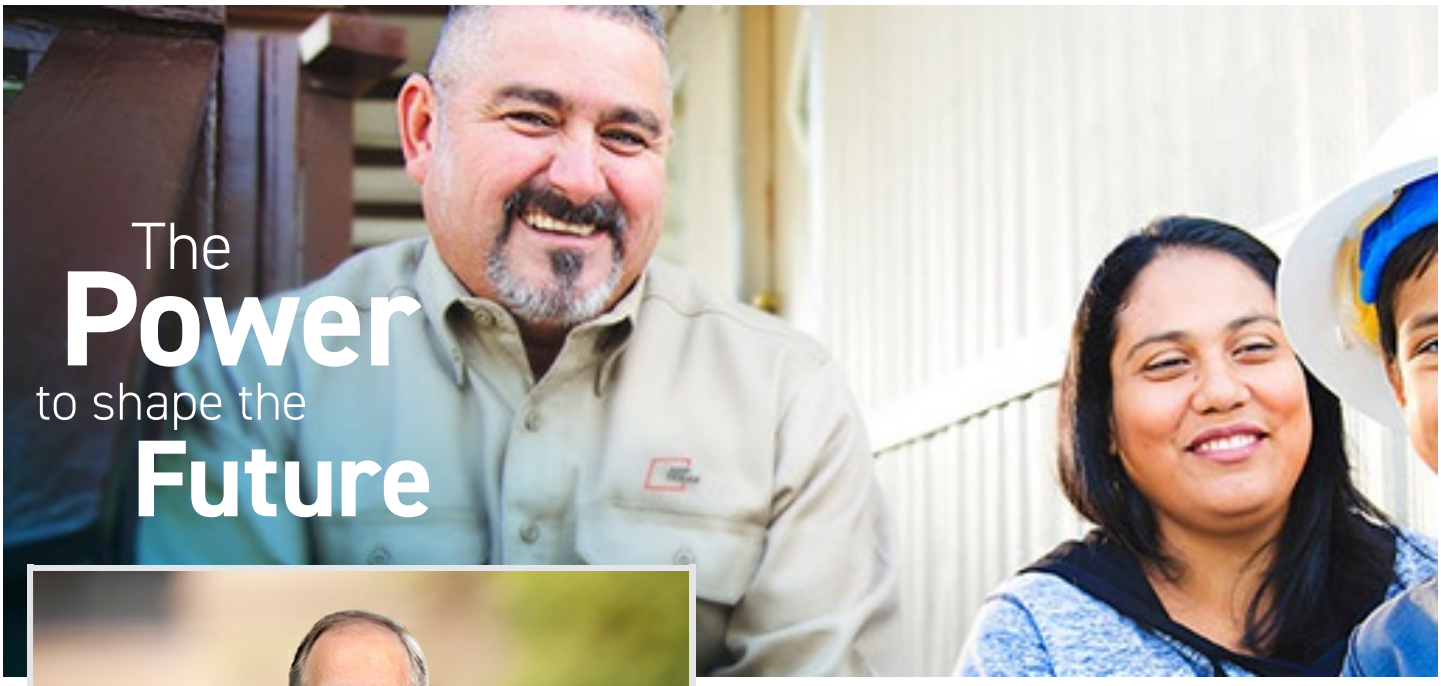
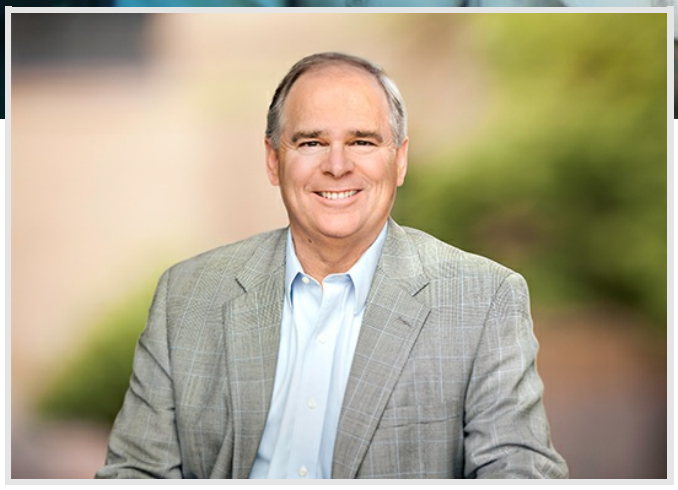




Nicholas K. Akins
Chairman, President & Chief Executive Officer
American Electric Power

Message from the Chairman

We have a vision for American Electric Power to deliver an energy future built on diverse energy resources and an interactive power grid that is more reliable and secure. We are transforming our business to create sustainable economic, social and environmental value for all of our stakeholders. We believe the power to shape the future is in all our hands and by working together we have the ability to turn this vision into reality.

AEP's Strategy for Sustainable Development

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 and communities. AEP's mission to collaboratively redefine the future of energy is grounded by our culture of safety, continuous improvement and customer focus.

BE A CATALYST FOR CHANGE

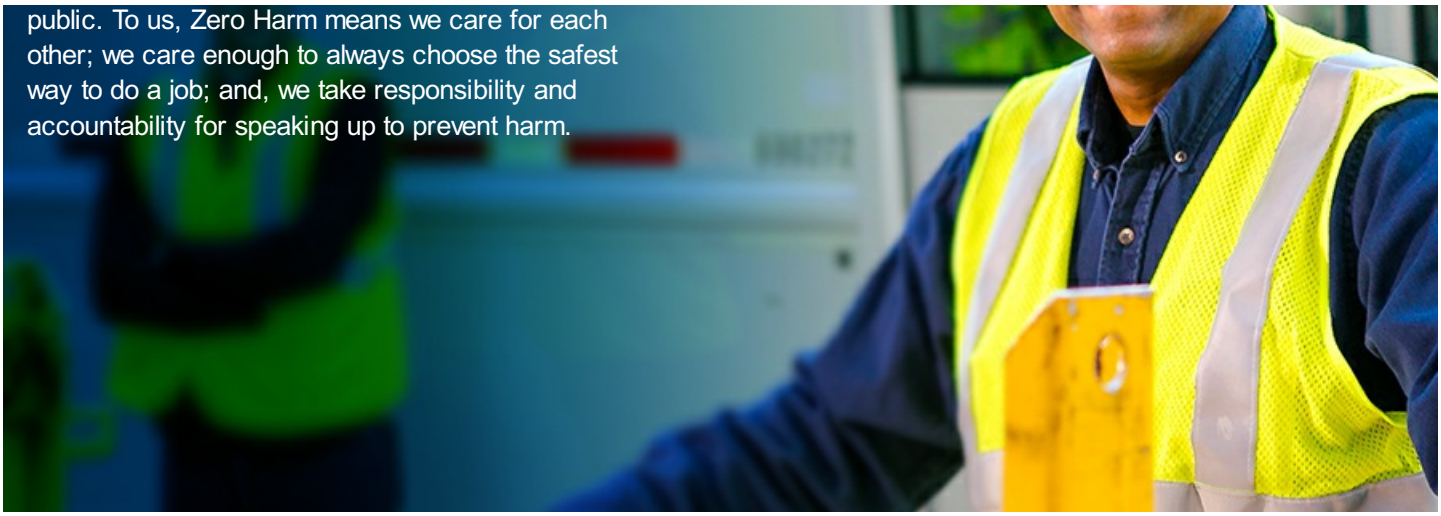
SUPPORT ENVIRONMENTAL STEWARDSHIP

SUPPORT STRONG LOCAL COMMUNITIES

BE A TRUSTED ENERGY PARTNER

Zero Harm

There is nothing more important to us than the safety and health of our employees, contractors, and the


public. To us, Zero Harm means we care for each other; we care enough to always choose the safest way to do a job; and, we take responsibility and accountability for speaking up to prevent harm.

"As we work to position AEP for the future, we have a solid foundation built upon financial strength and operational excellence. The geographic diversity of our regulated companies, the engagement of our employees, our commitment to customers, economic development and strong communities, and the investments we are making in infrastructure and technological innovation, has delivered and will continue to deliver success. And above all, our employees are helping to drive us forward."

-Nick Akins, Chairman, President & Chief Executive Officer

2016 AEP Company Overview

Regulated & Competitive Customers (millions)	5.8
GAAP Earnings Per Share	$1.24
Operating Earnings Per Share	$3.94
Cash Dividends Per Share	$2.27
Service Territory (square miles)	200,000
Transmission (miles)	40,000
Distribution (miles)	224,000
Generating Capacity	26,000 MW
Total Renewable Portfolio	4,166 MW
Total Assets (millions)	$63,468

Strategy & Future Outlook

Sustainability Goals

The energy industry is in the midst of a historic transformation. Amid this changing landscape, AEP is also transforming to be more agile and customer-focused.

AEP is in the process of setting new sustainability goals which will be guided by our Strategy for Sustainable Development.

Chairman's Message

We have a vision for American Electric Power to deliver an energy future built on diverse energy resources and an interactive power grid that is more reliable and secure. We are transforming our business to create sustainable economic, social and environmental value for all of our stakeholders. We believe the power to shape the future is in all our hands and by working together we have the ability to turn this vision into reality. Our basic responsibility is "keeping the lights on." But because lives, lifestyles and livelihoods depend on us, we have to go beyond the basics. We must support strong and vibrant communities, be an advocate for education and opportunity, help the less fortunate, care for our employees, exceed our customers' expectations and protect the environment.

We must also be inclusive and collaborative, while creating shared value for our customers, employees, investors and communities. Ultimately, we must balance the pace of our transition to a cleaner, modern system with our customers' economic capacity. As we work to position AEP for the future, we have a solid foundation built upon financial strength and operational excellence. The geographic diversity of our regulated companies, the engagement of our employees, our commitment to customers, economic development and strong communities, and the investments we are making in infrastructure and technological innovation, have delivered and will continue to deliver success. And above all, our employees are helping to drive us forward.

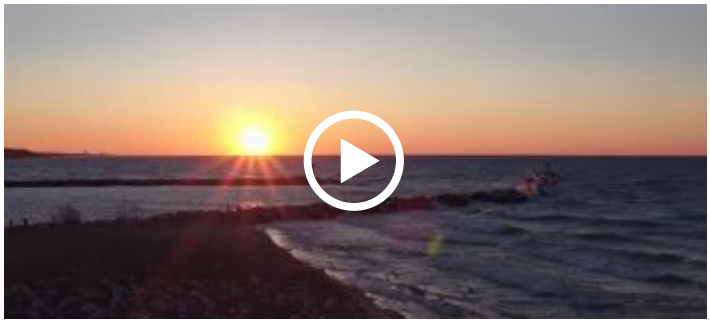
Nicholas Akins, Chairman, President & Chief Executive Officer

Our culture of engagement, safety, diversity, compliance and continuous improvement is also integral to our future success. AEP's culture is extremely important to me and I talk about it frequently with people inside and outside of the company. That's because it defines who we are and what we value. It is our true north, inspiring and motivating us to achieve our goals. Our continuous focus to improve our culture never really ends and we are making good progress toward achieving the levels of engagement and accountability we desire and need for success.

We can't do all of this by ourselves. We have formed strategic partnerships with innovative companies, such as Greensmith, Innovari, Tendril, C3, Utilidata and Braemar Energy Ventures, to work with us on energy technology and storage, and to help us develop and deploy new technologies on both sides of the electric meter. These transformational technologies were unimaginable a few years ago.

We will continue evolving to deliver the technologies, programs and services customers want. We are working with policymakers, regulators and other stakeholders to ensure that the rules by which we are governed keep pace and support our efforts. At the same time, we know that changes to existing laws and rules will be gradual, which is why we are seeking to identify innovative rate design options we can begin to introduce to our regulators and customers.

AEP Brand Essence



The power grid of the future will be different, enabling diverse, distributed technologies and resources and permitting multi-directional flows of electricity and information. We envision an intelligent, integrated grid that is resilient, secure and flexible; a system with technologies closer to the customer than power plants or transmission lines, such as smart thermostats, appliances and building controls (often referred to as "grid edge" technologies); and universal-scale technologies and resources that enhance access and services for all customers.

Safety First

Safety and health are our highest priority, but our performance in 2016 did not meet our expectations. Tragically, we lost two of our

employees in vehicle accidents, the first employee fatalities at AEP in four years. Those are profound losses, especially for the families, and our hearts and prayers are with them. Both were long-time employees, and the AEP family is going through a very difficult period in the aftermath of these tragedies.

The best way to honor and remember our colleagues is to do everything we can to learn from these horrible events, so that we can prevent similar situations in the future. We held a mandatory, companywide safety stand-down to share information about the events and provided safety training. In 2017, we held a Driving Summit for our employees and contractors to continue to emphasize our responsibility to be defensive drivers, on the job and off.

It grieves me further to have to report that three contractors died while working for AEP, two in 2016 and one in early 2017. This is not acceptable, and we are strengthening our contractor safety program to emphasize our expectations for their safety performance. We will hold a contractor safety summit within our transmission business unit – where significant construction is taking place – to reinforce the Zero Harm imperative, which extends to all of those working on our behalf.

There were also tragic consequences when members of the public came into contact with our facilities, causing 11 fatalities in 2016. We are strengthening our public education efforts to educate the public about the dangers of coming into contact with electrical facilities.

Finally, we did not meet our safety and health objectives for reducing our injury rates. Slips, trips and falls continue to be the leading cause of injuries and lost work time.

These results are unacceptable, to me and to the entire organization. We frequently remind ourselves that safety and health is a full-time job and that we each have a responsibility to ourselves, our coworkers and our families to work without harm. We know that Zero Harm is possible because work teams across AEP achieve it frequently. We want to learn from them so we can replicate their success across the company.

We are also working to enhance leaders' abilities to provide constructive feedback and engage with employees. We are encouraging employees to identify and correct hazardous situations, and we are identifying high-risk activities that we encounter in our day-to-day work and putting plans in place to reduce those risks. Our employee-led Good Catch program proactively collects and shares information about potential hazards. In 2016, the number of Good Catches tripled, compared with 2015.

We have established a safety and health governance structure that enables us to effectively develop solutions and share information across AEP. We have also created a new leadership position responsible for contractor safety and health.

Although we measure safety and health by the numbers, we know in our hearts that it's deeply personal. We have friends and loved ones who count on us every day. When events happen, lives are changed forever. In 2016, we launched a "Because We Care" campaign to drive that message home. Our employees share stories about what their commitment to safety and health means to their families. We can't accept anything less than Zero Harm.

In 2016, we launched a "Because We Care" campaign to drive the personal safety and health message home, because we can't accept anything less than Zero Harm.

We have concluded the first year of a five-year safety transformation program to dramatically improve our safety performance. The results thus far tell us we have a lot of work ahead of us.

Repositioning for Success

2016 was a pivotal year in AEP's history, setting the stage for near-term success and long-term sustainable growth. Our many achievements set the stage and provide a clear path forward as we evolve our business model to be the premier energy company of the future. In 2016:

- We updated our company brand to reflect our clean energy transition and commitment to customers and communities.
- We energized the first BOLD transmission line, developed by our own engineers, reducing tower heights, increasing capacity and using existing rights-of-way.
- We began serving customers in Indiana and Michigan from our first AEP-owned universal-scale solar project.
- We partnered with the City of Columbus and others and were chosen over more than 70 other cities to win the federal

Smart City Challenge, which seeks to accelerate the transition to an electrified, low-emissions transportation system.

- We continued to reduce our carbon emissions; in 2016, CO2 emissions were 44 percent below 2000 levels and continue to decline.
- We delivered a 5.4 percent increase in the quarterly dividend for shareholders.

We also established an increased earnings growth trajectory for AEP of 5 percent to 7 percent, compared with our previous 4 percent to 6 percent growth rate. The sale of a portion of our merchant generation, including the 2,665 MW coal-fired Gen. James M. Gavin Plant, reduced risk and volatility of future earnings while reinforcing our balance sheet to support long-term growth. The sale reduced our owned generating capacity from 32,000 MW to approximately 26,000 MW and will positively impact our direct environmental footprint in the future, reducing emissions as well as impacts to water and land.

AEP Earnings & Dividend Data

$/per share

	2012	2013	2014	2015	**2016**
Earnings Per Share (GAAP)	$2.60	$3.04	$3.34	$4.17	**$1.24**
Operating Earnings Per Share	$3.09	$3.23	$3.43	$3.69	**$3.94**
Cash Dividends Per Common Share	$1.88	$1.95	$2.03	$2.15	**$2.27**

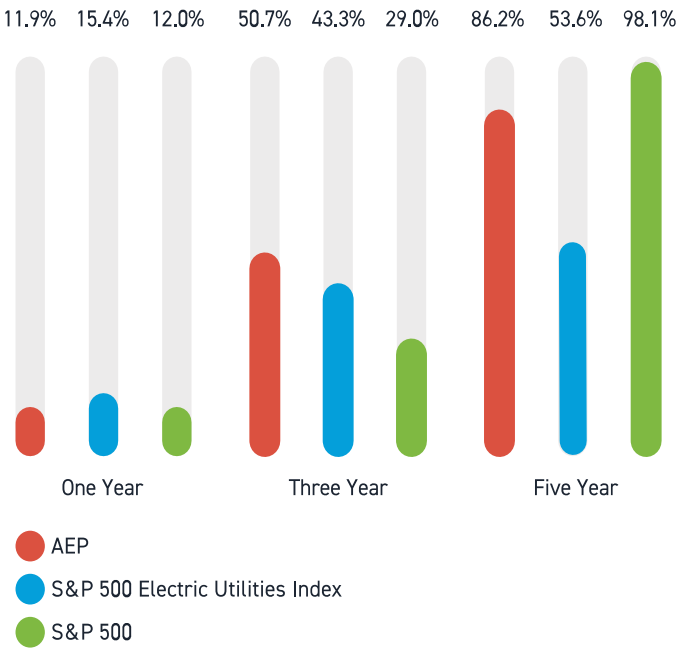
The difference between year-end 2016 GAAP and Operating Earnings was primarily due to the impairment of certain merchant generation assets.

We plan to reinvest the $2.2 billion proceeds ($1.2 billion net after tax) from our asset sales into our core regulated businesses to modernize the grid; deploy technologies, programs and services that improve the customer experience; expand growth beyond our traditional footprint; and continue our transition to low-carbon resources.

Approximately 2,700 MW of additional generation remaining in Ohio is under strategic review. We are taking these steps because Ohio's competitive, deregulated power generation market does not support our goal of being a premier regulated energy company. Competitive electricity markets do not provide the long-term price signals needed to build new generation resources; this is especially true in Ohio, where the state now faces a future of net energy imports.

I am very proud of the employees of all of these plants who made these generating stations what they are today and maintained their focus on safety and operational excellence during a time of great uncertainty.

2016 Total Shareholder Return



Customer Focus

Delivering excellent service to our customers is a critical part of our work ethic and has been for more than a century. But today's customers want a different kind of service, and we need to meet them where they are. We must provide a superior customer experience if we want to continue as an industry leader.

Our customers are important to us, and with our commitment to providing world class customer service, we have adjusted our capital spending priorities to treat customer experience investments equally with investments in generation, transmission and distribution. This will allow us to more effectively meet customers where they want to be met and deliver programs and services

they want and value. This also offers a key growth opportunity for AEP.

The relationship we have with our customers means everything to us and we work to strengthen it all the time. In 2016, we created the position of Chief Customer Officer and an organization charged with improving the customer experience. Part of this strategy requires learning about and investing in new energy technologies and talking more with our customers about what they want and need. Another component is to understand that all customers are not alike and a one-size-fits-all approach to programs, services and rate structures no longer works.

In early 2017, we partnered with Accenture to develop an overarching customer strategy. From that effort a five year Customer Experience Roadmap was developed with 80 initiatives, many of which were identified by Accenture based upon their consumer research and market intelligence. In addition, a prioritization framework and governance model were established to provide the oversight of these initiatives, leveraging a newly-created Customer Experience Governance Board, which will oversee the Customer Experience Roadmap and $116 million of approved funding between 2017 and 2021.

Today's consumer sees energy as a plug-and-play digital platform that must be flexible, reliable and affordable. Think of the grid as a smart device through which you can send and receive information, buy products and services and interact with others. That's the type of experience consumers want with the power grid.

To get to that point, we must have regulatory reforms. We can no longer treat every customer exactly alike; we need pricing programs that recognize the level of service customers want and value. We know it will take time and we are talking with our regulators to move this forward.

A Diverse & Inclusive Workforce

To be successful, we need a diverse workforce and an environment that welcomes different experiences, beliefs, backgrounds, cultures and thoughts. We must maintain an inclusive work environment in which every person is respected, can maximize their opportunities, and can contribute to AEP's success. Diversity and inclusion must be the norm at AEP, and we want to be better at creating and supporting diversity and inclusion than we are today.

Every employee, at every level, needs to be engaged -- highly motivated and deeply involved in their work and with their colleagues – and we've acted to move us forward on this continuum. Our Diversity and Inclusion Advisory Council is charged with setting goals and aligning policies, practices and processes – work that we believe will strengthen our efforts to build awareness, respect and inclusiveness across AEP.

Our seven Employee Resource Groups – including groups focused on race, gender, sexual orientation, disability, cultural heritage and military service – are fundamental to this effort, and we seek to expand them across the company.

In 2016, AEP proudly joined a new coalition called Paradigm for Parity® to promote gender parity in leadership roles. AEP Board member Sandra Beach Lin is one of the founders of the organization. The goal is to achieve gender parity in all leadership levels by 2030. Today, only 30 percent of AEP's leadership team is comprised of women; we can do better and we will. Diversity at all levels of an organization drives innovation and, in my own experience there is a strong correlation between success and diversity, including gender parity.

We also signed on to the CEO Action for Diversity & Inclusion pledge along with more than 50 of America's largest corporations. The pledge commits us to providing work environments that allow for sometimes difficult conversations about diversity and inclusion; implementation of unconscious bias education for all employees; and, sharing of best as well as unsuccessful practices.

We believe these commitments will help us accelerate the progress we've already made by strengthening our commitment and challenging us to continue being a leader in workplace diversity.

Energy Transition in Motion

The traditional, centralized electric power system we've known for more than a century is becoming more distributed and responsive, driven by technology and customer demand. This is really significant because transmission and distribution are critical resources that enable the grid's interoperability, allowing us to manage customer-sited technologies, such as distributed energy resources, as well as universal-scale renewables, end to end.

The growth of the Internet of Things is transforming our business – from sensors that help improve resilience and data that enables active management of all resources at once, to optimizing the grid for customers to make informed choices about generation and power use.

With these rapid and dramatic changes, our customers want us not only to be their energy supplier but also to be their trusted energy advisor across the spectrum of energy products now available. These include energy storage systems, private solar systems, electric vehicles, building management controls, smart thermostats and smart appliances – technologies that are closer to the customer than our power plants.

We have taken steps to rebalance our resource portfolio as we transition to a cleaner energy future. In part, we are doing this by expanding our renewable portfolio within and beyond our

traditional service territory. Over the next three years, we plan to invest approximately $1.5 billion in renewable energy in our competitive and regulated companies.

For example, AEP Ohio is seeking to develop the first 350 MW of a 900-MW Ohio-sited wind and solar commitment in that state. Appalachian Power Company (APCo) is also expanding its renewable portfolio, seeking to add up to 25 MW of universal-scale solar. We are requiring these projects be located within our service territory. This ensures that our investments pay dividends for local communities by providing clean energy locally, taxes that support long-term public needs and temporary construction jobs.

In early 2017, APCo received regulatory support to add 120 MW of new wind power to its resource portfolio, consistent with its forward-looking integrated resource plans. The 20-year purchased power agreement (PPA) takes advantage of federal production tax credits, making it more cost-effective for customers. The new generation, which is under construction, is expected to be available to APCo customers by 2018.

By 2030, our integrated resource plans call for us to add more than 7,000 MW of new wind and solar to our AEP system, subject to regulatory approval.

In Oklahoma, where Public Service Company of Oklahoma's (PSO) resource portfolio already comprises of over 20 percent renewable energy, the company now has solar in the mix for the first time thanks to a recent project at the University of Tulsa. In addition, Southwestern Electric Power Company and PSO are seeking to add new wind resources to their portfolios. By 2030, our integrated resource plans call for us to add more than 7,000 MW of new wind and solar to our AEP system, subject to regulatory approval.

We will also invest $9 billion in our transmission system during the next three years, replacing aging infrastructure, improving reliability and modernizing the grid. From 2017 through 2019, our annual planned investments in transmission constitute about 14 percent of the total annual forecasted transmission investment for all investor-owned utilities in the nation.

Our job is to better integrate energy efficiency, clean energy sources and advanced technology into the essential energy services we already provide, and to give consumers the choices they demand. We also have a responsibility to deliver value to our shareholders. We must harness technology innovations and work with our stakeholders to adapt to this changing environment.

We can't do this alone. We've partnered with clean technology companies including a commercial energy management partnership with Innovari and our residential energy management partnership with Tendril – companies that are devoted to connecting utilities and their customers to work together to optimize usage so that energy can be more precisely measured and used to manage demand. We are also developing technology solutions for large customers who need resiliency as well as clean power and reliability. These are the types of "no regrets" growth strategies to which we are committed.

Carbon and Climate

AEP's carbon footprint has been dramatically reduced in recent years. In 2017, we estimate that our carbon emissions will be 56 percent below 2000 levels. In addition to new renewable sources, the sale of merchant generation, previous coal unit retirements and economic factors such as lower natural gas prices, all contributed to this decline.

Carbon and climate change continue to take center stage in discussions with many of our stakeholders. Investors and environmental groups ask us about how we will continue to transition to a less-carbon-intensive energy future, and customers want more access to renewable resources to meet their own clean energy objectives.

Our path forward is clear. We do not foresee adding new coal. However, our remaining fossil and nuclear units provide critical 24/7 power to the grid and a resilient source of power for all customers. We need these resources to ensure a continued balanced portfolio of resources.

Regardless of the political environment and the fate of the Clean Power Plan or other changes that may be in the works, AEP remains committed to a clean energy future because that is what our customers and stakeholders expect. We have always maintained that any approach to climate change should be economy-wide and addressed through legislative policy. That said, the U.S. Supreme Court has ruled that the U.S. Environmental Protection Agency can regulate carbon, so we are preparing for that prospect. Our planning criteria includes a proxy cost of carbon when developing all of our resource plans to prepare for that eventuality.

We will continue to engage with all of our stakeholders on carbon and climate change and to be transparent about our plans.

Smart Columbus

In 2016, the city of Columbus competed against 77 cities nationwide to win the U.S. Department of Transportation's $40 million Smart City Challenge. In addition, the Paul G. Allen Foundation awarded up to $10 million to reduce greenhouse gas emissions by de-carbonizing the energy and transportation sectors. AEP Ohio will invest nearly $175 million in the project.

We are very proud of this achievement. This exciting project will help Columbus and AEP deploy universal-scale renewable resources, electric vehicle (EV) charging infrastructure, fleet electrification, microgrids, smart street lighting and other grid modernization and efficiency programs.

In addition to technology benefits, the social benefits of this program are extremely important. We seek to expand access to cleaner transportation, especially in disadvantaged neighborhoods. By increasing transportation options, we can improve access to jobs and create new opportunities for everyone. This is what real sustainable development looks like.

On February 1, 2017, AEP Ohio's proposed implementation of Phase 2 of its smart grid project was approved which, in part, will support Smart Columbus initiatives. AEP Ohio will install approximately 894,000 smart meters, deploy approximately 250 circuits with Distribution Automation Circuit Reconfiguration (DACR), and install Volt Var Optimization (VVO) technologies on an estimated 160 circuits.

In a separate filing that is still pending, AEP Ohio is requesting approval to install electric vehicle charging stations, batteries, microgrids and smart street lighting. This infrastructure, combined with our investments to build renewable resources, will provide positive environmental benefits by reducing air emissions in both the energy and transportation sectors. We are excited to see this project move forward and learn how we can leverage the learnings of Smart Columbus into our future strategy.

Grid Security and Resiliency

In 2016, we made progress in our ongoing efforts to protect the power grid and make it more resilient. The Federal Energy Regulatory Commission approved Grid Assurance™, enabling an industry-led project to strengthen transmission grid resiliency. AEP is a founding member of Grid Assurance, a proactive effort that allows us to source, store and deploy spare parts for the transmission grid that often have very long lead times for production. This new program augments other federal spare parts programs, making access more robust when the equipment is needed most.

As we modernize the grid, making it smarter and more resilient, the telecommunications network we rely upon for this growing connectivity also has to be upgraded. We are investing $700 million in a telecomm modernization program to increase the technological capabilities of the system over the next decade. This upgrade will also enhance cybersecurity and improve reliability and resiliency based on real-time data on equipment condition. This will enable us to restore service faster and give us more options for connecting new technologies to the grid.

Making a Mark

Resources, technology and workforce development are not the only things evolving at AEP. In March 2017, we unveiled a repositioning of our corporate logo and brand. In addition to updating our brand, we refreshed our vision and mission statements to reflect our commitment to our customers and communities and to being the premier energy company of the future.

A company's mark identifies and differentiates the brand to help drive customer experiences – a main focus for AEP today. Our evolved logo breaks through the walls of the old parallelogram to signal to customers and communities that our company is changing. Today and in the future, we are more devoted than ever to meeting customers' expectations. AEP exists because our customers use and pay for our product, and we must shape an energy future – with them – that meets their expectations and lifestyles.

We conducted dozens of focus groups, interviews, surveys and one-on-one meetings with customers across our service territory. Our customers told us they want to partner with AEP and they also want a voice in helping us to shape our future. These were major considerations in our rebranding effort.

Our new logo embodies our view of the future in which AEP and its family of companies are breaking through to provide a new

customer experience based on new technologies and a newly-empowered grid. It recognizes the unique relationship that each AEP company has with its unique set of customers. In fact, our new tagline best communicates this idea – *Boundless Energy*.

Building Our Future, Together

AEP's longevity and strength reflect the fact that we are proud and honored to be in the energy business. We deeply understand and embrace our responsibilities, and beyond all else, we value the reliance and trust that our customers, shareholders and communities place in us. This is in the front of our minds as we invest billions of dollars to transform our company and the grid to enable a new generation of resources and technologies. We are committed to giving our customers the sustainable, alternative options they want and need. We also know that shaping the future of energy isn't ours to do alone.

We seek to become partners with our customers to optimize the production and use of energy. We want to partner with our communities to create sustainable economic growth. If our customers are happy and our communities are thriving, so are we.

We need new technologies and a more balanced resource portfolio to achieve our vision. Our employees have the ideas, knowledge and willingness to meet this challenge, along with the desire to collaborate with our customers and other stakeholders to make it happen. We will do this while staying true to our core responsibility to provide safe, reliable, clean electricity that is the backbone of our nation's economy and that powers our customers' daily lives.

The changes that are happening require us to develop new sustainability goals to carry us into a new energy era. In 2017, we are reformulating our sustainability goals. Because stakeholder interests have evolved, we need to set new goals to measure our performance in diversity and inclusion and in economic and community investment, for example. We are engaged in this effort, which comes from a well-thought-out and vetted sustainability strategy linked to AEP's overall corporate strategy, under the guidance of AEP's Enterprise Sustainability Council. We have teams of employees across AEP engaged in this work. We expect to begin reporting on new sustainability goals in 2018.

Nick Akins - Sustainability

I was honored and humbled this year to receive the Edison Electric Institute's Distinguished Leadership Award. I proudly share this award with my fellow employees, who have made AEP a leader, and have established the company as an honest, credible and ethical organization.

I invite you to review our 2017 Corporate Accountability Report to learn more about our exciting and transformative efforts, and I invite you to join us as we move forward to grasp the opportunities before us and meet the challenges that lie ahead. Together, we are building a brighter future, one step at a time.

Sincerely,

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

Strategy & Future Outlook

The energy industry is in the midst of a historic transformation, driven by changing customer needs, policy demands, demographics, competitive offerings, technologies and commodity prices. Amid this changing landscape, AEP is also transforming to be more agile and customer-focused as a valued provider of energy solutions.

AEP Capital Investments

$ in millions

	2016 Actual	2017 Projected
AEP Transmission Holding Co.	$1,327	$1,506
Distribution	$1,254	$1,354
Transmission*	$1,003	$1,466
Competitive Operations	$338	$317
Regulated Environmental Generation	$325	$203
Nuclear	$249	$318
Regulated Fossil/Hydro Generation	$218	$180
Corporate and Other	$220	$322
Total Capital & Equity Contributions	**$4,934**	**$5,666**

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

+ click to enlarge

AEP's strategy for growth and the way we will evolve our business model are changing as we plan for a future that is much different from the previous century. For example, our capital investments once focused primarily on large, central generation – building new capacity and controlling existing units to comply with environmental regulations and keep them running longer. Today, we are looking across the value stream of generation, transmission and distribution and are bringing our investments closer to what customers want and value most. At the same time, we are reducing our environmental footprint and reducing risk in our business, to the benefit of customers and shareholders.

To support this, we established new strategic goals and initiatives to enable us to adapt to this new landscape and be the energy company of the future. These goals do not change the fundamental business of what we do, but they do alter how we do it and how we will respond to the changing forces on our business.

Our core principles of Zero Harm, employee engagement, continuous improvement and business transformation are critical to our success.

AEP's New Strategic Goals & Initiatives

Goal: Aggressively pursue a superior customer experience and sales channel expansion

Initiatives: We will understand our customers' needs, enhance every touchpoint they have with AEP and develop new communication and marketing channels (web-based, text, etc.) to deliver a superior customer experience. A diverse team, led by our Chief Customer Officer, is developing an integrated customer experience strategy that will include product and service offerings for all types of customers.

For example, we are developing a customer mobile app that will make it easier for customers to interact with AEP, when and where they want to do so, 24 hours a day/7 days a week. We are using data analytics to learn more about each customer segment – what they want, need and value most. Using this information, we will deploy new technologies, programs and services, as well as standardized best practices to deliver an exceptional customer experience and boost customer satisfaction.

Goal: Grow our regulated utility infrastructure investment

Initiatives: We will grow our regulated transmission and distribution investments, including building upon our success in investing in transmission projects outside of our service territory. This includes replacing aging infrastructure, establishing standards and continuing to implement a modern grid that can incorporate 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 products and services.

Between 2017 and 2019, AEP plans to invest about $17.3 billion in capital to modernize and make the electric system more reliable, resilient and secure, end to end. Of this, approximately $9 billion will be spent on 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 subsidiaries such as Transource Energy, we are well-positioned to meet our goal to expand our transmission investment

outside of our traditional service territory. So far, the joint ventures we have developed enabled us to expand our footprint to 13 states with projects under development in two additional states.

In 2016, PJM awarded Transource the first competitive market efficiency project, expected to be built by 2020. In the past few years, Electric Transmission Texas LLC (a 50/50 joint venture between subsidiaries of AEP and Berkshire Hathaway Energy) expanded its commitment to renewable energy by interconnecting Texas wind and solar farms to the grid between Laredo and the Rio Grande Valley, as well as in west Texas. In 2016, the Lower Rio Grande Valley 345-kV transmission line was energized, allowing for the permanent interconnection of approximately 800 MW of wind energy projects in that state.

Aging infrastructure and the risk it poses to grid reliability are major drivers of our investment strategy. In early 2017, the PJM Interconnection, a regional transmission organization, approved additional projects to improve service reliability in Indiana, Kentucky, Ohio and West Virginia. These are among many projects across our service territory to modernize the grid and improve reliability for customers.

Between 2017 and 2019, AEP plans to invest about $17.3 billion in capital to modernize and make the electric system more reliable, resilient and secure, end to end.

Goal: Pursue resource transition investment opportunities

Initiatives: We are moving from a historically coal-heavy generation mix to a more diverse resource portfolio to meet the energy needs of our customers. Our intent is to own more universal-scale renewables both in our regulated energy companies and through long-term contracted renewables. Our competitive renewables businesses – AEP Renewables and AEP OnSite Partners – plan to invest up to $1 billion in contracted renewables during the next three years. We will also invest approximately $500 million in renewable wind and solar in our vertically integrated utilities. Today, approximately 10,000 MW of renewable energy is interconnected to AEP's transmission grid, delivering clean energy across the U.S.

As the grid changes, our resource planning process is changing with it. Once dominated by coal-fueled generating capacity to meet demand, today's AEP's resource plans are now largely composed of wind and solar with some natural gas capacity. We are also reducing risk and 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, services)

Initiatives: We want to leverage the many relationships we have with other companies and customers, as well as build new partnerships, joint ventures and other collaborations to continue to transform AEP into the energy company of the future. These relationships will help advance our investments in technologies, renewables and infrastructure, in ways that grow earnings, enhance the customer experience and engage our employees. We are also working with municipalities and electric cooperatives to see how we can build renewables or transmission together. Strategic partnerships, such as with Braemar Energy Ventures, Innovari, Tendril, Greensmith, and Great Plains through our Transource transmission business, allow us to enhance system efficiency, improve our communities and be the trusted energy advisor our customers want us to be. We are also building upon our relationships with regulators as we work with them to change the rules to support the pace of change that customers are requesting.

Our new strategic goals and initiatives give us the focus to become the premier regulated energy company we aspire to be. At the heart of all we do is the customer experience. Our goals and initiatives will enable us to better serve our customers and shareholders and make the shift to clean energy while we modernize the grid and integrate new technologies.

We are working with regulators to develop a revenue model that supports this new paradigm and allows us to compete for new business opportunities, inside and outside of our traditional service territory. As we execute on our plan, we are also taking time to consider what comes next.

AEP's Strategy for Sustainable Development

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 and communities. AEP's mission to collaboratively redefine the future of energy 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. We will do this safely and efficiently and by working with our regulators.

Support 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.

Support strong local communities – We have a responsibility to create shared value – for our customers, employees and the communities we serve. Our investments will enable those living in our communities to develop the skills and resources they need to build a sustainable future for themselves.

Be a trusted energy partner – We seek to be a trusted, credible partner that customers rely upon to help them navigate energy and technology choices, give them accurate and timely information they can act on, and be their provider of choice for safe, reliable electricity.

Setting New Sustainability Goals

In 2017, AEP began the work to set new sustainability goals. AEP first set sustainability goals in 2007 around developing renewable energy and reducing the demand for electricity, as well as reducing carbon emissions. We achieved nearly all of the goals we set within the designated timeframes. Today, many of our stakeholders are asking us about setting new goals. In addition, stakeholder interests go far beyond environmental performance and carbon to include talent development, workforce diversity and inclusion, water and safety and health.

Teams of employees are working on developing new sustainability goals; our intent is to begin to report on them in 2018. To support this work, the Enterprise Sustainability Council framed the meaning of sustainable development and our strategy for achievement to guide the goal-setting work.

Sustainability Governance

Heightened demand for transparency and expectations of leadership to adopt a holistic, long-term approach to managing environment, social and governance (ESG) performance are the norms today. 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.

Nick Akins, chairman, president and CEO; David Feinberg, executive vice president, general counsel and corporate secretary; Lana Hillebrand, executive vice president and chief administrative officer; and Charles Patton, executive vice president and chief external officer, serve as executive sponsors.

The Council's goals and objectives are to:

- Ensure activities and decisions, including performance reporting, align with our strategic plan and initiatives.
- Serve as champions of AEP's sustainability efforts, seeking opportunities to link sustainability with culture, values, business performance and priority issues.
- Share work, best practices and ideas to identify potential risks/opportunities and emerging issues/trends and collaborate in developing solutions and sustainability goals/objectives.
- Manage disclosure to achieve the right balance compatible with AEP's commitment to transparency, materiality and alignment with establishing reporting guidelines.
- Be accountable for the accuracy of the information disclosed.

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 will oversee the development of new sustainability goals for AEP. Our intent is to develop the new goals in 2017 and launch them in 2018. We have seven teams of employees engaged in this effort. Read our updated strategy for sustainable development.

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. While these issues are discussed throughout the year, we formally report to the Committee on our sustainability-related activities twice per year.

The governance structure we have in place supports AEP's commitment to transparency and addressing stakeholder concerns by telling our balanced, accurate and complete story.

Functional Areas Represented on AEP's Enterprise Sustainability Council

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	Audit Services

Regulatory and Public Policy

The electric utility industry is one of the most highly regulated sectors of the U.S. economy. As our industry undergoes an unprecedented transformation, we are working with our regulators and policymakers at the federal, state and local levels to ensure the appropriate regulatory and legislative reforms are in place to balance the cost of keeping the lights on and the need to modernize the grid with our customers' ability to pay.

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, energy efficiency, 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.

As our industry undergoes an unprecedented transformation, we are working with our regulators and policymakers at the federal, state and local levels to

Changing Policy Models

Becoming the energy company of the future requires a review

of current rules that govern today's Regulatory Compact. Current rules do not allow for much collaboration with customers or personalization of products, programs and services. Yet, the changes occurring due to policy shifts, the emergence of new technologies and changing consumer demands are putting pressure on traditional policy models to change as well.

ensure the appropriate regulatory and legislative reforms are in place.

Historically, our industry's value chain of one-way flow of energy and information worked well during an era of building and growing large assets such as central generating stations. But today the value chain includes a new relationship with consumers that is both active and participatory, and distributed resources that allow power and information to flow in multiple directions. These are the forces changing our business and necessitating an evolution of policy models to keep pace.

Our challenge is to align rate structures and public policies with our strategic vision, allowing for increased grid investment, customer collaboration, and policies that support this paradigm shift.

We are exploring new rate alternatives and revenue streams to support the technical energy solutions, products, programs and services that customers want. For example, through the use of data analytics, we have identified as many as eight segments, or types, of residential customers based on their preferences, tendencies to participate in certain types of programs and ways they want to conduct business with AEP. Traditionally, residential customers were thought of as a single group without specific needs. When you consider the eight customer segments and all of the potential touchpoints they have with AEP, you begin to appreciate that there are dozens of unique customer journeys and experiences for which we are responsible.

As our industry undergoes an unprecedented transformation, we are working with our regulators and policymakers at the federal, state and local levels to ensure the appropriate regulatory and legislative reforms are in place.

Today, customers have choices, and we want to be their provider of choice and their trusted energy advisor. We will continue to work with all of our stakeholders to enact the types of changes to tax, regulation and infrastructure policies that support the changing needs of our business and deliver reciprocal value to our customers and shareholders.

Reliability Compliance

The North American Electric Reliability Corporation (NERC) develops and enforces rules and standards protecting the North American bulk power system, which serves more than 334 million people. In addition to developing reliability standards, NERC also conducts annual reliability assessments, monitors the bulk power system and educates, trains and certifies industry personnel. These rules and standards are constantly evolving, and they affect virtually everything we do in planning, operating, maintaining and protecting the grid on a daily basis.

We engage our employees through continuous communication about their contribution to AEP's reliability compliance. This includes basic facility security measures, such as displaying an employee identification badge at all times, following facility access control policies like escorting visitors in secure areas, and maintaining strong passwords. Additionally, NERC requires a rigorous program to maintain and operate bulk electric system protection equipment. These security, operations and maintenance practices are necessary and effective in preserving the integrity of the services we provide and contribute to the safe operation of our assets.

We believe reliability compliance – protecting the grid – is a core component in our jobs, similar to our culture of working safely. Every employee has a role in NERC compliance, and we are developing plans to educate employees about their accountability and developing new metrics for NERC compliance to help us continuously improve and stay in compliance.

The reliability standards in place today require processes and procedures to maintain and advance the reliability and resiliency of the bulk electricity system. Noncompliance with NERC reliability standards can lead to serious financial consequences and reputational risk. That's why maintaining a culture of compliance is a priority for AEP.

AEP successfully achieved compliance with the most recent enforceable version of Critical Infrastructure Protection (CIP) Standards, effective July 1, 2016. AEP's reliability compliance was audited twice in 2016, and we anticipate being audited again later in 2017. In addition to audits that focus on what is required today, we also need to prepare for tomorrow's requirements. To that end, AEP participates in NERC's Standards Development Process, which is a cycle of enhancing existing and defining new requirements.

NERC Reliability Standards continue to expand in complexity and scope, evidenced by the current development of standards addressing geomagnetic disturbance mitigation as well as cybersecurity supply chain risk management, among others. To adapt to these changes and advance the maturity of our reliability compliance program, AEP continues to seek and implement opportunities for improvement.

Risk-Based Compliance Monitoring

Through the Reliability Assurance Initiative (RAI), NERC transitioned to a risk-based compliance monitoring approach. Risk-based compliance monitoring allows NERC to focus its compliance monitoring activities around the highest-risk elements. NERC initiated RAI in 2012 as a means of shifting to a more collaborative process of identifying reliability risks and using that information to better gauge future compliance monitoring and enforcement efforts.

We agree this new reliability philosophy is much more effective and efficient because it allows us to focus on higher-risk issues, thereby boosting system reliability. NERC and the Electric Reliability Organizations (ERO) continue to align their processes to adapt to this risk-based approach.

Capacity Markets

Historically, the outcome of the annual PJM Interconnection LLC (PJM) Reliability Pricing Model (RPM) capacity auctions have represented significant risk for AEP. The auctions are conducted three years prior to the delivery year and determine the prices AEP will be paid for its unregulated generating capacity.

In 2017, AEP sold the majority of its deregulated generating fleet because of the volatility associated with the capacity auctions. After the asset sale, the bulk of the remaining AEP generation in PJM operates under a regulated construct, and meets PJM's capacity reserve requirements through a self-supply arrangement called the Fixed Resource Requirement (FRR) plan. Therefore, the PJM capacity auctions no longer have a significant impact.

In 2016, the PJM Interconnection posted the capacity auction clearing price for the 2019/2020 capacity year. The price set through the Base Residual Auction process cleared at $100/megawatt-day (MW-day) in the largest zone of PJM, known as the regional transmission organization (RTO) zone. The $100 price represents a decrease of approximately 39 percent compared with the price for the 2018/2019 capacity year set during the 2015 auction.

In June 2016, PJM began to operate its capacity construct under new Capacity Performance (CP) rules, which is a requirement that generators must meet their commitments to deliver electricity whenever PJM determines they are needed to meet power system emergencies.

The most significant change in the new rules involves the assessments to generators for non-performance. Beginning in 2016/2017, if a unit participating in RPM fails to perform during a PJM emergency, it will be assessed approximately $1,900/MWh in 2016/2017, increasing to approximately $3,500/MWh by 2018/2019. Fixed Resource Requirement (FRR) entities are exempt from non-performance assessments through planning year 2018/2019.

Beginning in planning year 2019/2020, FRR entities have the option to elect this financial assessment or can choose a physical non-performance assessment. The physical option requires an FRR entity to commit additional CP resources beyond the amount required as an assessment for those committed resources that experience performance shortfalls. Regardless of the method selected, PJM's CP assessments are significantly higher than under the previous rules, and the impacts apply to both regulated and deregulated capacity resources.

Net Energy Metering

As distributed generation (DG), also known as local generation, continues to grow, the debate over net energy metering (NEM) is also growing in both regulatory and legislative arenas across AEP's service territory. The number of NEM customers in AEP's footprint is relatively modest but is growing. In 2016, more than 3,800 local generators were on the grid in AEP's service territory, representing an estimated 72 megawatts (MW). Most of them are private solar generators who have installed rooftop solar. The discussion continues to be focused on the value of the grid and who pays to use it.

Contrary to popular belief, NEM customers do not go "off the grid" but in fact, simply utilize the grid in different ways. Most NEM customers choose to stay connected and rely on the grid to support all of their on-demand electricity needs, although their use patterns are much different than they were under the traditional delivery model. They use the grid to import energy at times throughout the day when their system is not meeting their instantaneous needs, but they can also export energy at times, using the grid in a bidirectional manner rather than the original design of the grid for one-direction delivery to non-NEM customers.

AEP continues to be active in net energy metering policy debates and regulatory proceedings that address issues and advocate for fair, equitable and sustainable solutions. In 2016, several bills were introduced in state legislatures across the country to update NEM tariffs. AEP advocates for updating these arrangements to ensure that all customers pay for the grid services they use, thus ensuring that all customers pay a just and reasonable rate.

As part of the Energy Policy Act of 2005, NEM tariffs were established to incent the adoption of local generation, which has occurred. Some NEM tariffs credit DG customers at the full retail rate, which includes both the costs of the energy itself, as well as the fixed costs associated with grid infrastructure (such as the distribution poles, wires and meters necessary to provide service to them). In essence, NEM pays the DG customers as if they provided all the products and services and reliability requirements of a utility, including balancing the system, providing cyber security and administrative costs such as customer contact centers.

Due to the original incentives established under NEM, certain DG customers aren't fully paying for the services they receive from the grid. Thus, these costs are shifted to the overall costs to serve all other non-DG customers including low-income and other vulnerable customers. This shifting is unfair and, ultimately, unsustainable to all consumers.

The number of NEM customers in AEP's footprint is relatively modest but is growing. In 2016, more than 3,800 local generators were on the grid in AEP's service territory, representing an estimated 72 megawatts (MW).

State legislatures are beginning to understand this complex electric rate issue and taking action. Oklahoma and Arkansas passed bills in 2016 requiring their respective state utility commissions to evaluate net metering subsidy rules. In December 2016, the Michigan legislature passed a bill that increased the state's renewable portfolio standard (RPS) from 10 percent to 15 percent while also requiring the state's Public Service Commission to establish a "nondiscriminatory, fair, and equitable" grid-charge. In Indiana, legislation that would phase out net metering in that state by 2047 was signed by the governor in May 2017.

These are just a few examples of state-directed initiatives that recognize that customer needs and demands are changing and thus traditional electricity pricing models may also need to adjust.

Tax Reform

With Congress likely to take up federal tax reform, we have received several questions from investors and analysts about the potential implications it would have for AEP. The main complication for utilities is that taxes are a component of regulated utility ratemaking, so tax reform could impact rate base, the ratemaking process and, in turn, cash flows and earnings.

For more information, please see our 2016 FORM 10K, pp 46-47, Annual Report.

We are actively engaged with industry peers and legislators to shape legislation that is both positive for the country and takes into account the characteristics of our regulated industry.

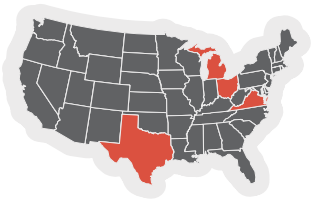
Lobbying and Political Contributions

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 from organizations such as the Business Roundtable (BRT) and Edison Electric Institute (EEI) that go toward lobbying. We post our lobbying policy online and we have a process in place to review political contributions annually with AEP's Board of Director's Committee on Directors and Corporate Governance.

Lobbying by the Numbers – 2016



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

$565,700
Contributions to candidates for public office

$5.9 million
internal and external lobbying expenses

Approximately **25%** of eligible AEP employees participate in the federal PAC

Trade Groups

Among the organizations we are actively engaged with are the Business Roundtable, where our Chairman, President and CEO, Nick Akins, chairs the Energy and Environment Committee. We engage in these activities to stay current on issues, learn best practices and advocate on behalf of our customers, employees and shareholders.

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.

Ethics and Compliance

Ethics and compliance are two sides of the same coin. Compliance is about following the law while ethics is about doing the right thing, regardless of what the law says. At AEP, we are guided by high standards of ethics and rigorous compliance. We are committed to health, safety, financial and environmental compliance, and we believe it is unacceptable to bend the rules in order to get the job done. At the same time, we hold ourselves to a high standard of ethical conduct – acting on our values and always doing what is right.

We are guided by principles of business conduct at every level – from the board of directors and management to employees on the front line. We encourage employees to speak up when they see something that falls short of these expectations, and we hold ourselves accountable. If employees are unwilling to report an ethics or compliance violation because of fear of retaliation, our corporate culture, our reputation and the financial health of the company are at risk. We maintain a confidential 24/7 hotline that allows employees to report concerns anonymously or to seek guidance on ethical, safety or compliance issues.

We also provide annual, mandatory training to all employees on the Principles of Business Conduct. This training includes evaluation of several distinct scenarios in some of our higher-risk areas, including conflicts of interest, misuse of company assets, management of personally identifiable information, and our anti-retaliation policy. This scenario training helps our employees consider these principles in the context of "real world" risks that might arise in their day-to-day job duties. Significant portions of our employee population also receive regular compliance training on the federal and state codes of

At AEP, we provide annual, mandatory training to all employees on the Principles of Business Conduct.

conduct that govern our business.

Enterprise Security and Risk Management

Like all major infrastructure, the nation's electric power grid is vulnerable 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. Growing risk from third parties, such as suppliers with access to sensitive information or infrastructure, has prompted new regulations to protect the grid's resilience and reliability. And for the first time, potential threats to critical distribution assets, such as substations, are prompting new security measures to better protect our employees and the public.

As the threats become more sophisticated, we are constantly enhancing and testing our defenses and strengthening our responses. We know that our response to an event affects our customers, our reputation and the reliability of the power grid. Our approach is to identify, protect, detect and, when an event occurs, to respond and recover.

Cyber and Physical Security

New threats and security risks for the electric power grid are constantly emerging as we continue to deploy the Internet of Things (IoT), including sensors, routers and smart devices that feed critical data over the Internet, and cloud technologies that are essential to a modern grid and 24/7 business transactions. This increased connectivity creates many new entry points for potential internal and external attackers, posing new challenges for grid security.

Mitigating these risks requires a coordinated approach to monitoring, response, employee education, cyber tools, physical barriers, and critical partnerships with the public sector, peer utilities and other industries. AEP's Chief Security Officer (CSO) oversees coordination of these efforts, including governance of enterprise security and ensuring compliance with regulations and employee awareness. Under the CSO's direction, the Enterprise Security team is charged with protecting AEP's business networks, the power grid and customer and employee information.

AEP classifies all of its bulk electric system facilities based on the critical nature of the equipment to determine the level of security needed. This approach allows us to design security controls directly into new infrastructure from the start.

Unlike other sectors in the U.S., the cyber and physical security of the bulk electric system is regulated by the federal government through the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) program. We are also routinely audited for compliance with federal cyber and physical security standards. In addition, the Audit Committee of the Board of Directors reviews our cyber and physical security efforts regularly and the full Board conducts an annual review.

In 2016, the Federal Energy Regulatory Commission (FERC) approved updated cybersecurity standards for the nation's electric utilities. The revised CIP reliability standards broadened the scope and depth of issues ranging from employee training, response planning and recovery to security of cyber systems and information protection.

As a result of the revised NERC CIP standards, AEP now classifies all of its bulk electric system facilities based on the critical nature of the equipment to determine the level of security needed. This approach allows us to design security controls directly into 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.

The FERC also directed NERC, which is charged with assuring the reliability and security of the bulk power system, to develop a new supply chain risk management standard. AEP has more than 21,000 suppliers in our supply chain who conduct business with us, some of whom have access to our networks, sensitive information or critical infrastructure, such as substations, blueprints and confidential files.

To protect our cyber and physical assets, we need partners. Our most important partners are our employees, who receive training annually to understand the risks and their shared responsibility to protect our networks. At the same time, we must ensure that we have processes, procedures and technology in place to limit the risk of attack from a disgruntled or former employee.

In addition to training, we are establishing an insider risk management program that will aid us in identifying at-risk current and former employees and mitigation strategies that will allow us to protect personnel, assets and sensitive information. That program will include a governance committee that includes representatives from Human Resources, Legal, and Ethics & Compliance to ensure our employees are protected and treated fairly.

Another emerging risk is the growing use of the cloud to store and transfer data. To better understand this risk, we have established the Cloud Center of Excellence, a partnership between Enterprise Security and Information Technology. The Center will identify best practices for using the cloud while mitigating the risk of cyberattacks.

In addition, AEP is seeking regulatory support for supplementary security protections of distribution substations. In 2016, AEP Ohio filed a request with the Public Utilities Commission of Ohio to secure critical distribution infrastructure to protect reliability and public safety. Distribution substations are vulnerable to copper theft and vandalism that can disrupt service to customers, create safety risks for our employees who must repair the damage and put the public at risk. This activity is so dangerous that would-be thieves have been electrocuted trying to steal copper from substations.

Over the past decade, AEP Ohio customers have experienced nearly 17 million customer minutes of interruption caused by vandalism and theft at Distribution substations. If AEP Ohio's pending request is approved, up to 100 of AEP Ohio's most critical distribution substations would be equipped with additional security measures over four years, including sirens, intrusion sensors, cameras and signage.

Managing Risk

In today's fast-paced business environment, the process of managing risk has become a higher priority as companies are challenged to compete more efficiently and effectively. Increasingly, elected officials, regulators and customers are expecting utilities to more actively identify and mitigate risks, particularly operational risks. AEP's Board of Directors and senior management recognize these trends and are committed to having a leading-practice risk management program.

AEP takes a risk-based approach to managing the business, which requires an integrated and proactive system of risk management. By integrating our risk functions across the company, we can identify risks before they impact the business and we can manage our exposure. We can more effectively allocate resources to projects, ensure regulatory compliance and drive business performance. This benefits our customers and creates the greatest reward for our shareholders.

Strong risk management leads to fewer surprises that can impact earnings and erode stakeholder confidence. It facilitates more effective decision-making because a structured consideration of risk is built into business activities. And it improves corporate governance. We use a risk framework and governance that allows for consistent assessment of risk across the enterprise.

We have enhanced our risk framework and process for assessing all risks, including operational risks. This is the process we use to identify risks, assess the risks and controls, plan mitigation strategies and monitor the risks. This process will inform and prioritize asset replacement strategies, and investment management decisions will be risk-based.

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In 2016, we piloted the new operational risk framework in three business units and will expand that effort in 2017. The pilots are helping us develop a consistent, repeatable process for risk management across the enterprise and for risk management components that are significant for operations, such as asset management and investment management.

One example of how we are operationalizing our risk management approach is through the Transmission Asset Health Center, which allows us to prioritize our assets from highest to lowest risk of equipment failure. This ranking gives us the information we need to be proactive, minimizing potential impacts to customers. Through our risk management strategy, we can also improve reliability, reduce financial uncertainty and better communicate our operational decision-making to stakeholders.

Enterprise risk management is governed by an Enterprise Risk Oversight group, led by our Chief Risk Officer. This group is responsible for developing the collective risk assessment of the company. The Risk Executive Committee governs the risk processes and makes risk mitigation recommendations to business unit leaders, where appropriate, and identifies material issues on an enterprise-wide basis that could impact corporate goals. These material risks are monitored, reported and discussed regularly with the Audit Committee of AEP's Board of Directors.

One area of risk we continue to monitor is the potential for policy changes in other states to cascade to our states and disrupt AEP's business. For example, some of the proposals from the New York Public Utility Commission's "Reforming Energy Vision" would significantly alter the role of the utility and the regulatory arrangements that govern its finances and operations.

Most importantly, we value our relationships with our customers, and this type of change would interfere with that relationship. The

integrated nature of distribution and energy grid investments with customer technology preferences, either generation or usage related, requires coordinated planning and the ability for the utility to operate them to maximize the value of these investments and ensure the continued success of the AEP-customer relationship.

We work diligently with our policymakers and regulators to enable investment in grid modernization for the benefit of our customers in a cost-effective manner. The regulatory frameworks in our regulated states allow AEP the opportunity to earn a fair return on these investments.

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 corporate business continuity team, business units and the Infrastructure & Business Continuity (IBC) team. The IBC provides 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.

Our focus on business continuity is an absolute necessity. 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 top of mind; our reputation is not based simply on whether we respond, but how effectively and thoroughly we respond and recover.

Once risks are identified, we can take proactive steps to make our business more resilient. Here are some of the resiliency initiatives AEP has taken to reduce risk across the enterprise:

- Core asset improvements
    - Hardening of critical facilities (i.e. installing a redundant generator)
    - Inspection and maintenance program for wooden power poles and underground electrical networks
    - Primary data center moved to a remote location

- Annual assessment and refinement
    - Business impact analysis
    - Exercises and drills to test plans
    - Ongoing training for Business Continuity Coordinators
    - Regular Business Continuity Plan review and updates

Data Privacy

AEP receives a lot of personal data from customers, employees and business partners. When they share information with us, they expect we are doing everything possible to protect it. We take that responsibility seriously. In 2016, AEP strengthened security around the personal data we hold related to employees, contractors and customers.

In 2015, AEP launched a PII (personally identifiable information) Data Protection Program which is designed to enhance security around PII that AEP collects in the course of conducting business. In 2016, AEP began blocking outbound emails containing unencrypted PII, installed an access monitoring system on all locations where PII is stored, and implemented a PII asset certification process.

A PII asset is any application, system or physical location where PII resides. The PII certification process resulted in a 28 percent reduction of PII assets across the enterprise. The PII certification will continue as an annual review during which data owners confirm that the PII in their possession is necessary for business and that it is properly protected. In most cases, AEP removed assets because they duplicated information held elsewhere in a more secure manner. Removing unnecessary or duplicate information is an important step in protecting our customers and others, and for reducing our risk of a loss of PII data.

In 2017, we launched a Personal Data Portal that allows the secure sharing of PII from external sources into AEP, such as that

which had previously been transmitted via email or telephone, especially when onboarding contractors. Also in 2017, AEP will complete the process of encrypting all PII when the data is “at rest.”

About This Report

This is AEP’s 11th Corporate Accountability Report and our eighth integrated report. The report is web-based, and we produce a printed brochure that is used by Investor Relations, Economic & Business Development, Human Resources, Community Relations and many others. In 2017, we introduced a new feature to the site – a PDF builder that allows you to select sections of the report you would like to download and/or print by building a custom PDF document. This feature was requested by many stakeholders for easier access to the information they needed in printed form.

Build your own 2017 PDF

Check off the sections below that you would like to combine into one easy to read PDF document.

Past Reports

2016

2015

2014

2013

2012

2011

2010

2009

2008

2006

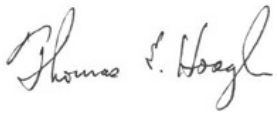
Statement of AEP's Board of Directors

The AEP Board of Directors has responsibility for overseeing the company's sustainability initiatives. 2017 marks the 11th year that AEP has provided a comprehensive account of its performance, integrating financial with sustainability reporting. The Committee on Directors and Corporate Governance, which oversees this report, 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 AEP Board of Directors receives frequent reports from management about the company's sustainability initiatives and financial reporting, policy matters, compliance and economic performance. These issues are the subject of active discussion at Board meetings and Board committee meetings.

The 2017 Corporate Accountability Report reflects robust disclosure about AEP's 2016 performance as well as the company's strategy and vision for the future. AEP's changing business model, its transition to a clean energy future and its plan for future growth are discussed to provide clarity about the transformation of the company and the industry. AEP management has ongoing discussions with multiple stakeholder groups, including investors, and the disclosure provided in this report reflects that engagement. As the Lead Director, I also participate in AEP's annual proactive shareholder outreach program. AEP is committed to being transparent, candid and open about its business, and this report is a reflection of that commitment.

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 according to 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 2017

Audit Statement

AEP Audit Services performed a limited review of company performance statements contained within the 2017 AEP Corporate Accountability Report. Selected financial information was reconciled with AEP's audited financial statements, if applicable, or to such other sources as deemed appropriate. Selected processes used in accumulating the significant nonfinancial data were reviewed and the associated data reconciled to the sources(s). Selected forward-looking information was verified as consistent with other public information disclosed by AEP.

Andrew B. Reis
Vice President, Audit Services
May 23, 2017

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:

Sandy Nessing
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Melissa Tominack
Sustainability Coordinator, Sr.
matominack@aep.com

Give Us Your Feedback

* Required Field

Priority Issues

Identifying and reporting on the most relevant issues for a company and its stakeholders is the foundation of sound disclosure. Today, the demand for and interest in environment, social and governance disclosure has never been greater. At AEP, we have seen this firsthand. The issues we are being asked about are material to AEP.

We recognize that material issues can directly or indirectly impact AEP's ability to create long-term value for its customers, employees, investors and society at large. Sustainability considers a broader scope of action and issues in determining what is material compared with the origins of materiality in the auditing and accounting processes of financial reporting. That is one reason our approach to integrated reporting seeks to emphasize connections between financial and nonfinancial performance and to demonstrate a high degree of transparency.

AEP last conducted a materiality assessment in 2012 during which we identified 18 priority issues for AEP. And in 2013, the electric utility industry conducted an industry-wide materiality assessment that identified 15 material issues. It was conducted by the Electric Power Research Institute's Energy Sustainability Interest Group, of which AEP is a member. The industry-wide materiality assessment is in the process of being refreshed.

In 2017, we will undertake a new review of AEP's priority issues working with eRevalue, a global service provider whose data analytics platform, Datamaran, uses Artificial Intelligence (AI) expertise to derive data-driven insights. Datamaran will help us benchmark and analyze data on regulatory, competitive and reputational risks related to the latest economic, environment and social (ESG) issues.

We regularly discuss our priority issues with our Enterprise Sustainability Council and external stakeholders, as well as reviewing the company's risk reports to seek alignment.

Priority Issues of the Electric Power Industry

Sustainability Pillar	Issues
Environmental	Greenhouse gas emissions Reductions of other air emissions Water Quality Water availability Habitat protection and biodiversity Waste Management
Social	Public safety and health Employee safety and health Job satisfaction Community support and economic development Engagement and collaboration
Economic	Energy reliability Energy affordability Skilled workforce availability Economic viability of electric utilities

Source: Electric Power Research Institute Energy Sustainability Interest Group

Global Reporting Initiative

AEP's 2017 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 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.

Our 2016 scores show year-over-year improvement, a reflection of our efforts to improve our reporting and enhance public disclosure on these issues. On the carbon survey, AEP's score was above the utility sector average. Our water survey score also improved compared with 2015. As we consider new sustainability goals in 2017, these surveys can serve as a guide to identifying opportunities for improvement and advancement.

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)

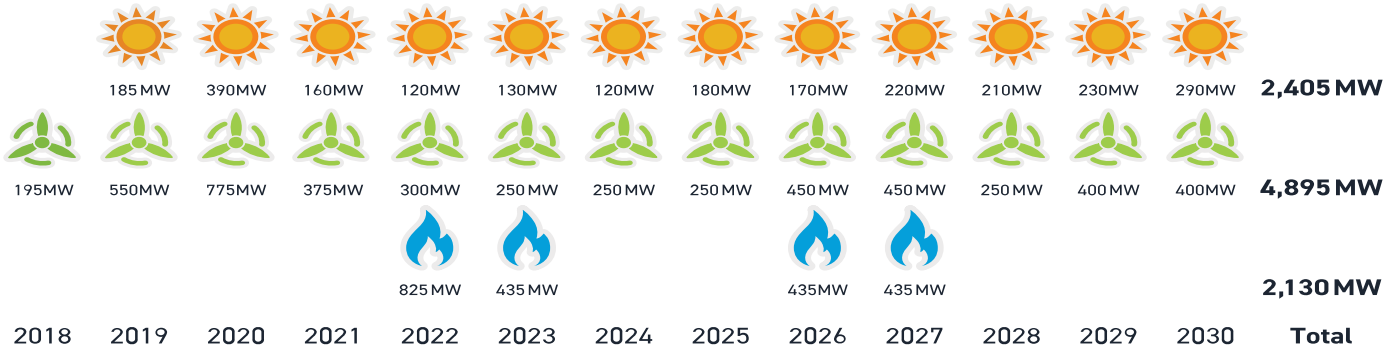
We are on the verge of extraordinary changes in our industry. We are shifting to a cleaner more balanced resource portfolio and investing in smart technologies that allow our customers to interact with us in new ways. We are working with stakeholders to take full advantage of these changes.

1.6million

Smart meters already deployed across our system

AEP System Planned Generation Resource Additions

Regulated and AEP Ohio Purchase Power Agreement



Source: Current Internal Integrated Resource Plans.

Wind and solar represents nameplate MW capacity.

Technology & Innovation

Renewable Energy

A robust, modern grid is a natural enabler of technology and innovation. AEP is preparing for this new dynamic with investments in technology, strategic partnerships, talent development and capacity-building.

We are best positioned to meet our customers' clean energy needs. Owning, operating and maintaining large-scale energy infrastructure is what we do best.

Sustainable Electricity

We are on the verge of extraordinary changes in the generation, transmission, distribution and use of electricity. The rapid growth and reduced cost of distributed energy resources, combined with the grid's increasing ability to provide two-way flows of power and information, are creating a paradigm shift in our industry. Technology is enabling more meaningful opportunities to collaborate with our 5.8 million customers to optimize the entire electric system.

Such collaboration can create significant leaps forward for energy conservation and efficiency, relieve system constraints, optimize system assets and reduce costs. It will improve system reliability and increase the security of the grid. It will help to predict problems, take steps to avoid them, and minimize their impacts. And it will produce significant environmental benefits.

Our customers want cleaner energy and more control over their electricity usage. We want to work closely with our customers and to get more value from our capital assets and operating systems. The system that we envision will enable us to work together with our customers to accomplish these objectives and more, creating benefits for all.

We are making substantial changes to take full advantage of this opportunity. These include:

- Shifting to a cleaner, more balanced resource portfolio.
- Innovating and making the necessary investments in our transmission and distribution systems so that they can enable this collaboration.
- Working to organize distributed energy resources to act as a virtual power plant to meet energy needs during peak demand periods.

An interactive and enabling grid is consistent with our determination to foster a customer-centric culture and to dramatically improve the customer experience. To collaborate with our customers, we must provide them with tools to customize and control their use of energy, along with the incentive of reducing costs by doing so.

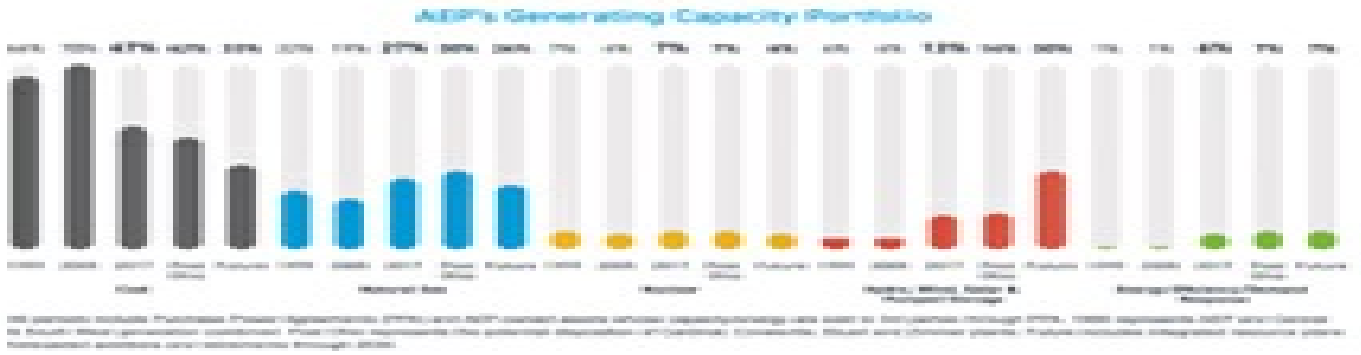
We are investing in smart technologies, for example, to make it easier for customers to monitor, manage and pay for the electricity they use and to interact with us in new ways. We are taking advantage of the Internet of Things, to enable us to signal to smart appliances the best and least costly times to turn up or down or to tell electric vehicles the best times to charge.

While this transformation presents extraordinary opportunities for innovation and growth, it also carries risk and responsibility. The traditional utility business model doesn't accommodate much of this new paradigm. We are working with policymakers, regulators, customers, investors and other stakeholders to adapt our business model to take full advantage of this paradigm shift.

Resource Planning

As we diversify our resource portfolio, we are also reconfiguring the grid to support further integration of distributed energy resources, increased energy efficiency and demand response, and other customer-driven technologies.

Current economics dictate that high-efficiency combined-cycle natural gas units are the logical choice for new 24/7 power sources. In addition, the efficiency and cost improvement in smaller, modular natural gas-fueled distribution generation, such as aero-derivative turbines and reciprocating engines, may provide the highest value for the grid and customers due to their flexibility, small footprint and relative ease of permitting and siting. Wind and solar generation continue to gain momentum in the mix as they become more cost-competitive at grid-scale as an intermittent energy resource that aligns with regulatory mandates and customer preferences.



+ click to enlarge

We often are asked if we factor the cost of carbon into our resource planning. The answer is yes. The potential for carbon regulation has been part of our integrated resource planning process for many years and provides an important market signal when we are determining resource needs and costs. 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.

Several AEP operating company subsidiaries are required to develop periodic integrated resource plans (IRP) that are filed with state public utility commissions. IRPs help companies and state regulators plan for meeting customers' capacity and energy needs over a certain period of time. The plans take into account available resource and market options to achieve the right balance of resources at reasonable costs for our customers. In most cases, there are robust stakeholder processes in place to support this planning.

Current IRPs call for significant increases in renewable and natural gas capacity, if approved by regulators. These plans are integral to meeting customer needs as well as the shift to a clean energy future.

Although these plans have long-term time horizons, they are updated at regular intervals, in accordance with state requirements, for current market and other emerging external conditions, as well as for changing customer energy and capacity needs.

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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.

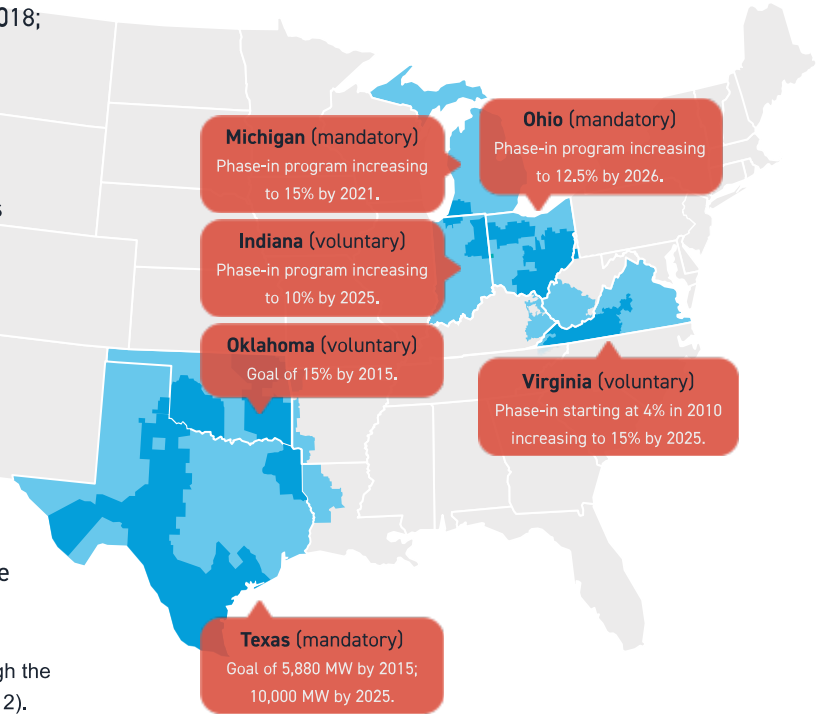
MICHIGAN (mandatory)
1% annual reduction of previous year retail sales in 2012 to through 2021.

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.

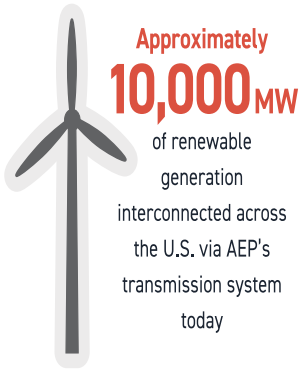
There are currently no renewable portfolio standards in Arkansas, Kentucky, Louisiana, Tennessee or West Virginia.

AEP Operating Company by State	Case Number/Docket
Southwestern Electric Power Company – Louisiana	SWEPCO LA I-33013
Southwestern Electric Power Company – Arkansas	SWEPCO AR Doc.07-011-U
Public Service Company of Oklahoma - Oklahoma	PSO OK 2015 IRP
Kentucky Power Company 2016 IRP - Kentucky	Case NO. 2016-00413
Appalachian Power Company – Virginia	Case NO. PUE-2016-00050
Appalachian Power Company – West Virginia	Case 15-2003-E-IRP
Wheeling Power Company – West Virginia	Case 15-2004-E-IRP
Indiana Michigan Power - Indiana	Docketless Case

Renewables

In 2016, more than half of new generation sources brought online were renewables, according to the U.S. Energy Information Administration (EIA). The growth of renewable energy is expected to continue. Although many states set voluntary or mandated renewable portfolio standards, the driving force today is customers who want clean energy at a

reasonable cost and ask their energy companies to work with them to make it happen. AEP's current integrated resource plans (IRP) show that through 2030, a majority of our resources will encompass renewables and energy efficiency.



And, 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 about this type of approach because it can provide a dual benefit of clean energy and resiliency for the customer and the grid.

We are best positioned to meet our customers' clean energy needs. Owning, operating and maintaining large-scale energy infrastructure is what we do best. We can achieve economies of scale that individual customers cannot while also 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.

Universal solar makes sense because we can provide it more cost-effectively to more customers. By making these investments on behalf of our customers, we can align universal solar with grid operations, preventing unnecessary costs of integration, such as the need to build additional transmission lines or substations. In addition, we have extensive power systems engineering experience and, as the largest transmission owner and operator in the U.S., we have an advantage in our ability to optimally integrate variable resources with the grid.

Private vs. Public Solar Market Growth

On a broad basis, the cost of solar continues to decline, albeit at a slower pace than in the past. The federal investment tax credits for solar power are scheduled to be reduced over time and may be eliminated. Therefore, while private solar generation will likely continue to grow, it could happen at a slower rate.

The areas of the country that continue to see the highest penetration of private solar generation are typically in places where subsidies are in place, and/or the average household incomes are higher, and/or the local energy company's rates are relatively high. Customer adoption of local generation in AEP's service territories, especially among residential customers, continued to be slower than some parts of the country.

Although the number of private solar generation customers on AEP's system is relatively modest, it is increasing. Private solar generation among AEP's 5.4 million regulated customers has increased marginally from 0.07 percent in 2015 to 0.08 percent in 2016.

Learn more about AEP's first successful universal solar projects in Indiana and in Michigan.

Regulated Universal Solar

In 2016, Indiana Michigan Power Company (I&M) completed construction of four solar power plants, which are located in Indiana and Michigan and add nearly 15 megawatts of solar energy capacity. The Clean Energy Solar Pilot Project gave us important experience in developing, building and operating universal-scale solar plants.

Constructing solar generation is new to AEP so we contracted with First Solar Inc., a global leader in photovoltaic (PV) solar energy solutions. The project supports I&M's long-term resource plan to add 600 MW of solar capacity by 2035 and allows us to evaluate similarites and differences between solar and wind resources.

The Watervliet Solar Power Plant, just east of Watervliet, Mich., has more than 50,000 solar panels that generate up to 4.6 megawatts of electricity, enough to power 650 homes annually. In total, I&M's four solar plants generate enough electricity to power more than 2,000 homes annually.

Providing affordable access to renewable energy was the driver behind I&M's creation of IM Solar, a program that allows I&M's Indiana customers to participate in the growth of solar power by subscribing to buy blocks of renewable energy monthly. Subscription proceeds will retire solar Renewable

Energy Certificates (RECs) that I&M's solar generation creates, going directly toward supporting the solar projects. IM Solar gives our Indiana customers the opportunity to effectively reduce their carbon and environmental footprint in a cost-effective manner.

In 2016, Indiana Michigan Power Company completed construction of four solar power plants, which are located in Indiana and Michigan and add nearly 15 megawatts of solar energy capacity.

In January 2017, Appalachian Power Company (APCo) sought to add solar generation to an already robust renewable portfolio. The company issued a Request for Proposals (RFP) for universal-scale solar, seeking up to 25 megawatts of solar energy resources. Among the conditions for bidders was that the projects must be located within APCo's Virginia or West Virginia service territory. Today, APCo is already a leader in renewable energy, producing 1,900 gigawatt-hours of energy annually from wind and hydroelectric power – enough power to supply 150,000 homes in a year. This new project will add solar to the mix.

Locating the solar facilities within our footprint is important to us. APCo's service territory has been particularly impacted by retirements of coal units that eliminated jobs, disposable income and tax resources in that region. By requiring siting within our service territory, we ensure not only customers receive the benefits from clean energy but also their communities benefit from tax revenues that support public services, such as public safety and education, and the creation of jobs during construction.

In 2016, Public Service Company of Oklahoma (PSO) and the University of Tulsa partnered to install 936 solar panels on the roof of the university's Case Tennis Center. Under the agreement, PSO owns and maintains the 300-kilowatt array of solar panels. The university leases the panels from PSO and uses the energy provided to power the Case Center.

The project marked PSO's first addition of solar to its resource mix and reflects the company's continued commitment to renewable energy. PSO already provides more than 20 percent of its capacity from renewable resources. Currently, PSO has more than 1,100 megawatts of wind energy under long-term contracts.

Current Regulated Renewable Activity – 2017-2019

Company	Resource	RFP Amount MW	Probable Amount MW	Probable Owned/PPA
Appalachian Power Company	Wind	150	345	225 Owned/120 PPA*
Appalachian Power Company	Solar	25	25	Owned
Public Service Company of Oklahoma	Wind	100-300	100	PPA
Southwestern Electric Power Company	Wind	100	100	Owned
AEP Ohio	Wind	250**	250	50% Owned/50% PPA
AEP Ohio	Solar	100**	100	50% Owned/50% PPA

* Approved

** Represents the initial AEP Ohio commitment for a total of 500 MW wind and 400 MW solar resources.

Competing for Renewables

The transition to a clean energy future is happening at the hands of customers who are requesting it. As AEP seeks to balance its renewable portfolio, we are looking beyond our traditional service territory for investments. Our advantage is that we bring a low cost of capital and the ability to buy affordable renewable energy in bulk that is attractive to customers. This is especially appealing to companies, universities and municipalities that often have their own renewable energy goals. When we invest in large-scale wind and solar, we can cost-effectively improve access to clean energy for more people across the country.

Between 2017 and 2019, AEP intends to invest up to $1 billion in contracted renewables to provide the energy solutions customers want, which are largely technology-based, and deliver a cleaner emission profile in the process.

We will do this through our two renewable energy subsidiaries – AEP OnSite Partners and AEP Renewables – that work with large users of energy on solutions and projects to help them achieve their specific goals. At OnSite Partners this could include applying a technology, such as combined heat and power, reducing emissions or lowering their cost and energy profile. The projects are backed by long-term contracts, which is a win-win for the customer and for AEP.

AEP OnSite Partners is building a portfolio of distributed energy solutions and currently has 18 solar projects in operation in eight states (California, Ohio, Hawaii, New York, New Hampshire, Minnesota, New Jersey and Vermont). Projects currently in operation include customer-sited solar projects, behind-the-meter storage assets and a customer-sited substation. The company has eight additional customer-sited solar projects under construction, totaling 22.8 megawatts-direct current in five states (Colorado, Florida, New Jersey, New York and Ohio). Most of OnSite's investments are outside of AEP's traditional service territory.

AEP Renewables develops and/or acquires large-scale renewable projects backed with long-term contracts. The company has acquired a 50-megawatt-AC (MW-AC) solar facility in Nevada and a 20-MW-AC solar facility in Utah.

Boulder Solar II is a 50-MW-AC solar facility in Nevada that began commercial operation in January 2017. The power it generates is contracted to Berkshire Hathaway Energy's NV Energy under a 20-year agreement. The Pavant Solar III solar facility is located in Utah and was placed in service in December 2016. The power it generates is contracted to Berkshire Hathaway Energy's Rocky Mountain Power under a 20-year agreement.

Boulder Solar II is a 50-MW-AC solar facility in Nevada that began commercial operation in January 2017.

Natural Gas

The growth of natural gas in the United States is an economic "sweet spot" for the country. According to the U.S. Energy Information Administration, the U.S. now produces nearly all of the natural gas that it uses – all but eliminating dependence on costly foreign imports. While the abundant domestic supply of natural gas provides an element of fuel security, it has made other fuel sources relatively less economic.

As we shift to using more natural gas for 24/7 reliability of the grid, one concern is that an over reliance 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 fuel diversity.

Natural Gas – AEP System Plants

	2014	2015	**2016**
Total Delivered (billion cubic feet)	146.10	176.10	**197.90**
Average Price Per MMBtu of Purchased Natural Gas	$4.60	$2.64	**$2.71**

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 working 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. There are also efforts underway at the federal level to assure physical security of pipeline infrastructure.

From Coal to Gas

In June 2016, Kentucky Power Company's Big Sandy Plant completed its conversion from a coal-fueled generating facility to natural gas. The 800 MW Unit 2 was retired and generated its last megawatt of electricity on May 13, 2015. Unit 1 continued operating until its coal supply ran out in November 2015, and the conversion of Unit 1 to burn natural gas fuel started soon after.

Making the switch to natural gas was important to the Lawrence County, Ky., community because the plant provides jobs and a local tax base. The plant and its employees have been a part of the Louisa and eastern Kentucky community for more than 50 years, providing low-cost electricity to the region.

While the conversion marked the beginning of a new chapter for Big Sandy Plant, it won't be the last. Kentucky Power's long-term plans include razing Unit 2 and converting a portion of the site into an industrial park. Unit 2's cooling tower was imploded in September 2016 as part of the long-term plans for developing the site.

Appalachian Power's Clinch River Plant in southwestern Virginia was also converted to natural gas. It stopped burning coal in September 2015 and began delivering gas-fueled electricity in 2016.

Shale Gas: An American Advantage

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 resources provides important growth opportunities that support local economic and business development and create new jobs.

Since 2011, many shale oil and gas customers have tapped into these resources in AEP's Ohio, West Virginia, Oklahoma and Texas service territories. We have been tracking short- and long-term customer power requests related to shale gas growth since 2011; this data helps us to plan transmission improvements to meet customers' needs. Since the recession, AEP has seen a dramatic shift in energy production – shale oil and gas vs. coal – within our service territory. Today, we serve more oil- and gas-related customers than coal industry customers. In 2016, customer requests for shale-related service slowed across AEP's service territory, which tracked with national trends.

Although low oil and gas prices slowed investments in drilling, growth increased for new midstream and pipeline investments in the Marcellus and Utica shale regions of Ohio and West Virginia and the Eagle Ford formation in Texas. Our data indicates emerging growth in additional formations in other parts of our service territory, once infrastructure to support growth is in place. Coastal Texas, including Corpus Christi in our footprint, is an attractive location for liquefied natural gas (LNG) terminals to support exports of gas. We remain committed to supporting this industry's growth.

In June 2016, Kentucky Power Company's Big Sandy Plant completed its conversion from a coal-fueled generating facility to natural gas.

Shale customers need highly reliable electricity to maintain many of their 24/7 operations, as well as meet their downstream customer needs. In AEP's eastern service territory, transmission planning engineers developed a transmission shale expansion plan to help us forecast where transmission improvements will likely be needed. This plan helps us prioritize our investments and system improvements to maximize benefits to customers and the power grid. A similar effort is underway in AEP's western service territory. These efforts position AEP to seize growth opportunities in shale regions as they develop.

Between 2012 and 2016, AEP Economic & Business Development worked on 33 shale oil- and gas-related customer projects in AEP Ohio's territory, including new facilities and expansions. Those projects have created 953 jobs and other direct benefits for the region. Speed of electric service, reliability and power quality were key location drivers in 25 of those projects.

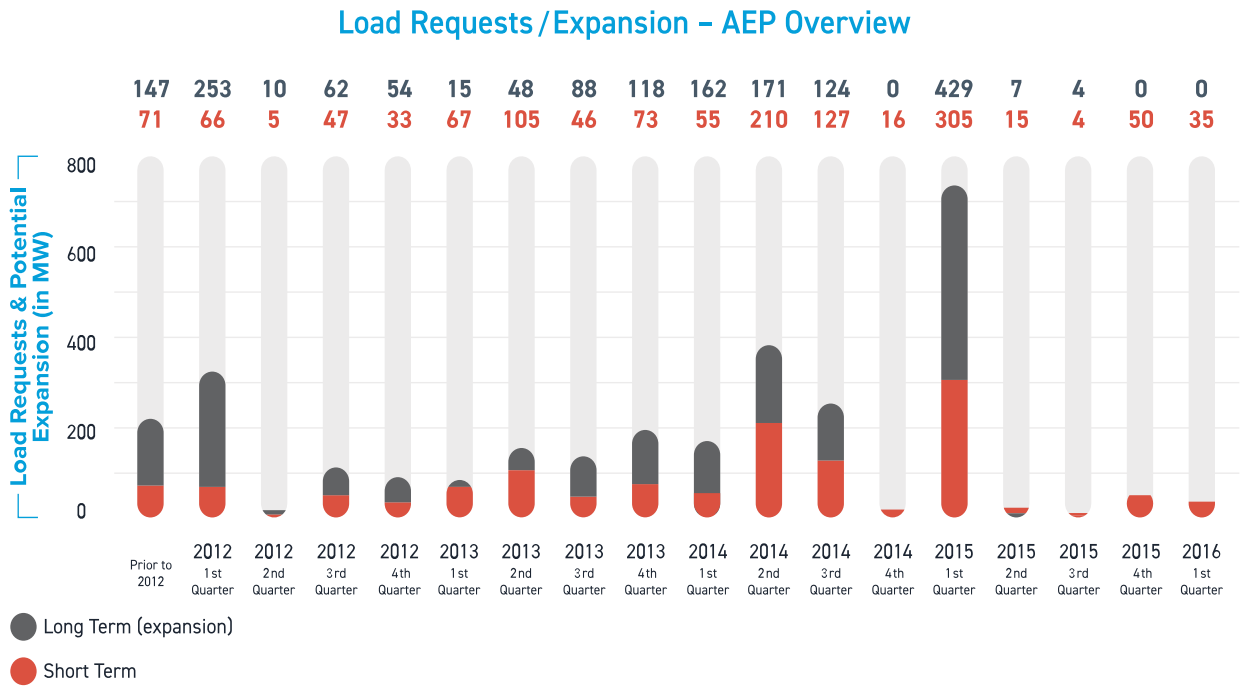
Thanks to innovative solutions such as AEP Transmission's "station in a box" (aka Skid Station), AEP built temporary mobile substations to serve several of these oil and gas customers to meet their aggressive power needs and production schedules. AEP then built permanent substations to serve the customers' long-term capacity needs. Customer-focused approaches such as these give us a competitive advantage in business attraction, retention and expansion.

In November 2016, AEP Ohio Transmission Company began operation of a new 138/69-kilovolt (kV) station to support a resurgence of natural gas and oil production in Ohio and West Virginia. The new station in Harrison County, Ohio, sits atop the deep deposits of Marcellus and Utica shale that are rich in gas and oil. Recent intense drilling for these resources and construction of pipelines and processing plants in Eastern Ohio required the transmission infrastructure to be upgraded because it was not originally built to handle industrial loads. An additional 138-kV line, through the heart of the shale area, will go into service in late 2017, bolstering the capacity and reliability of the local transmission network.

To support recent and future load growth associated with oil and gas production in far West Texas, AEP Transmission and Oncor Electric Delivery Company are asking the state's regulators to approve construction of 220 miles of new transmission lines. The proposed 345-kV line would serve as the "backbone" needed to support a resurgence of oil and gas production in that region. In spite of low natural gas prices, AEP and Oncor have experienced increased load demands from production, transportation and mid-stream processing facilities.

The proposed 345-kV loop will address load growth from the oil and natural gas industry as well as renewable generation development in the Delaware Basin and Permian Basin areas, affecting AEP, Oncor and Texas and New Mexico Power. This shale basin is expected to see an average growth of 11 percent over the next five years and seven percent growth over the next 10 years. As of April 2016, far West Texas had more than 1,650 MW of renewable generation already connected to the transmission system, with requests for an additional 3,380 MW to be interconnected.

As oil and gas drilling activities have increased in shale gas-rich regions of the country, the incidents of earthquakes have also been increasing. 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). While seismologists and geologists continue to gather data to learn more about the connection between tremors and wastewater injection wells, we remain concerned about this. 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.



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Coal Fleet Transition

True energy security and reliability requires having diverse resources we can call upon at any time, 24/7, when the power grid needs it. We believe this country needs an “all of the above” approach to power generation. And that includes coal.

Coal-fueled generating facilities have the ability to inventory 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 does not represent the resiliency of several days, even weeks of coal inventory on site, at a coal plant.

In a significant event that impacts the reliability of the grid, such as the 2014 polar vortex when many gas plants could not secure gas to serve customers, having sufficient on site backup inventory becomes critical. In 2014, coal units were not hindered by fuel supply, while several thousand megawatts of natural gas were out of service due to fuel supply issues.

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.

Coal – AEP System Plants

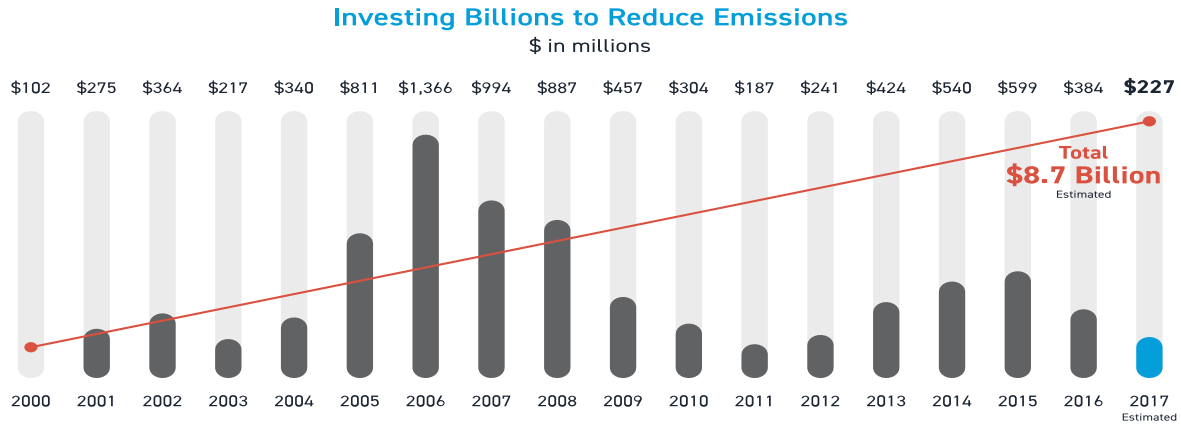
	2014	2015	**2016**
Average Cost Per Ton Delivered	$49.99	$47.08	**$47.08**
Total Delivered (millions of tons)	59	59	**41**
Total Consumed (millions of tons)	58	47	**41**

In today’s environment, we are managing our coal fleet differently than we have before, based on the remaining life of these important assets. We want to keep them running efficiently for as long as economically possible but also ensure we are proactively assessing pending regulations and informing policies that will allow for prudent investments over reasonable timelines.

Compliance Milestone

In 2016, AEP’s coal fleet achieved compliance with federal standards that require power plants to limit their emissions of toxic air pollutants like mercury, arsenic and metals under a rule called Mercury and Air Toxic Standards (MATS). AEP installed or upgraded controls on several coal units to comply with the rule.

AEP has made significant investments in its coal fleet – approximately $8.7 billion between 2000 and 2017 – to comply with



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various environmental regulations, including MATS.

Southwestern Electric Power Company's Flint Creek Power Plant, in Gentry, Ark., completed a major environmental retrofit project and was returned to service in June 2016. The coal-fueled 528-megawatt plant began construction of the retrofit project in October 2013. The project was driven by the new MATS and Regional Haze rules.

The new equipment includes a dry flue gas desulfurization unit (DFGD or dry scrubber) with pulse jet fabric filter (commonly called a baghouse) and activated carbon injection (ACI) – all to reduce emissions of sulfur dioxide (SO2), particulate matter (PM), acid gases, mercury and other metals. The scrubber employs NID technology (novel integrated deacidification) by GE Power. In addition, an in-service date in mid-2018 is anticipated for the installation of new low-nitrogen oxide burners and overfire air, to also address the regional haze rule.

SWEPCo's Welsh Power Plant in Pittsburg, Texas, completed environmental retrofits to the 528-MW Units 1 and 3, which were placed in service in April 2016 and March 2016. Unit 2, also 528 MW, was retired in April 2016. The retrofit project was driven by the EPA's new MATS rule. The new technology at Welsh includes ACI to reduce mercury emissions and a baghouse to capture carbon and mercury.

At PSO's Northeastern Station (NES) Unit 3, new emissions-reducing equipment was added to comply with regulations. In April 2012, PSO entered into an agreement in principle with the State of Oklahoma, the U.S. EPA and the Sierra Club for its Environmental Compliance Plan (ECP), which was primarily focused on PSO's compliance with EPA regulations affecting itsits fossil fuel units. The ECP's main feature was the addition of significant new environmental controls to NES Unit 3, allowing it to operate for another 10 years, before its eventual retirement in 2026.

New environmental equipment at Flint Creek includes (left to right) the lime silo, NID/baghouse scrubber unit, exhaust duct to stack (above existing precipitator) and by-product silo.

Because coal will continue to be important to a reliable, diverse and secure energy mix, we have planned additional investments ranging between $2.1 billion to $2.7 billion from 2018 through 2025 to comply with new environmental regulations. This ensures our ability to maintain reliable, affordable service to our customers.

One of AEP's plants still undergoing environmental retrofit is Indiana Michigan Power Company's (I&M) Rockport Plant in southern Indiana. I&M is seeking regulatory approval to add selective catalytic reduction (SCR) emission controls on Unit 2 of the plant. The Indiana Utility Regulatory Commission previously approved I&M's plans to install SCR emission controls on Unit 1 at Rockport, and construction is under way. SCR has been used for decades as a proven and effective method of reducing nitrogen oxide emissions.

The Future of Coal – Technology

While current economics do not support construction of new coal plants, we support the development of technologies that will allow existing coal plants to remain part of the nation's energy mix. The John W. Turk Jr. Power Plant in Arkansas is an example of the kind of technology innovation that is needed to keep coal in the resource mix.

The 600-megawatt (MW) plant, which began operation in December 2012, is one of the cleanest, most efficient coal plants in the United States. It operates the country's only "ultra-supercritical" steam cycle using advanced materials and combustion technology to consume less coal and produce fewer emissions, including carbon dioxide, than traditional pulverized coal plants. In addition, state-of-the-art emission control technologies and the use of low-sulfur coal enable the Turk Plant to meet emission limits that are among the most stringent ever required for a pulverized coal unit.

To effectively reduce the carbon footprint of fossil generation, ultra-supercritical technologies for power generation such as Turk Plant are a step in the right direction, but still they cannot achieve the CO2 emissions of a similarly-sized, state-of-the-art natural gas combined cycle plant. In the near- and mid-term outlook (2017-2030), it is very unlikely that new coal-fueled power plants – even those with carbon capture and storage technology – will be competitive with natural gas combined cycle on the basis of cost and CO2 emissions.

To date, several commercial-scale pre- and post-combustion carbon capture systems are being demonstrated at coal-fueled power plants. However, we believe these technologies have yet to operate long enough, nor have they met industry cost and performance targets to be considered competitive practical solutions for power generation.

There are, however, transformational technologies under development that have the potential to build upon the types of innovation that the Turk Plant has pioneered for the industry, further reducing CO2 emissions from fossil-fueled power generation. Technologies currently in early development stages, such as pressurized oxy-combustion, chemical looping and supercritical CO2 power cycles, all rely on alternative fuel-to-energy conversions and fundamentally different ways of energy production and/or efficiency improvements to mitigate and/or easily separate CO2 emissions for other uses or for storage.

With adequate research and development funding, along with robust support from the Department of Energy and the federal government, we believe that these transformational technologies could improve the cost-competitiveness of low-carbon coal-fueled power generation in the future.

To support development, demonstration and deployment of these technologies, the industry, along with the Electric Power Research Institute, U.S. Department of Energy, technology suppliers and academia are working to test and validate state-of-the-art equipment and components, new metal alloys, alternative materials, and advanced manufacturing techniques. The desired outcome is to have these transformational low-carbon fossil-fueled power generation technology options available for commercial scale demonstration in the 2030 to 2035 timeframe.

Plant Retirements and Sales

Between 2011 and 2016, AEP retired more than 7,200 megawatts (MW) of coal-fueled generation. The retirements are part of our plan to comply with the federal Mercury Air Toxic Standards (MATS) rule for existing power plants.

AEP System Generating Unit Retirements

Operating Company	Generating Plant Name & Unit	State	Capacity (MWs)	Year Retired
AEP Generation Resources	Philip Sporn Plant Units 2&4	West Virginia	300	2015
AEP Generation Resources	Philip Sporn Plant Unit 5	West Virginia	450	2011
AEP Generation Resources	Kammer Plant	West Virginia	630	2015
AEP Generation Resources	Muskingum River Plant	Ohio	1,440	2015
AEP Generation Resources	Beckjord Generating Station	Ohio	53	2014
AEP Generation Resources	Picway Plant Unit 5	Ohio	100	2015
AEP Generation Resources	Conesville Plant Unit 3	Ohio	165	2012
Appalachian Power	Clinch River Plant Unit 3	Virginia	235	2015
Appalachian Power	Glen Lyn Plant	Virginia	335	2015
Appalachian Power	Kanawha River Plant	West Virginia	400	2015
Appalachian Power	Phillip Sporn Plant Units 1&3	West Virginia	300	2015
Indiana Michigan Power	Tanners Creek Plant	Indiana	995	2015
Kentucky Power	Big Sandy Plant Unit 2	Kentucky	800	2015
Public Service Company of Oklahoma	Northeastern Station Unit 4	Oklahoma	470	2016
Southwestern Electric Power Company	Welsh Plant Unit 2	Texas	528	2016
Total				**7,201**

In January 2017, AEP completed the sale of four competitive power plants to Lightstone Generation LLC, a joint venture of Blackstone and ArcLight Capital Partners LLC (ArcLight), for approximately $2.1 billion.The sale included 5,200 megawatts of

generation:

- Lawrenceburg Generating Station, 1,186 MW natural gas, Lawrenceburg, Ind.
- Waterford Energy Center, 840 MW natural gas, Waterford, Ohio
- Darby Generating Station, 507 MW natural gas, Mount Sterling, Ohio
- Gen. James M. Gavin Plant, 2,665 MW coal, Cheshire, Ohio

The Lawrenceburg Generating Station was one of four competitive power plants sold in January 2017.

Our long-term strategy is to become a fully regulated, premier energy company focused on investment in infrastructure and the energy innovations that our customers want and need. This transaction advanced that strategy and reduced many of the business risks associated with operating competitive generating assets.

These assets, both the physical generating assets and the people who operated and maintained them for decades, have provided tremendous value to AEP and its customers. AEP owns 2,725 MW of additional competitive generation in Ohio and is continuing an independent strategic evaluation of that generation. AEP also is continuing a strategic review of its 48-MW hydroelectric Racine Plant in Racine, Ohio.

In early 2017, AEP and Dynegy signed agreements to sell AEP's 330-MW share of the Zimmer Plant to Dynegy and to purchase Dynegy's 312-MW share of Conesville Plant. AEP and Dynegy co-own both plants.

In April 2017, Appalachian Power Company transferred ownership of the Reusens hydroelectric facility on the James River near Lynchburg, Va., to Eagle Creek Renewable Energy, LLC. The sale of Reusens to Eagle Creek allows the dam to continue powering the central Virginia community. The sale was approved by state and federal regulatory authorities.

Nuclear Generation

Nuclear energy is one of the most reliable sources of electricity that is carbon-free. AEP's Donald C. Cook Nuclear Plant is located in Bridgman, Mich., along Lake Michigan's eastern shore. At full capacity, the 1,030-net MW Unit 1 and 1,077-net MW Unit 2 combined produce enough electricity for more than 1.5 million average homes. Nuclear power is an important part of our resource portfolio as we transition to a clean energy future.

Cook's two units were originally designed for a 40-year life, but the licenses were extended by 20 years in 2005. A $1.16 billion Life Cycle Management (LCM) proj¬ect 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 the Unit 2 turbine replacement became the centerpiece of the 117 LCM projects.

Cook's nuclear units provide 18 months of continuous electricity before needing to be refueled. In October 2016, Unit 2 began an extended outage for refueling the reactor and performing regular maintenance and testing work. The outage was extended due to the replacement of the main turbine and the inspection and replacement of baffle bolts, which support internal components of the reactor vessel. The 89-day refueling outage was completed in early January 2017.

The Nuclear Promise

The Cook Nuclear Plant is part of an industrywide multiyear strategy to transform the industry and ensure its long-term viability for consumers and to protect the environment. The strategy, called Delivering the Nuclear Promise, is designed to:

- Identify efficiency measures
- Adopt best practices
- Apply new technology solutions that improve operations, reduce costs and prevent premature reactor retirements.

The three-year initiative began in 2016.

Energy Efficiency

Electricity usage patterns across the United States have significantly changed over the past decade. The saturation of energy-efficient technologies has caused slower growth of electricity consumption. This saturation has substantially been driven by federal energy policy, state requirements and energy efficiency and demand response programs implemented by utilities. AEP's load forecasting modeling tracks these trends, which helps us develop resource plans for our companies that account for these changes over time.

The Cook Nuclear Plant's Unit 2 turbine replacement project was the plant's biggest Life Cycle Management project; its new three low-pressure and high-pressure turbine rotors will increase generation output at certain times of the year.

Energy efficiency and demand response programs are important resources that are integral to a balanced portfolio; they give AEP and our customers the tools that encourage reduced energy consumption, either during times of peak demand, or throughout the day or year. The Energy Policy Act of 2005 (EPACT) was the catalyst for establishing energy efficiency as a priority for the nation. EPACT's success led to more aggressive increases in efficiency standards with the passage of the Energy Independence and Security Act of 2007 (EISA). The EISA set new standards covering vehicles, lighting, motors, building codes and other categories of energy-using equipment. These increased standards have had an effect on energy consumption, which AEP has seen in its service territory, particularly over the past decade as we've ramped up these programs.

We view energy efficiency as a readily deployable, relatively low-cost and clean energy resource that provides many benefits. Energy efficiency reduces energy 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.

Technology plays an increasingly important role in energy efficiency. We are developing strategic partnerships with companies such as Tendril and Innovari to use energy management technologies to help us manage demand on the grid. We are also deploying smart circuit technologies such as Volt VAR to improve efficiency on the distribution grid. And, we are investing in companies such as Greensmith to be able to store energy for use during peak demand periods and to make the system more resilient.

Forecasted View of Relevant Energy Efficiency Code Improvements

End Use	Technology	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Cooling	Central AC	SEER 13													
Cooling	Room AC	EER 9.8		EER 11.0											
Cooling	Evaporative Central AC	Conventional													
Cooling	Evaporative Room AC	Conventional													
Cooling / Heating	Heat Pump	SEER 13.0/HSPF 7.7			SEER 14.0/HSPF 8.0										
Space Heating	Electric Resistance	Electric Resistance													
Water Heating	Water Heating (<=55 gallons)	EF 0.90			EF 0.95										
Water Heating	Water Heating (>=55 gallons)	EF 0.90			Heat Pump Water Heater										
Lighting	Screw-in / Pin Lamps	Incandescent		Advanced Incandescent – tier 1 (20 lumens / watt)						Advanced Incandescent – tier 2 (45 lumens / watt)					
Lighting	Linear Fluoerescent	T12		T8											
Appliances	Refrigerator / 2nd Refrigerator	NAECA Standard		25% more efficient											
Appliances	Freezer	NAECA Standard		25% more efficient											
Appliances	Dishwasher	Conventional (355kWh / yr)		14%more efficience (307 kWh / yr)											
Appliances	Clothes Washer	Conventional (MEF 1.26 for top loader)			MEF 1.72 for top loader			MEF 2.0 for top loader							
Appliances	Clothes Dryer	Conventional (EF 3.01)			5% more efficience (EF 3.17)										

Today's Efficiency or Standard Assumption

1st Standard (relative to today's standard)

2nd Standard (relative to today's standard)

SEER–Seasonal Energy Efficiency Ratio; EER–Energy Efficiency Ratio; HSPF–Heating Seasonal Performance Factor; EF–Energy Factor; NAECA–National Applaiance Energy Conservation Act; MEF–Managed Extensibility Framework

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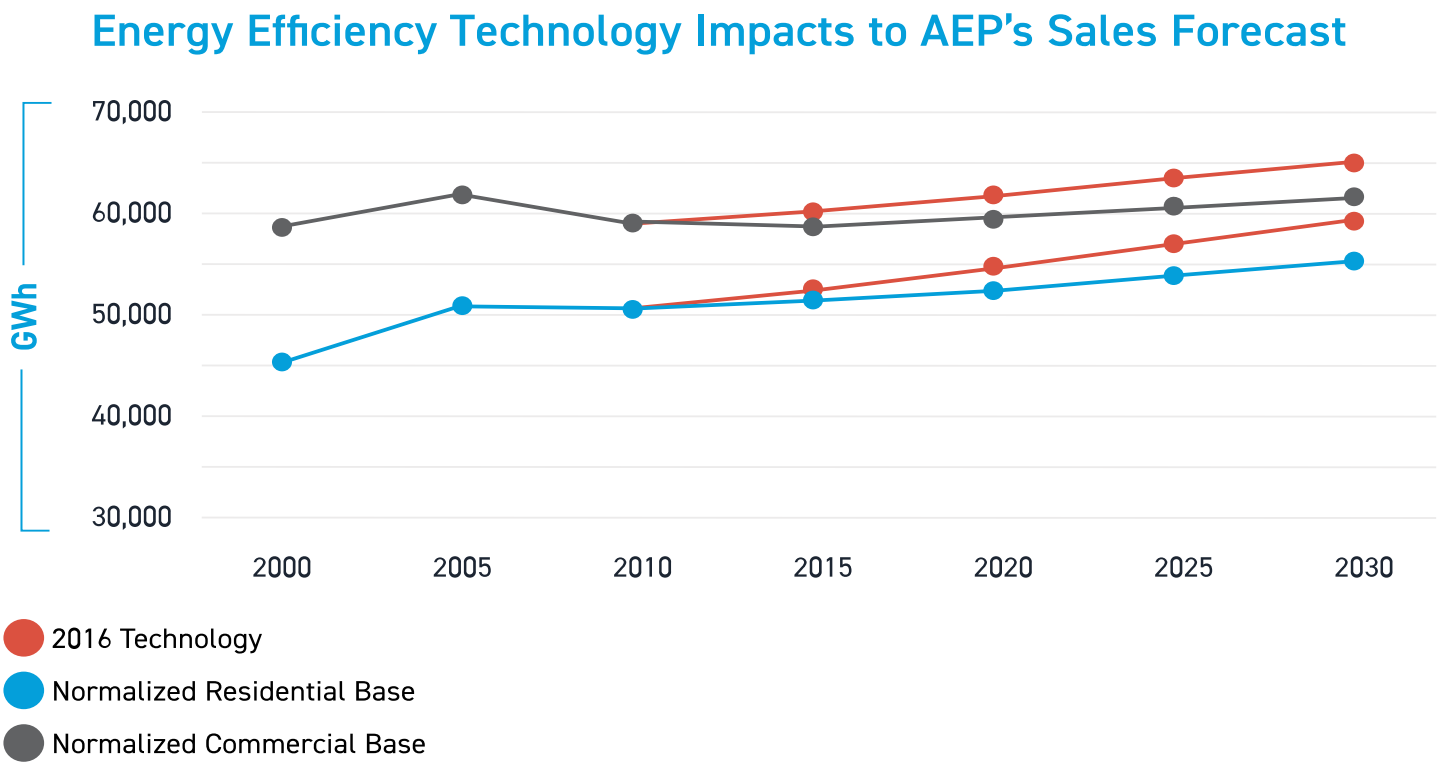
Energy Efficiency Gains

There have been steady gains achieved through energy efficiency during the past two decades, and AEP foresees additional future impacts, which we account for in our integrated resource planning process. Among the drivers of energy efficiency growth:

- **Energy costs** - As the cost of energy increases, the value of energy efficiency increases.
- **Technology costs** - The cost of energy efficiency technologies is decreasing.
- **Technology improvements** – As devices become more interconnected and controllable, the ability to monitor and manage energy consumption rises. Today, this is seen more among commercial and industrial customers (e.g. more efficient building control systems) but is gaining penetration among residential customers through technologies such as smart thermostats.
- **Environmental reasons** – Some customers want to reduce energy consumption to support environmental sustainability in addition to achieving economic benefits.
- **Building code efficiency standards** – While building codes and standards can have a large impact over the life of a building, the adoption of these standards occurs gradually over time and the benefits are most often seen in new construction or major restorations or renovations.
- **Public policy** – A combination of federal mandates and company-sponsored energy efficiency programs has had a significant impact on the development of more energy-efficient technologies and their rapid adoption rate in AEP's service territory.
- **Appliances** – In addition to lighting, there have been significant increases in the saturation of energy efficient technology related to other appliances such as cooling systems, clothes washers and dryers, water heaters, dishwashers, etc.

However, as a result of these developments, subsequent achievements from utility-sponsored energy efficiency programs that exceed the "naturally occurring" and efficiency codes-driven energy savings will likely be more challenging and expensive to implement in the future.



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.

Residential Appliance Survey

Since 1980, AEP has conducted a residential appliance saturation survey every three to four years to monitor adoption trends and efficiencies of various residential appliances in use across our service territory. We use the results of this survey in our load-forecasting process, which supports development of resource plans and long-term financial forecasting for our operating companies. In 2016, we conducted this survey within our service territory. Here is what we learned:

- Eighty-four percent of customers own their homes – a percentage much higher than the U.S. average. This is not surprising given the more rural nature of much of our service territory.
- Forty-six percent of our customers use electricity to heat their homes.
- Approximately two-thirds of our customers use central air conditioning to cool their homes.
- More than half of AEP's customers use electric water heaters; the survey also shows a modest increase in the use of on-demand water heaters since the last survey.
- Despite higher lighting efficiency standards and utility demand-side management programs that have largely focused on lighting, customers are still maintaining their incandescent lighting for as long as they can.
- Other household appliances – refrigerators, stoves, washers and dryers, TVs – are generally less than five years old. This indicates the presence of more energy efficient appliances in use.

2016 Results – Energy Efficiency

Today, AEP offers customers more than 125 programs across nearly all of our 11-state service territory. In 2016, AEP's energy efficiency 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 $169 million.

Cumulatively, from 2008 through 2016, these programs have been credited with reducing annual consumption by over 6 million MWh and peak demand by approximately 2,000 MWs, with program costs of approximately $1 billion.

We have also taken measures to reduce energy consumption in AEP's office buildings and service centers. The kilowatt-hour (kWh) usage was reduced by 32 percent in nearly 280 buildings in 2016, compared with the 2007 baseline, when normalized for weather. The dollar savings from the reduced energy consumption was approximately $5.8 million in 2016. We achieved these energy consumption reductions mostly through equipment investments, such as new heating and cooling systems, and an employee education campaign.

In 2016, AEP received LEED Silver certification for our corporate headquarters in Columbus, Ohio, under the LEED for Buildings Operations and Maintenance - Existing Building program. We are evaluating our approach to tracking and managing sustainable business performance going forward to maintain this important certification for our corporate headquarters.

In April 2017, 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, AEP Texas 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 Excellence in ENERGY STAR Promotion award.

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 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 is happening at the same time that commercial equipment and industrial machinery is ramping up electric use. Whereas Public Service Company of Oklahoma's system 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 could 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.

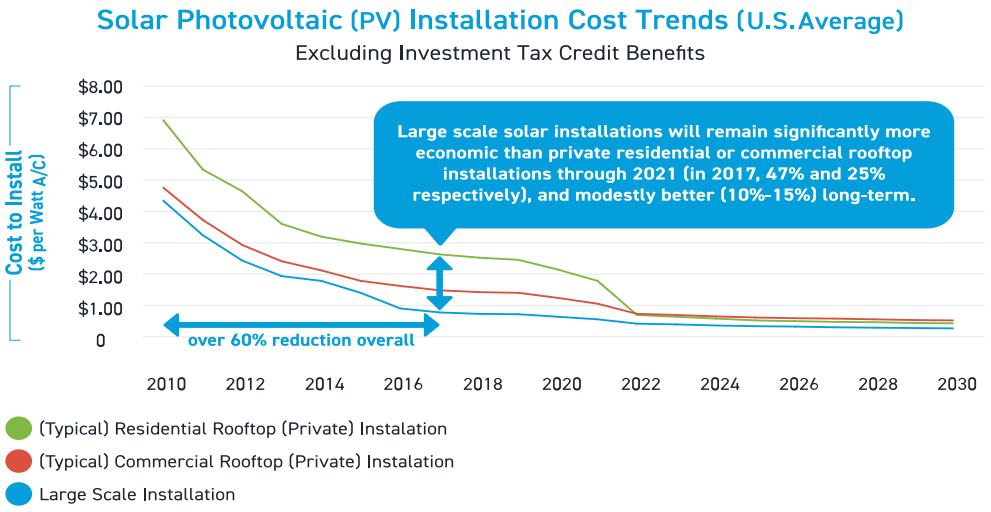
The North American Electric Reliability Corporation (NERC) is forecasting the lowest peak demand growth rates since 1990 in its 2016 annual long-term reliability assessment of the bulk power system. NERC forecasts that winter and summer peak demand growth during the next decade will be less than 1 percent. Although this flat load growth does not eliminate the need for demand response, it does create a challenge in determining its proper economic value.

Energy efficiency and demand response programs are largely beneficial for AEP’s customers. Customers can see immediate benefits from using less energy, and even with virtually no load growth, demand response can delay the need for additional capital investment in generation and transmission infrastructure.

Distributed Energy Resources

Integrating distributed energy resources (DER) into the grid presents new challenges and opportunities for the electric power industry, requiring 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 with the grid.

DER technologies include energy efficiency, demand response, distributed generation, microgrids, private solar, energy storage and electric vehicles. They are smaller power sources that can work together – such as advanced renewable technology and energy storage – to meet demand. Widespread deployment of DER requires planning and coordination to integrate them with the grid. These demand-side technologies are often deployed by our customers.



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

Source: Bloomberg New Energy Finance H2 2016 U.S. PV Market Outlook.

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Distributed energy resources - also known as private generation, or technologies that generate electricity at or near where it will be used – are growing in popularity as technology costs continue to decline, reliability and performance improve, and consumers opt for more flexibility and autonomy over their energy generation use and costs. AEP is exploring these technologies, how they perform and interact with the grid and how we can partner with our customers on technology, such as battery storage, that can provide resiliency for the customer and energy that AEP can use to meet peak demand under certain conditions.

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 saturation rate.

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

Residential Sector	Commercial & Industrial Sector
Solar photovoltaic panels	Combined heat and power systems

Small wind turbines	Solar photovoltaic panels
Natural gas fuel cells	Wind
Emergency backup generators	Natural gas or biogas fuel cells
	Reciprocating internal combustion engines, including back-up generators

Private Generation & Grid Reliability

Private generation can have both positive and adverse effects on the reliability of the grid. Despite the growth of emerging local generation technologies, customers will continue to depend on the grid. That's why integration of private generation must be done in a way that maintains the reliable service that all users of the grid depend upon daily.

Distributed energy resources can provide energy security, resiliency 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 modernizing the grid 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 (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 this changing environment 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 for this changing landscape, 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 nearly 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.

Technology and Innovation

A robust, modern grid is a natural enabler of technology and innovation. The power grid of the future will be fully integrated, decentralized and digitized and will have a smaller carbon footprint. Data analytics and new technology innovations will allow us to meet customers' needs – whether as a buyer or a seller of electricity. Technology, information and telecommunications are helping us to identify and develop programs and services for customers, while enabling them to deploy new technologies to personalize their use of energy. AEP is preparing for this new dynamic with investments in technology, strategic partnerships, talent development and capacity-building for new skills, such as data science.

The technology landscape is vast. As we begin to look at new and innovative revenue models to address minimal load growth, technology will play a critical role in the delivery of products and services our customers want.

Enterprise Technology Council

AEP's Enterprise Technology Council (ETC) is charged with identifying, evaluating and standardizing the technologies we apply to the grid or offer to customers. This cross-functional team from our Generation, Transmission and Distribution and Customer Services business units is focused on these four areas of technology development:

- Energy Storage
- Renewable Generation
- Virtual Power Plant (VPP)
- Smart Circuits

Formed in 2015, the ETC reviews technologies that could help improve the efficiency, reliability and flexibility of our facilities. We

also look “behind the meter” (on the customer side of the meter) for ways to maximize customer benefits. To identify best practices that we can apply to the grid, the team looks at what’s happening in academia, energy technology incubators and startups and across the industry to see what’s out there and how it’s being developed.

For example, members have discussed microgrids, “smart” breaker technologies and energy storage with Electric Power Research Institute (EPRI) representatives. They visited Innovation Centers at Southern Company and Kansas City Power & Light. And they held a workshop with commercial and industrial customers to discuss renewable energy opportunities.

In academia, ETC members are exploring potential energy infrastructure, research and development opportunities with several institutions across our service territory.

ETC members are also engaged in the EPRI Technology Innovation Committee and Incubate Energy Network. Both provide networking opportunities with industry peers, and access to a variety of startups and incubators from across the U.S. focused on energy-related technologies and innovations with the potential to improve our business and/or enhance the customer experience.

Energy Storage

The concept of energy storage is not new, but the need for reliable, affordable storage 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 companies, such as Greensmith, 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 all of them.

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 due to the integration of distributed 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/orsolar 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 by sensitive electronic equipment.

Finally, batteries are a relatively modular solution that can be mobilized and relocated if they are needed elsewhere on the system.

AEP is an industry leader in deployment of 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
2009	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

Battery Solutions

Energy storage can sometimes be the most cost-effective, efficient solution to a reliability issue. In 2016, AEP Texas proposed installing a lithium-ion battery in two locations in the state to increase the reliability of the distribution system. As battery technology becomes more mature and cost-effective for a number of applications, it can displace other solutions that may be more costly. In this case, the proposed battery installations would address a regional reliability issue and be more cost-effective than building a new transmission line and substation that would otherwise be required. This is an example of an antiquated, legal definition that limits the technology capabilities of energy storage today, and thus limits the benefits that could be recognized by our customers. A decision is pending before the Public Utilities Commission of Texas.

AEP has experience with battery deployment, and we want to begin incorporating battery technology into our distribution planning process to maintain our goal of providing safe and reliable service to our customers in the most cost-effective way. In this case, a utility-scale battery could be installed for significantly less than the cost of a new transmission line and substation and would remove the need for additional major reliability upgrades for the foreseeable future. This is the type of win-win that technology can deliver for our customers and for AEP.

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

One of our strategic objectives is to form partnerships for pursuing technology development and transmission growth and for meeting customers' expectations. These relationships help technology developers test their new technology at scale on our power grid and give us the advantage of being an early adopter of innovative solutions.

For example, Greensmith Energy Management Systems, one of the largest providers of energy storage software and integration services, is a strategic partner with AEP to advance battery storage technology. In addition to investing $5 million in the company, AEP partnered with Greensmith in 2016 on a 2 megawatt/14 megawatt-hour energy storage system in West Virginia. For the past five years, the NaS battery system has been used as a backup to Appalachian Power Company's (APCo) distribution network in the region. The existing battery has helped to extend the life of the distribution equipment in that area.

By adding Greensmith's software, we upgraded the system, gaining flexibility and the ability to expand usage of the existing energy storage system as a revenue generating asset for frequency regulation within the PJM Interconnection market.

As more intermittent generation resources connect to the power grid, fast-responding energy storage is becoming critical to maintaining grid reliability. PJM offers higher payments for fast-responding assets to stabilize the grid, such as batteries and other quick-acting load control systems, compared to fossil fuel power plants that need time to ramp up and ramp down. Batteries can ramp up to full power in seconds, but they cannot last as long as a power plant to meet peak demand. PJM's frequency regulation market is robust, and APCo is poised to seize the opportunity in part due to the Greensmith technology.

Our investment in Greensmith will help us advance energy storage technologies and innovative energy infrastructure solutions to benefit our customers, as well as the grid. In addition to continued power grid system deployments, AEP is exploring the use of energy storage to meet specific customer needs.

> "We are excited to partner with a progressive company like AEP to deliver this project as well as future systems."
>
> – John Jung, president and CEO, Greensmith Energy

Smart Circuits

Volt VAR Optimization

Applying technology on our distribution system allows us to monitor and more tightly control voltage, which creates energy and demand savings for customers. Known as Volt VAR Optimization (VVO), this technology has proven its technical viability in achieving demand and energy savings.

Typically, distribution lines deliver electricity at a voltage between 114 and 126 volts. Using the full range of voltage is common practice in our industry; it has been a way to ensure the strength of the voltage between the point of origin and the customer. But studies and our experience have demonstrated that optimizing voltage – delivering electricity at the lower end of the range – reduces customer energy demand and consumption, and thus

lowers their bills.

VVO is a unique type of energy efficiency and demand reduction. Energy companies can identify the areas where the greatest increases in efficiency can be achieved, and it doesn't require participation or behavioral change by customers. Upgrading the circuits with VVO control equipment enables other grid efforts to improve reliability and outage restoration with relatively small incremental investments.

To help us advance this technology, we signed a research and development agreement with Utilidata, a supplier of voltage optimization and digital automation systems for our industry, to accelerate the application of digital control technologies to high-value smart grid solutions. AEP is providing Utilidata access to our operations and planning expertise to help guide the next generation of grid applications. The goal is to bring innovation to the market faster.

This is an example of the mutual benefits of energy and technology companies working together to develop the modern grid. We need each other to test and standardize technologies that smoothly integrate with the grid and give customers the flexibility they want. By working together, we fulfill a mutual need and achieve a common goal.

Of the approximately 6,000 circuits on our system, we have deployed VVO on approximately 90 circuits. Because VVO is such an effective tool in achieving demand and energy savings, it can have an immediate negative impact on a company's financial results since most of the costs associated with serving customers don't decrease as customers use less electricity.

Looking up at the 120-foot pole at Elcona Station in Elkhart, Ind. The station is part of Indiana Michigan Power's volt var optimization project, a distribution automation system.

VVO is a next-generation energy efficiency program, and regulators should support it in the same way they historically supported other energy efficiency programs. This is simply another tool in the toolbox that enables AEP to create energy and demand savings for our customers. And there is widespread support for this approach.

In November 2012, the National Association of Regulatory Utility Commissioners (NARUC) supported the adoption and deployment of VVO. In addition, the National Electrical Manufacturers Association supports NARUC's call to advance VVO technologies.

Within AEP's service territory, the Michigan Public Service Commission and the Indiana Utility Regulatory Commission have approved plans for Indiana Michigan Power Company to qualify VVO as an energy efficiency program. The Oklahoma Corporation Commission has also approved VVO for the Public Service Company of Oklahoma. In February 2017, the Public Utilities Commission of Ohio approved AEP Ohio's request to implement phase two of its smart grid program, which includes installing VVO on approximately 160 circuits. Pilots are also being planned in other AEP operating companies.

We are actively discussing the application of this technology with regulators and stakeholders and need their support to enable us to achieve the significant levels of energy and demand savings that we know are achievable without financial harm to AEP.

Smart Grid Growth

AEP began laying the groundwork for a modern grid with our smart grid initiative several years ago. Grid infrastructure modernization was needed to allow us to realize the many potential benefits of the smart grid. AEP continues to deploy smart grid technologies across our service territory, with regulatory support.

Smart meters – a critical step in creating a smarter network – establish a two-way data connection between AEP and our customers, which is increasingly important as smart appliances and devices need more information from the grid to function optimally. Having smart grid technology helps us to pinpoint sources of customer outages with greater speed and accuracy, improving outage restoration capabilities. Through 2016, we have installed more than 1.6 million smart meters across our system and plan to deploy nearly 900,000 additional meters in Ohio.

Distribution automation circuit reconfiguration (DACR) is an important grid technology that significantly improves reliability of the power grid through real-time monitoring and reaction. DACR continuously monitors for potential electrical faults and isolates portions of the network when a fault occurs, strategically rerouting electric loads to available circuits to maintain energy delivery to

the majority of customers. This is known as a “self-healing” system.

A smart grid has the ability to locate and isolate problems within the network as they occur. With DACR, we can effectively split the network into islands that would be managed separately to prevent a larger event, such as cascading outages. As the repairs are made, controllers would prepare the island to rejoin the larger grid.

In February 2017, the Public Utilities Commission of Ohio approved AEP Ohio’s smart grid Phase 2 plan to install 894,000 smart meters and DACR and VVO equipment on 250 and 160 circuits, respectively, across the company’s service territory. The implementation of these technologies over the next six years will help us meet customers’ growing expectations of keeping the power flowing while having more information and choices to help them save money and energy.

Grid Modernization Activity Summary

Company	Smart Meters	DACR Circuits	VVO Circuits
AEP Ohio	134,288 complete 894,000 proposed	86 complete 250 proposed	17 complete 160 proposed
AEP Texas	1,063,926	37 complete 240 proposed	N/A
Public Service Company of Oklahoma	570,060	50 complete 20 proposed	13 complete 432 proposed
Indiana Michigan Power Company	10,510	32 complete 4 proposed	33 complete 34 proposed
Kentucky Power Company	N/A	9 complete 19 proposed	24 complete 2 proposed
Appalachian Power Company	N/A	29 complete 10 proposed	3 complete 0 proposed
Southwestern Electric Power Company	N/A	28 complete 26 proposed	N/A

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

DACR – Distribution Automation Circuit Reconfiguration. VVO – Volt VAR Optimization.

As of March 2017.

Virtual Power Plant

The proliferation of distributed energy resources (DER) on the grid is making these resources more accessible, affordable and controllable thanks to changing markets, technology advancements, communications and controls.

Many of these power-generating or load-reducing resources are on the distribution system, often behind the customer’s meter. To learn how these resources can serve customers’ needs and help us manage peak demand, we are exploring new load management tools for residential and business customers. For example, commercial and industrial customers could sign up for a program that allows their utility to install load management equipment on the customer’s side of the meter.

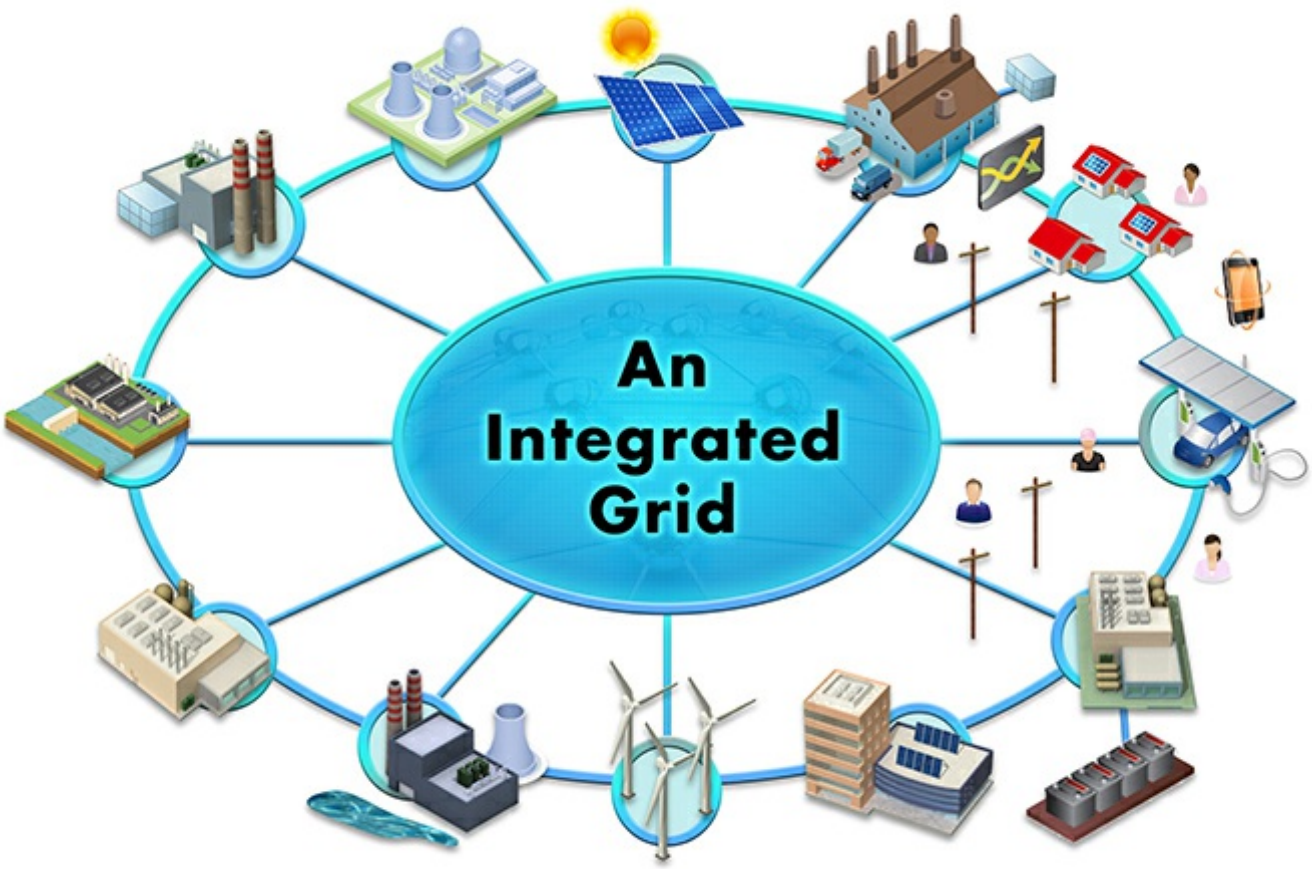
By allowing the utility to lower their energy use during peak demand times, participating customers can save energy and reduce peak demand. There is no disruption of service and minimal operational impact to the customer, who is compensated for participation.

To advance this new approach to optimizing the electric network, AEP is forming strategic partnerships with leading-edge technology companies to transform the grid to be the conduit for multi-directional electricity and information flows the energy company of the future will require.

Specifically, AEP has partnered with Innovari, an energy management technology company, to develop solutions that allow us to begin managing the distribution grid differently. By managing a customer’s energy use, the Innovari platform allows us to dispatch load as a resource into the grid. Managing distributed energy resources connected to the distribution system as a virtual power plant can delay or eliminate the need to build new central generation, substations or transmission. Indiana Michigan Power Company and Appalachian Power Company are currently working with Innovari on AEP’s first deployment of the energy management platform.

As energy management technologies such as the Innovari platform and distributed resources such as microgrids integrate with the grid, energy will begin to flow not just from energy company to customer but also from customer to energy company and, eventually, from customer to customer. This blurring of lines from the way the grid historically has operated requires utility involvement, especially if we want to provide universal access to clean energy and technology solutions. To shape the energy company of the future requires collaborating with regulators and technology developers, as well as educating consumers about the financial benefits of taking an active interest in the grid. AEP is on this path, and while we have made progress, the pace and scale of

change has to be balanced with what customers can afford.



Credit Electric Power Research Institute

Microgrids

Microgrids, local energy grids that have the ability to operate autonomously from the traditional grid, provide clear benefits to customers who need uninterrupted, reliable, secure energy. These small grids are ideal for college campuses, military bases, and other facilities that protect the public.

AEP Ohio has proposed to install microgrids in Ohio in a case pending before the Public Utilities Commission of Ohio (PUCO). AEP Ohio expects that locations for microgrids may include critical community assets such as fire and police stations, medical facilities, social service agencies, and emergency shelters, among other locations.

While the exact specifications of each microgrid would be determined by the particular characteristics of the load that would be served, it is anticipated that a typical microgrid would consist of smart controls, a battery storage system, and a small-scale photovoltaic (i.e. solar) generation system.

Utility microgrids offer numerous customer and societal benefits, including improved resiliency and reliability for critical infrastructure, clean energy generation and reduced emissions, and ancillary services.

Smart Columbus

In 2016, the City of Columbus – home to AEP's corporate headquarters and AEP Ohio – won the U.S. Department of Transportation's (DOT) Smart City Challenge, to be selected over 77 other cities. The DOT awarded the city a $40 million federal grant, with Vulcan Inc., a Paul G. Allen company, contributing an additional $10 million to accelerate the city's transition to an electrified, low-emissions transportation system.

The goals of Smart Columbus are to transform the city to become the nation's epicenter for intelligent transportation systems (ITS) which will:

- Improve access to jobs through expanded mobility options;
- Compete globally through smart logistics;

- Connect Columbus residents and visitors to safe, reliable transportation for everyone; and
- Develop a more environmentally sustainable transportation system.

As part of this initiative, AEP Ohio will help drive consumer adoption of electric vehicles (EVs) by removing barriers and investing in electric charging station infrastructure. AEP was one of several partners with Columbus to sign on to the challenge. While the DOT's focus is on modernizing the transportation network, Vulcan's focus is on reducing carbon emissions in both the transportation and electric power sectors.

In assembling its application to the challenge, Columbus and its partners established an Accelerator Fund to support execution of its Smart Columbus plan. AEP is the largest contributor to the fund at nearly $175 million, with the potential for additional energy efficiency, smart grid and alternative energy projects (subject to regulatory approval). The Smart City plan allows us to continue current programs and introduce new, smarter energy technologies on our system that help the system operate more efficiently and effectively. It also gives us a way to invest in renewable generation that will bring clean energy, and jobs and support for economic development in Ohio.

To support this and other system needs, AEP Ohio filed a plan with the Public Utilities Commission of Ohio (PUCO) that includes proposed distribution technology investments, including EV charging stations, microgrids and smart lighting controls. The request, which is pending, includes:

- Deployment of electric vehicle charging stations that include direct current (DC) fast chargers, level 2 public smart chargers and residential chargers.
- Creation of microgrids that could support critical infrastructure, such as police and fire stations, medical facilities and other facilitis that serve public safety needs.
- Installation of smart area light and street light controls that can dim lights when appropriate and detect malfunctioning lights to save energy and increase safety and security.

Data Analytics

The digital transformation sweeping the electric utility industry is driven by mobile, cloud and Internet of Things (IoT) technologies and analytics that are creating new opportunities for us to interact with our customers, optimize operations, and transform our business practices. Data analytics is one way AEP is using innovation to improve the employee and customer experience and transform into the next generation energy company.

Data collected and analyzed from smart meters and other grid-connected devices is helping us improve operational efficiencies and customer engagement. Traditionally, we obtained usage data from meters once a month. New metering technologies can gather more information about usage, demand, voltage, meter status and more on a 15-minute basis and communicate that data back to us faster than ever. This data can help us design, develop and market the services customers want. We collect a lot of data through this effort and we have systems in place to protect it and respect the privacy of our customers. Learn more about data privacy at AEP.

In 2016, AEP continued to build internal knowledge of data science as well as apply data analytics solutions that help us better manage the grid, including enabling the system to become more intelligent and able to self-diagnose. For example, we developed an algorithm that identifies the circuits on the distribution system that are more likely to result in billing errors. When bills are not accurate, customer satisfaction is affected. By zeroing in on those circuits, we can audit them in real time for accuracy and proactively take action to prevent errors.

Because the science behind advanced analytics is so important, in May 2017, AEP created a new Chief Data Scientist position

and established the Analytics Center of Excellence. The Data Science team works with business units to find new ways to use analytics.

In 2016, we developed a customer segmentation model for our operating companies. Segmentation allows us to better understand customers' different preferences, including the benefits of energy efficiency and billing programs, communication channels and service requirements. With this knowledge, we can better meet individual customer needs in the communication channel of their choice.

We are taking a two-track approach to data science – focusing on gaining a better understanding of our customers through segmentation modeling, and building expertise on the use of analytics to improve operational efficiencies, prevent outages and reduce risk.

With data coming from smart meters, the cloud and IoT-connected devices, we are building capacity to use data and advanced analytics to improve day-to-day operational performance, identify opportunities for new revenue and, through engagement, develop a real-time, 360-degree relationship with our customers.

For example, AEP Ohio's Smart Columbus commitment will rely on data to identify the best locations for electric vehicle charging stations. And, we are using data to improve estimated restoration times when outages occur, giving customers better information.

AEP is midway through a four-year plan to upgrade its urban underground distribution networks. We are investing approximately $84 million 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, enabling all resources to connect and manage demand at the same time.

Having these capabilities and knowledge is important to our customers. During a series of interviews conducted as part of our brand repositioning effort, customers repeatedly told us they want to be part of redefining our energy future. Gaining a more comprehensive view of our customers allows us to design better products and services, innovative solutions and new outreach programs. And, it will help us have more meaningful conversations with customers about how we balance capital investments to meet the objectives of the communities we serve.

Transmission Breakthroughs

BOLD™ goes live

On November 14, 2016, AEP energized the full length of the 345-kV Robison Park to Sorenson Line near Fort Wayne, Ind., making it the first BOLD™ line to enter service. BOLD, or Breakthrough Overhead Line Design, is an innovative new line design that AEP Transmission engineers developed. Placing this line in service took BOLD from an innovative concept to a real-world solution benefiting our customers.

The BOLD line went from concept to in-service within three years. The compact BOLD 345-kV design provides advantages such as lower tower heights and increased capacity in the same right-of-way. The 22-mile Robison Park-to-Sorenson project uses the new compact BOLD design coupled with a new tubular steel structure resulting in a shorter, more appealing structure profile. It replaces a 1940s-vintage 138-kV line.

AEP formed BOLD Transmission, LLC, to further refine and market the innovative technology in the U.S. and beyond. BOLD 230-kV development and testing are in progress. Other structure types and voltage classes that use BOLD's technology are under development, in response to our own needs and market interest.

AEP Transmission began construction this fall on a new BOLD line near Lafayette, Ind Other BOLD lines are being planned in Texas and Ohio. Further, we have received interest from other utilities and policymakers in the United States and beyond to potentially use the BOLD technology on their systems.

The compact BOLD 345-kV design provides advantages such as lower tower heights and increased capacity in the same right-of-way.

New Substation Protection

In 2016, AEP Transmission achieved an important milestone in standardizing the construction and maintenance of substations. The Flag City substation in Findlay, Ohio became one of the first electric substation in the country with a fully implemented fiber-based protection and control (P&C) system.

The substation is in northwest Ohio utilizing a fiber-based system that replaces most copper wiring, which is expected to result in faster, more standardized station construction and maintenance techniques in the future. Protection and Control Systems provide important monitoring and control functions that protect power lines and substation equipment. The use of fiber optic protection improves construction efficiency by reducing the labor needed for on-site wiring in a traditional copper wire environment.

Advantages of fiber include:

- Fiber is less vulnerable to interferences (such as those caused by lightning or high-voltage switching impulses) in the harsh substation electromagnetic environment.
- The AEP-developed drop-in control module (DICM), a standardized factory-built substation control house, can readily accept fiber-optic wiring and devices.
- Using these technologies, AEP connects customers to the grid faster, meeting their business needs.
- It is a more expedient and cost-effective construction method to meet customers' needs.

Standardization of work is an important principle of continuous improvement at AEP and this project reflects our commitment to improving how we do our work to better serve our customers.

Patent for Drop-in Control Module

The need to find a faster, more standardized way to build greenfield substations and upgrade or replace protection and control equipment in existing substations led to a new technology development benefiting the entire industry. The drop-in control module (DICM) is critical to supporting construction across AEP's service territory. Developed by AEP Transmission engineers and first tested in 2011, the DICM is a modular, pre-wired control building for power substations. Built at the factory to AEP specifications, the DICM reduces the time and cost of installing a control room compared with conventional construction and results in less outage time needed to replace existing control rooms – which is good for customers. In December 2016, the DICM earned a patent from the U.S. Patent and Trademark Office.

Flag City Facility is a Fiber First

Electromagnetic Pulse Disturbance Mitigation

High-impact, low-frequency (HILF) events are a growing concern in the power industry. These include natural events such as severe weather, pandemics or solar flares. HILF events also include man-made actions, such as cyber, physical or coordinated attacks, including electromagnetic pulse (EMP) and intentional EM interference (IEMI) attacks. Policymakers are looking to the energy industry to develop an effective, affordable response based on scientific evidence and testing.

EMP refers to a very intense, short burst of electromagnetic energy that can impact electronic or electrical equipment. High-energy EMPs result from the detonation of a nuclear or other high-energy explosive device. AHEMP (high-altitude electromagnetic pulse) is a nuclear warhead detonated high above the Earth's surface to produce more widespread EMP effects. HEMP detonation can occur with little or no warning, making mitigation based on operational strategies ineffective. Therefore, response to the HEMP threat generally comes in the form of hardening assets to reduce initial damage and then recovery to reduce the duration of the interruption.

The redundant nature of the U.S. power grid provides significant protection from a wide range of natural and man-made threats. In addition, AEP is implementing a number of mitigation techniques for further protection, including:

- Development of the drop-in-control-module (DICM), an EMP-resistant control house in the substation that shields the electronic equipment. The DICM is built using a metal exterior with special consideration to ensure bonding of metal members, improved grounding and cable entrances.
- Installation of power supply and communication cables with integrated shields. For example, individually shielded twisted pair cables with an overall grounded shield.
- Installation of filters applied at cable entry points to reduce high frequency, conducted energy, which can impact electronics.

- Incorporation of EMP resiliency into new components, such as relays and communication systems through equipment manufacturers.

AEP is also piloting fiber-based protective relay systems that will provide enhanced shielding effectiveness by minimizing traditional copper conductors/cable penetrating the building. The benefits of the fiber system will also provide an opportunity to install enhanced EMP solutions at the fiber cable entrances, which have also been identified as an area of improvement. AEP continues to be a leader in this area through actively participating in and leading industry and regulatory hosted discussions, including the Electric Power Research Institute (EPRI), the North American Transmission Forum EMP working groups and with federal agencies.

In April 2016, EPRI initiated a three-year research project to address the potential threat of HEMP to the bulk power system.

Drones Cleared for Takeoff

In 2016, the Federal Aviation Administration (FAA) approved new rules allowing companies in the electric power sector and other sectors to fly drones weighing no more than 55 pounds below 400 feet without requiring a waiver from the agency. With millions of miles of transmission and distribution lines across the United States that must be monitored by air, the ability to use drones for aerial inspections of lines, along with power generation assets, is a more efficient, safe and cost-effective alternative to traditional methods.

The use of drone technology is beneficial for a variety of inspection applications across our generation, transmission and distribution system. Our generation business unit has used the technology for boiler furnace and burner inspections that otherwise would require significant outage time, affecting customers. It also would have required building complex and expensive scaffolding to gain access to the equipment for inspection – an activity that is time-consuming and introduces safety risks. Using drone technology has proven to be more cost-effective and safer for our employees and produces high-quality results. Saving time and money on inspections by using drones can free up resources for higher-priority work. Drones also provide the ability to digitally archive inspection videos for improved planning, knowledge-transfer and recordkeeping.

Additional opportunities to use drone technology are being explored within each business unit, such as using drones to assess damage faster after an outage, along with an effort to engage in the development of legislation and regulations associated with it. We are also exploring business case opportunities for owning and operating our own drone technology.

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

AEP is participating in an initiative with the Edison Electric Institute to demonstrate and develop the use of drones beyond visual line of sight. We are also continuing to work with the Electric Power Research Institute on the study of transmission line inspection and maintenance using drone technology.

Technology Awards

Several AEP employees and project teams were recognized in 2016 for their innovation and accomplishments in advancing technology for the company and the industry.

AEP Transmission's energized reconductoring project in the Lower Rio Grande Valley (LRGV) in Texas won the acclaimed Edison Award from the Edison Electric Institute (EEI). It was the fifth time AEP has won this award, the highest honor offered by EEI.

The award recognized AEP Transmission's planning and management of North America's longest live-line reconductoring project – a pair of 120-mile, 345-kilovolt (kV) transmission lines that stretch from Corpus Christi, Texas, to the LRGV. The project improves delivery of electricity and service reliability in southern Texas.

Re-conductoring Project in the Lower Rio Grande Valley

In early 2017, nine AEP employees were recognized by the Electric Power Research Institute (EPRI) with Technology Transfer Awards for their achievements in research and development (R&D). Presented annually, EPRI's Technology Transfer Awards recognize power system leaders and innovators who have helped their companies deliver safe, affordable, reliable, and environmentally responsible electricity via the application of R&D in the utility industry.

Among the projects recognized:

- Successful field tests of a new technology that provides utilities with a viable option for mercury and sulfur dioxide (SO2) emission control at plants equipped with a wet scrubber.
- Proof of concept for alternative weld repair methods for advanced steel alloy components in power plants. Developed as part of a multinational research project, the welding methods preserve the integrity of the material while reducing outage times. AEP represents the first industry-detailed application of this welding method, which was used to make 14 repairs of reheater tubing.
- Formation of internal electrification teams at AEP, establishing electrification programs, and working with customers to advance targeted electrification technologies.
- Work to uncover the dynamics and extent of physiological strain (heat stress) that electric utility workers experience while performing their typical workday tasks. The research is expanding awareness and scientific knowledge about the effects of heat stress and could lead to new industry guidelines to better protect worker health and safety.

Reliability

Reliable electric service is a critical public need. Our nation's economic success and security depend upon our ability to preserve this fundamental resource. The availability of 24/7 uninterrupted electricity is a basic societal expectation, especially in today's digital, Internet of Things-connected world. As we modernize the grid, we are also improving reliability for customers.

Grid Reliability

We track our transmission and distribution reliability performance with several industrywide metrics. These indicators show us how reliable our system is and how our customers are impacted when it is not. They do not include major storms. The investments we are making in our transmission and distribution system improve reliability and operating efficiency and prepare the system for new technologies.

The System Average Interruption Duration Index (SAIDI) represents how many minutes the average customer experiences an interruption in electric service in a given year. During 2016, the AEP System SAIDI was 216.3 minutes, excluding major events, a 5.8 percent improvement from 2015. The growth of vegetation contributed to about 32 percent of SAIDI results and failure of distribution line equipment accounted for about 19 percent of SAIDI.

The System Average Interruption Frequency Index (SAIFI) represents the number of interruptions experienced by customers in a year. During 2016, the system's SAIFI was 1.428, a 2.7 percent improvement from 2015. Vegetation and distribution line equipment failures were also the major contributors to SAIFI performance.

Annual AEP Systemwide Reliability Indices

	2014	2015	2016
SAIFI[1]	1.375	1.468	**1.428**
SAIDI[2]	219.9	229.5	**216.3**
CAIDI[3]	160.0	156.3	**151.5**
ASAI[4]	99.96%	99.96%	**99.96%**

[1] System Average Interruption Frequency Index is the number of interruptions an average customer experiences in a year.

[2] System Average Interruption Duration Index measures how many minutes the average customer experiences an interruption in electric service in a given year.

[3] Customer Average Interruption Duration Index is the length of time it takes to restore service when an outage occurs.

[4] Average System Availability Index represents the average percentage of time in a year that customers have uninterrupted electric service.

The Customer Average Interruption Duration Index (CAIDI) represents the average length of time it takes to restore service when

an outage occurs. AEP's 2016 CAIDI was 151.5 minutes, a 3.1 percent improvement from 2015.

Asset Health Center

Our investments in the transmission grid will improve reliability and resiliency, as well as lower the age of the system. Maintaining and modernizing this infrastructure to keep pace with the demands being placed upon it is a major undertaking. As we invest in replacing and rebuilding aging transmission across our service territory, we are also monitoring the system to spot issues before they become problems that affect our customers.

AEP Transmission developed a systemwide analytical tool, called the Asset Health Center (AHC), to reduce unexpected equipment failures through enhanced real-time monitoring, enabling us to prioritize assets and resources. AEP Transmission deployed the AHC software in 2015. Since going into operation, the software has prevented three transformer failures at a cost savings of approximately $15 million.

The AHC was developed for extra-high-voltage (EHV) equipment with technology partner Ventyx/ABB. The AHC is implementing software to monitor lower voltage equipment (138-kV and lower) and has started a pilot program to monitor underground transmission facilities. We are also looking at how this technology may benefit our generation and distribution businesses. We are implementing a software update to the AHC that will expand the assets we will be able to monitor to include capacitor banks, transmission lines and underground cables.

Jeff Fleeman: Asset Health

AHC benefits customers and shareholders by helping to:

- Reduce the consequences of equipment failure (and outages) with asset condition data, predictive analytics, and risk modeling.
- Achieve system reliability, power availability, high-quality performance and compliance goals.
- Optimize workforce productivity and safety by targeting maintenance where it is most needed.
- Prioritize asset replacements (investments).
- Reduce capital costs from unexpected failures.
- Minimize risks associated with transformer failures.

AEP Transmission also developed a Reliability Assessment Tool to evaluate asset renewal needs and prioritize deployment of capital funds. This tool incorporates the AHC health and replacement scores and enables us to better track historical grid performance, project future system interruptions due to asset conditions, and predict the associated risk of reliability issues on the grid.

The tool has become integral to helping us optimize where we deploy capital on the system, delivering the most value to our customers. In 2017, the Transmission team plans to develop a standard process for prioritizing asset maintenance.

Virtual Damage Assessment

When a large-scale incident or major storm occurs, assessing the extent of damage is critical to restoring service. In 2016, AEP rolled out newly integrated damage assessment tools that provide our operating companies with faster and more consistent information to plan restoration efforts.

The new tools remove paperwork from data collection, which had delayed communicating assessment information in real time. In the past, AEP damage assessors were dispatched ahead of service crews to determine the problem. They would create handwritten notes, sometimes with a highlighter and pen to a map, about the potential cause and resources needed to make the repair. Without an electronic database to capture this information, crews had to rely on physical packets of information and work orders to start the restoration work.

Making data collection a virtual process is more consistent and efficient. Standardizing reporting and the work that we do is central

to our commitment to continuous improvement. Having standard work practices in place eliminates barriers to success by streamlining processes and making them consistent across the enterprise.

Reliability Investments

Maintaining the approximately 264,000 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.

Vegetation-related outages and equipment failures are among the biggest challenges to AEP's service reliability. Managing vegetation on our rights-of-way is a key to maintaining transmission and distribution system 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.

Managing vegetation on our rights-of-way is a key to maintaining transmission and distribution system reliability.

During the past six years, AEP has invested more than $1.82 billion in vegetation management, including $328 million in 2016. The issue of reliability has prompted several states to consider or implement shorter intervals between tree trimming programs.

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 Virginia, West Virginia and Kentucky to implement more aggressive vegetation management programs, moving tree-trimming and other vegetation management to three- four- or five-year cycles, to lessen future storm impacts. Four-year vegetation management cycles have already been established in Oklahoma and Ohio.

At the end of 2016, Appalachian Power (APCo) filed a request with the Virginia State Corporation Commission seeking approval of a new accelerated vegetation management program in the Commonwealth. The proposal follows a successful three-year, 30-circuit pilot program in Virginia that reduced vegetation-related outages by 30 percent to 60 percent when compared to previous years. If approved, the proposal will enable APCo to accelerate its vegetation management operations and ultimately achieve a four-year cycle of effectively clearing every distribution circuit in its Virginia service territory.

With much of Virginia's service territory sparsely populated and characterized by dense vegetation and mountainous terrain, the program will help enhance power quality, reduce service interruptions and reduce the time needed to restore power in the event of widespread storms and tree-related outages.

Also, in April 2017, Kingsport Power Company (d/b/a AEP Appalachian Power) filed for regulatory approval of funding that would move our Tennessee service territory to a four-year vegetation management cycle, as well as for investments in distribution infrastructure.

Grid Assurance

The most reliable grid is a resilient grid. An important line of defense for AEP and the electric power industry in securing a resilient grid is to have access to critical spare parts inventory. In 2016, six energy companies officially launched Grid Assurance™, an independent company providing spare parts for critical transmission equipment. AEP is one of the founding members of Grid Assurance, along with affiliates of Berkshire Hathaway Energy, Duke Energy, Edison International, Eversource Energy and Great Plains Energy.

Grid Assurance will expedite responses to major events that damage the power grid – naturally or intentionally – by giving transmission owners faster access to long-lead time critical equipment necessary to recover from catastrophic events. Some transformers can take up to 18 to 24 months to build and deliver. In 2016, Grid Assurance received final approval from the Federal Energy Regulatory Commission.

Grid Assurance complements existing sparing programs at individual energy companies as well as the Edison Electric Institute's existing Spare Transformer Equipment Program, which can provide utilities access to transformers after a presidential declaration of a national emergency caused by terrorism.

Aging Infrastructure

Improving reliability includes rebuilding or replacing aging infrastructure. With much of AEP's power grid decades old and, in some cases, nearing the end of its life expectancy, we are making significant investments to address aging infrastructure, which is more prone to failure. As the largest transmission operator in North America, the cost and scale of this is daunting. During the next three years, AEP alone intends to invest $9 billion in grid modernization.

According to the U.S. Department of Energy, weather-related outages disrupt lives and cost the economy an average of $18 billion to $33 billion each year (and far more during years with major storms like 2012's Superstorm Sandy). By strengthening and adding resiliency to our power grid, we help our customers weather the storm and recover more quickly.

In 2016, AEP Transmission invested $2.3 billion in new and modern infrastructure to improve reliability for customers. For example, at the end of 2016, AEP Oklahoma Transmission Company completed a three-year, 80-mile transmission line rebuild – an estimated $90 million investment. The upgraded 138-kilovolt (kV) line served three local utilities, including AEP's Public Service Company of Oklahoma (PSO), and Western Farmers Electric Cooperative.

Known as the Lone Oak Broken Bow Project, this upgrade replaces a 1940s-era system, allowing for more efficient and reliable power flow. AEP Oklahoma Transmission Company worked collaboratively with PSO, Western Farmers and Southwest Power Administration to ensure minimal impact to our customers and the environment. Reliability improvements include the addition of modern switching gear to improve service restoration during outages, fiber communication to control the switches remotely and new steel structures that will replace the aging wood structures.

Reliability can also be impacted when there is congestion on the system. Just as our highways become overcrowded, so do the country's transmission corridors. When load exceeds line capability, breakers open to protect the equipment, and outages or brownouts occur. An overstressed system is at risk of a cascading failure, such as the one that caused the great Northeast Blackout of 2003.

The newly energized 500-kV and 765-kV yards at the Cloverdale Station in Roanoke, Va., are part of an estimated $237 million investment for a mega-station that helps address congestion in the PJM Interconnection, the regional transmission organization that oversees bulk electricity in that region. The project includes construction of structures and lines connecting three yards at the site, which will deliver more power to the region, relieve congestion on the grid, address voltage and thermal concerns, and improve the transfer of power across the grid. The 36-mile interconnection between Cloverdale and Dominion Virginia Power's neighboring station also delivers more power between the two utilities.

But the new construction and reliability upgrades are only part of the story. The Cloverdale project will generate about $900,000 in tax revenue in the next fiscal year – about $400,000 more than expected. The increase in personal property taxes is also $78,000 higher than original estimates. These projections resulted in local recommendations to propose pay raises for state police and to make much-needed improvements to emergency medical services. The investments we are making support grid modernization and customer reliability, including reconductoring or rebuilding segments of lines; replacing poles; adding lines on existing structures; expanding, relocating or reconfiguring stations; updating telecommunications technology; replacing old station equipment; and improving cyber and physical security.

Grid Resiliency

One of the greatest threats to the power grid is weather. In addition to financial costs, there are also political, reputation and social risks, especially when the disruption is prolonged. We cannot prevent power outages, but we can take measures to make the grid more resilient and secure, improve recovery time when a disruption occurs, reduce the number of outages and lower the costs to customers.

One example of proactive reliability hardening efforts is AEP's multimillion-dollar investment to inspect and maintain thousands of wooden power poles and underground electrical structures along with miles of overhead electrical lines.

With approximately 5 million wood poles across our system, approximately 3.3 million qualify for the program based on their age and wood preservative treatment type. It is expected to take at least 10 years to complete the work, with the oldest poles being inspected first. Poles that are found to be deteriorated are being replaced using our storm-hardening design criteria so the poles better withstand ice and wind. In 2016, approximately 305,000 poles were inspected, and nearly 23,000 of those were identified for replacement.

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. AEP has approximately 186,600 miles of overhead distribution lines and 802,000 underground structures qualified for review. Our target is to inspect approximately 20 percent of these facilities per year.

Nationally, and within our service territories, hardening, reliability and grid modernization initiatives have garnered support from state utility commissions. This is critical to improving system reliability for customers.

Measuring Grid Modernization

AEP is among several other utilities participating in the Electric Power Research Institute's Technical Assessment of Resiliency Metrics and Analytical Frameworks project. The project will examine resiliency planning to help utilities better plan and respond to disruptive events, and the project will provide a more consistent, effective way of talking to regulators and other stakeholders about resilience.

In another, three-year Electric Power Research Institute (EPRI) resiliency project that concluded in 2015, utility participants evaluated options for strengthening the distribution system while providing our industry with tools and investment strategies to improve resiliency.

EPRI's research ranged from identifying resiliency practices to documenting strategies such as storm restoration and vegetation management to applying modern technologies such as circuit automation. In addition, the research looked at the costs and benefits of placing overhead lines underground and developed a model to help prioritize resiliency investments.

One example of proactive reliability hardening efforts is AEP's multimillion-dollar investment to inspect and maintain thousands of wooden power poles and underground electrical structures along with miles of overhead electrical lines.

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 regulators.

$20.9million

Corporate and AEP Foundation giving to local communities

5 Things Our Customers Expect

Reliable & Affordable Energy

We deliver energy products and services our customers can count on.

Customer Experience Commitment

We own customer experience and satisfaction from start to finish.

Easy To Do Business With

We make it easy for customers to do business with us.

Effective Communication & Engagement Options

We use many approaches for responsive customer communications that are simple, personalized and useful.

Relevant & Personalized Offerings

We tailor products, services and experience our customers value.

Workforce

Safety & Health

Transformational change requires a more progressive and thoughtful approach in how we attract, hire, train, develop and retain new and current employees. By investing in our employees we are investing in our future.

AEP recognizes that our safety and health transformation requires steady, relentless effort and a passion for excellence from every employee. We are committed to Zero Harm and to every employee and contractor working at AEP.

Safety and Health at AEP

To AEP, Zero Harm means we care for each other, we care enough to always choose the safest way to do a job, and we take responsibility and accountability for speaking up to prevent harm. Believing that all injuries and occupational illnesses are preventable is the cornerstone of our Zero Harm culture. In 2016, we renewed our commitment to Zero Harm - zero injuries, zero fatalities - by launching a five-year safety and health transformation effort.

Despite increased attention on safety, we tragically experienced employee and contractor fatalities. The loss of any life is immeasurable, as it leaves a significant void in the lives of co-workers, family and friends. For the AEP family, these were the first work-related employee fatalities in four years. Although these heartbreaking events can never be undone, each loss strengthens our resolve to work harder toward Zero Harm. AEP is committed to learning from each of these events because We Care about each other to ensure we are working safely and that every employee goes home to their family each day in the same or better condition than they came to work.

AEP recognizes that our safety and health transformation requires steady, relentless effort and a passion for excellence from every employee. We know that achieving Zero Harm happens one day at a time. We are committed to this goal and to every employee and contractor working at AEP.

Zero Harm Means We Care

Transforming Safety and 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.

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 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:

- Enhancing our leaders' abilities to provide constructive feedback and engage with employees through CORE (**C**oaching through **O**bservation, **R**ecognition and **E**ngagement) Visits.
- Encouraging employees to identify and correct hazardous situations through the Good Catch Program.
- Identifying high-risk activities and implementing plans to reduce hazards.
- Changing the way we think about accountability for events that occur.
- Establishing a safety and health committee structure that enables us to effectively develop solutions and share information across the company.

The Good Catch Program collects and shares with business units information about potential hazards. We encourage employees to identify and document unsafe conditions or events where no injury occurs but could have. We take these “good catches” and share them across the company as a learning experience to prevent harm from happening. An employee team developed a methodology for measuring the quality of Good Catches, which includes proper classification of events, understandable description/information, determination of how to best share events, and timely completion of corrective/preventable actions. We review the data collected from Good Catches to help us identify patterns that could lead to harm and take proactive measures to prevent it.

In 2016, the number of Good Catches reported by employees tripled compared with 2015. Capturing quality Good Catches and sharing them is essential to achieving Zero Harm. These results tell us that we are more focused on preventing harm by being on the lookout for the hazards that can cause harm.

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.

Protecting our workers is also part science. Four employees received Technology Transfer Awards from the Electric Power Research Institute for uncovering the dynamics and extent of physiological strain (heat stress) that electric utility workers experience while performing typical workday tasks. The research is expanding awareness and scientific knowledge about the effects of heat stress and could lead to new industry guidelines to better protect worker health and safety. This is important to AEP and our industry because so many of our employees are routinely exposed to extreme weather conditions.

The programs we have put in place are the foundation of AEP’s safety and health transformation. Our collective focus, commitment and dedication, plus shared responsibility, not only for ourselves but for everyone around us, will be imperative in our journey toward Zero Harm.

2016 Performance

Our safety performance in 2016 fell far short of our expectations. We experienced two employee and two contractor fatalities. To compound this, one contractor lost his life in early 2017. This has a profound effect on everyone who works for or on behalf of AEP. In addition, we did not achieve our targets for reducing injury on the job. These results are unacceptable to us, and we are resolved to do better.

In 2016, AEP transitioned from the Injury Severity and Recordable Injury rates to the industry-accepted DART (Days Away/Restricted or Transferred) 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.

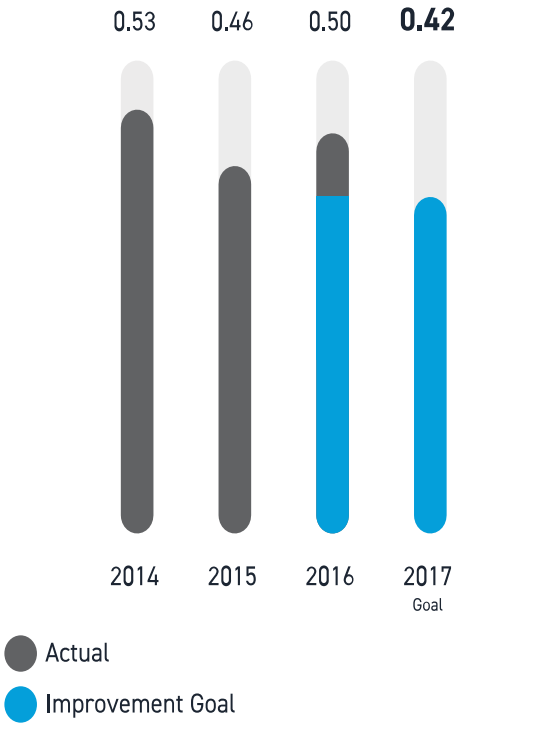
We track separate DART rates for employees and contractors to monitor performance and focus on areas needing improvement. We also calculate a combined DART rate for employee and contractor performance, which reinforces our commitment to Zero Harm for everyone working under the AEP banner.

In 2016, we set a goal of improving our performance by 10 to 20 percent. While 62 percent of AEP’s facilities experienced no DART events, our overall performance fell short of our goal. In 2016, the combined DART rate was 0.54 compared with 0.50 for 2015. Slips, trips and falls continue to be the leading cause of harm.

In 2016, one in every 195 employees experienced a work-related injury or illness that took them away from their job. The DART rate for AEP employees was 0.50 compared with 0.46 for 2015 and a target of 0.42. As a result, in 2016, AEP experienced 2,650 lost work days and 1,734 days where employee activities were restricted due to work-related injuries or illnesses.

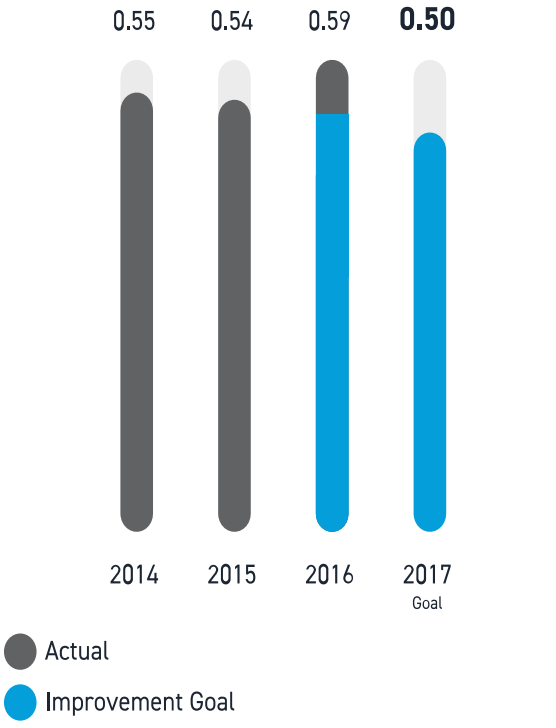
Contractor Safety and Health

AEP Employee DART Rate



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.

AEP Contractor DART Rate



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.

No aspect of our work is more important than safety and health, whether it is an AEP employee or an AEP contractor. Our focus is on prevention, but, sadly, we were unable to prevent the losses of two contractors in 2016 and one in 2017.

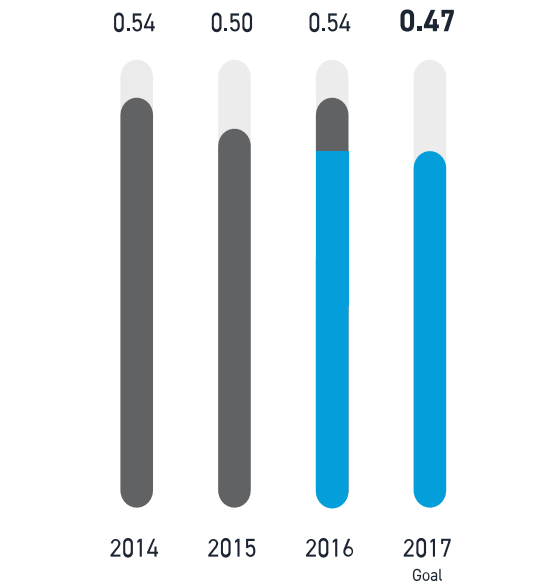
As we strive for Zero Harm with our employee workforce, we seek the same level of commitment and performance among our contractors. We invest time and resources to ensure the safety and health of our contractor workforce and we hold them accountable for their performance. This has become critically important as our contractor workforce continues to grow as we grow our business. To support this, in early 2016, we created a new leadership position responsible for contractor safety and health performance.

Overall, AEP's contractor performance remains unfavorable to the target with a DART rate of 0.59 for 2016 compared to our improvement goal of 0.52. In addition, we experienced two contractor fatalities due to electrical contact events in 2016. 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 a lot of work to do to reach our goal of Zero Harm among those who work on our behalf.

To help our contractors achieve Zero Harm success, we have a rigorous contractor pre-qualification process; set clear expectations for compliance and commitment; incorporate leading indicators into the contractor oversight process; and proactively address trends. In addition, we meet regularly with our contractors to help ensure those working on our behalf are aligned with our value of Zero Harm. We will continue to look for ways to remain actively

engaged through our AEP employee and contractor oversight.

AEP Employee & Contractor DART Rate



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.

Public Safety

Protecting the public from unsafe contact with our electrical equipment is a challenge, and we are always looking for better ways to get important safety information to our customers and to the public. As an industry, we continue to be concerned with the number of people from the public who come into contact with power lines and electric equipment each year.

AEP proactively engages with the public and our customers on the hazards of electricity by using social media platforms, such as, Facebook. Social media has been a valuable tool in reaching a wider audience, with the number of our Facebook followers more than tripling over the past three years. Our "Safety Saturday" Facebook campaign focuses on educating the public about downed power line safety, "call before you dig" safety, electric outage safety, the dangers of copper theft and other safety tips. Another way we reach the public with safety information is through advertising campaigns in English and in Spanish and electrical safety community outreach events.

Despite our efforts, there were 11 public fatalities in 2016. Seven were the result of vehicles crashing into utility poles, and four were caused by contact with our electrical facilities. We had the same number of public fatalities in 2015, but fewer than in 2014, when we experienced 16 public fatalities, including one that resulted from copper theft. Vigilance in pursuit of Zero Harm extends to members of the public. We will continue to work towards educating the public to avoid such tragedies.

Stay Away From All Overhead Lines

Those at risk range from billboard installers and highway construction workers, to homeowners doing home improvements and thieves who steal copper wire from substations and other equipment. Our industry is active in educating the public about the danger of coming into contact with live electrical equipment as well as promoting how to safely work around our facilities.

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 action to prevent harm.

Safety and health programs were audited at 18 locations in 2016. In addition, a systemwide audit of some aspects of the safety and health program transformation was conducted. In response to findings, audit locations develop corrective action plans, which are tracked to closure by audit services. To leverage lessons learned, audit results are shared with business unit leaders and safety professionals across the company.

We continue to review our processes for sharing information and lessons learned to ensure there is consistency across the AEP system and that important information to prevent harm is shared with each and every employee and contractor.

Following a fatal crash between a train and an AEP vehicle at a private rail crossing leading into one our construction laydown yards, 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. We looked at all of our assets, plants, substations and laydown yards. Through this process, we identified potential factors that could result in injury and we are now prioritizing our mitigation efforts. We are working with a transportation consultant to help us provide temporary and permanent solutions.

Our Distribution and Generation business units use the Managing Environment, Safety and Health (MESH) information management system to track performance and ensure compliance with regulatory requirements. Each of our power plants has electronic MESH manuals that link to corporate resources while also addressing plant-specific processes.

Since vehicle collisions with utility poles are out of our control, in 2017 we will begin accounting for those events separately.

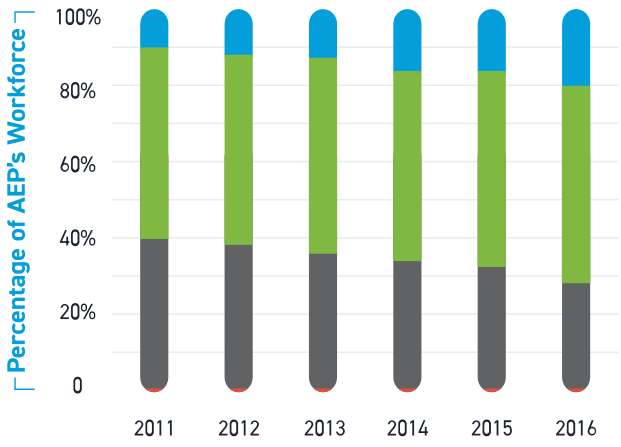
We undertook an aggressive inspection of approximately 3,750 sites across the AEP system to identify safety risks that could result in harm to our employees.

Our Workforce

As we transform into the energy company of the future, we will need a cross-disciplinary workforce that can understand, design and manage a modern power grid that is digital, flexible, more distributed and constantly under threat from cyber and physical attack. We need a skilled workforce that is adept in risk assessment and behavioral and data science, is focused on our customers, and has familiarity with cybersecurity.

We are challenging ourselves to attract, develop and retain the new talent we need; ensure our current workforce isn't left behind; and adapt to the scale and pace of change that is occurring if we are to remain at the forefront of our industry's transformation.

AEP Workforce Demographics



2016

- **20%** Millennials (Generation Y, 1982 & after)
- **52%** Generation X (1961–1981)
- **28%** Baby Boomers (1943–1960)
- **<1%** Traditionalist (1942 & before)

Today, developing skills and internal capacity for this evolving landscape is a high priority. At the same time, we will always need

those with technical skills to operate and maintain the electric power grid. To ensure our future, we are focused on a combination of succession planning (at all levels of the organization) as well as capacity-building for new skills that are emerging as critical to our industry.

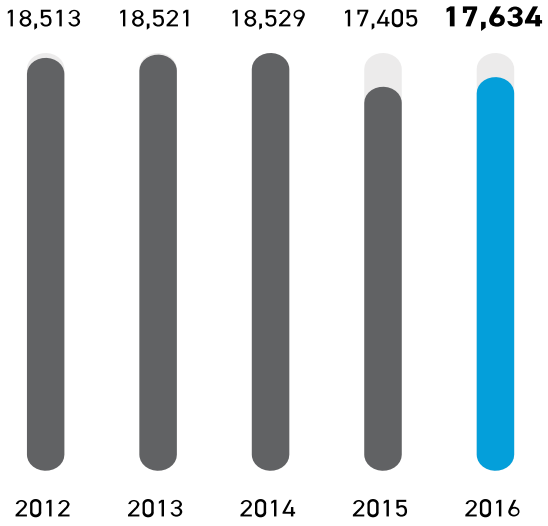
The changing demographic of our workforce is helping to drive the pace of change, though we will need to accelerate it to stay in step with technological advancements and meet the expectations of tomorrow's workforce. The number of millennials (born in 1982 and after) in AEP's workforce trended upward by 20.5 percent in 2016. Our employee turnover rate remains steadily low at 5.39 percent, which includes an employee retirement rate of 2.31 percent.

According to Accenture's "Harnessing Revolution: Creating the Future Workforce" report, Millennials will make up 75 percent of the workforce in less than a decade. And Generation Z, those born in 1995 or later, is starting to enter the workforce. According to the report, Gen Z is "the most diverse generation in U.S. history" and is considered "the world's first true Digital Natives." Our planning will have to account for these generational shifts if we are to be competitive.

One way we are addressing this workforce transformation is by developing work plans for each of our business units. The plans identify potential future workforce needs and potential staffing gaps, as well as opportunities to educate, train, transfer knowledge and prepare our future workforce. Workforce planning enables us to meet the changing needs of our customers and business while giving our employees opportunities to develop their knowledge and their skills.

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 attract, hire, train, develop and retain new and current employees. By investing in our human capital – our employees – we are investing in our future.

Providing tools and training is part of our commitment to employee development. AEP provides a broad range of training and assistance that supports lifelong learning and transition development. Programs develop knowledge, competencies and learning that collectively benefit our employees, AEP's business objectives, and our communities.

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 2016, AEP employees completed just under 1 million hours of training, as tracked in our corporatewide learning management system.

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

To ensure a pipeline for our future workforce needs, AEP has training alliances with various community colleges 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.

AEP also actively recruits active and veteran military personnel. Learn more about our efforts to support our veterans.

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 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, targeted development opportunities for employees who exhibit the desire and long-term potential for success in higher leadership roles within the company. The program is designed to provide AEP with an ongoing talent pool for future leadership opportunities and ensure the right talent is available to lead the organization in the future. In 2016, approximately 130 employees participated in targeted development programs across the company.

AEP provides education assistance of up to $5,250 annually for each individual employee, which includes 100 percent reimbursement for required textbooks. Rotational and mentoring programs are available within some of our business units as well.

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 key 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.

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 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.

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.

Nearly 11 percent of AEP's 17,700 employees are military veterans, and 11 percent of AEP's new hires are veterans. Veterans tend to 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 to 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.

We also support our military veterans through our benefits program. In early 2016, AEP amended its bereavement policy to allow military veterans and reservists paid time off to attend funeral services for a service member with whom they have served. We understand that a fellow service member is often as close as a family member, and the loss is deeply felt by our veterans. The policy change is in addition to AEP's regular employee bereavement policy. We also provide paid leave 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 active and veteran employees and contractors. 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 map 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 360,000 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 is critical to meeting the growing expectations of our customers and

adapting to the challenges of rapidly changing technologies.

In 2015, we negotiated three-year collective bargaining agreements and wage packages with the International Brotherhood of Electrical Workers (IBEW) and the Utility Workers Union of America (UWUA). Multiyear agreements enhance continuity for both the company and the workforce. We will begin the next negotiation cycle during the third quarter of 2017 and expect to convert all AEP collective bargaining agreements to comprehensive three-year agreements.

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.

2016 Organized Labor at AEP

Labor Unions	Number of Employees
International Brotherhood of Electrical Workers	3,263
Utility Workers Union of America	945
United Steelworkers of America	384
United Mine Workers of America	150
International Union of Operating Engineers	2
Total	**4,744**

Culture of Engagement

A strong and healthy culture fosters engaged employees and creates the foundation for long-term success. At AEP, we continually work to foster a culture that will support the adaptability 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 2016, our employee culture survey showed positive, steady improvement in all areas, especially in our focus areas of accountability and employee engagement. Our engagement index, which compares the number of engaged employees to the number of actively disengaged employees, showed year-over-year improvement. In 2016, we improved this index to 45 percent from 27 percent in 2014. Our culture efforts and their results are important because we need our employees to help us execute on our strategy, and they can do that only if they are engaged.

The survey also showed us that we have more work to do. To continue the momentum and continually improve, work groups develop culture action plans each year, and we are currently focused on sharing best practices across the AEP system.

One way we are empowering employee engagement is through our Power up & Lead culture workshop where employees learn about their own behaviors and leadership styles, and what it takes to be effective communicators. Power up & Lead is offered through several flexible options to adapt to AEP's work force needs. Since the workshop began in 2013, more than 12,000 employees have completed Power up & Lead. AEP plans to continue an accelerated pace for the training in 2017.

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To help employees understand how they contribute to the company's overall strategic goals, AEP launched a learning map called "AEP's Strategy for the Future." This interactive exercise allows small groups of employees to learn about AEP's past successes, current challenges and strategy for the future. More than 13,500 employees have completed the learning map since it launched in 2015.

Another way we measure our progress and success is through external surveys and awards. In 2017, AEP was named to Fortune magazine's World's Most Admired Companies list in the electric and gas utilities sector for the fourth consecutive year. Each year, Fortune surveys top executives, directors and financial analysts about the companies in their industry based upon nine criteria: financial soundness, use of corporate assets, long-term investment value, quality of management, quality of products and services, people management, innovation, social responsibility and global competitiveness.

Continuous Improvement

Almost every work process can be improved, and people who do the work every day are the best ones to identify those opportunities. AEP has adopted a continuous improvement framework that relies on a well-known experiential learning cycle

known as Plan-Do-Check-Adjust.

By giving employees ownership and the freedom to experiment with possible solutions in a structured way, we foster entrepreneurship that, in turn, sparks creativity, innovation and prudent risk-taking.

To achieve the level of success we believe is possible, we are working to enhance the coaching skillsets of AEP leaders to improve problem-solving at all levels of the organization. We are also actively engaging employees to continuously identify process improvements as part of standard business operations. A major focus of this work is increasing customer value. We are building a management system that supports our continuous improvement efforts and enables us to achieve our strategic goal of delivering a superior customer experience.

Today, continuous improvement principles are being embedded into our daily work. Continuous improvement gives us the tools, efficient processes and knowledge to continue to reinvent ourselves and remain relevant and attractive to our customers, investors and employees. AEP's strong financial, environmental, economic and social growth and performance over the past few years is a testament to its success.

We are actively engaging employees to continuously identify process improvements as part of standard business operations.

Here are some successes to share:

AEP is using continuous improvement to enhance the customer experience in many different ways. By mapping and evaluating the current step-by-step process a customer experiences from the time they request new service to receipt of their first bill, we can create standard work that makes this experience better for customers. In addition, this process will help leaders better engage with their employees while encouraging them to become problem solvers and ensuring alignment across all departments involved.

AEP's Transmission Planning group is using continuous improvement to impact customer reliability. Through a collaborative effort among AEP, municipal utilities and electric cooperatives, the group created a new software tool, called The Transmission Customer Database (TCD), that quickly integrates information from several AEP data sources to provide Transmission Planners detailed, customer-specific reliability data nearly in real-time.

The TCD reduces the manual effort required behind identifying potential reliability issues for customers. It also maintains reliability mitigation plans and documented communications with customers, allowing our planners to have better-informed discussions with customers about reliability.

In 2016, our operating companies used continuous improvement tools to improve credit and collections activities across the AEP system. Between 2011 and 2014, net charge-offs from customers who did not pay for their electricity use increased steadily, while service disconnects for non-payment remained relatively flat. In addition, a standard approach to securing high-risk accounts was lacking. A cross-functional team developed and successfully implemented strategies to more quickly address high-risk accounts, increase collections in the field and the back office, and ultimately cut the backlog of service disconnect orders. These efforts assisted in both reducing bad debt expenses by 12.4 percent and the uncollectible amount of previous monthly service billings by nearly $11.4 million when compared to 2015. These positive trends were achieved as the year-end electric revenue was generally unchanged from the previous year.

As a result of continuous improvement practices, AEP Texas crews were able to complete over 33,000 more construction hours in 2016, which is a 16 percent improvement over 2015. The contractor crews completed over 8,000 more construction hours, and due to changes in contractor management, saved AEP over $4 million in costs. The Engineering team was also able to design the 41,000 additional hours without adding staff.

What works well in one location may also work in another. That is why we are making a concerted effort to share ideas and solutions learned from other continuous improvement efforts. A key driver behind our success has been the high level of employee engagement. We are embedding continuous improvement principles in our daily work, aligning improvements with our strategic goals, and establishing a management system to sustain change while we develop leaders as coaches to promote and support a problem-solving culture.

Diversity and Inclusion at AEP

Our Diversity Mission Statement

AEP embraces diversity by respecting the differences, similarities and the cultural

experiences, backgrounds, talents, and ideas of our employees, customers, suppliers, and stakeholders. This includes race, ethnicity, religion, sex, gender identity & expression, national origin, sexual orientation, age, physical ability, etc. We envision a culture where diversity is the norm and employees, customers, suppliers and stakeholders of all identities are valued, respected and engaged. We intentionally focus our efforts to leverage differences and similarities in our communities and business.

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 also committed to building a strong base of diverse suppliers who are trusted and dedicated partners with AEP.

At the end of 2016, AEP joined Paradigm for Parity®, a new coalition of employers committed to promoting gender parity in leadership roles, to strengthen our own commitment to workplace diversity. The goal is to achieve gender parity at all levels of corporate leadership by 2030. Paradigm for Parity is the product of two years of benchmarking and study. AEP is one of the first companies to support the initiative, and one of our board members was among its creators.

Paradigm for Parity offers a five-point plan to accelerate gender parity by:

- Eliminating or minimizing unconscious bias in the workplace.
- Significantly increasing the number of women in senior operating roles with the near-term goal of at least 30 percent representation in all leadership groups.
- Measuring targets and maintaining accountability by providing regular progress reports.
- Basing career progress on business results and performance rather than on physical presence in the office.
- Providing sponsors, not just mentors, to women well-positioned for long-term success.

In April 2017, we joined more than 50 of America's largest corporations and signed the CEO Action for Diversity & Inclusion pledge. The goal is to work collectively across organizations and business sectors to cultivate a trusting environment where all ideas are welcomed and employees feel comfortable and empowered to discuss diversity and inclusion. The pledge calls on companies to foster an environment where ongoing dialogue about diversity and inclusion occur; implement and expand unconscious bias education; and to share best, as well as unsuccessful, practices.

It is important to us that we become more diverse from the board room to the front line. We track the advancement of women and minorities from front-line craft-level to executive positions, and we consider diversity in every hiring decision and look for development opportunities. Paradigm for Parity will enhance these efforts, providing us a platform to set targets and maintain accountability.

Our Board of Directors, AEP leadership team and regional utility presidents include nine women, two African Americans and two Hispanics. Women make up 30 percent and minorities 13.3 percent of this group.

AEP has made notable progress in leadership diversity for women in the past decade. Since 2007, the percentage of women serving on the AEP Board of Directors has grown from 15.4 percent to 25 percent. Over the same time period, the percentage of regional utility presidents who are women grew from 28.6 percent to 42.9 percent, while the percentage of women in mid-level management rose from 9.7 percent to 13.1 percent, and women in senior management rose from 13.9 percent to 14.7 percent. Being diverse within the upper ranks of the company helps us gain a broader perspective on business issues, allowing us to make better decisions. It also sets an example for more diversity within our work force and in our communities.

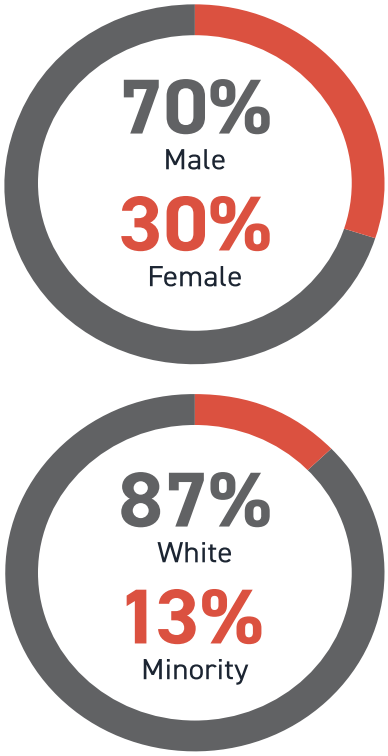
Our diversity efforts are fueled by a number of initiatives and programs including employee resource groups (ERG) and leadership development forums, such as the AEP Women's Leadership Series, which provides networking, mentoring, support and professional development opportunities for our employees. We have partnerships with organizations such as the Center for Energy Workforce Development (CEWD), Direct Employers and the United Negro College Fund to assist us with our diversity recruitment efforts. In 2016, our Human Resources team provided a diverse slate of candidates to our hiring managers 74 percent of the time when a job was being filled.

In recognition of the evolving diversity of our work force in a global economy, AEP has changed policies, benefits, training and other resources to be more inclusive. These efforts have been reflected in our Human Rights Campaign (HRC) Corporate Equality Index score. In 2017, AEP received a perfect score on the index, ranking the company among the 2017 Best Places to Work for LGBT Equality.

AEP's perfect score was supported by its strong and active employee resource group, the Pride Partnership, as well as its inclusive benefits coverage. AEP provides benefits for same-sex couples and their dependents and offers coverage of transition-related care, based on medical necessity, to individuals who identify as transgender. AEP also provides families with adoption assistance and reimbursement, as well as paid leave for new adoptive parents. The Equality Index has become a benchmarking tool for large U.S. companies to measure the fair, nondiscriminatory treatment of LGBT employees in the workplace, and we are proud of the progress we have made.

Another ERG, Abled and Disabled Allies Partnering Together (ADAPT), was one of the driving forces behind AEP's recognition as one of the nation's 2016 Best Places to Work in the Disability Equality Index (DEI) Annual Survey performed by the U.S. Business Leadership Network (USBLN). 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 Leadership Diversity



Includes AEP's Board of Directors, AEP Leadership and Regional Utility Presidents in 2016.

AEP Employee Representation*

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%

as of Dec. 31, 2015	Employees	Females	%	Minorities	%
Total Employment	17,468	3,134	18%	2,587	15%
Officials & Managers	3,036	344	11%	266	9%
Professionals	4,929	1,336	27%	761	15%

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

The tool helps companies identify opportunities for continued improvement to build a reputation as an employer of choice. AEP received a score of 80 out of 100. The Index gives us a baseline of where we are today and highlights areas for improvement to ensure we are providing an environment that enables full inclusion of people with disabilities.

To coordinate and further advance our efforts, AEP's Diversity & Inclusion Advisory Council reinforces our commitment to an inclusive work environment that is diverse not only in age, ethnicity and gender but also in thought, experience, skills and ideas.

The Council's role is to ensure alignment of our initiatives, monitor our progress and provide guidance companywide. The Council will design and support implementation of AEP's diversity and inclusion strategy focusing on three key areas - our workforce, our customers and our diverse suppliers.

Employee Resource Groups

Employee resource groups (ERGs) give voice to the diversity of our workforce. They are an integral part of our culture and

contribute to the success we are having with efforts of inclusion. These groups support AEP's values and goals while contributing to the company's diversity and inclusion objectives and business goals in several key areas, including recruitment, retention, professional development, customer education and community outreach. The groups provide a forum for exchanging new ideas and enhance the company's desirability as a prospective employer. Currently, AEP has seven ERGs located at corporate headquarters and at other locations around the AEP system. We are seeking to expand these groups across AEP.

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 and transgender (LGBT) employees and their allies]
- Abled and Disabled Allies Partnering Together (ADAPT)
- Native American Employee Resource Group (NAERG)

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

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. Each ERG has at least two senior leaders as executive sponsors who provide guidance and counsel to the group's mission and goals. In addition, the executive sponsors ensure the group has visibility across the enterprise.

Supplier Diversity

One way we can be a leader in supply chain and procurement practices is by ensuring we have a diverse supplier base. Increasingly, we are receiving inquiries about our supplier diversity program. We believe that having a strong, diverse pool of suppliers is as important to AEP as it is to the business owners in our communities who want to do business with us. We are strengthening this network by identifying and helping to qualify small, diverse and competitive suppliers to be part of AEP's supplier portfolio to compete for our business. This is an area we are working to expand beyond a compliance-based program toward best practice.

To support our overall diversity efforts, AEP's Diversity and Inclusion Advisory Council is focused on workforce, customer and supplier diversity. Our Supply Chain and Procurement team also formed a multilevel governance council to focus on AEP's procurement practices, including supplier diversity practices. These two councils will help AEP build a business plan to establish a program to lead us to best practice for supplier diversity. It will also help us achieve the cost savings and level of service we expect and need from our suppliers.

Supplier Diversity – 2016

$6.2 billion
total corporate spend on goods and services in 2016 (compared to $6.1 billion in 2015)

$3 billion
total corporate spend on locally based suppliers

47 percent
of corporate spend on locally based suppliers

$641 million
total corporate spend on goods and services from small businesses and diverse suppliers in 2016 (compared to $583 million in 2015)

Figures reflect the federal government's fiscal year.

Customer Experience

"We've been about customer service our entire history. This is about meeting our customers where they want to be met and giving them the personalized experience they want every time." – *Bruce Evans, Chief Customer Officer*

Today's consumers expect a personalized experience, more options and instant gratification. Technology is putting immediate information and choices in their hands, constantly raising the bar on what's expected. Delivering a customer experience that meets or exceeds those expectations drives satisfaction and loyalty and is a competitive advantage for successful companies. AEP is committed to delivering a customer experience that rivals the best consumer-facing companies.

We are developing and deploying new products, programs and services our customers are asking for. We are also working with our regulators to begin thinking differently about how we serve our customers and why we need to evolve the traditional regulatory compact to keep pace.

It is important to understand that this dynamic is playing out across the electric utility industry. The pace of change is moving more quickly in some parts of the country, slower in others.

5 Things Our Customers Expect

Reliable & Affordable Energy
We deliver energy products and services our customers can count on.

Customer Experience Commitment
We own customer experience and satisfation from start to finish.

Easy To Do Business With
We make it easy for customers to do business with us.

Effective Communication & Engagement Options
We use many approaches for responsive customer communications that are simple, personalized and useful.

Relevant & Personalized Offerings
We tailor products, services and experience our customers value.

AEP's Customer Experience Strategy

We deliver a product that makes modern life possible. We are experts at producing and delivering safe, reliable electricity to our customers. That's a basic expectation customers have of us. Today, however, the bar is much higher; customers want every touchpoint with AEP to be personalized. We have to be responsive to their needs, be available on demand and respond to them in their channel of choice (online, text or telephone).

Customer expectations force companies to be quick and agile. Enhancing the customer experience requires us to have people and processes in place to meet the increasing expectations and changing needs of our customers.

In 2016, under the direction of AEP's Chief Customer Officer, we organized teams to focus on different aspects of the customer experience. For example, one team is working on channel strategies for serving customers where they want to be served, such as online chat, Twitter or a mobile app. They listened to recordings of customer calls and gathered input from Customer Solutions Center employees to understand what customers are calling about. The team is developing plans to meet these needs in customers' channels of choice.

The AEP Customer Experience Board was formed to shepherd the customer focus work across the company. The board identified and received funding for 29 projects to enhance the customer experience. Of these, 17 initiatives will directly impact customers' day-to-day interactions with AEP; others will focus on technology solutions and customer growth.

The first step is establishing a formal strategy that can be applied across the enterprise. In January 2017, we partnered with Accenture to develop a customer experience strategy. We asked ourselves:

- What is the experience we want to create for customers?
- What are the principles we will follow, the value proposition, organizational design, etc.?
- What can all employees do to support the customer experience? What do we need to do differently?

To ensure alignment with the Board, our operating companies have formed local Customer Experience Councils to serve as hubs of information, ideas, skills training and think tanks to address customer issues as we implement new initiatives.

Employee engagement plays a critical role in shaping a positive customer experience. AEP developed the G.R.E.A.T program as a way to engage employees in improving the customer experience by connecting them with customers more effectively. The program provides a platform for employees to learn from each other to continuously improve the level of service we deliver.

Greet customers positively
Respond to customers promptly
Easy to do business with
Assume positive intent
Treat customers with respect and dignity

Technology and the Customer Experience

In 2015, we began a three-year project to install new Customer Solutions Center technology that will enable us to work across multiple platforms to serve customers. For example, a single customer service agent could respond to email, phone calls, text messages and social media, and manage online chat sessions. The new system will be ready in 2018. In preparation, we are developing workforce training plans to give our employees new problem-resolution skills, empowering them to give every customer a positive experience. This is part of our culture change at AEP.

AEP is partnering with technology platform providers, such as Tendril and Innovari, to pilot promising technologies designed to engage customers and optimize the electric grid. These platforms enable customers to realize bill savings by partnering with the utility to help manage their energy use in a non-disruptive way. For example, when demand on the grid is high on a hot summer day, our grid operators would be able to turn the thermostat up a few degrees or dim lighting banks to lower energy demand from participating customers. This helps to even out the peak load by managing demand on the distribution system, versus at the generating plant, and helps the customers lower their bills. In addition to incentives, customers can manage their energy use online, 24/7.

These interactive energy management platforms allow us to more effectively manage customer load as a resource to help optimize the use of the grid. Commercial energy customers would opt in and be compensated for allowing AEP to manage their energy use during periods of high demand. This approach to energy management uses distributed energy resources on the distribution grid as a virtual power plant. Our intent is to conduct a pilot in each of our companies' jurisdictions.

In addition, to make it easier for customers to do business with us, AEP is developing a customer mobile app that will be available by the end of 2017. This app will allow customers to conduct business with AEP on their mobile devices, whether paying a bill, starting or stopping service or reporting an outage. Customer billing statements are also being redesigned to make it easier for customers to understand what they are being charged for, as well as see their energy consumption patterns.

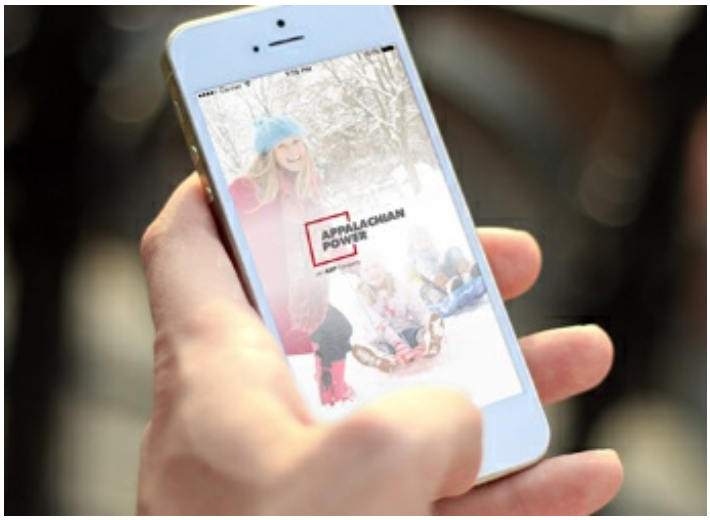
Customer Contact, Customer Care

Customer expectations and enhancements in technology are changing the way our customers interact with us and us with them. Although we continue to see an increase in online transactions - customers conducted more than 21 million online transactions in 2016, or a 7 percent increase from 2015 – we find that self-service options are not always preferred. Online bill pay and other online services are convenient options for our customers; however, 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.

In 2016, our Customer Solutions Centers handled approximately 21 million customer calls, compared with 23 million in 2015. Mild weather and an increase in electronic channels, such as online bill payment, resulted in lower-than-expected 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.

As the expectations and demands of our customers continue to change, so too will the metrics we use to measure our performance and success. Today, we pride ourselves on quick customer service. However, as we work to improve the overall customer experience, we have to consider 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.

When the new Customer Solutions Center technology comes online in 2018, we will be better equipped to respond to customers' individual needs, more efficiently and cost-effectively.



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Communicating With Our Customers – 2016

491,561
customers who signed up for severe weather- and outage-related mobile alerts

535,093
customers who signed up to receive mobile alerts

28%
of customers signed up for paperless billing (compared to 25% in 2015)

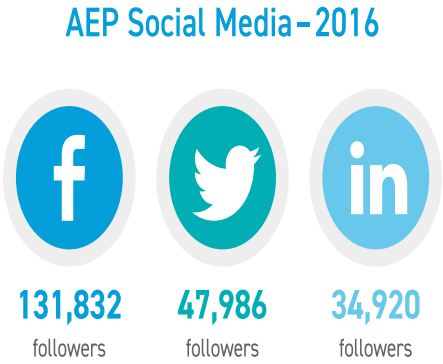
Approximately **52%**
of customer bill payments being processed online and electronically

Engaging With Our Customers via Social Media

Customers decide how and where we interact with them. Increasingly, they are using social media, text, chat and other online tools to connect with us. Because they are always plugged in, they expect immediate response from us 24/7, similar to their other online

retail experiences. This is especially true during outages, when customers want real-time, accurate information about restoration efforts.

Social media has become an increasingly important channel of choice for our customers to interact with us. Over the past few years, we have seen a rapid increase in social media engagement. Since 2013, our Facebook followers have almost tripled and our Twitter followers have more than doubled. In response, we are developing a long-term plan to give us a stronger online presence that would allow for expanded monitoring, reporting and analysis of the communication channels.



Our social media strategy will help us build and maintain stronger, more positive relationships with our customers who expect to be able to interact and conduct business with us when it is convenient for them. It will allow for us to focus on:

- Customer engagement – customer support and live chat;
- social listening – online monitoring and brand protection; and
- proactive messaging – crisis management, storm and outage updates and marketing campaigns.

In 2016, AEP managed 15 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 82.7 million Facebook impressions and 5.9 million Twitter impressions. 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 cost, quality and service. Today, electric customers also want choices, more information 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, quality, affordable service is just the beginning. We have to understand and anticipate what our customers want and be ready to meet or exceed those expectations. One way to measure our performance is through customer satisfaction surveys.

AEP engages with residential, commercial and industrial customers using a variety of phone and online surveys.

AEP 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 Study[SM]. The 2016 survey measured satisfaction among 137 electric utility brands in the U.S. Satisfaction is evaluated according to a variety of criteria: 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; AEP's 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.

In 2017, we set a customer satisfaction goal for each 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. In addition, this goal has been directly tied to our employee incentive compensation plan.

In early 2017, the Edison Electric Institute (EEI) recognized AEP and two AEP National Key Accounts executives for exceptional customer service. The team received EEI's 2017 Award for Outstanding National Key Accounts Customer Service and the

National Key Accounts Executive Award for Sustained Excellence in Customer Service. What makes these awards especially meaningful is that recipients are chosen by customers themselves.

In 2016, AEP's Customer Solutions Centers were awarded the Certification of Excellence for the eighth time by Benchmark Portal, a global leader in contact center benchmarking, certification, training and consulting. The certification recognizes AEP's effective use of people, processes and technology when serving customers. AEP's call centers ranked in the top 10 percent of the call centers surveyed.

Energy Assistance

From time to time, customers may experience financial hardships. These hardships can put customers in a tough situation where they have to choose between paying their energy bills and feeding their families. 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.

Through government-sponsored energy assistance programs, we provided approximately $65.3 million in federal and private energy assistance in 2016. In addition, there were more than 17,000 pledges totaling $3.5 million in energy assistance from our self-serve agency websites.

In 2017, AEP signed a petition in support of continued funding for the Low Income Home Energy Assistance Program, otherwise known as LIHEAP. This is an important program for many of our customers and one that we fully support.

The LIHEAP program helps low-income families pay their heating and electric bills, as well as receive weatherization and energy-related minor home repairs, through cash grants that are paid directly to the utility company. In 2016, the program served more than 6 million households with home heating and cooling assistance, weatherization and/or energy-related low-cost home repairs or replacements. AEP's support for LIHEAP reaffirms our commitment to our customers and communities in which we serve - offering assistance during a time when they need it most.

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:

- 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

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

in millions

	2014	2015	**2016**
Appalachian Power	$24.4	$24.6	**$26.6**
AEP Ohio	$14.2	$15.7	**$13.0**
Public Service Company of Oklahoma	$10.0	$9.1	**$9.9**
Indiana Michigan Power	$6.5	$8.3	**$6.9**
Southwestern Electric Power Company	$5.3	$5.7	**$6.1**
Kentucky Power	$2.6	$2.5	**$2.8**
Totals	**$62.9**	**$65.8**	**$65.3**

Stakeholder Engagement

Our ability to make informed decisions relies on the strength of the relationships we have with our stakeholders. At AEP, stakeholder engagement is simply good business. 2017 marks a decade of delivering on our commitment to engaging with many different stakeholders.

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.

Two-way dialogue with our stakeholders on current and emerging issues helps us to identify risks and opportunities, develop responsible business strategy and practices, and provide valuable insights that dispel misperceptions about AEP. As we invest

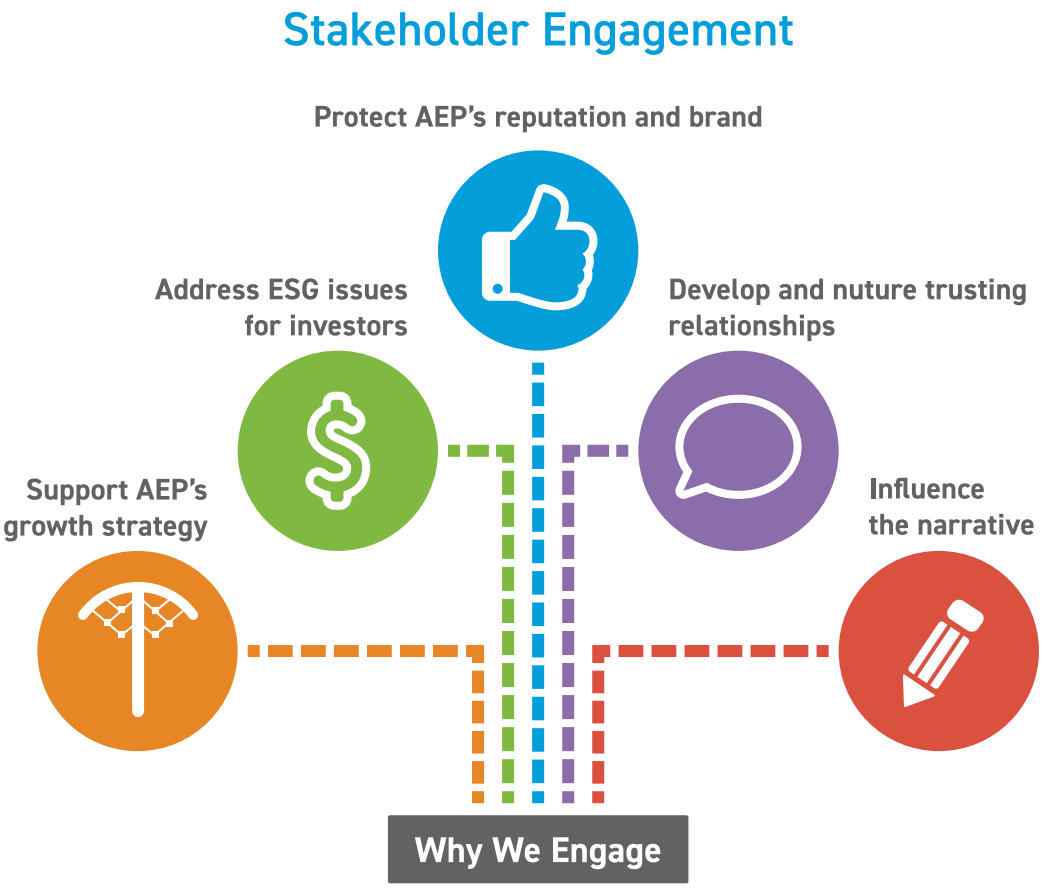
billions of dollars in new infrastructure to modernize and improve reliability of the grid, transform to a clean energy future and revitalize and strengthen our communities, it's important that we understand our stakeholders' concerns and priorities and they understand our intent.

Our experience is that the full extent of AEP's transformation progress is not as well understood among stakeholders as we like to think. Consequently, we proactively engage with stakeholders to present the facts and promote a deeper understanding of the challenges, risks and opportunities we face. We encourage open dialogue and seek to identify potential opportunities for collaboration.

AEP's team that leads stakeholder engagement at the corporate level includes the leaders of Generation, Corporate Sustainability, Environmental Services, Investor Relations, Legal, Technology Business Development, Utilities, External Affairs and Strategic Policy Analysis. In some cases, AEP's CEO, CFO and Corporate Secretary join the discussion.

AEP's Strategy for Engagement

- Engage stakeholders most likely to impact AEP's financial, operational and reputational integrity.
- Be accessible, open, transparent, responsive.
- Look for opportunities to collaborate.



Investors

> "This transparent information is beneficial to investors and the public, and indicates a willingness from AEP to begin to 'turn a big ship.'" – *AEP Investor*

In 2016, stakeholder engagement was largely dominated by the ongoing shift to a clean energy future, including questions regarding carbon risk, potential stranded assets and renewable energy development. Investor interest significantly increased among several of AEP's European investors, many of whom are supporters of the United Nations Principles for Responsible Investment (also known as the Montreal Pledge). The Pledge commits them to engaging companies on environment, social and governance (ESG) issues that they see as relevant to their investment analysis and decision-making process. Many of their questions were about their exposure to long-term shareholder return risk based on AEP's carbon profile.

In 2017, some stakeholder groups began asking us about our intent to align with the Financial Stability Board's Task Force for

Climate-related Risk Disclosure's proposal to conduct scenario planning for climate change. We do conduct scenario analyses regularly as part of our strategic planning, risk management and resource planning processes. We are evaluating the task force's recommendations to understand the intent and process, talking with stakeholder groups to learn more about the kind of evaluation they are looking for and to determine if additional evaluation or analysis would be meaningful for AEP and its broad set of stakeholders.

In 2016, we engaged with 13 organizations representing AEP investors or who were considering AEP for an investment portfolio with specific interests around carbon risk or ESG issues. In advance of every call, we share specific information about AEP's environmental and carbon footprint, capital investment strategy and clean energy transition. This initial exchange of information allows us to have more engaging and productive dialogue. Overwhelmingly, the feedback has been very positive. We recognize they will have additional questions as we continue to transform our business. We expect to receive ongoing requests from investors on ESG issues, and we are prepared and willing to engage at any time.

Every year, the Lead Director of AEP's Board of Directors participates with management in a proactive shareholder outreach program. In addition, in 2016, we began formal outreach to investors and other groups interested in ESG issues. In November 2016, we held a call to share an update on AEP's business transformation. Our intent is to schedule these calls throughout the year, similar to quarterly earnings calls, with a focus on AEP's transformation. We work closely with Investor Relations and others at AEP to be responsive to inquiries or requests for engagement that we receive in a timely manner.

What We Learned

- Awareness of AEP's transformation progress is not as high as we thought, making proactive engagement valuable for AEP and investors.
- When we share our progress and future path, it resonates with investors.
- Open dialogue is more constructive than shareholder activism and can lead to real change.

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 and the evolution of our business model. In 2016, we held eight meetings with several NGOs on a variety of issues.

Top Issues in 2016

- Clean Power Plan
- Potential stranded assets associated with carbon risk
- AEP's transformation
- Renewable energy
- Energy efficiency
- Ohio Purchased Power Agreement
- Technology
- Regulatory reforms
- Carbon emissions
- Business model evolution

Groups We Engage With

- Ceres
- Clean Air Task Force
- Environmental Defense Fund
- Natural Resources Defense Council
- Ohio Environmental Council
- Sierra Club

Although we do not always agree on all issues or positions, our relationships with these organizations are strong, and we are committed to building trusting relationships. In some cases, we can be at odds with an organization in one area while collaborating on something different elsewhere. This was the case in Ohio, when AEP and the Sierra Club worked together on a controversial

Purchased Power Agreement. Although Sierra Club is well-known for its opposition to fossil fuels, it was supportive of this agreement, in large part, because it called for the development of at least 900 MW of wind and solar projects in the state over five years. It demonstrates that even unlikely allies can reach common ground. It was also made possible because we continually engage with the group nationally and in our jurisdictions. We remain committed to being transparent and responsive.

In April 2017, we convened a larger group of NGOs to talk about our ongoing transformation and to identify key criteria and potential projects for collaboration. Stakeholders were encouraged by our progress and pushed us to be vocal on policy matters relating to the clean energy transition.

What We Learned

- AEP's story resonates and informs.
- AEP's business transformation progress often comes as a positive surprise to stakeholders.
- Mutual recognition that we won't agree on everything – but that open communications and information sharing really matter – it gives us insight into each other's priorities
- General support exists for AEP's strategy for resource diversity, including large-scale renewables.
- There is potential for collaboration on renewable projects and regulatory reforms to support clean energy transition.

Customers

> "I was impressed…to see the efforts AEP is putting into sustainability. We look forward to continuing to work with you on the journey." - *AEP Industrial Customer*

> "I like that AEP is putting themselves out there – showing ownership." - *AEP Texas Customer during Focus Group*

As AEP transforms to become the next-generation energy company, our customers still rely on us to provide safe, reliable and secure energy. Today, however, their expectations go beyond "keeping the lights on." They expect us to be the trusted authority on what the future of energy looks like, and they want to help us define it. We asked ourselves: Does our brand reflect what our customers want from us and meet their expectations for the future? To find out, AEP undertook a year-long brand review that included extensive engagement with customers across our service territory.

Why was this important to AEP? As we change how we operate, organize and deliver our promise to customers, repositioning of our brand helps drive continuous improvement within AEP while making it more visible to all of our stakeholders. In addition, the market is changing and we need our brand to show that we are changing with it.

We conducted 32 in-home customer interviews, 46 stakeholder interviews with AEP leaders across the enterprise and conducted an online segmentation study that received more than 3,000 responses from customers. We held workshops and 14 customer focus groups to gather feedback, test messaging and develop a new brand positioning for AEP.

What we learned from this yearlong process gave us a clearer picture of what our customers want from AEP and what we can do to be a better partner and corporate citizen:

- Customers appreciated that we asked for their opinions and wanted us to show them, not just tell them, that they have a voice.
- Customers expected us to invest and engage in our communities but were typically not aware of the extent to which AEP is actually involved.
- Customers appreciated AEP's dedication toward moving into the future with sustainability and alternative energy sources.
- In Kentucky and West Virginia – the heart of coal country – customers expressed concern over potential job losses associated with the transition toward alternative energy.
- Transparency and open communication are top priorities for customers.

Many of AEP's large commercial and industrial customers are as committed to sustainability as we are. They have business goals that include increasing their use of renewable energy, reducing greenhouse gas emissions and a sustainable supply chain. These customers want to partner with AEP to help them achieve these goals and, most importantly, empower them to manage their energy use and costs.

In 2016, working with the World Resources Institute, we met with more than a dozen of our largest customers to better understand what they need from AEP. We always knew cost was a top priority; what we learned is their willingness to work with us to develop innovative new solutions to achieve their renewable goals. We are continuing this dialogue in 2017.

Interest in AEP's sustainable business operations is growing among our customers because we are in their supply chain. In addition to completing the CDP Supply Chain survey annually, we are being asked by some of our largest customers to conduct a sustainability assessment of the company. We have committed to completing the assessment in 2017.

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In Our 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. To us, it's all about relationships.

Engaging the public is an important aspect of building new infrastructure today; people expect to be included, informed and heard. When we do a good job of managing these interactions, we have more positive outcomes for AEP and for those who are affected.

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 2016, project outreach specialists supported 281 projects across AEP's system and hosted 27 community open house events.

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

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.

In Indiana, Arkansas and Louisiana, for example, the stakeholder process is formalized and includes representatives from customer groups, various industry groups, environmental groups and others. In these states, we share the IRP with the stakeholders before filing it with the state utility commissions. In other states, such as Oklahoma, Kentucky, Virginia and West Virginia, the engagement process is less iterative, but there are clear pathways to developing and approving IRPs before and during the process. While each process is unique, it is still based on the principles of engagement and transparency.

What We Learned

- Engaging the public is critical to a project's success; people expect to be included, informed and heard.
- Stakeholders want a voice in determining their energy future.
- Outreach and transparency are important.

American Electric Power is committed to our vision of powering a new and brighter future for our customers and communities. Every unique person makes us stronger, and by working together the energy to accomplish our dreams is boundless.

Together, We Have Boundless Energy

Supplier Diversity – 2016

$6.2 billion
total corporate spend on goods and services in 2016 (compared to $6.1 billion in 2015)

$3 billion
total corporate spend on locally based suppliers

47 percent
of corporate spend on locally based suppliers

$641 million
total corporate spend on goods and services from small businesses and diverse suppliers in 2016 (compared to $583 million in 2015)

Figures reflect the federal government's fiscal year.

Economic Development

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

Community Support

Investing in our local communities is a social responsibility AEP and our employees are passionate about. We are personally committed to making positive change.

Economic and Business Development

Building strong, vibrant communities requires communication, focus and investment from various strategic partners. AEP's Economic and Business Development (E&BD) team puts its expertise and connections to work, helping local communities attract and retain businesses and jobs. From obtaining site certifications to attracting foreign investment to our service territory, the E&BD team connects customers with communities.

The E&BD team provides comprehensive location advisory services to companies looking to expand or locate new operations, including property searches and screening; custom community and site analysis; and introductions to local economic development partners and industry resources.

In 2016, the E&BD team facilitated, partnered with and supported 124 projects that will bring more than 18,000 jobs to the local economies across our 11-state territory. These investments help maintain property value, fund local schools and maintain public safety and health services, and they can allow for more cost-sharing for local community investments.

While most of the projects were manufacturing-related, we also worked on opportunities in the data center, oil and gas, logistics, agriculture and retail industries. Projects included:

- Amazon's multiple data center build out in Columbus, Ohio
- CSRA call center in Bossier City, La. Dana's axle manufacturing plant expansion in Fort Wayne, Ind.
- Enterprise Product's cryogenic gasification plant in Waha, Texas
- Italy-based ELDOR Automotive manufacturing facility on an AEP Quality Site certified by McCallum Sweeney Consulting in Botetourt County, Va. Macy's distribution center expansion in Tulsa, Okla.

AEP's E&BD website – www.aeped.com – provides companies and site selection consultants with essential information about locating and expanding in AEP's 11-state territory. Site selection typically starts on the Internet, so it is critical to make a compelling case about opportunities that exist in our footprint.

The team also helps AEP communities prepare for growth and develop assets that make them attractive to companies seeking new locations. Training, marketing, site readiness and site certification are key ways we support our communities. Here are some examples in each:

Training – In early 2017, PSO hosted an economic development forum for more than 100 community leaders. The focus was on understanding what makes good communities great. A nationally recognized site selection consultant shared what successful communities have in common and offered tips for how our communities can succeed.

Marketing – We have supported the development of several industrial recruitment videos, including this one on the Harlingen Aerotropolis, an AEP-certified site. (Watch videos)

Site Readiness – One example is our work with TexAmericas Center in New Boston, Texas. TexAmericas Center is a former military facility redeveloped into an industrial park. Located in

the Texarkana metropolitan area, TexAmericas has an economic and jobs impact on four AEP-served states – Arkansas, Louisiana, Oklahoma, and Texas. AEP and Southwestern Electric Power Company have been active partners with TexAmericas, funding site readiness initiatives and providing marketing support for company recruitment. Expal USA will relocate to the site, creating 67 new jobs when at full operation. The company will disassemble, recycle and repurpose ammunition for the U.S. Army.

Site Certification - For several years, the E&BD team has built a portfolio of well-prepared sites in our service territory to meet the needs of expanding companies. Through 2016, we have 27 certified sites in our portfolio. These sites have undergone a rigorous certification process to ensure they are ready for immediate development. Having certified sites reduces the risks associated with development and accelerates speed to market by providing detailed information, including price and availability, utilities, access, environmental concerns and potential development costs.

Foreign Direct Investment

Since 2015, the E&BD team has had a focused strategy on attracting foreign direct investment (FDI) to our service territory. FDI is a key source of capital, job creation and innovation. The United States, and AEP states in particular, are attractive and competitive destinations for FDI.

According to the U.S. Department of Commerce, 12 million people go to work in the U.S. directly as a result of FDI. To compete in the global economy for these investment dollars, we need international partners. We are working with state and other economic development partners to attract foreign investment because we believe there is significant potential to support economic growth in our communities. We have hired consultants to work with us in Canada, Europe, India and Japan.

2016 AEP Economic Impact

Employees (year-end)	**17,634** [1]
Wages	**$2.3 billion** [2]
Construction Expenses	**$4,781 million** [3]
Local Taxes	**$750 million**
State Taxes	**$349 million**
Federal Taxes	**$141 million**
Goods & Services (does not include fuel)	**$6.17 billion**
Goods & Services from Small Businesses and Diverse Suppliers	**$641 million** [4]
Total Corporate Spend on Locally Based Suppliers	**$3 million**
Remaining Value of all Contracts	**$2.12 billion** [5]
Philanthropic Giving	**$20.9 million** [6]
Economic Development Contributions	**$6.8 million** [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] Construction expenditures, not investments in subsidiary companies. Excludes discontinued operations.

[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.

[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.

Supporting Appalachia

Through AEP's Economic & Business Development (E&BD) efforts, we are building stronger partnerships with our local communities to help revive some of the hardest hit communities. Three states in the heart of Appalachia have been particularly hard hit by the decline of the coal industry. 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 a targeted effort to help those communities revitalize and attract new industry and jobs, and to empower them to take the lead in rebuilding their communities.

In addition to serving customers and maintaining operations in Appalachia we also 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.

The E&BD team provides comprehensive location advisory services to companies looking to expand or locate new operations.

One significant effort underway is to create a Tri-State hub for aerospace manufacturing in Appalachia. To jumpstart this initiative – called Appalachian Sky - Kentucky Power, AEP Ohio and Appalachian Power Company have provided grants to their respective economic development community partners Ashland Alliance, Southern Ohio Port Authority, Cabell County, City of Huntington, W.Va., and Wayne County to gain AERO ready certification by Common Sense Economic Development. Evaluated against 14 essential qualities in aerospace site location

searches, the Tri-State region has been determined to have potential for aerospace corporations to operate successfully there. The certification will serve as a marketing tool to recruit aerospace-related business and industry to the region. Learn more about this effort.

In April 2017, Braidy Industries announced plans to locate a $1.3 billion aluminum rolling mill in the middle of Kentucky Power's service territory. When it comes online in 2020, it will create 550 permanent manufacturing jobs and approximately 1,000 additional temporary jobs during construction. This central Appalachia economic development was supported by Kentucky Power's E&BD team as part of the Appalachian Sky initiative, in collaboration with state and local officials.

In 2016, Appalachian Power Company awarded $155,000 in economic development grants through the Economic Development Growth Enhancement (EDGE) program. The grant supported 13 localities and nonprofit organizations throughout Virginia and West Virginia for site development, comprehensive workforce analysis, training and development, marketing and promotion of properties, and new business development and retention efforts. For the Mingo County Redevelopment Authority, recipient of a $20,000 EDGE grant, this is an investment in the development of their workforce. It also supports their Refresh Appalachia program that provides educational and training opportunities for the underemployed, including former coal miners.

AEP Ohio's Local Economic Advancement Program (LEAP) helps with funding of programs and projects that promote the creation and retention of manufacturing investment and jobs in our service territory. In 2016, AEP Ohio awarded $111,000 to 19 economic development partners through LEAP, including several grants in Ohio's Appalachian region. For Gallia County, home of AEP's former Gavin Plant, the grant was used to develop an aerial video of marketable industrial properties.

Morgan County used its grant to complete a water feasibility study for the State Route 60 business corridor, a project important to both the existing businesses that employ 750 people in this economically-distressed county, and to future development in the area. In addition to community support, AEP Ohio provides support directly to manufacturers through its Rate Stabilization Plan (RSP) grants. Since 2006, AEP Ohio has committed more than $8 million to help new and existing AEP Ohio customers, including a grant to support the reopening of Athens Mold & Machine in Athens County.

Kentucky Power plays an active and important role in the economic development of the 20 counties it serves in eastern Kentucky. In 2016, with the launch of the Kentucky Power Economic Growth Grants (K-PEGG) program, the company invested more than $600,000 back into the community. The grants are funded through the Kentucky Economic Development Surcharge approved in 2015 by the Kentucky Public Service Commission. Kentucky Power collects 15 cents monthly from customers and matches the customer contributions to the fund.

Applications for Kentucky Power grants are reviewed by a six-member committee composed of four Kentucky Power employees and professionals representing the Kentucky Association of Economic Development and Kentucky Economic Development Cabinet. These grants help support local collaborative economic development efforts, including:

- A Coal Plus program designed to give Kentucky Power flexibility in designing special contracts and rate terms with new or existing coal companies that are expanding their operations and employment.
- A $75,000 grant awarded to Big Sandy Community & Technical College to help purchase fiber optics equipment at the school's new Advanced Technology Center. The 15,000-square-foot facility will be the first fiber-to-desk structure in Kentucky and will allow the college to train nearly 700 technicians in eastern Kentucky. The center will house the workforce development Fiber Optics Technician Training program, the first in the region, and support the new Associate in Applied Science degree in Broadband Technology.
- A $56,000 grant to the City of Hazard and $25,000 to the Perry County Development Board to fund sewer upgrades and allow the Coal Fields Regional Industrial Part in Hazard to double its sewer capacity, something that city leaders say is needed to attract new business.
- The repurposing by Kentucky Power of about 100 acres on the Big Sandy Plant site that is now being marketed for industrial use.

Appalachian Sky: Creating Jobs Where They Are Needed Most

In 2017, AEP 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, southwest 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 upon the completion of a comprehensive regional workforce analysis in AEP's Kentucky territory. The team in Kentucky realized the potential of the aerospace industry as a prime candidate to diversify the

central Appalachian economy. The analysis conveyed the availability of the proven skillsets desired by the aerospace industry were plentiful in the region. AEP recognized an opportunity and commissioned a leading, aerospace consultant to determine the viability of aerospace in Appalachia's coal and steel country. The consultant produced a report certifying 17 counties as AeroReady in the Tri-State region furthering the claim that aerospace can thrive.

In the short time of Appalachian Sky initiative, the region has already seen an uptick in prospective companies considering expansion to Central Appalachia. The economic development professionals in the Tri-State region have conducted site visits and filled their sales pipeline with multiple qualified leads.

Community Support - Contributions and Grants

"We see them as a company that takes care and cares about the community." - *AEP Texas Customer during focus group, November 2016*

Investing in our local communities is a social responsibility AEP and our employees are passionate about. We feel a duty to improve quality of life, expand education opportunities, especially for people who are disadvantaged, and to help make our communities stronger and more vibrant. No matter how big or small the effort, we are personally committed to making positive change. In 2016, AEP and the American Electric Power Foundation donated approximately $20.9 million to support 1,800 community organizations.

Contributions and grants are made primarily in the areas of STEM (science, technology, engineering and mathematics) education, grades pre-K through higher education; basic human needs, such as hunger and emergency housing; safety and health; and the environment.

Education

In 2016, the AEP Foundation continued expanding its signature Credits Count[SM] program, awarding a $1.6 million grant to Laredo Community College in Laredo, Texas. Credits CountSM is a five-year, dual-enrollment program, created by the AEP Foundation to help students pursue college-level STEM education while completing their high school diplomas. The program engages students' families and provides the opportunity for students to graduate from high school with at least 12 college credits toward a career-ready certificate or toward an associate's degree in STEM fields.

The AEP Foundation grant to Laredo Community College is the sixth Credits Count grant to be awarded by the Foundation. Since the program launched in 2013, the Foundation has committed more than $12.6 million.

Credits Count provides not only a channel from middle school to college but also inspiration, guidance and an opportunity for students who otherwise may not have an opportunity to pursue post-secondary education. The grant to Laredo Community College will support Laredo Independent School District (L.I.S.D) which serves approximately 25,000 students – many of whom are economically disadvantaged.

This grant will fund tuition for 400 L.I.S.D dual-enrollment high school students, as well as up to 135 scholarships for high school graduates to attend Laredo Community College. The grant will also fund a STEM-focused curriculum for more than 500 middle school students, as well as college assessment testing preparation for 400 eighth- and ninth-graders. The grant also offers professional development to STEM educators in the school district.

The AEP Foundation grant to Laredo Community College is the sixth Credits Count grant to be awarded by the Foundation. Since the program launched in 2013, the Foundation has committed more than $12.6 million over multiple years for Credits Count in six AEP operating companies' service areas in Ohio, Louisiana, Oklahoma, Kentucky, Indiana and Texas.

Housing & Hunger

Housing and hunger are important social issues to AEP. Approximately 11 percent of corporate and AEP Foundation giving is dedicated to fighting hunger and homelessness in local neighborhoods across our service territory. This support is essential, especially in cities like Columbus, Ohio, where the number of families in homeless shelters has increased by 64 percent in the past five years.

In 2017, the AEP Foundation committed $1.5 million to help build a new shelter for CHOICES, the only domestic violence shelter

and 24-hour crisis hotline in central Ohio The new shelter will expand its capacity by 135 percent by increasing the number of beds from 51 to 120. Designed through national best practices for domestic healing, the facility will include state-of-the-art security, an outdoor playground and garden for shelter residents, as well as kennels and exercise areas for family pets.

Domestic violence has no boundaries and can affect anyone, anywhere. One in every three women and one in four men will experience some form of intimate partner violence in their lifetime. In Franklin County (Ohio) alone, police departments responded to nearly 7,000 incidents of domestic violence in 2015. AEP's commitment to CHOICES will help provide a comfortable and secure safe haven for victims of domestic violence while giving them the resources and support they need.

Safety & Health

One of AEP's core values is safety and health, which is reflected in our philanthropic giving. In 2017, the AEP Foundation gave $138,000 to the Thrive360 ministry in Longview, Texas, which is part of AEP's Southwestern Electric Power Company service territory. Thrive360 is a local ministry with a mission to bring health, nutrition and guidance to local youth. The ministry plans to open the Citadel360 gymnasium to provide after school fitness and athletic training, as well as nutritional education and fellowship to as many as 1,000 children. The 20-acre campus will target kids who do not regularly participate in extracurricular activities and are considered economically disadvantaged by the Texas Education Agency.

Philanthropic Giving

Corporate & AEP Foundation

	2014*	2015	**2016**
Arkansas	$326,867	$39,000	**$156,106**
Indiana	$1,700,078	$1,228,797	**$1,127,127**
Kentucky	$579,538	$253,617	**$346,380**
Louisiana	$1,206,654	$699,827	**$645,145**
Michigan	$1,284,456	$192,146	**$514,302**
Ohio	$12,982,388	$6,943,820	**$12,619,206**
Oklahoma	$795,617	$432,352	**$736,367**
Tennessee	$17,171	$18,400	**$510,694**
Texas	$1,941,808	$1,538,932	**$1,614,117**
Virginia	$824,173	$446,033	**$552,211**
West Virginia	$1,655,935	$920,528	**$933,808**
Other**	$1,978,006	$806,628	**$1,134,458**
Total	**$25,292,691**	**$13,520,080**	**$20,889,921**

* Corporate philanthropic giving each year included pre-payments to select organizations that were earmarked for use in the succeeding year.

** Giving to organizations outside AEP's Service area or those that benefit multiple states.

Volunteerism

Investing in our communities is not just about dollars; our employees serve as social change agents as they donate their time, talent and financial contributions to support countless organizations across our service territory. They support volunteer programs such as local United Way campaigns, serve on local boards and commissions, lead youth groups, coach Little League teams and protect their communities as volunteer firefighters or auxiliary police officers. We do this with pride and honor, in good times and bad.

Our employees are often the first to volunteer or donate money when a disaster occurs. In June 2016, historic flooding devastated several West Virginia communities within AEP's Appalachian Power (APCo) service territory. APCo presented the American Red Cross and The Salvation Army with a $102,178 donation dedicated to flood relief efforts in those communities. Of that, more than $52,000 was donated by more than 400 employees across AEP's 11-states, and $50,000 came from the AEP Foundation through AEP's Emergency Disaster Relief Fund.

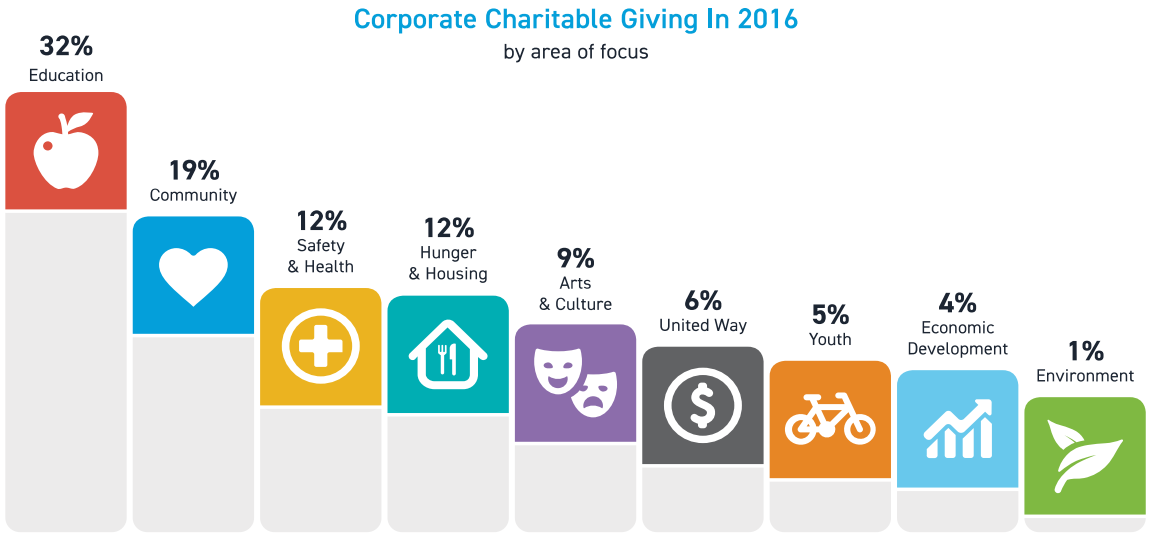
In addition to the financial donations, more than 150 employees offered hands-on support to help the flood-ravaged communities get back on their feet. Employees and their family members served meals to flood victims and relief workers, assisted residents and business owners with flood cleanup and served as resources for customer questions. During difficult times like this, we recognize the important role we have to play as a force for social good.

Since inception of the AEP Emergency Disaster Relief Fund, the company and the Foundation have matched a little more than $578,000 in employee donations with a total of nearly $1,165,000 in employee, corporate and Foundation relief donations.

Other Community Commitments Made in 2016:

- Throughout each month, more than 80 AEP employees and retirees spend their lunch hour delivering meals through LifeCare Alliance's Meals-on-Wheels program in Central Ohio. Meals-on-Wheels provides hot nutritious meals to older adults and chronically ill persons who are unable to provide meals for themselves. This "daily check" gives peace of mind to both recipients and their loved ones. This is AEP's 12th year participating in the Corporate Route program.
- Through a local nonprofit called Bike Lady Inc., nearly 100 AEP and EY, formerly Ernst & Young, employees built and delivered 25 bikes to children in foster care across Ohio. Bike Lady Inc. is dedicated to enriching the daily life experience and expanding opportunities for at-risk youth by providing them with new bikes, helmets, and locks. Since, 2008, Team Bike Lady has given 8,177 bikes to kids across 45 Ohio counties.
- Public Service Company of Oklahoma (PSO) and AEP employees picked up hammers, screwdrivers and paint brushes to support the Tulsa Area United Way's Day of Caring. A highlight of the day's events included constructing a new wheel chair ramp at the home of a client of Ability Resources, a United Way agency. AEP employees across our 11-state service area participate in similar Day of Caring activities in conjunction with local United Ways.
- The American Electric Power Foundation committed a $250,000 grant over three years to enable the ETHOS Science Center in Elkhart, Ind., to remodel a building to offer STEM opportunities for schools, teachers, students and businesses in the area. ETHOS' first permanent facility for robotics and innovation activities will include a collaborative Innovation Center "makerspace" to help teach students 3D design, modeling and printing and to provide services to area businesses, focusing on career readiness pathways for students.

In addition to financial donations, more than 150 employees offered hands-on support to help the flood-ravaged communities In West Virginia get back on their feet



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Sustainable Procurement

We work with fuel and nonfuel suppliers at the local, regional and national levels to drive continuous improvement and efficiencies within the supply chain while improving environmental and safety performance. We ask suppliers about their sustainability strategy and activities through our procurement process. We are also asked by our customers about our own sustainability because we are in their supply chain.

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 in a just and reasonable manner, we are able to look at the whole value chain from sourcing through inventory. Our goal is to be an industry leader in procurement performance, cost and value by 2018.

One way we are improving efficiency is 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 are also leveraging technology through e-commerce solutions that allow us to communicate, solicit bids and electronically exchange purchase order and invoice transactions.

Cybersecurity poses an increasing risk within our supply chain. As data breaches increase, so does the concern for how to protect our systems, to which many of our suppliers have access.

Sustainability in the Supply Chain

We respond annually to the Carbon Disclosure Project's (CDP) 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 forbeing transparent about our sustainable supply chain efforts and collects business-related climate change information from our suppliers.

In 2017, AEP committed to conducting an online sustainability assessment of our company, at the request of two of our largest customers. It is the first time we have received this type of request.

We will seek to continuously improve operations across our business to reduce, mitigate or eliminate the resulting impacts on the environment. AEP's plan to reduce carbon emissions remains on course as we continue to move toward a cleaner energy future.

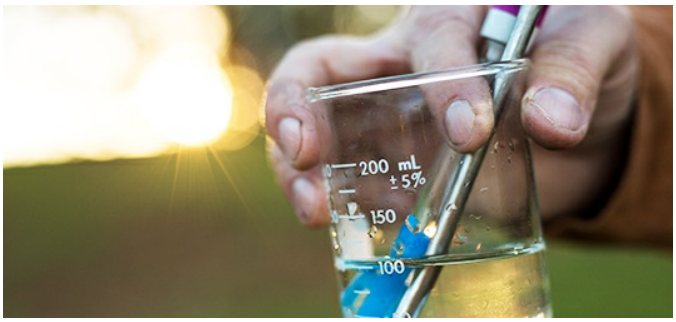
$8.7billion

Estimated total investment in environmental controls between 2000 & 2017

Coal Combustion Residuals

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 costs.

Managing Water



Water quality, availability, use and management are increasingly important sustainability issues for society and our company.

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 and Climate

Climate change and the role of carbon continue to be at the forefront of public discourse both globally and locally. We have had many discussions with investors, environmental groups and other stakeholders about this issue. AEP's plan to reduce carbon emissions remains on course as we continue to move toward a cleaner energy future. We also believe that regardless of the outcome of legal challenges to the Clean Power Plan (CPP), it is likely there will be some form of carbon regulation in the future.

We strongly believe that any carbon policy or regulation must be rational in terms of timing, scope and reduction targets. Additionally, any climate action framework should be built on a rational approach and take into account the regional differences in the role of carbon within our economy to ensure that there is not undue economic harm. Our position on climate change has always been that it should be addressed at the federal level and it must be economy-wide.

For more than a decade we have taken steps to reduce our carbon footprint. We proactively addressed carbon emissions through voluntary actions as a member of the former Chicago Climate Exchange and through our resource planning process and investment decisions. AEP is already less carbon-intensive than a decade ago. The future disposition of generating units and increases in use of renewables and other clean energy resources will continue to shrink our carbon footprint. Our integrated resource plans reflect this diversification and incorporate a price for carbon as a proxy for potential future carbon regulations.

AEP CEO Nick Akins responds to U.S. withdrawal from Paris Climate Accord and what it means for AEP.

The future disposition of generating units and increases in use of renewables and other clean energy resources will continue to shrink our carbon footprint.

Clean Power Plan

The U.S. Environmental Protection Agency (EPA) finalized the Clean Power Plan (CPP) in October 2015, using an existing section of the Clean Air Act. The CPP would require states to develop state-level compliance plans. AEP began discussions with our states, urging them to develop state implementation plans, rather than be forced to comply with a federal implementation plan that would not account for each state's unique energy and economic needs.

The final rule raised legal concerns and was subsequently challenged in the D.C. Circuit Court by a number of stakeholders, including the Utility Air Regulatory Group, of which AEP is a member.

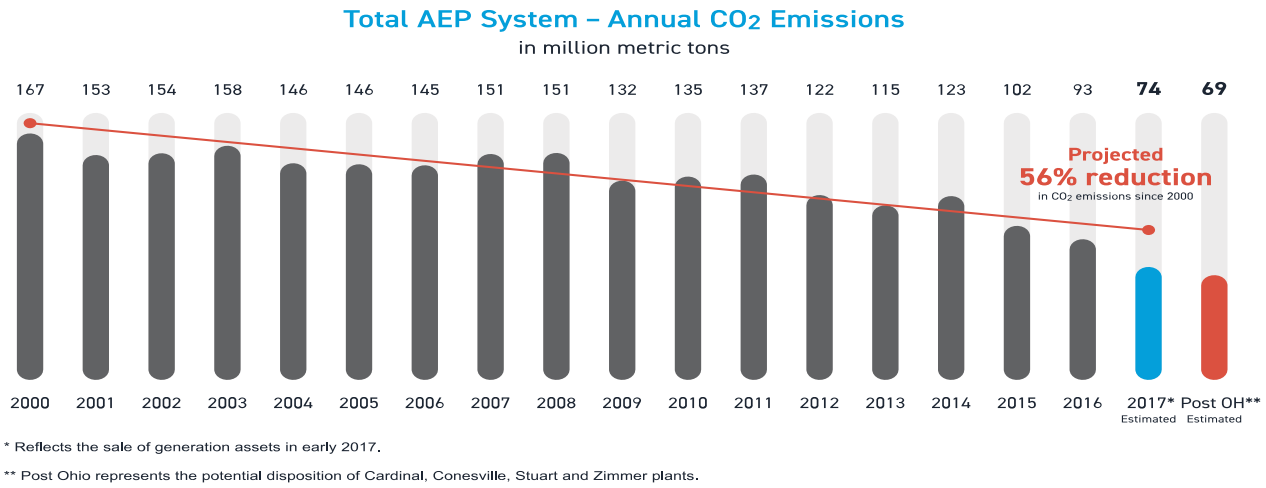
In February 2016, the rule was subject to a stay order from the U.S. Supreme Court to allow for the appropriate legal review of the rule. This was followed by President Trump's executive order instructing the EPA to review and, if appropriate, publish for notice and comment proposed rules suspending, revising or rescinding the CPP in March 2017. Subsequently, the U.S. Circuit Court of Appeals for the District of Columbia granted a request from the Justice Department to put a hold on further action; the court agreed in late April to put the proceedings on hold for 60 days. Without resolution of the ongoing litigation or final EPA action, the future of the CPP remains unclear.

We continue to advocate that any plan to reduce greenhouse gas emissions be accompanied by a thorough assessment of the impact on grid reliability, allow adequate time for implementation, respect the authority of states and other federal agencies, and preserve a balanced, diverse mix of energy resources for electricity generation.

President Trump's executive order doesn't change AEP's focus on generating and delivering electricity in ways that meet the needs and expectations of our customers. That includes diversifying our resource mix and investing in renewable generation and other innovations that increase efficiency and reduce emissions. Regardless of the outcome of the CPP, AEP will continue its long-term commitment to serving our customers in cost effective and environmentally responsible ways.

Carbon Emissions

AEP's CO_2 emissions significantly decreased between 2015 and 2016, largely due to coal unit retirements; other factors included low natural gas prices, increased use of renewables and slowing load growth. AEP's CO_2 emissions were approximately 102 million metric tons in 2015 and approximately 93 million metric tons in 2016. This represents approximately a 9 percent decrease compared with 2015 and an approximate 44 percent reduction compared with our 2000 CO_2 emissions of about 167 million metric tons. In 2017, we estimate our CO_2 emissions will be further reduced to 56 percent below 2000 levels. This reduction includes the effects of the sale of coal and natural gas assets in early 2017.



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Our resource plans do include more renewables and natural gas-fueled generation based on the expected costs, irrespective of the CPP. With the extension of federal production and investment tax credits for wind and solar, and continued price declines for renewable technologies, it makes more economic sense for our customers and lowers our carbon profile to include these resources.

AEP also reports annually to the Carbon Disclosure Project. This information is shared with investor groups, shareholders, government agencies and other public organizations. These responses provide a valuable insight into how the company assesses and manages what many consider to be important business risks.

We are often asked about third-party assurance of our emissions data. We comply with a legally-binding, rigorous verification process that we believe is sufficient. Sulfur dioxide (SO_2), nitrogen oxide (NO_x), mercury and carbon dioxide (CO_2) emissions data is collected by emissions monitoring systems at each plant that are certified by regulators in accordance with U.S. Environmental Protection Agency (EPA) standards.

These systems are also subject to quality assurance and quality control procedures as specified by the EPA. The quality-assurance tests for monitoring systems include daily calibration tests, quarterly assessments of data trends, and periodic relative accuracy test audits that compare the monitored values to actual stack testing data. A responsible corporate official must certify the accuracy of all required monitoring data submitted to the EPA and state regulators.

Carbon Profile Analysis

With the shift to a clean energy economy well underway, investors and owners of carbon-intensive assets (such as coal-fueled power plants) are keenly aware of the potential financial risks associated with those assets. More and more, investors – especially those who incorporate environment, social and governance (ESG) risk into their analyses – are asking owners and operators about risk mitigation strategies. Some of our own investors and other interested stakeholders have been asking these questions of AEP.

In response, we are reporting on our risk exposure and risk mitigation strategies and engaging in dialogue, which aligns with our commitment to transparency. In 2016, we engaged with 13 asset or portfolio managers for AEP investors (largely pension funds) specifically on these issues. Our discussions were frank and transparent. In addition to carbon risk, they asked us about our plans for renewable energy, technology development and adoption, and resiliency of the grid. We expect this type of engagement to continue.

In 2017, we anticipate that 47 percent of AEP's generating capacity will come from coal, compared with a recent high of 70 percent in 2005. In addition, we expect 27 percent of generating capacity will be fueled by natural gas.

AEP's exposure to carbon regulation is already greatly reduced compared with five years ago. Between 2011 and mid-2016, AEP retired more than 7,200 megawatts (MW) of coal-fueled generating capacity. These retirements were driven by a number of factors, including environmental regulations. Between 2000 and 2016, AEP's CO2 emissions have declined 44 percent. This is due to a combination of plant retirements, low natural gas prices that caused coal units to operate less frequently, the addition of renewable generation and reduced wholesale generation sales.

In early 2017, AEP completed the sale of four fossil-fueled plants, totaling approximately 5,200 MW, to a newly formed joint venture of Blackstone and ArcLight Capital Partners LLC. The sale will further decrease AEP's carbon exposure going forward. AEP's long-term strategy is to become a fully regulated, premier energy company focused on investment in infrastructure and energy innovations that customers want and need. Reshaping our generation portfolio to include more renewable energy over time is part of this strategy.

AEP's investments in transmission also interconnect about 10,000 MW of renewable resources across the U.S. AEP's renewable portfolio includes approximately 3,200 MW of wind and solar today, and by 2030, our current resource plans include up to another 2,400 MW of solar, 4,900 MW of wind and 2,100 MW of natural gas. Actual additions of these resources will be determined by regulators, who must approve them.

The potential financial impact of legacy fossil units being retired sooner than the end of their anticipated useful life is a topic of discussion with some stakeholders. The typical pricing structure that regulators establish for cost recovery of generating stations is based on the useful life of the plant and is depreciated over time. During the life of the units, regulators allow us to collect the investment from customers over time.

Where appropriate, we are working with state utility commissions to match the recovery of existing and new plant investments with the remaining useful life of the units. This strategy increases the likelihood of full cost recovery if the units are retired and recognizes the long-term uncertainty of coal generation in our fleet.

Several of the units retired in 2015 and 2016 were taken out of service before the end of their useful lives. Some investors expressed concern about the financial impact of this to AEP. As of December 31, 2016, the remaining net book value of retired coal units in our regulated jurisdictions that have yet to receive regulatory approval for cost recovery was approximately $334 million. As additional regulated coal units are retired, we will seek recovery of the remaining net book values of those units. For our competitive generation business, the net book value of these retired plants is zero.

Additional opportunities associated with reducing carbon include investments to refuel or repower coal units with natural gas or the construction of new combined-cycle natural gas units. AEP also refueled units at its Big Sandy and Clinch River plants to comply with Mercury Air Toxic Standards (MATS). AEP has no plans to build new coal plants and is carefully scrutinizing all investments in our existing coal fleet.

Recent debate and calls for divestment in companies that have coal in their fuel portfolios or derive revenues from coal-related activities (i.e., electricity generation) is not constructive and is harmful to investors. There is a major transformation under way in the electric utility industry that is expanding resource diversity and should be appropriately considered in the debate. Increasing clean energy resources and carefully managing additional investments in our fossil fleet will protect AEP's assets and deliver ongoing benefits to shareholders and customers.

AEP's Carbon Asset Analysis

- **Risk Factors – policies, regulations, technologies, markets, etc.**
  - Carbon regulation - CO2 emissions reductions in energy sector; the uncertainty over the Clean Power Plan's future and whether new regulation will take its place.
  - Lack of commercially-viable technology to directly reduce carbon emissions, such as carbon capture and storage (CCS).
  - Depressed coal market caused by low natural gas prices and cost-competitiveness of renewables and other technologies.
  - Lower resource diversity and reliability and greater price volatility due to further coal and nuclear plant retirements.
- **Exposure to operators of carbon-intensive assets and financial exposure to lenders and investors.**
  - If carbon regulation or legislation is implemented, it is unclear how it would be implemented or the impact

it would have on existing fossil units.

- Lack of technology (such as CCS) could limit the viability of traditional coal generation stations in the long term, should emission limitations require additional significant reductions.
- During 2016, our coal producers' financial conditions have improved but there have been some closures of smaller mining operations due to depressed coal market prices. Our regulated coal supply continues to have exposure in both price and availability, especially with Central Appalachian coal.
- Market conditions and tax policies could continue to drive reliance on gas-fired units and renewables, further eroding diversity of generating resources and exposing customers to price volatility and outages.

- **Analysis – How is carbon risk being evaluated?**
  - AEP has been planning for carbon regulation possibilities through the inclusion of a carbon price in its integrated resource planning process for many years. As the fate of the Clean Power Plan or other regulations that may be implemented emerge, AEP will reassess its carbon price and related planning processes.
  - AEP continues to monitor commercial viability of carbon capture and storage (CCS) and other emerging technologies.
  - AEP continually assesses coal market fundamentals to examine both supply and demand.
  - AEP is working with market participants and regulators to mitigate risks.

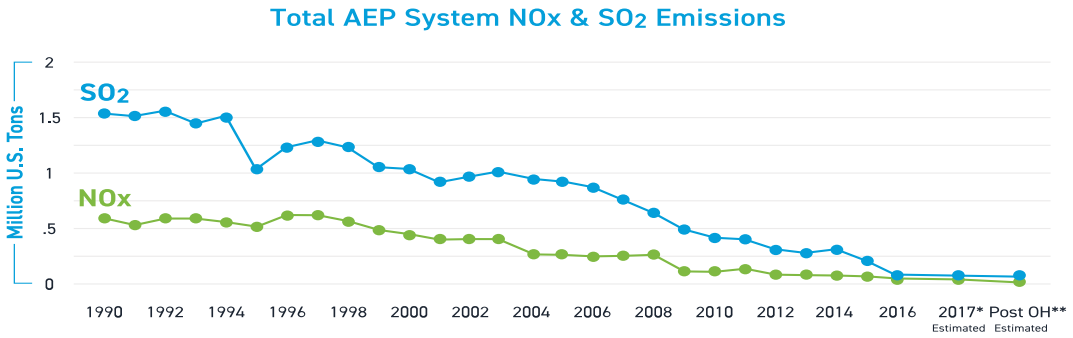
- **Management Approach**
  - AEP is focusing its investments on shifting to non-emitting generation, such as universal-scale renewables, and has retired approximately 25 percent of its coal generating fleet through the end of 2016.
  - AEP took an active role in advancing CCS technology through research and development several years ago and has reduced potential exposure through coal unit retirements and asset diversification.
  - AEP actively manages its coal procurement process to ensure a diverse, reliable supply of coal is available at a reasonable cost.
  - Capital expenditures have moved substantially from environmental investments to investments in infrastructure, including transmission, and other customer-focused technologies.
  - Existing fossil plants play a vital role in providing reliable, 24/7 capacity and energy to the power grid. We will continue to responsibly operate these plants to deliver value to our customers and communities.
  - AEP does not foresee construction of new coal plants in the U.S.

Emissions

AEP has made significant long-term investments in environmental controls to reduce air emissions from its power plants. Between 2000 and 2017, AEP invested approximately $8.7 billion in environmental controls, primarily related to the Clean Air Act, that have significantly reduced emissions. From 2001 and including projections through 2017, AEP expects its emissions of mercury will be reduced by approximately 8,300 pounds, a reduction of

approximately 87percent. Since 1990 and including projections through 2017, AEP expects its emissions of sulfur dioxide (SO2) and nitrogen oxide (NOx) will be reduced by approximately 1,460,000 tons and 560,000 tons, respectively, a reduction of approximately 94 percent and 89 percent, respectively.

Mercury emissions information is reported to the EPA under the Toxics Release Inventory program.



* Reflects the sale of generation assets in early 2017.

** Post Ohio represents the potential disposition of Cardinal, Conesville, Stuart and Zimmer plants.

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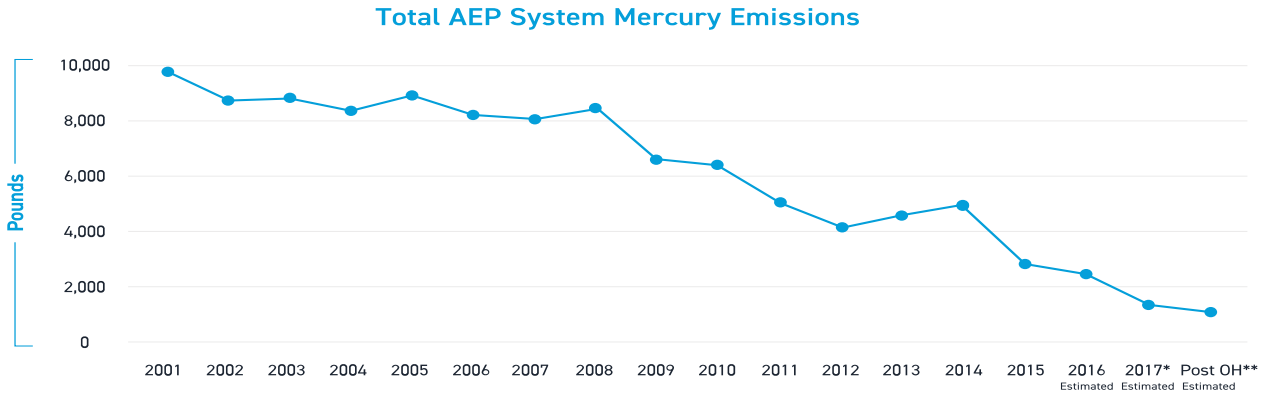

* Reflects the sale of generation assets in early 2017.

** Post Ohio represents the potential disposition of Cardinal, Conesville, Stuart and Zimmer plants.

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Compliance Performance

Our facilities are subject to environmental regulatory and permitting requirements for which we must demonstrate compliance. Our goal is zero enforcement actions. 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 to their satisfaction. If enforcement actions are initiated, we work with the regulatory agency to resolve those actions and identify and implement any corrective measures that may be needed to mitigate future risks by preventing recurrences.

One of many voluntary actions we take to help drive continuous performance improvement is the use of an internal Environmental Performance Index for our generation business. The index

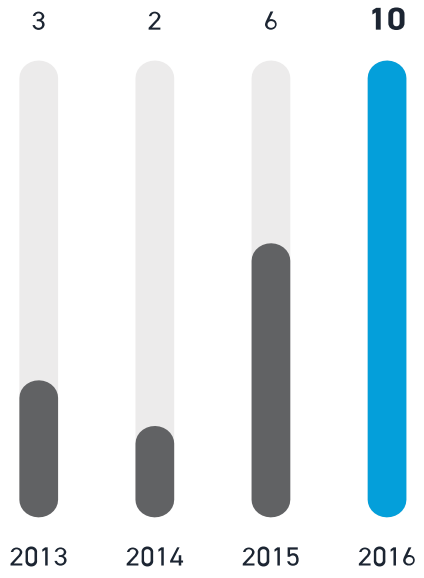
monitors incidents for opacity, water quality permits and oil and chemical spills at our power generation facilities. We recorded 10 incidents in 2016, compared with six in 2015.

We are not satisfied with this performance and know we can do better. In 2017, we will realign our Environmental Performance Index to promote improved performance.

Ensuring environmental compliance is a priority for every project we undertake. In our Transmission business, we developed a mandatory environmental compliance training program and provide support from environmental specialists to ensure full compliance with environmental permit requirements. This is important to us as we invest $9 billion during the next three years to build new or rebuild transmission lines and facilities across the country.

AEP Generation Environmental Performance Index

number of incidents per year



The Environmental Performance Index includes incidents for opacity, water quality permits and oil and chemical spills in our generation operations.

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 SO2 emission cap for AEP plants that becomes increasingly stringent through 2029. In 2017, the decree was modified again to accommodate the sale of the Gavin units. We report annually on our compliance with the consent decree requirements.

NSR Consent Decree Annual Report Archive (PDF)

- 2016 NSR Annual Report
- 2015 NSR Annual Report
- 2014 NSR Annual Report
- 2013 NSR Annual Report
- 2012 NSR Annual Report
- 2011 NSR Annual Report
- 2010 NSR Annual Report
- 2009 NSR Annual Report
- 2008 NSR Annual Report

Checks and Balances

We use our environmental, safety and health management system to improve our environmental performance and to measure, track and report our progress. By applying the principles of the ISO 14001 standard to managing environmental performance, we enable a cycle of continuous improvement that helps diminish the risk of compliance incidents.

One way we check our compliance is through internal audits. Audits provide additional focus on controlling risks and providing assurance that robust compliance processes are developed and implemented system-wide. In 2016, we conducted internal audits of environmental programs at 22 locations.

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 with regulators to amend permits as we move through the decommissioning process.

Environmental Regulations

The increasing scope and stringency of environmental regulations pose technical, operational and financial challenges 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 for new generation projects across our industry.

AEP's active participation in development of new 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 make the required capital investment and to our customers, who will ultimately pay for the implementation of compliance strategies while expecting reliable electric service.

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 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 proper storage and disposal of these materials. These minimum requirements were designed to be self-implementing because the EPA lacked statutory authority to establish state permit programs.

On Dec. 16, 2016, bipartisan legislation was signed into law by President Obama, after passing both houses of Congress. The legislation provides a framework for states to develop and the EPA to approve permitting or other pre-approval programs for CCR facilities. State administration and enforcement and federal oversight can provide greater certainty and consistency in the implementation of these new requirements.

Since the rule became final, AEP put several programs in place to ensure compliance and established a new leadership role to oversee these efforts. AEP's inspection and 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 basins. Currently, AEP has responsibility for several CCR ponds or pond complexes that are impacted under this rule. We have additional ponds exempt from this rule because they are located at power plants we retired in 2015, before the new federal rule went into effect. These ponds still will be regulated and ultimately closed, but under existing state programs. We have posted closure plans for all basins covered by the CCR Rule on our website.

John Amos Plant Ash Pond Closure

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.

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. AEP has a formal ash basin inspection program based on federal dam safety guidelines and applicable state dam safety regulations. We inspect all of our facilities based on requirements in the rule; in some cases, this includes groundwater monitoring systems. Annual engineering inspection reports and fugitive dust control plans

for all of our coal-fueled power plants, as well as the notifications of closures, 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 concluded with support for these beneficial uses. Currently, approximately 33 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 minimizing our environmental impacts by reducing the need for waste disposal sites.

In 2016, AEP generated approximately 8.7 million tons of CCRs and was able to beneficially use more than 2.8 million tons, or 33 percent of the total. Beneficial use of CCRs (considered to be products if they are beneficially used), avoided approximately $33 million in disposal costs in 2016 and generated more than $7.9 million in revenues.

For a complete regulations update, please see AEP's Form 10K under Environmental Issues.

2016 AEP Total System Coal Combustion Products (CCP) Utilization Summary

Total CCR Produced (tons)	**8,660,027**
CCP Donated (tons)	**28,529**
CCP Used Internally (tons)	**1,520,516**
CCP Sold (tons)	**1,317,040**
CCP Utilized (tons)	**2,866,085**
Total CCP Avoided Cost	**$33,427,297**
Total CCP Revenues	**$7,979,571**
Total Value	**$41,406,868**
Percent Total Utilization Based on Total Production	**33%**

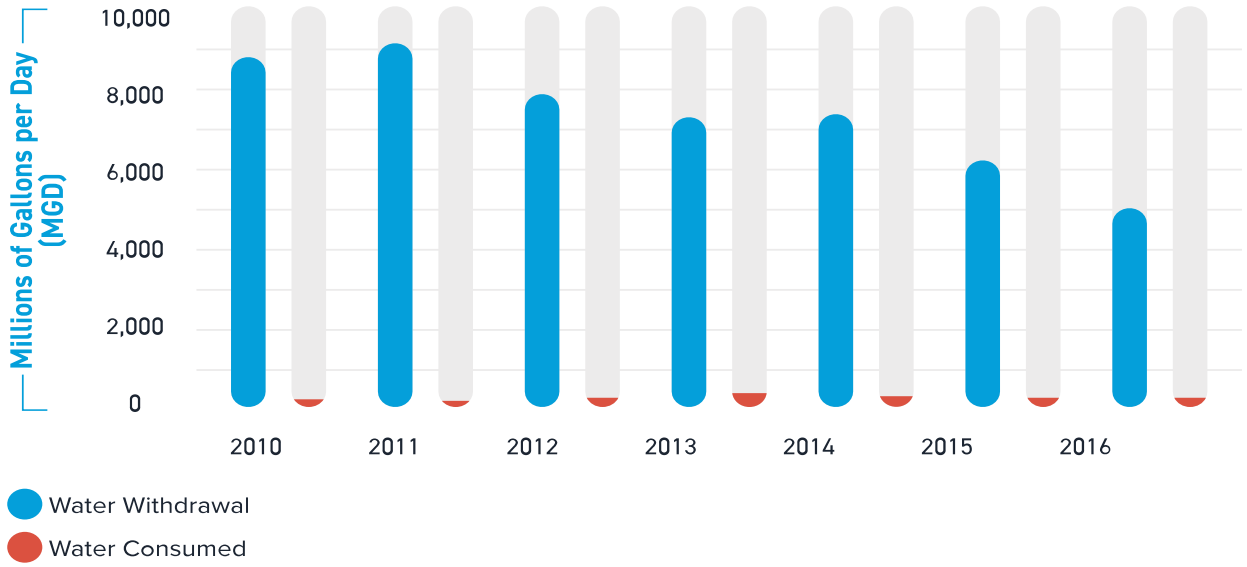
Includes fly ash, bottom ash, boiler slag, FGD material and gypsum.

Managing Water

Water is a critical input in the production of electricity. It is used in power plants to create steam, which is used to turn the turbines and generators that create electricity. It is also used for cooling purposes, as well as to transport bottom ash and, in some cases, fly ash. Water is also the source of hydroelectric power and provides transportation for our captive barge fleet, which operates on several rivers.

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. Plant retirements and sales during 2015 and 2016 have significantly reduced AEP's water footprint with a net water use reduction of more than 2,400 million gallons/day (MGD), which represents a reduction of nearly 33 percent when compared with 2014 water withdrawals. We are also participating in industry research to find new ways to treat wastewater and reduce the use and consumption of water by power plants.

AEP's Water Withdrawal & Consumption



AEP places a high value on reporting our usage and management of water throughout our system. One way we do this is through

voluntary reporting efforts. We participate annually in the Carbon Disclosure Project Water Survey. The 2016 questionnaire was issued on behalf of 643 investors representing $67 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 Electric Power Research Institute (EPRI) Benchmarking Reports.

Water Quality Improvements

Under the authority of the Clean Water Act, the Environmental Protection Agency (EPA) establishes wastewater discharge limits for new and existing steam electric power plants (coal, oil, gas and nuclear). On Nov. 3, 2015, the agency published revised steam electric power generating effluent guidelines in the Federal Register and set stricter performance standards that must be achieved at AEP coal-fired steam electric generating facilities. These requirements can be accessed on the EPA's website.

The guidelines require 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 wet scrubber wastewater treatment systems. Upgrades and the installation of additional wastewater treatment systems will be required at most of AEP's active coal-fueled facilities.

The limits are implemented through each facility's National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit, which is typically renewed on a five-year basis. AEP is in the process of evaluating many new technologies that can efficiently treat wastewaters to reduce the release of pollutants, and AEP is developing site-specific plans to achieve the new limits. The EPA recently granted a petition for reconsideration of certain requirements and issued an administrative stay of future compliance deadlines. AEP will work with the agency in its review of these regulations and provide updated information gathered during its evaluations.

Waste and Chemical Management

We manage many types of waste that result from the process of generating 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 36 years but are present in some of our older transformers and other pieces of electric equipment. We removed and recycled approximately 51,000 pieces of electrical equipment in 2016.

The U.S. Environmental Protection Agency (EPA) is developing a proposed draft rule that would require the phaseout of certain PCB-containing equipment, potentially including equipment containing 50 parts per million (ppm) of PCB's or greater. AEP operates hundreds of thousands of pieces of electrical equipment that could be affected by the draft rule. Current regulations require that if you do not know the PCB content of certain types of equipment, you must assume that they contain 50 ppm of PCBs or greater. Due to the types, locations and quantities of the potentially affected equipment throughout the AEP system, the expense of identifying, sampling and potentially replacing all of this equipment, if required, would be significant.

We had 1,290 transmission and distribution equipment oil spills in 2016, slightly less than the number of spills in 2015. Only one of the spills contained greater than 500 ppm PCBs in 2016. Most spills are caused by severe weather and public vehicle accidents that damage the equipment.

During 2016, the waste we recycled included approximately 333,000 gallons of oil, 245,000 pounds of paper and mixed office waste, 55 million pounds of scrap metal, 36,000 pounds of light bulbs, 348,000 pounds of batteries and more than 38,000 pounds of electronic equipment, such as computers and phones, preventing disposal in landfills. 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, which generates more than 2,000 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 offsite solution will not exist before the operating licenses for both Cook units expire two decades from now.

In 2012, the Cook Plant began a program of loading spent nuclear fuel into dry casks (32 spent nuclear fuel assemblies contained within each dry cask). 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 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 2035 for Unit 1 and 2038 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 2016, the trust fund balance for the Cook Plant was approximately $1.9 billion.

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Natural Resources

It is challenging to practice environmental stewardship while providing electricity at affordable rates. AEP is meeting this challenge in several ways. For example, efforts are under way to implement vegetation management practices on our transmission rights-of-way (ROW) and steam electric sites to support wildlife, while at the same time, meeting all North American Electric Reliability Corporation requirements and other regulatory requirements.

A collaborative research project is being developed with the Dawes Arboretum in Newark, Ohio, to assess the feasibility of economically incorporating native plants and pollinator habitat into right-of-way (ROW) sites through prairie establishment. Study plots will be established with native and non-native vegetation and monitored for erosion control, drought resistance, tree inhibition and wildlife promotion. In addition, a 10-acre demonstration site is being developed near our new transmission office in New Albany, Ohio, and will feature North American Electric Reliability Corporate (NERC)-compatible vegetation that is supportive of pollinators, birds, turkey, deer and other wildlife.

We are also establishing many acres of wildlife habitat during ash pond closures at the Big Sandy Plant in Louisa, Ky. This project involves securing the existing coal ash in place with a protective liner and then covering with soil and vegetation. The vegetation "cap" will encompass approximately 150 acres and will include different seed mixes based on location, function and topography. Similar work has been done at our Flint Creek Plant in Arkansas. The seed mixes include both native and pollinator species that are more resistant to drought. Although these seed mixes are more expensive, the vast acreage involved and the associated positive environmental benefits far outweigh the cost.

A 10-acre demonstration site is being developed near our new transmission office in New Albany, Ohio, and will feature NERC-compatible vegetation.

Protected Species

Three major federal laws protect native North American plants and animals: the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act. The ESA provides federal protection for more than 1,300 species while the MBTA provides federal protection for more than 1,000 native bird species. The U.S. Fish and Wildlife Service (FWS) is the primary federal agency responsible for implementing and enforcing these laws as they pertain to AEP. Violations of these laws can result in severe penalties, both civil and criminal.

As we build new and maintain existing infrastructure across our service territory, such as transmission or renewable generation facilities, we are mindful of potential impacts we might have to protected species, and we take the necessary regulatory and voluntary steps to ensure their protection. For example, AEP has voluntarily developed, and is implementing, an Avian Protection Plan to minimize and mitigate potential impacts to raptors and eagles. AEP has also developed, or is in the process of developing, Habitat Conservation Plans (HCPs) to protect species such as the American burying beetle and the Indiana bat while

still moving projects forward in a lawful manner.

For example, AEP obtained a project specific “incidental take” permit for the beetle from the FWS Albuquerque regional office based on a low-effect HCP. This was one of the first low-effect HCPs considered by that office. We continue to develop programmatic HCPs for these species that would cover multiple projects over a multiyear period. AEP is committed to working with the FWS and other wildlife agencies on conservation and habitat preservation to minimize and mitigate potential impacts to protected species. AEP provides information about how we manage these and other issues through our participation in business and environmental disclosure surveys, such as the Global Reporting Initiative.

Conservation and Stewardship

We continue to seek opportunities to integrate conservation measures into our management approach to rights-of-way (ROW) for new and rebuilt transmission lines. This involves addressing key ecological concerns while maintaining reliable transmission service. Working with the Wildlife Habitat Council (WHC), we developed a range of conservation options for ROW land management. This “toolkit” gives AEP options to incorporate environmentally beneficial conservation practices into our ROW management efforts that are economical and protect reliability as we rebuild old lines and construct new ones.

AEP has a long history of partnering with the WHC on a variety of projects, primarily involving our power plants. Southwestern Electric Power Company’s Flint Creek Power Plant received a 2015 Pollinator Advocate Award from the WHC. Pollinators include bees, birds, bats and other insects and animals that spread pollen so that plant fertilization can occur. Flint Creek employees support annual Earth Day events during which 4-H Clubs and other community members plant host and nectar plants for pollinators. A local Boy Scout troop also installed birdhouses for wood ducks, bluebirds and flycatchers. Flint Creek has held certification under the Corporate Lands for Learning program since 2004 and under WHC’s Wildlife at Work program since 2002. The two programs are being combined into WHC’s new Conservation Certification, and Flint Creek will be certified from 2016 through 2018.

Flint Creek Power Plant received a 2015 Pollinator Advocate Award from the Wildlife Habitat Council for their efforts towards pollinator conservation.

In an effort to enhance how we track AEP’s environmental stewardship work, we developed a web-based tool to collect information about all of the important environmental work done by AEP’s Generation and Transmission organizations. Activities we are tracking include the protection of high biodiversity areas, which include areas that are recognized for important features or are a priority for conservation, such as wilderness protection areas, national and state parks, and species management areas, or for endangered species protection. We also track whether our actions were mandated by regulation or were voluntary.

Required projects include wetland or stream mitigations as part of a U.S. Army Corps of Engineers permit or Federal Energy Regulatory Commission (FERC) requirement, endangered species protection during dredging or transmission siting, or the establishment of conservation easements for habitat protection. Voluntary activities are those that 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.

One 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; however, in this case, AEP proposed a pilot project to test the feasibility of substituting the prescribed mix with a pollinator mix. 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.

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.

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AEP's Avian Protection Plan

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.
- **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.