014 NSR Annual Report
- 2013 NSR Annual Report

Environmental Regulations

Evolving U.S. environmental policy considerations have not changed our plans for complying with all applicable environmental regulations. While some regulations, such as the Disposal of Coal Combustion Residuals from Electric Utilities rule or the Steam Electric Effluent Guidelines, have an unclear path forward, there are many more regulations that we must comply with and new ones that are still being finalized. As the scope and stringency of environmental regulations evolve, we are faced with technical, operational and financial challenges that are common for our industry. These challenges, including uncertainties with timing, scope and magnitude of future environmental regulations, influence our decisions to upgrade or retire generating units. They also affect the planning process

John Amos Plant Ash Pond Closure

for new generation and transmission projects across our industry.

AEP's active participation in the development of regulations helps to ensure that new requirements are achievable, based on sound science, consistent with statutory authority, balanced with other rulemakings, weigh the cost of compliance for customers and can be implemented in a rational time frame. Compliance is important to us, but we also have a responsibility to our investors, who fund the required capital investment and to our customers, who will ultimately pay for the implementation of compliance strategies.

For a complete update on environmental regulations, please reference pages 9 through 12 in our 2017 Annual 10-K filing.

Coal Combustion Residuals

The issue of coal ash disposal and handling came to the forefront nearly a decade ago and has since been subjected to a new federal rule covering the handling, disposal and storage of coal combustion residuals (CCR).

CCRs are the solid material left over after coal is burned to generate electricity. For decades, many state environmental agencies regulated landfills and surface impoundments where CCRs are placed. In 2015, the U.S. Environmental Protection Agency (EPA) established minimum federal rules for storage and disposal of these materials. These minimum requirements were designed to be self-implementing and enforced by the public.

Since the rule became final, AEP has put several programs in place to ensure compliance and established a new leadership role to oversee these efforts. AEP has a formal ash basin inspection program based on federal dam safety guidelines and applicable state dam safety regulations. Our maintenance program for fly ash ponds and other impoundments remains vigorous and is continuously monitored.

AEP is in the midst of a multiyear plan to address the company's use of coal ash disposal areas. Currently, AEP has responsibility for 31 CCR ponds and landfills that fall under the CCR Rule. We have posted a large number of documents, including structural stability assessments, initial closure plans, inspection reports and, most recently, groundwater monitoring reports for all ponds and landfills covered by the CCR Rule on our website.

AEP is committed to closing coal ash basins in a way that puts safety first while protecting the environment, minimizing impacts to the communities and managing our customers' costs.

In March 2018, EPA proposed revisions to the CCR rule in order to address provisions of the April 2015 final rule that were remanded back to EPA and to provide States with approved CCR permit programs the ability to set certain alternative performance standards. The final rule is expected in June 2019.

In March 2018, we met a major milestone of posting the first annual groundwater monitoring reports on our website for each CCR pond and landfill. The primary focus of the reports is raw data based on background sampling completed in late 2017. The initial data at most sites show potential groundwater impacts. One or more samples showing a higher concentration of a substance, even above a standard, does not mean that there is any impact from the ash storage site or that local drinking water is unsafe.

In advance of report publication, we proactively reached out to plant neighbors and community leaders to answer questions about the data collected and to discuss next steps. We will do additional sampling and analysis over the next year to determine if there are groundwater impacts from our storage sites farther from the immediate area.

AEP is committed to handling coal ash disposal areas in a way that puts safety first while protecting the environment, minimizing impacts to the communities and managing our customers' costs. All of our reports and required documentation are available online at our dedicated CCR Rule Compliance site.

Beneficial Reuse

CCRs have long been used in concrete, wallboard and a wide variety of construction materials. While this benefits other industries, it also provides a source of financial and

environmental benefits to AEP. In February 2014, the EPA completed a risk evaluation of the beneficial uses of coal fly ash in concrete and flue gas desulfurization (FGD) gypsum in wallboard and its conclusions will support these beneficial uses. Currently, approximately 41 percent of the coal ash and other residual products from AEP's generating facilities are used in the production of concrete and wallboard, as structural fill or soil additives, as abrasives or road treatment materials and for other beneficial uses. By diverting the coal ash to beneficial uses, we are reducing the need for waste disposal sites.

In 2017, AEP generated approximately 6.2 million tons of CCRs and was able to beneficially use more than 2.5 million tons, or nearly 41 percent of the total produced. Beneficial use of CCRs (considered to be products if they are beneficially used) avoided approximately $36 million in disposal costs in 2017 and generated more than $8.8 million in revenues.

2017 AEP Total System Coal Combustion Products (CCP) Utilization Summary

Total CCR Produced (tons)	**6,240,397**
CCP Donated (tons)	**21,471**
CCP Used Internally (tons)	**960,030**
CCP Sold (tons)	**1,574,814**
CCP Utilized (tons)	**2,556,315**
Total CCP Avoided Cost	**$36,313,430**
Total CCP Revenues	**$8,834,394**
Total Value	**$45,147,823**
Percent Total Utilization Based on Total Production	**41%**

Includes fly ash, bottom ash, FGD material and gypsum.

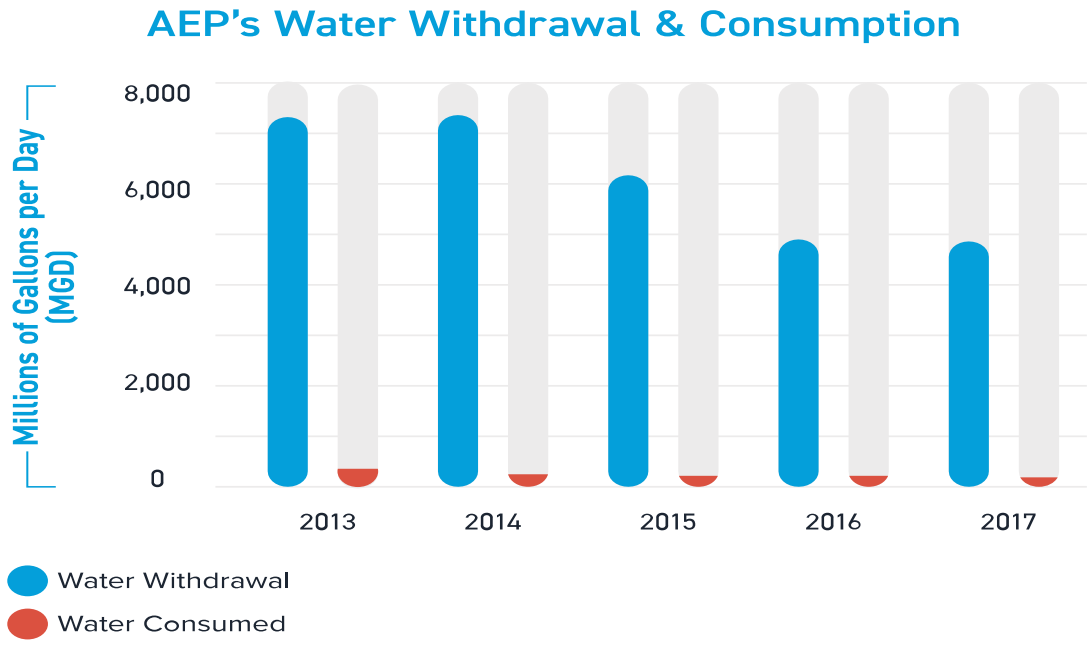
Waste Water Management

Under the authority of the Clean Water Act, the EPA establishes wastewater discharge limits for new and existing power plants that use steam to generate electricity from various fuel sources (coal, oil, gas and nuclear). In November 2015, the agency revised these national effluent guidelines and set stricter performance standards that must be achieved at AEP's coal-fired steam electric generating facilities.

These new guidelines required that AEP install technologies to eliminate the discharge of fly ash and bottom ash transport waters and to further limit the discharge of pollutants from wastewater treatment systems associated with flue gas desulfurization (FGD) scrubbers. Upgrades and the installation of additional wastewater treatment systems would be required at most of AEP's active coal-fueled facilities.

The rule was challenged in the U.S. Court of Appeals, and, in March 2017, the electric industry filed a Petition for Reconsideration of the rule with EPA. In April 2017, EPA issued a stay of the rule's compliance deadlines and granted reconsideration of several aspects of the rule. In September 2017, EPA finalized a rulemaking that postponed the compliance dates for FGD wastewater and bottom ash transport water (BATW) discharges. The earliest compliance date for these waste streams is now November 1, 2020, rather than November 1, 2018. The agency also decided not to postpone the compliance deadlines for fly ash transport water discharges, which remain as soon as possible after November 1, 2018, but no later than December 31, 2023. EPA will initiate a new rulemaking to address the FGD and BATW discharges, which it expects to finalize in 2020. We continue to work with the agency and utility industry groups to help secure reasonable revisions to the guidelines.

We are continuing to take steps to reduce our water consumption, improve water quality and address water availability issues as we comply with current regulations and prepare for new ones.



Water Conservation

Water is a critical input for producing electricity, as power plants use water to generate electricity, cool equipment, scrub flue gas and transport combustion byproducts. Hydroelectric power is completely derived from the kinetic energy of flowing water. Our barge fleet operates on several rivers and relies on consistent water levels to maintain operations, delivering fuel and other supplies to our generating facilities.

As much as we need access to water, we also have a responsibility to manage this resource to mitigate our impacts as well as reduce consumption where we can. As AEP continues to diversify its generating portfolio and retire coal generation capacity, our use of water will continue to decrease.

Water quality, availability, use and management are increasingly important sustainability issues for society and our company. We are continuing to take steps to reduce our water consumption, improve water quality and address water availability issues as we comply with current regulations and prepare for new ones. Because this issue is so important to AEP, we are evaluating a new sustainability goal to address our water consumption.

We have already significantly reduced our water footprint through plant retirements. Since 2013, we have reduced our water use from 7,349 million gallons/day (MGD) to 4,915 MGD – a reduction of nearly 33 percent. During that same time period, we have reduced our water consumption by almost 50 percent from 315 MGD to 158 MGD. The water that we use is generally returned to the original water source after being withdrawn. Water consumption occurs when some of the water is lost to evaporation or a water-consumptive process, such as flue gas scrubbing.

We participated in an industry research project to find new ways to treat wastewater and reduce the use and consumption of water by power plants. In early 2017, the Electric Power Research Institute (EPRI) completed assessments on water withdrawal and consumption at three of AEP's western plants: the Comanche Power Station, the Oklaunion Power Plant and the Pirkey Power Plant. In these studies, EPRI assessed the sourcing of water, water availability in the region, and water conservation efforts by AEP.

Overall, EPRI's results were positive - highlighting various water conservation initiatives implemented by AEP, including a water conservation opportunity between AEP and the City of Lawton. The AEP-owned Comanche Power Station is located in the City of Lawton, Oklahoma, which lacks an adequate supply of local freshwater for the plant. The Comanche Station developed a relationship with Lawton's Publicly Owned Treatment Works (POTW), which provided reclaimed municipal wastewater for the plant to use. Comanche opened in 1973 and has been using reclaimed municipal effluent for operations ever since, making it an early adopter of alternative water supply practices. This exchange resulted in cost savings for AEP (compared to the cost of securing regional surface water) and a source of revenue for the POTW for what was otherwise a wastewater discharge.

Because we place a high value on the importance of transparency, AEP reports on our usage and management of water throughout our system extensively in different forums. One way we do this is through required reporting, such as the U.S. Energy Information Administration, and through other voluntary reporting efforts. For example, we participate annually in the CDP Water Survey. The 2017 questionnaire was issued on behalf of 639 investors representing $69 trillion in assets who seek business-critical information about water consumption and water use strategy and planning. In addition, AEP provides extensive water data in our Global Reporting Initiative (GRI) report and EPRI Benchmarking Reports.

AEP also values and encourages water conservation and education efforts within our local communities. In October 2017, the AEP Foundation awarded $300,000 in grants to the Voinovich School of Leadership and Public Affairs at Ohio University for environmental programs, $50,000 of which was designated for a watershed education and research program. Funding for this

program will enhance a watershed education website for teachers, which will feature teachers' lessons plans, 360-degree images of streams and wetlands, and instructional videos on watersheds. While these resources are educational in nature, they are intended to foster students' awareness and appreciation of ecosystems, specifically with respect to the interconnectivity of watersheds.

Waste and Chemical Management

We manage many types of waste resulting from the process of providing electricity, operating office buildings, and repairing and replacing equipment. We continue to reduce and divert waste from landfills through beneficial reuse or recycling.

The amount of polychlorinated biphenyl (PCB)-containing equipment used across the company continues to decline. PCBs, which are known to have adverse health effects, have not been used in new electrical equipment in the U.S. for more than 37 years but are present in some of our older transformers and other pieces of electric equipment. We removed and recycled approximately 41,000 pieces of electrical equipment in 2017.

While we had 1,482 transmission and distribution equipment oil spills in 2017, similar to the number of spills in 2016, only one of the spills in 2017 contained greater than 500 parts per million (ppm) PCBs. Most spills are caused by severe weather and public vehicle accidents that damage the equipment. Regardless of the cause, we respond to each spill on an around-the-clock basis to clean up the materials released, notify regulatory agencies where required, and restore areas to pre-spill conditions.

During 2017, the waste we recycled included approximately 512,500 pounds of paper and mixed office waste; 33.5 million pounds of scrap metal; 37,000 pounds of light bulbs; 334,000 pounds of batteries; and more than 27,000 pounds of electronic equipment, such as computers and phones. We also recycled about 423,600 gallons of used oil. These numbers are not all-inclusive but are considered good estimates of waste management across AEP and indicate progress in reducing waste.

Nuclear Waste Management

The Department of Energy oversees permanent disposal of spent nuclear fuel and historically has charged fees to plant owners for this disposal. However, the government has stopped developing the Yucca Mountain storage facility in Nevada, leaving generators with no place for permanent disposal.

Indiana Michigan Power owns and operates the two-unit Donald C. Cook Nuclear Plant in Michigan, with a generating capacity of 2,278 MW of electricity. Like the rest of the nuclear industry, we face a significant future financial commitment to dispose of spent nuclear fuel. We need a national solution for the long-term disposal of spent nuclear fuel, which should be part of a national energy plan.

The uncertainty associated with long-term storage has placed the burden of interim storage on each nuclear facility. AEP is addressing this issue on the assumption that a workable off-site solution will not exist before the current operating licenses for both Cook units expire in 2034 and 2037.

In 2012, the Cook Plant began a program of loading spent nuclear fuel into dry casks. Dry cask storage loading campaigns are scheduled every three years. The casks (32 spent nuclear fuel assemblies contained within each dry cask) are designed to withstand tornadoes, earthquakes, floods, sabotage, missiles, aircraft and temperature extremes. They are licensed by the Nuclear Regulatory Commission and meet all applicable security, environmental and radiological requirements.

In 2012, the Cook Plant began a program of loading spent nuclear fuel into dry casks. Since the program began, a total of 28 dry casks have been loaded into storage.

Without removal of the used-fuel assemblies, the spent fuel pool would have reached capacity in 2014, forcing shutdown of one or both Cook units. Since the program began, a total of 28 dry casks have been loaded into storage. The third dry cask loading of an additional 16 casks is expected to occur in 2018. The current cask storage facility is designed to store 94 casks for a total of 3,008 spent nuclear fuel assemblies. This would support the operation of both units through the current operating license dates of 2034 for Unit 1 and 2037 for Unit 2. The pad could be expanded to facilitate removal of all fuel assemblies from the plant's spent fuel pool and full decommissioning of both units.

Nuclear plant operators are required to maintain a plant decommissioning trust fund to safely decommission and decontaminate the plant upon closure. At the end of 2017, the trust fund balance for the Cook Plant was approximately $2.2 billion.

Wildlife Protection

As we build and maintain new and existing infrastructure across our service territory, such as transmission or renewable generation facilities, we are mindful of the potential impacts we might have on wildlife species protected under the Endangered Species Act (ESA), the Migratory Bird Treaty Act and the Bald Eagle and Golden Eagle Protection Act, and we take the necessary steps to ensure their protection. For example, we periodically encounter habitats that may support rare or endangered species, such as the American burying beetle and the Indiana bat.

AEP is currently working with the U.S. Fish and Wildlife Service (USFWS) on a Habitat Conservation Plan (HCP) for the American burying beetle (ABB). This beetle is listed as endangered and the HCP is a mechanism by which AEP can comply with the ESA. The HCP deals with potential impacts from our transmission and distribution operations, maintenance, and construction activities over the next 30 years. The federal permit associated with the HCP will help AEP continue to operate efficiently to provide safe and reliable electricity to meet the energy needs of our customers while assisting in the conservation of the ABB and its habitat. We anticipate receiving the permit from USFWS by the end of 2018.

Simultaneously, AEP is working with USFWS on a 30-year system-wide, programmatic HCP dealing with about 15 other species potentially affected by the Company's transmission construction activities, including the federally endangered Indiana bat, whooping crane, red-cockaded woodpecker, eastern massasauga rattlesnake, and rusty patched bumble bee. This HCP is currently in the drafting stage and is expected to bring predictability and efficiency to the consultation and mitigation process with USFWS while providing tangible benefits to the covered bat, bird, plant and other terrestrial species in all eleven states in which AEP traditionally operates.

AEP is participating in the development of a collaborative monarch butterfly Candidate Conservation Agreement which will help support the rehabilitation of the monarch butterfly's population.

As the USFWS decides whether to list the monarch butterfly as a protected species under the ESA, AEP is working with stakeholders to protect the monarch. A significant component of the ESA is the limitation that it places on activities within designated critical habitat areas of listed species. Monarch butterflies, for example, rely on areas where milkweed plants are available for migration, which significantly overlaps with AEP's generation and transmission network.

In 2018, AEP is participating in the development of a collaborative monarch butterfly Candidate Conservation Agreement with Assurances (CCAA), which brings together stakeholders to commit to proactive conservation measures throughout various industries. CCAAs are administered by the USFWS. This action can support the rehabilitation of the monarch butterfly's population while also encouraging other enterprises such as electric, gas, and oil companies to follow our example through the collaborative nature of this agreement.

AEP has also joined the EPRI Power in Pollinators Initiative, which seeks to address issues of concern regarding important pollinator species, such as bees, beetles, butterflies and other insects. Pollinating insects are necessary to support production of many of our food crops, such as apples, tomatoes and watermelon. Many of these insects are under stress and AEP is working with EPRI and other electric utilities to find ways to support and protect pollinating insects, birds and other associated wildlife.

Avian Protection

For more than three decades, the utility industry, conservation groups, wildlife resource agencies and others have worked together to understand why and how birds collide with or are electrocuted by power lines. This is a growing concern as construction of transmission facilities and renewable energy facilities accelerates across the United States.

To reduce avian mortality, utilities have adopted voluntary company-specific Avian Protection Plans (APP) to mitigate the risks associated with bird interactions with electric facilities. AEP's APP was completed in 2013, and we continue the process of implementation. The plan's purpose is to reduce the incidences of bird electrocutions and collisions with AEP's equipment, and to reduce the frequency of bird-caused outages.

We are also taking avian protection into account as we design and engineer new facilities. For example, the design of the BOLD® transmission line is shorter in stature than traditional transmission lines and structures. Benefits of this design include reduced nesting because of the curved arm, and reductions in both collisions and electrocutions, which are less likely with shorter transmission towers.

AEP manages interactions between birds and power lines

through a system-wide program across our 11-state service territory, where a wide variety of bird species can be found. Currently, AEP's primary challenge is on larger species that are more likely to be electrocuted in substations and on poles or to collide with towers and lines.

The APP has several key components:

- **Employee training and compliance** – We educate our employees and provide training on compliance with all federal and state laws. Our goal is to be proactive in preventing bird collisions and electrocutions.
- **Construction design standards and mortality reduction measures** – We have a process to incorporate bird safety into the design of new lines and facilities.
- **Nest management and avian enhancement options** – We apply bird-safety tactics such as installing a dedicated de-energized pole for bird nesting or bird diverters to keep them away from wires.

To reduce avian mortality, utilities have adopted voluntary company-specific Avian Protection Plans to mitigate the risks associated with bird interactions with electric facilities.

- **Avian reporting systems and risk assessment methodologies** – We continue to improve our monitoring and reporting capabilities to allow us to be more proactive.
- **Public education** – We promote the need for migratory bird and habitat conservation and work cooperatively with federal and state agencies and nonprofit organizations.

Conservation and Stewardship

AEP values and practices environmental stewardship and conservation across its service territory. Whether through reclaiming outdoor recreation areas, such as nature trails and campsites, to integrating conservation measures into new and rebuilt transmission lines, AEP takes steps to preserve our natural ecosystem, especially as we grow our business.

Through AEP's ReCreation Land program, Ohio land that was once surface-mined for coal has been ecologically reclaimed as outdoor recreation area for the public to enjoy. Throughout the history of this program, AEP has planted over 63 million trees, created 380 campsites, and established 350 lakes and ponds stocked for fishing for an estimated 100,000 visitors each year. As of February 2017, 58,800 acres have been reclaimed in Ohio through AEP's efforts.

For many decades AEP has had a cooperative agreement with the Ohio Department of Natural Resources, allowing citizens to use the ReCreation land for public use. With the electric market deregulation in Ohio and the reduction of coal mining in this area, AEP no longer has a future business need for this land. In 2017, we entered into an agreement with the state of Ohio that allows the state to begin purchasing some of the land so that the public can continue to enjoy this area for generations to come. Initially, the state is purchasing more than 13,000 acres to create a new state park that will be known as the Jesse Owens State Park and Wildlife Area.

Retired AEP employee shows improvements to the original wildlife viewing pavilion near SWEPCO Lake at the end of Eagle Watch Trail. The one-half mile path takes visitors through forests and meadows.

Southwestern Electric Power Company's (SWEPCO) Flint Creek Power Plant in northwest Arkansas has been the home to the Eagle Watch Nature Trail for almost 20 years. The year-round warm water in the coal-fueled power plant's reservoir, SWEPCO Lake, attracts wintering American bald eagles. A new wildlife viewing pavilion serves as a "blind" for photographers, bird watchers and others to enjoy part of the lake frequented by eagles and many other birds and wildlife. The trail was built in 1999 as a stewardship effort of the power company. It has received national awards, including citations from the Wildlife Habitat Council and Corporate Lands for Learning. The trail has been named a "pollinator friendly site" by

the Wildlife Habitat Council.

Each year, employees at the Conesville Plant in Coshocton, Ohio, host an Earth Day event. In 2017, approximately 800 local fifth and sixth graders got hands-on lessons on nature, wildlife, the environment and a variety of other science fields. The students had more than 20 stations to visit during the day, including one on the fish of Ohio, which was provided by Ohio EPA Division of Surface Water employees. AEP employees also helped teach students about what they do at the plant and what can happen if you aren't careful around power lines. It's another way we are reaching out to our communities about electrical safety in the public.

AEP employees at the Conesville Plant in Coshocton, Ohio, host an Earth Day event where approximately 800 local fifth and sixth graders got hands-on lessons on nature, wildlife and the environment.

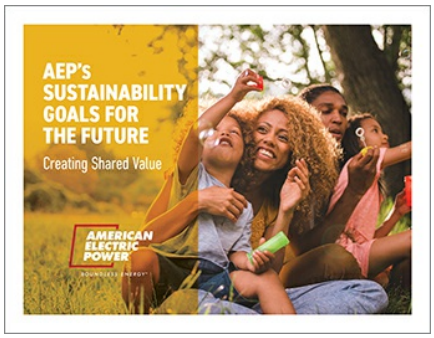
Some conservation measures are required as part of our infrastructure projects, which may include wetland or stream mitigation as part of a U.S. Army Corps of Engineers permit. Similarly, the establishment of conservation easements for habitat protection may be required by the Corps or a state permitting authority. AEP's voluntary activities go above and beyond what is required to meet regulatory standards and include donations to wildlife organizations or school groups or other charitable contributions, which could include funding, services or in-kind commitments made by employee volunteers in support of conservation work.

Another example of a voluntary environmental project is work related to the restoration of an AEP 138-kV transmission line through a portion of the Pleasant Valley Wildlife Area, which is managed by the Ohio Department of Natural Resources (ODNR). Normally, the agency would prescribe a seed mix to be used in restoring any damaged vegetation. In this case, AEP proposed a pilot project to test the feasibility of substituting the prescribed mix with a mix that would be of benefit to pollinators. The pollinator mix was developed in collaboration with the Ohio Pollinator Habitat Initiative, ODNR and Pheasants Forever. This seed mix includes native species that are compatible with existing vegetation in the area and will improve the habitat by providing tall grasses as well as pollinator-attracting flowers. The development of the pollinator plots will be an improvement over the existing vegetation and will provide a greater diversity of plants when compared to the recommended ODNR vegetation.

A final example is the voluntary improvement of abandoned mine lands in the vicinity of the Conesville Plant in Coshocton County, Ohio. These old surface mines, whose former operators are long gone, pre-date today's mandatory reclamation standards. The goal of the reclamation is to eliminate hazardous highwalls, abate acid mine drainage, restore the subject landscape to its approximate original contours, and reforest the reclaimed areas with vegetation native to the region. The project is a partnership between AEP, Ohio Department of Natural Resources, Ohio State University and the Ohio Coal Development Office.

AEP's Sustainability Goals for the Future

In 2016, we chartered a strategic initiative to develop AEP's next-generation sustainability goals. The objective was to measure how we create shared value – for AEP and our stakeholders – through our investments in sustainable development of clean energy infrastructure. These sustainability goals reflect our commitment to the environment; efficient use of energy; safety, health and well-being of our workforce and the public; supplier diversity; community building; the customer experience; and economic development. The goals are aligned with our corporate strategy and business initiatives, so that we will create shared value for AEP and our communities. Our progress will be reported on annually. In addition, we are mapping our sustainability goals to the United Nations Sustainable Development Goals.



Energy and Environment

The power grid of the future will be cleaner, smarter, digitized, more efficient and fully integrated. The efficient use of energy, our investments in modern, responsive infrastructure, advanced technology innovation and customer adoption, and the diversification of resources will enable AEP's transition to a cleaner energy future, while protecting the reliability and resilience of the system and reducing our environmental impacts.

Social Responsibility

At AEP, we consider the safety, health and well-being of our employees, contractors and the public to be a core value, which means doing the right thing every time. As corporate citizens, we have an obligation to address social issues to enhance the quality of life in the communities that we serve, and beyond. We envision a culture where diversity is the norm and employees, customers, supplies and stakeholders of all identities are valued, respected and engaged.

Economic Development

AEP is committed to supporting economic development and making smart infrastructure investments that power our communities and improve lives by attracting high-quality jobs, encouraging capital investment, and stimulating local economies. We incorporate customer perceptions, behaviors and values into the design of our energy solutions and services to ensure the best experience for our residential, commercial and industrial customers.

Reduce Carbon Emissions

Reduce carbon dioxide

Achieve Zero Harm

Achieve Zero Harm – everyone goes home in the

Promote Customer Focus

emissions from AEP generating units by 60 percent from 2000 levels by 2030; reduce carbon dioxide emissions from AEP generating units by 80 percent from 2000 levels by 2050.

Increase Renewable Energy

By 2030, grow regulated renewables on the AEP system by approximately 8,000 MW (per integrated resource plans and pending regulatory approval), and continue expansion of competitive, contracted renewables.

Modernize the Grid

Continued investments in grid modernization to ensure reliability, resilience and security of the power system to meet our customers' needs and future energy requirements.

Energy Innovation

Use new and innovative business models (regulated and competitive businesses) and create energy solutions and services that improve how we manage the grid's total value stream and deliver an exceptional customer experience.

same or better condition than when they came to work – through forward-looking safety initiatives that assess both leading and lagging indicators for risks and opportunities.

Increase Public Safety

Increase public awareness about how to stay safe around AEP energy systems and facilities, and build strong and effective partnerships to help protect the public.

Engage Employees Through Volunteerism

The engagement of AEP employees in company-led or –supported volunteer activities helps to enhance quality of life, advance and expand access to education opportunities, and create shared social and economic benefits for our customers and communities.

Measure the Impact of AEP's Philanthropic Investments

Quantify the impact of AEP philanthropic giving to address STEM education and hunger and housing.

Support Diversity and Inclusion

Build a diverse, high-performing workforce that reflects the communities we serve. Eliminate barriers that prevent employees from maximizing opportunities and potential.

Create an Inclusive, Engaged, and High-Performing Workforce

Cultivate a collaborative and

Through technology-enabled innovation and process improvements, we make it easier and more cost-effective for customers to interact with us and give them access to personalized energy solutions and services to help them better manage their energy use.

Achieve Economic Impact

We strive to improve the communities we serve by helping to create employment opportunities that enhance the quality of life in and sustainability of our communities.

inclusive work environment that empowers employees and provides opportunities for advancement.

Increase Supplier Diversity

By 2023, the level of spend with diverse suppliers achieves 10 percent, providing competitive access to a pool of diverse, strategic suppliers and business partners that mirror the communities we serve.