



TOGETHER, OUR ENERGY AND FUTURE ARE TRULY BOUNDLESS

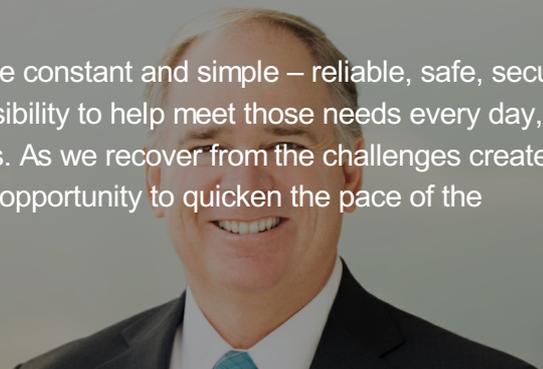
At AEP, we never have been more certain of our responsibility to a sustainable future for our customers, communities and employees. We will continue to take steps to reduce our carbon footprint, to empower customers and to value and develop our workforce. Together, our energy and future are truly boundless.



A MESSAGE FROM THE CHAIRMAN

“At AEP, we know the basic needs of our customers are constant and simple – reliable, safe, secure and affordable electricity. We take to heart our responsibility to help meet those needs every day, regardless of what is happening in the world around us. As we recover from the challenges created by the COVID-19 pandemic, we have an extraordinary opportunity to quicken the pace of the country’s transition to a clean energy economy.”

[Learn more](#)





RESPONDING TO COVID-19

The COVID-19 pandemic has had a profound impact on AEP, our employees, customers and communities. We are taking proactive and necessary measures to address the pandemic.

[Learn more](#)



CLEAN ENERGY FUTURE

AEP's transition to a clean energy future is well underway. From diversifying our resource portfolio to modernizing the grid, we are at the forefront of this transformation.

[Learn more](#)



ESG DATA CENTER

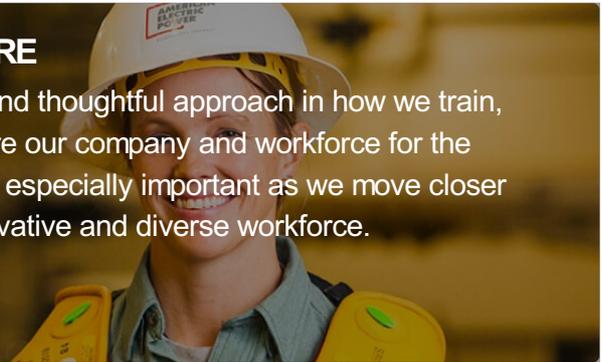
AEP's ESG Data Center reflects our commitment to transparency by proactively sharing data and information about our sustainability goals, strategy and ESG performance.

[Learn more](#)

DEVELOPING A WORKFORCE FOR THE FUTURE

Transformational change requires a more progressive and thoughtful approach in how we train, develop and retain our employees. Our goal is to prepare our company and workforce for the skillsets needed to align with our future strategy. This is especially important as we move closer toward a digital future that requires a more flexible, innovative and diverse workforce.

[Learn more](#)



Dear Friends and Colleagues,

At AEP, we never stop moving forward. Energy is an essential service that is life-sustaining and crucial to our nation's health and economic well-being. Our vision for a sustainable energy future is unwavering, and we believe it is more important than ever. We are witness to unprecedented challenges due to the COVID-19 pandemic. Every person, every business and every community across the globe is affected in some way. The availability of safe, reliable electric service has been essential to sustaining our communities during this time. The ability to shelter in place, to stay connected with one another, to work remotely and safely in the comfort of our homes, to educate students in virtual classrooms and to simply entertain us by providing a distraction to the challenging news of the day have all been enabled by the electric system.

This pandemic has reaffirmed the value of electricity in every facet of our lives. At AEP, we never have been more certain of our responsibility to a sustainable energy future for our customers, communities and employees. We will continue to take steps to reduce our carbon footprint, to empower customers and to value and develop our workforce. Together, our energy and future are truly boundless.



2020 Message from the Chairman brochure



Nicholas K. Akins, Chairman, President & Chief Executive Officer

The 2019 Coronavirus Disease Pandemic: A Storm Like No Other

When the COVID-19 pandemic reached the U.S., AEP's emergency and business continuity plans were already activated and preparations underway. Our industry is one of the most prepared to manage crises; we respond to many types of emergencies, and one of our greatest strengths is our ability to mobilize and adapt quickly to changing circumstances. The pandemic is a historic storm larger and more impactful than any we have seen, but we were prepared. Our primary responsibilities are to keep our employees safe and the lights on for our customers. These commitments are not new; they represent our core values. As this situation unfolds in the months to come, these will always remain our priorities.

The public health crisis has amplified the role the electric power grid plays as a social safety net. In anticipation of the predicted economic downturn and concern for our customers' ability to pay for basic needs, support their employees or maintain their businesses, AEP voluntarily suspended customer disconnections for nonpayment. In addition, the American Electric Power Foundation committed to donating \$3 million in emergency funds to support basic human needs and help address the hardships faced by customers and communities. We also donated approximately 9,000 N95 masks and 110,000 gloves to help protect healthcare workers at facilities in the states we serve. In addition, our Charge digital hub converted one of its labs to build 1,200 3-D printed transparent protective face shields for healthcare workers on the frontline. We also trained and dedicated a team of call center representatives to help small business owners apply for federal programs and to make payment arrangements as they recover.

The service we provide is essential. Our ability to provide uninterrupted service during this crisis required that we minimize the disruption to our normal workday while maintaining the health and safety of our employees as our top priority. Our dedicated employees understand the critical nature of the service we provide, and we are taking significant steps to keep them and their families healthy while ensuring continued service to our customers. For example, we are following the prevention measures recommended by the U.S. Centers for Disease Control and Prevention (CDC) for employees critical to maintaining service. In addition, approximately 12,000 employees who could work remotely did so to help prevent the spread of disease. In addition, we developed comprehensive pay and leave programs to support our employees in the event of personal or family illness or the need to provide care to dependents whose traditional forms of routine care were interrupted. We successfully worked with federal, state and local government agencies to designate our essential employees as critical responders, allowing them to travel when necessary to keep the lights on and have access to pandemic child and adult care services. We are also working with our equipment suppliers and support industries essential to our business so they can continue operating.

While the final chapter of this crisis is yet to be written, I am immensely proud of the response and professionalism of AEP's entire team and their dedication to our customers. The power grid is one of the most critical infrastructures

supporting the nation's response to the pandemic, and it will be even more important during our country's recovery. We are ready to lead the way forward.

Zero Harm

Achieving zero harm means every employee returns home at the end of their shift in the same or better condition than when they came to work. Zero Harm is what we value most and commit to wholeheartedly. It is hard work, as it requires full focus every moment of every day. We hold ourselves accountable and we are always striving to be better. For us, Zero Harm is not an option; it is a mandate we live by.

Despite our efforts, I am deeply saddened to report that in 2019 we lost an employee on the job when road erosion on the side of a hill caused his truck to roll over. This is a profound loss for his family, friends, and co-workers and for all of AEP. It is unacceptable, and we are reminding our employees of the importance to take time to pause to ensure that every job they do is clear and safe, before they begin.

Now in the fourth year of our Zero Harm transformation, we have put tools, training and processes in place to strengthen our safety-first culture and mindset. Our focus is on learning from events and developing leading indicators to be even more proactive in preventing harm.

We still have more work to do to keep our employees, contractors and the public safe, and we will be relentless in our Zero Harm mission. Our employees are proving it is achievable across AEP, and we are learning from them as we move forward.

Clean Energy Future

Our vision for a clean energy future is clearer than ever. We are taking actions, setting aggressive goals, investing in large-scale renewable energy and deploying new technologies to help accelerate the transition to a clean energy economy. During this time of rebuilding, we have an unprecedented opportunity to lead the nation forward with a clean electric power grid that delivers secure, reliable energy as well as economic and health benefits. We see the grid as the enabler of our future. In fact, the electric utility industry is no longer the largest carbon emitter; the transportation sector is now larger. AEP believes we not only can make a difference within our own operations but also be a catalyst for carbon reductions in other sectors of the economy, including transportation.

AEP alone cannot make the magnitude of change needed. We need partners, advocates and collaborators to change public policies, advance technology development and deployment, and help our customers and communities through the transition. We have experience building and nurturing strong, trusting relationships with our many stakeholders, positioning AEP to be a convener of change – a role that is natural for us and one we are ready to lead.

At AEP, we have already made excellent progress in reducing our own carbon footprint. Through 2019, we have achieved a carbon emissions reduction of 65%, from a 2000 baseline. We have set aggressive goals for 2030 and 2050 that we review annually and adjust as needed, which we did in 2019. In 2020, we are undertaking a climate scenario analysis to understand the risks and opportunities to our business from climate change. We expect to publish our findings later this year.



We continue making significant investments in renewable energy, inside and outside of our traditional regulated service territory.

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territory. Within our footprint, our integrated resource plans call for the addition of more than 8,000 MW of wind and solar between 2020 and 2030. This includes 1,485 MW from our proposed North Central Wind Energy Facilities project in Oklahoma. Pending regulatory approval, this project would deliver clean energy and lower bills to customers in Oklahoma, Louisiana, Arkansas and Texas. In addition, our plans would add 1,607 MW of natural gas.

In our competitive business, AEP Renewables invested \$1.4 billion in contracted renewables in 2019, bringing the total of clean energy projects in its portfolio to 13 across 11 states. Our acquisition of the wind assets of Sempra Renewables in 2019 was critical in helping us grow this arm of our business.

As we continue to reduce our carbon profile, we see many opportunities for the electric power grid to enable other sectors of the economy to follow suit. Electrification facilitates a quicker path to achieving carbon reduction goals. AEP is supporting public policies and working with technology and research partners, customers and other stakeholders to understand the implications of large-scale electrification as we transition to a digital economy.

AEP Ohio's \$10 million fund to support charging infrastructure for electric vehicles (EVs) is nearly fully subscribed – less than a year after this Smart City initiative was launched. We are encouraged by West Virginia's expansion of energy efficiency programs to include beneficial electrification and Oklahoma's extension of a state tax credit for alternative fuel vehicles. These are important steps towards electrifying our economy and achieving climate goals. We already see the impact this could have in major cities in the U.S. and around the world where the reduction in conventional vehicles on the road during the pandemic has resulted in substantially cleaner air. Think of what we could achieve with wide-scale adoption of EVs that could unite the objectives of clean mobility, vigorous commerce and healthier communities.

AEP is participating in industry-wide research programs, including as a founding member of a five-year Low Carbon Resource Initiative with the Electric Power Research Institute and Gas Technology Institute. Technology plays a critical role in achieving a clean energy economy and these types of initiatives help our entire industry move forward.

Operational Excellence, Financial Responsibility

Our commitment to operational excellence provides a strong foundation for growth. We understand that one operational error has the potential to negatively affect the safety and reliability of our service, as well as our reputation and brand. Our focus on continuous improvement ensures that we are efficiently keeping pace with customer expectations and new technologies that benefit customers.

I am confident we have the agility, commitment and strong foundation to get through this. AEP has a long history of consistent dividends, earnings and fiscal stewardship. Our capital investment strategy targets projects that deliver the most value to our customers while strengthening the resilience and reliability of the grid. That focus will not change. In 2019, we launched a program called Achieving Excellence to evaluate and develop recommendations to reduce our expenses across the company. While this effort is not yet complete, our employees submitted thousands of ideas to help us become more efficient, optimize operations, and provide additional services and value to our customers. This work is critical to our future and will have immediate impacts as we weather this storm.

The challenges we face from this COVID-19 pandemic will certainly test our collective resiliency. We are concerned about the business and social impacts as we resume disconnections for nonpayment. In light of the pandemic, our voluntary suspension was the right thing to do, but it was not permanent. We are developing plans and working with our industry and regulators to manage this in the most fair and thoughtful way possible. Our business continuity and emergency plans prepare us for keeping the lights on during a crisis, as well as ensuring our own financial stability as we meet our obligation to serve. Our response is consistent with our commitments to clean energy, resiliency and the reliability of the grid that serves and protects our customers. We came into this crisis with a solid foundation of fiscal responsibility, strategic investment and a deep commitment to our customers and investors. We have much work to do to manage through the pandemic crisis, but we are confident we will emerge stronger and more nimble than ever.

Securing the Grid

Protecting the electric power grid from cyber and physical attacks is a high priority for our industry. As our economy

becomes digital and more connected, the greater the threat becomes. New technologies and apps, as well as our growing reliance on cloud-based programs, are among the many risks to the system. In terms of cybersecurity protections, the electric utility industry is one of the most regulated. The North American Electric Reliability Corporation (NERC) develops and enforces Reliability Standards such as the Critical Infrastructure Protection (CIP) regulations that constantly change to adapt to new threats from malicious hackers or nation-states.

We invest in protecting the grid, participate in drills to test our systems, and work with the federal government and other partners to anticipate and respond as effectively as possible. AEP is also a member of the Electricity Subsector Coordinating Council, which is the principal liaison between the federal government and our industry. Our most important partner in protecting the grid is our workforce. Our employees' role is that much more critical as bad actors try to take advantage of the pandemic crisis.

In addition, AEP has a rigorous cyber and physical security governance structure in place that includes an Enterprise Security Advisory Council. Regular oversight of our efforts also comes from the Audit Committee of the Board of Directors, with an annual review by the full Board.

Our Workforce & Culture

A combination of changing customer expectations, technology advancement and an aging workforce demographic are leading AEP to reimagine work and how we do that work. This includes reviewing the skills our workforce needs now and well into the future. The pandemic taught us that we should also be looking more thoughtfully at where we do the work, as thousands of our employees have quickly pivoted to work remotely and have stayed highly productive in the process.

We are collaborating with academic, business and government partners to create the talent pool we will need for the future. In Ohio, Columbus State Community College created the Office of Talent Strategy in 2019 to build a talent pipeline for high-demand jobs in cybersecurity, data analytics and cloud technologies. With an expected shortage of skilled labor, which is so critical to our industry, we have two Line Mechanic Apprentice training programs that are registered with the Department of Labor. Eligible veterans may apply their GI Bill benefits while in the program as they seek to obtain their journeyman status. We are also tapping into our retirees to help us fill temporary gaps as we transition our business, such as we did at the Conesville Plant in Ohio, where many returned to staff the plant until its retirement. Our Credits CountSM STEM education program continues to flourish as we encourage young people to embrace STEM-related career choices. We want to be on the leading edge of preparing our employees while developing our future workforce, especially because we expect as many as 4,500 employees will leave or retire in the next few years.



AEP is reimagining how we do work. This includes reviewing the skills our workforce needs now and well into the future.

Our culture reflects the heart and soul of AEP. I am very proud that AEP has been recognized by Gallup with its Exceptional Workplace Award, a testament to our collective efforts to create a great place to work every day. AEP is one of 38 companies receiving this recognition and one of two utilities on the list. While we have more work to do to keep our culture thriving, we are making significant progress. Our employees show their commitment every day by staying engaged. Our culture survey includes indices for accountability, inclusiveness and supervisor effectiveness – all of which showed marked improvement in 2019. AEP's culture of Zero Harm continues to be our biggest strength. These are excellent results, and we are committed to continuously getting better.

We are leveraging and increasing the diversity of our workforce because it is smart business practice. Diversity and inclusion have the capacity to foster innovation, creativity, resilience and increased profitability. A diverse workforce is a valuable asset that requires careful nurturing and intentional focus to unleash its potential. We have accomplished quite a bit in the past few years, but we still have a long road ahead. We formed a Diversity & Inclusion (D&I) Advisory Council, conducted an enterprise-wide listening tour, launched an inclusive leadership education and awareness initiative,

implemented a multicultural holiday, and hosted a D&I Town Hall for employees. Our newest initiative is “State of Diversity” discussions with leaders, to help us continue moving in a positive direction.

Caring for Customers & Communities

Everything we do, we do with the customer experience and the communities we serve in mind. Beyond basic electricity delivery, customers want more personalization, greater choices and advanced innovation. They want more digitally enabled products and services closely linked to their energy needs, along with others that are more lifestyle connected, such as home energy management and an online marketplace. Customer expectations are high and evolving: They want us to be available 24/7 across multiple communication channels to help them solve their issues, including providing reliable information when outages occur. We want to be their first choice for providing comprehensive solutions and to be their trusted resource for technology, sustainability, electrification and economic development.

We are making significant investments to enhance our relationship with customers, empowering them with information, choices, convenience and technology. We are meeting them in their channels of choice and asking them how we can do better. Our interactions with customers in social media are having a positive impact on customer sentiment and customer experience with AEP. In addition, we are continuously enhancing our mobile apps to put more decision-useful information in their hands.

As we sharpen our focus on delivering new technologies and custom energy solutions for our customers, we have named a new senior vice president and chief information & technology officer. Therace Risch has extensive experience in fast-moving customer-focused industries with a record of accomplishment of driving change and using technology to evolve legacy business models. This new leadership position will enable us to coordinate resources and strategy to support innovation and technology, information technology, telecommunications and our digital innovation hub – all of which are fundamental to our success.



Building strong, vibrant and sustainable communities requires innovation, investment and collaboration among state, regional and local business partners.

The strength and vitality of our communities are integral to creating a bright future for all. We are seeking new ways to leverage the capabilities of our network to improve quality of life in the communities we serve. One exciting new opportunity is a pilot to expand access to high-speed broadband to underserved parts of rural Virginia. Other states also are exploring the opportunity to expand broadband access. The availability of high-speed broadband in remote areas provides social benefits through direct entry to health care, jobs and education. It also enables innovation, expansion, and e-commerce – all of which will be vital to small business recovery following the pandemic.

Building resilient, vibrant communities takes a village of partners. At AEP, we have pledged to pursue economic development aggressively to help our states diversify their economies; attract new businesses, people, and jobs; improve mobility; and support education. We provide training to local economic development officials and offer a Qualified Sites Program that helps communities attract new business. We are proud of our support for our Appalachian communities that were the hardest hit during the decline of the coal industry. Working with our regional partners, we created Appalachian Sky – an initiative to attract the aerospace and aviation industry to our service territory. Through this work, more than 30 counties are now certified as AEROready™. In addition, central Ohio has become a choice location for large-scale data center development because of AEP’s commitment to ensuring adequate grid capacity and clean energy resources. In Texas, a new, \$1.8 billion steel mill will soon begin construction, creating approximately 600 new jobs when operational.

The road ahead in the wake of the pandemic is going to present a myriad of economic and community challenges for many, making it more important than ever that we move forward together.

Strong Governance

The success of our transition to a clean energy future requires new skills, a diverse workforce and forward-thinking leaders to mitigate risks and cultivate new opportunities. As we prepare our workforce, we are also expanding upon the expertise and diversity of our Board of Directors.

In 2019, Art Garcia, retired executive vice president and chief financial officer of Ryder, was appointed to AEP's Board. Art brings significant strategic and financial expertise to our Board, including experience developing and executing corporate growth strategies.

Margaret McCarthy, former executive vice president of technology integration at CVS Health Corp., also joined the Board in 2019. Meg brings experience and leadership in the highly regulated and competitive insurance and healthcare industries, particularly in the areas of cybersecurity and information technology. She is also a Navy veteran.

Meg's election brings to four the number of women serving on our Board. This distinction earned AEP recognition by 2020 Women on Boards as a Winning "W" Company for the third consecutive year. The additions of Meg and Art strengthen the experience and expertise of our Board in important growth areas for AEP.

In 2020, longtime Board member Lionel Nowell III decided not to seek another term. I will personally miss Lionel's leadership, his extensive knowledge in strategy development and execution, and his corporate finance experience. Most importantly, he is a friend to AEP and myself, and we are deeply grateful for his service.

A Promising and Bright Future

At AEP, we know the basic needs of our customers are constant and simple – reliable, safe, secure and affordable electricity. We take to heart our responsibility to help meet those needs every day, regardless of what is happening in the world around us. As we recover from the challenges created by the pandemic, we have an extraordinary opportunity to quicken the pace of the country's transition to a clean energy economy.

I believe this is the moment to advance electrification for social good. AEP can be a catalyst for change through advanced digitization and automation, driving efficiencies in transportation, and leveraging our utility assets to enable greater access and connectivity through high-speed broadband. We share the vision for a clean energy economy with our stakeholders, including public policymakers, technology providers, customer groups, NGOs, investors of all types, our community partners and many others. We believe we are uniquely qualified to be the convening authority to advance these objectives because this is not new to us. Rather, we engage and collaborate every day with stakeholders to advance energy-related policies that enable a clean and brighter energy future.

Our vision for the future is clear and we are executing our strategy to achieve our goals. Let us work together to electrify the transportation and industrial sectors; expand high-speed broadband; create new opportunities for small business growth and access to basic needs; deploy advanced technologies, giving customers more control and choices; and enhance the use of information and data to protect and manage the most critical infrastructure in this country – the electric power grid. As we do this, we can accelerate decarbonization efforts across all sectors of our economy.

Our employees have repeatedly proven their dedication to our customers, in good times and in crisis. We are profoundly grateful for their hard work to keep our operations running smoothly and the power on for our customers during this pandemic. I am proud of their commitment to our communities and to each other. Our culture and focus on financial and operational excellence provide a strong foundation to move us forward as we work together to redefine the future of energy and develop innovative solutions to power communities and improve lives.

Sincerely,



Nicholas K. Akins

AEP'S STRATEGY FOR THE FUTURE

At AEP, our path forward is clear and our strategy is unchanged. We are as committed as ever to operational excellence, financial discipline, innovation and technology, and being nimble as we adapt to a changing world. The global COVID-19 pandemic, a once-in-a-lifetime event, dramatically changed our lives, severely impacted the economy and strained our communities. As we pivoted to adapt, the electric power grid became a lifeline for those working from home; students who finished the school year online; and the front-line workers caring for the sick, stocking grocery store shelves, and delivering mail and packages to our homes. Our strategy and the investments we are making to modernize and enhance the resilience, security and efficiency of the grid are essential to serving societal needs and demonstrate the critical nature of the service we provide.

AEP's record of consistent earnings and dividend growth, a strong balance sheet and our continued focus on our customers and communities is essential to our mission. Before the onset of the pandemic, we had already taken steps to further reduce expenses and we are accelerating those plans as we work with customers hard-hit by the public health crisis to recover and reopen. We remain committed to delivering technology and digital solutions to customers; diversifying our resources to stay the course for a clean energy future; working with regulators to modernize the regulatory compact to keep pace with changing customer needs; and preparing for the future of work through workforce development while building a talent pipeline for the future. At the same time, we continue to reduce our carbon footprint and deliver excellent environmental performance, remove risk from our business and deliver the value that our customers and shareholders expect.

The pandemic underscored the importance of nonfinancial risks that we also must weigh as we execute our strategy. For example, our priority to protect our employees from harm heightened as we pivoted to new ways of doing our work, expanded benefits for our frontline employees who are most at risk, and took measures to reduce the risk of exposure by providing protective equipment, sanitization of facilities and vehicles, and enabled thousands of our employees to work remotely.

Although the pandemic is causing a shift in the timing of \$500 million in capital spending from 2020 to future years, our overall strategy for investing \$33 billion through 2024 remains unchanged, with 78% dedicated to transmission and distribution projects. Our grid modernization capital investment strategy is important because it is creating the platform to expand distributed resources, enable efficient use of energy, allow two-way flows of power and communication, and support expanding electrification. The pandemic's profound changes on everyday life and business underscores this. We continue to expand our regulated and competitive renewable portfolios within and outside of our traditional service territory. This will grow further with the pending review and approval of our North Central Wind Facilities in Oklahoma.

Our strategy for a clean energy future is on course. We are building a modern grid that is scalable to support the demand for more electricity from electrification, such as electric vehicles, data centers and other future power needs. We have strategic collaborations with start-ups and other partners to explore and pilot an array of technologies so that we can accelerate our goal of being the digital, clean energy company of the future. The pandemic may have cast a shadow over the economy and recovery may take some time, but we are optimistic about our ability to balance and meet the needs of our customers, investors and communities as we continue to execute our strategy.

STRATEGIC VISION AND PRIORITIES

Invest in transmission and distribution networks

Invest in regulated and contracted renewables

Mitigate generation risk and optimize operations

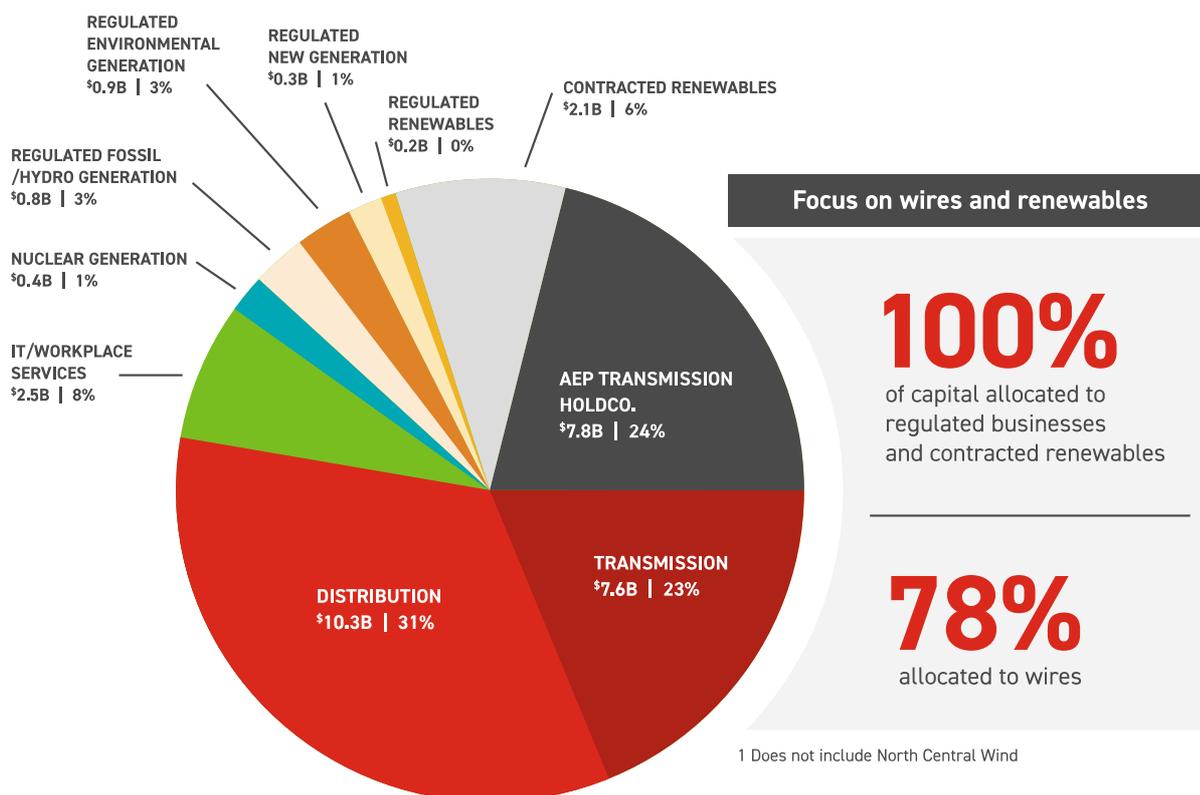
Superior capital allocation

Relentless O&M optimization/Future of work

Improve customer experience

We are focused on executing our strategy while concurrently improving our operations and keeping rates affordable

2020-2024 CAPITAL FORECAST¹



Strong Financial Performance in 2019

In 2019, AEP's strong earnings performance was driven by a robust economy, our continued focus on investing in our system to enhance services for our customers, the management of our costs and favorable weather throughout much of the year. AEP plans to continue to increase capital investments in its regulated operations over the next five years to provide more advanced, resilient and cleaner energy solutions for customers. We also committed to investing \$2.1 billion in contracted renewables over the next 5 years.

Our projected long-term operating earnings growth of 5% to 7% is predicated on our ability to continue efficiently investing capital to modernize the grid. We have numerous capital projects of varying sizes that are within our control to execute as we cost-effectively replace aging infrastructure and transform the grid to a platform of two-way flows of information and energy. Our fundamentals for growth are strong, giving us options about how we invest today and what we invest in for the future.

Maintaining a strong balance sheet and credit profile is a priority. We regularly monitor a variety of metrics that help us know when we will need to access the capital markets for funding to support our capital investment program, which, in turn, allows us to grow earnings and provide reliable service to our customers. The pandemic has challenged us but we are well-positioned thanks to the diversity of our service territory and our commitment to financial discipline.

We are proud that we have paid consecutive quarterly dividends to our shareholders since 1910. In 2019, AEP delivered a total shareholder return of 30.5%, exceeding a 27.5% total return for the S&P 500 Electric Utilities Index. In fact, from 2014 through 2019 we have provided a total shareholder return of more than 85%. This outperformed the broader S&P 500 Index total return of 74% and the 60% total return for the S&P 500 Electric Utilities Index.

Because we believe that every dollar counts, our focus remains on managing costs to optimize spending for the greatest impact on the customer experience and to deliver operational excellence. That includes continuing our transition to a clean energy future and ensuring that every customer has access to the resources and technologies the grid provides.

AEP EARNINGS & DIVIDEND DATA \$/per share

	2015	2016*	2017	2018	2019
Earnings Per Share (GAAP)	\$4.17	\$1.24	\$3.89	\$3.90	\$3.89
Operating Earnings Per Share	\$3.69	\$3.94	\$3.68	\$3.95	\$4.24
Cash Dividends Per Common Share	\$2.15	\$2.27	\$2.39	\$2.53	\$2.71

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

Achieving Excellence

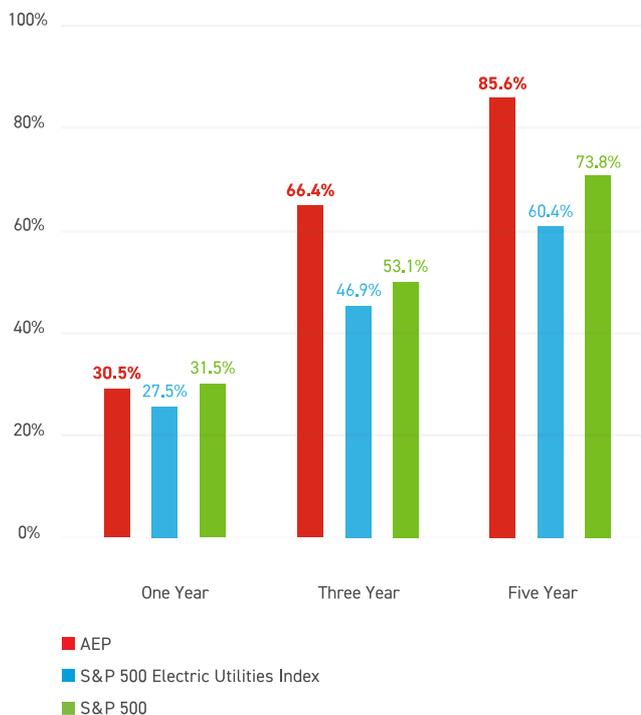
To be a leader, we must constantly check and adjust business practices and performance to maintain momentum. AEP has long been a responsible steward of its costs and expenses to mitigate the impact to customers and to enable more opportunities for growth. However, with the advent of new technologies, growing competition for customers, flat load growth, and a steady decline in population throughout our service territory over the past three decades, we are at an inflection point, and our response will influence our future path. The COVID-19 pandemic is also creating additional challenges we will work through.

In late 2019, we launched Achieving Excellence, a new disciplined cost optimization process, with a focus on O&M reduction and revenue growth, to improve our business. The purpose of the employee-led initiative is to identify and eliminate inefficiencies, adopt improved business practices and processes, and advance the creativity and innovation of the company. This program will constantly focus organizations on cost profile improvement to enhance existing budgeting processes and leverage the skills, knowledge and creativity of our employees to drive down costs. We are employing technology such as automation, digitization and data analytics, exploring outsourcing options, seeking process improvements, and conducting strategic workforce planning.

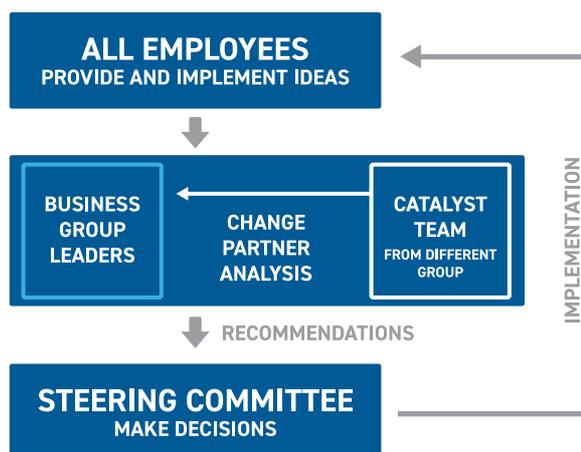
We received thousands of ideas from employees to improve efficiency, reduce costs and streamline operations. We are also incorporating added insight from operational changes that occurred as a result of the COVID-19 pandemic, such as work from home alternatives.

AEP will continue this process annually to ensure we continue to be focused on meeting financial and stakeholder expectations. Achieving Excellence will be integrated into the way we manage our business through alignment with our Breakthrough Objectives and driving our strategic goals.

2019 TOTAL SHAREHOLDER RETURN



ACHIEVING EXCELLENCE PROCESS OVERVIEW EMPLOYEE DRIVEN; EMPLOYEE OWNED



SUSTAINABILITY & ESG STRATEGY

Today, the demand for environmental, social and governance (ESG) disclosure is growing at an exponential pace, as the view of a company's non-financial performance has become as important as its financial health. From the cost of capital, credit scores and insurance rates to how shareholders vote, the state of corporate culture and the ability to attract and retain top talent, stakeholders want more transparency and engagement on ESG issues. There is no question the pandemic has further raised the stature of the "S" in ESG because of societal impacts and the role of corporations in sustaining our economic recovery.

Research has proven that companies with strong ESG performance realize short- and long-term value through enhanced growth, reduced costs, improved stakeholder relationships, increased employee satisfaction, and optimization of investment and capital expenditures. At AEP, we are integrating our sustainability practices and ESG initiatives into our corporate strategies and sharing our progress and goals with all of our stakeholders.

AEP's Corporate Sustainability Strategy focuses on engaging diverse stakeholders and proactively sharing our goals,

strategy, and progress, as well as integrating sustainability across the enterprise to drive shared value. In 2019, the fast-paced growth of ESG investing prompted an expanded and more granular focus on how we manage AEP's ESG performance and disclosure. We established a cross-functional ESG Team to monitor new and emerging ESG issues and develop strategies for responding to them. Because ESG performance is also a business risk, AEP added it to our risk summary report, and we are integrating it with our corporate strategy.

AEP's ESG Strategic Objectives

- Conduct a materiality assessment to focus our disclosure and inform engagement
- Proactively communicate AEP's ESG strategy
- Engage executives and the board on ESG initiatives
- Build a web-based ESG Data Center, to ensure full transparency

We continue to engage in industry efforts, such as the Edison Electric Institute (EEI) ESG/Sustainability Committee and the Electric Power Research Institute (EPRI) to influence standardized disclosure for the electric utility industry. We are mapping our disclosure to the Task Force for Climate-related Financial Disclosure (TCFD) and, in 2020, will map to the Sustainability Accounting Standards Board (SASB) framework.

SUSTAINABILITY/ESG GOVERNANCE

When stakeholders evaluate a company, one of the first things they look at is the strength of governance. How and where sustainability fits into the corporate structure can be revealing of where a company's priorities lie. At AEP, we have strong governance to support sustainability and ESG performance, ensuring alignment with corporate purpose and strategy. Our approach to transparency links tangibles (such as financial capital and physical assets) with intangibles (such as reputation, brand, customer loyalty, risk management, trust and credibility) to show bottom line results and 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. Strong governance ensures transparency, fairness and accountability, and it gives us a structured way to manage the challenges of a changing society. We are committed to strong governance practices that protect the long-term interests of our shareholders.

Our Board of Directors works closely with our executive team to ensure we continually meet or exceed the highest standards of performance, innovation, ethics and service. In addition, the Board receives educational presentations from outside experts.

Through AEP's Enterprise Sustainability Council (ESC) – 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. ESC members, who represent all aspects of AEP's business, serve as strategic ambassadors, providing guidance and support to ensure the success of AEP's sustainable development strategy. They do this by enabling cross-functional integration of sustainability across the enterprise and in corporate strategy. The ESC is also responsible for monitoring the progress of AEP's sustainability goals.

In addition to the ESC, the Committee on Directors and Corporate Governance of the Board of Directors reviews the Corporate Accountability Report annually and monitors AEP's ESG performance. The Committee provides feedback and develops the Board Statement supporting AEP's commitment to sustainable business development and performance accountability. The combined governance from the Board of Directors and the ESC helps us ensure our disclosure undergoes a disciplined review and validation process.

While these issues are discussed by the Board of Directors throughout the year, we report to the Committee on our sustainability-related activities at least twice per year. In addition, the Lead Director of AEP's Board of Directors conducts an annual outreach with our largest shareholders to engage with investors on important ESG matters.

[Learn more about AEP's Corporate Governance](#) and see our report titled: [American Electric Power: Strategic Vision for a Clean Energy Future](#) for climate risk information.

MATERIAL SUSTAINABILITY ISSUES

Materiality matters when disclosing performance. We cannot address every issue, nor should we. To most effectively manage our resources and focus on the material issues to our business and our stakeholders, we must focus on what is most relevant to our financial and nonfinancial success. That is what our stakeholders expect of us and how we are best able to respond to their needs and concerns.

AEP defines material issues as those that reflect our most relevant economic, environmental and social impacts and contributions because they can:

1. Have a significant impact on the company's finances and/or operations;
2. have or may have a significant impact on the environment or society now or in the future; and/or
3. substantially influence the assessments, decisions and actions of our stakeholders.

The evolution of corporate sustainability reporting has become more detailed and complex as stakeholders demand deeper levels of transparency. By staying true to this definition, we are able to focus on the most important ESG actions and issues. Our integrated reporting is one way we demonstrate the connections between financial and nonfinancial performance, as well as our commitment to transparency. AEP has been reporting in this way for more than a decade.

In 2020, our intent is to undertake a new materiality assessment. Led by our ESG committee, under the auspices of our Enterprise Sustainability Council, we will seek input from our internal and external stakeholders, use big data and artificial intelligence to help us identify and validate current and emerging issues, and prioritize those issues on which we should be focusing. This effort will provide critical input to the development of our corporate strategy and disclosure, as well as meet growing stakeholder expectations. The timing of this work may be affected by our focused [response to the COVID-19](#) pandemic.

In addition, we will participate in an industrywide priority issue assessment, led by the Electric Power Research Institute (EPRI). It will be the third such assessment at the industry level. EPRI's deep understanding of the utility industry coupled with the vast research through their Priority Assessment will provide AEP with broader perspectives and insights as we develop our own materiality assessment.

AEP's Priority Sustainability Issues

Sustainability Pillar	Issues
Environmental	Air Emissions Clean Energy Transition Energy Efficiency Energy Reliability and Resilience Environmental Performance Greenhouse Gas Emissions Sustainable Procurement Practices Waste Water
Social	Employee Safety and Health Engagement and Collaboration Job Satisfaction Public Safety and Health
Economic	Community Support and Economic Development Economic Viability of Electric Utilities Energy Reliability Energy Affordability Skilled Workforce Availability

STAKEHOLDER ENGAGEMENT

Listening to and engaging with stakeholders has long been a priority for AEP. It allows us to hear different perspectives we might not have considered, mitigate risks and identify opportunities, build stronger relationships, and arrive at consensus or shared motivation for meaningful outcomes.

When we engage our stakeholders about sustainable electricity, they ask us about reliability and affordability, energy efficiency, clean energy, distributed resources, and our investments to modernize the grid. The majority of our stakeholders ask if we are sufficiently prepared for the transition to a clean energy economy and how fast we will get there.

Strategic Priorities for Sustainable Engagement

Our Purpose:

Inspire and engage our stakeholders to co-create a sustainable energy future and make a positive difference.

Customers	Improve our ability to partner with sustainability-oriented customers to meet their needs, prevent disintermediation and promote regulatory and policy changes that support a cleaner energy future.
Employees	Engage and empower our people to lead the future of sustainability at AEP to attract and retain the best talent and succeed in our transformation journey.
Investors	Leverage sustainability to position AEP as an attractive investment, and prevent divestment.
NGOs	Strengthen NGO-AEP relationships and continue to raise awareness internally about NGO activities to capitalize on collaboration opportunities.
Communities	Strengthen our brand and stakeholder relationships locally to build support for infrastructure investments and new programs and services.
 Policymakers	Proactively engage policymakers to enable our clean energy strategy.

Customers

Customer focus has long been one of AEP's core values. Every time a customer interacts with us, directly or indirectly, it creates an experience. Our goal is to develop an exceptional experience, every time. By engaging our customers, we are able to identify energy solutions that save them money, enable efficient use of energy, and optimize the grid to meet their changing energy needs. This includes everything from giving customers good information when the power goes out and supporting their use of distributed resources, to delivering the clean energy they want for their homes and businesses.

We use both our regulated and competitive businesses to achieve this outcome. We bring our whole team to the table, recognizing that being flexible can mean the difference between a satisfied customer and a missed opportunity. This gives us greater flexibility to deliver on customer expectations.

In 2019, we completed work with the World Resources Institute's (WRI) Clean Power Council and the Edison Electric Institute (EEI) to develop a new industry-standard carbon and energy report for customers. Accessing their carbon data is important for customers because AEP is a big part of their Scope 2 emissions. The collaboration included utilities, large customers, EEI and WRI. Following a successful pilot, the report will be accessible for customers starting in 2020. This effort reflects the power of partnerships with our customers to deliver the types of solutions they want.

Communities

As we build new or rebuild older facilities on our system, we often impact the communities where that work is occurring. Whether it is a disruption caused by construction in a neighborhood or the need to restore habitat when the work is done, it is important that we remain open, honest and responsive about what we are doing.

In 2019, AEP logged more than 79,000 interactions with landowners and acquired more than 3,600 easements, using condemnation on less than 1% of these acquisitions. In 2020, we shifted one of our in-person open houses to online virtual meetings due to health concerns associated with COVID-19. The virtual open house is an online version of the community open house normally hosted by project teams. Landowners are able to learn about the project timeline, need, proposed structures and construction process through interactive maps and information boards. AEP also provides landowners with the opportunity to submit comments and discuss their property in detail.

We engage our communities in many other ways, including volunteerism. It is not unusual to find our employees coaching youth league teams, organizing food drives, or serving on local boards and commissions. Learn more in the Volunteerism section.



AEP engages stakeholders through proactive outreach to educate and gain support for the company's plans to address the needs of its transmission system.

In 2019, Sustainable Tulsa recognized Public Service of Oklahoma (PSO) as a Henry Bellmon Award recipient. The award distinguishes organizations committed to developing people, profit and planet – otherwise known as the “triple bottom line” – and rewards leadership and effectiveness in social, economic and environmental sustainability.

Investors

The universe of environmental, social and governance (ESG) ratings and rankings continued to expand in 2019, as did the demand for ESG-related information. Climate change, governance, social performance, risk and strategy continue to be the main issues. Many institutional investors issued clear intentions to consider ESG performance in their investment decisions, demonstrating the drive for more robust, consistent disclosure and engagement.

We continued our engagement with Climate Action 100+ in 2019 – focusing on climate change, governance, risk and strategy. In early 2020, the conversation expanded to include AEP's approach to a Just Transition and climate lobbying. Learn about AEP's efforts in the [Climate Change](#) and [Climate Lobbying](#) sections of this report.

In response to this growing interest from our investors, we have sharpened our focus in this area and responded to a dozen ESG investor-focused surveys in 2019. One challenge we must overcome is the lack of uniformity and consistency in ESG ratings and rankings, which often creates confusion and frustration for users of this data. We invest significant time reviewing and correcting data to ensure stakeholders get an accurate picture of AEP's ESG performance. We will continue to advocate for a universal, consistent approach to ESG disclosure and the ratings and rankings that accompany it.

In 2018, AEP published a clean energy report, which outlines our climate-related risk management process and climate governance, as well as related opportunities and challenges. We plan to update this report in 2020. In addition, AEP issues an annual EEI ESG/Sustainability investor report. Together, these disclosures provide a complete picture of how AEP is managing its transition to a clean energy/low carbon future, as well as setting new mid- and long-term goals for carbon emission reductions.

Non-Governmental Organizations

Among our key stakeholders are non-governmental organizations (NGOs), including environmental organizations. We engage with these groups in many different ways. Sometimes we meet in person to discuss specific topics. At other times they are intervenors in our regulatory proceedings. These groups are important stakeholders to AEP because they bring forward different perspectives and ideas, which are effectively used to test the validity of AEP's approach to managing its business.

We also look for opportunities to collaborate, such as our mutual support of advancing adoption of electric transportation. We believe strong relationships with NGOs create better partnerships to address issues that can influence or shape our business future. Through our commitment to transparency, engagement, candor and honesty, we have seen these relationships become increasingly complementary and collaborative.

Policymakers

In May 2019, AEP co-hosted the IllumiNation Energy Summit in partnership with The Ohio State University, Battelle Memorial Research Institute and Smart Columbus. The Summit sparked conversations with policymakers to reimagine the future of energy. Over 350 utility leaders, public utility commissioners, state legislators, startup companies, technology providers and other thought leaders attended the event, which featured a large-scale technology exhibit and thought-provoking panel discussions. The Summit recently was named Best Overall for Event Marketer's first-ever Hidden Gems Winners List—the best B-to-B events under 5,000 attendees.

The intent of the conference was to bring together policymakers, technology providers, and others to enable critical thinking regarding the advancement of the customer experience and the policy framework for execution.

REGULATORY AND PUBLIC POLICY

The energy industry is one of the most highly regulated sectors of the U.S. economy and is in the midst of a technology and innovation revolution. Advances in technology are creating opportunities for AEP to integrate and modernize the grid – making it smarter, more reliable and more resilient. With a smarter grid, our customers are empowered to actively engage in their energy experience – giving them more control over how and when they use energy.

To meet our customers' evolving expectations, we sometimes must reshape the regulatory compact. AEP's footprint includes 11 states with varying regulatory frameworks that are primarily governed by state legislatures who set policy goals, which result in regulations created by state regulatory commissions. These state legislative and regulatory environments work in conjunction with federal policies to define the parameters of AEP's business and planning models. They also affect a utility's business decisions related to making investments and influence how the utility is able to recover the costs of its investments.

Our priority is to maintain and operate a safe and reliable grid that is resilient and adaptive. Our generation, transmission and distribution system investments directly affect our customers and shareholders. These investments must coexist with regulation and policy considerations, such as environmental requirements and affordability. As our generation portfolio becomes more decentralized and the company transitions to more renewables and distributed energy resources, it is imperative that regulations evolve to meet the demands of today's emergent technologies and customer preferences. We must perform this transformation in a reliable and deliberate manner for our customers while managing the financial risk for our shareholders.

One approach includes identifying flexible or alternative ratemaking models that allow AEP to accelerate the conversion toward beneficial electrification and the company's transition to cleaner energy sources while also providing more timely cost recovery of investments. Alternative ratemaking models help balance different objectives to provide both incentives for cost savings and reinforce investments that provide value to customers and support policy objectives. These

alternative models can give utilities the ability to explore new and evolving technology solutions as they determine what delivers the best value for our customers today and in the future.

Our partnerships with regulators, private and public organizations and stakeholders are imperative to meeting customer demand for new, innovative solutions. We leverage our expertise and experience to educate regulators and key stakeholders about emerging technologies and associated issues.

Innovative Customer Offerings

- A Wind, Water and Sunlight (WWS) option in Virginia; WindChoice in Oklahoma; and the IM Green program in Indiana and Michigan, allow customers to purchase the environmental attributes from renewable energy sources.
- The North Central Wind Energy Facilities project will offer additional opportunities for Southwestern Electric Power Company (SWEPCO) and Public Service Company of Oklahoma (PSO) customers to purchase Renewable Energy Credits (RECs).
- I&M's EZ Bill for residential and small commercial customers offers a predetermined, fixed monthly charge for electric service. This makes budgeting and financial planning easier for many of our customers.
- PSO's Power Pay offers customers a voluntary prepaid billing option, giving them more control over when and how they pay for their electric service.
- Appalachian Power (APCo) offers a seasonal rate in West Virginia that applies to electricity sales above a specific threshold during winter months. As a result, customers with higher winter energy use – those with electric heating - will see relatively smaller bill increases during winter months than they otherwise would.
- Virginia, Indiana and Michigan are implementing demand tariffs and time-of-day rates, including electric vehicle (EV) charging rates. These rates offer customers lower-priced electricity when demand is low, encouraging EV charging best practices and improving grid reliability and performance.

Expanding Broadband

Broadband technology has proven to be critical to the economic development and well-being of rural America and underserved areas where coverage is lacking. It helps communities improve their capabilities for growth by enhancing workforce-training opportunities. It also enhances the communities' ability to attract large-scale business investments, such as data centers and hospitals. It is also essential for the development of a modernized and integrated grid. We are exploring new options for the dual use of fiber for grid modernization and enabling Internet Service Providers (ISPs) to make the final connection to areas that lack broadband coverage. We are advocating legislation in many of our states that would specifically authorize us to invest in "middle mile" fiber infrastructure that we could then lease to ISPs for the purpose of their broadband service expansion.

In March 2019, Virginia lawmakers took steps to address the geographic disparities in broadband coverage in their state. Lawmakers approved House Bill 2691, giving the state's two largest electric utilities – including APCo – the green light to pilot "middle mile" broadband projects. This infrastructure connects the networks and core routers on the internet to local service providers and consumers directly. Importantly, the bill allows the companies to recover the cost of the pilot from ratepayers. The final connection, called the "last mile," would be the responsibility of third-party ISPs. On March 5, 2020, we received approval from the Virginia State Corporation Commission to proceed with the Grayson Broadband Pilot – a six-year program to install approximately 238 miles of fiber optic cable at a cost of at least \$17 million.

In West Virginia, with the Broadband Enhancement Council's support, we have proposed pilot projects to expand broadband access to 31,000 unserved or underserved customers in Mingo and Logan counties. In Ohio, we are working to update the law to allow electric utilities to act as broadband facilitators – a role that would allow us to work with ISPs to

provide middle mile fiber to expand broadband offerings to rural areas. We expect Ohio to review a comprehensive broadband package in 2020. We are also working with legislators and regulators in other states to gauge interest, explore options and support additional initiatives, such as Kentucky's KentuckyWired Program, which will expand access to technology and its benefits.

In addition to delivering modern-day technology to unserved or underserved areas, expanding broadband is a potential new business opportunity for AEP. Providing the means to extend high-speed internet to these areas also creates new opportunities for home-based work and helps to power economic stability for customers and communities.

Public Policy & Issue Management

Similar to other companies, AEP has a public policy strategy that seeks to inform decisions made by Congress, the Federal Energy Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC), state legislatures and regulatory commissions, and Regional Transmission Organizations (RTOs).

AEP's Policy Advisory Team (PAT), consisting of senior executives across all business functions and departments, considers policy options on issues of relevance to the company and supports internal policy analysis and debate. This approach ensures that AEP is speaking with one voice and that all employees with external contacts are clear on our policy positions and objectives. Since its inception in May 2017, the PAT has reviewed more than two dozen issues, including 13 in 2019.

Climate & Lobbying

Some stakeholders are asking AEP whether our lobbying practices and the policy positions taken by trade organizations to which we belong are in alignment with the Paris Climate Agreement. We believe in transparency and active participation in public policy development, regardless of the issue or position. Moreover, AEP is a respected and sought-after voice when it comes to energy policy-related matters in the U.S.

We report on our public policy positions, [annual lobbying and political contributions](#), [policy on political contributions](#) and trade association memberships. We post our [political engagement policy](#) online and have consistently acknowledged our intent to participate actively in the political process and in lobbying activities at the national, state and local levels. At AEP, we must consider a number of factors when engaging in this arena, as public policy develops through negotiation and compromise. While many divergent issues are of importance to us, we cannot invest all of our efforts to focus on a single issue. We are obligated to deliver safe, reliable, affordable and secure electricity to all of our customers, and we develop our public policy positions with that in mind.

There are times, however, when the gap between outside organizations' advocacy and what we believe to be in the best interests of our customers, employees and shareholders causes us to leave those organizations.

Because climate change issues are intertwined with so many other issues, we need to be open to considering all sides and compromising, if appropriate, to arrive at the best overall solutions for all involved. Being part of the dialogue is important to us, because this is how we can ensure our ability to influence and engage on issues that are important to AEP, our customers and our stakeholders.



AEP's Political Engagement Policy



AEP's Anti-Corruption Policy

LOBBYING BY THE NUMBERS



\$642,600
corporate
political
contributions

\$1.6 million
total lobbying or
political portion
of Trade Association
Dues/Payments

\$7.4 million internal & external lobbying expenses

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ETHICS AND COMPLIANCE

At AEP, we are committed to health, safety, financial, operational and environmental compliance while holding ourselves to a high standard of ethical conduct – always doing what is right.

AEP's [Principles of Business Conduct](#) places responsibility for acting legally and ethically with every individual – from the Board of Directors and management to employees at all levels. We want employees to speak up, ask questions and report potential violations without fear of retaliation. We promote our Ethics Program in tandem with our Culture Journey, driving a culture that supports the interests of both employees and AEP by maintaining a vigilant approach to practicing compliance and acting with integrity. We will continue to build a reputation of trust by holding people accountable and taking appropriate actions when necessary.

In 2019, AEP's *Principles of Business Conduct* training received a Silver Award from the Brandon Hall Excellence in Learning program in the Best Advance in Compliance Training category for our compliance training program. This award recognizes superior programs that are intended to meet a compliance business objective.



AEP's Political Engagement Policy



AEP's Anti-Corruption Policy

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AEP Business Ethics Policies:

- Principles of Business Conduct
- AEP's Whistleblower Protection Policy
- AEP's Employee Handbook
- Conflicts of Interest
- Bribes and Kickbacks
- Gifts and Entertainment
- Anti-Fraud
- PII Data Privacy Protection Policy
- No-Conduit Rule
- Security Information Classification Standards
- Appropriate Use of Company Assets
- Prohibition Against Pornography and Offensive Material Policy
- Social Media Policy
- Insider Trading Policy
- Policy Development & Maintenance Policy
- Policy Against Retaliation

- Records Retention Manual
- Antitrust

The Committee on Directors and Corporate Governance of the Board oversees AEP's Corporate Compliance Program and receives regular reports from the Chief Compliance Officer. All AEP employees are able to report concerns anonymously or to seek guidance on ethical, safety or compliance matters through a confidential, 24/7 hotline. In 2019, there were a total of 281 Concerns Line Calls, a decrease of 3% from the previous year.

Beginning in 2019, we require all employees to complete an annual conflict of interest training and disclosure survey. This process of soliciting potential conflicts of interest is centralized and documented electronically, allowing our Ethics & Compliance department to review and clear (or flag) conflicts as needed. We share learnings with employees and managers to encourage and set clear expectations for ethical behavior.

In 2019, we launched a new Sexual Harassment Prevention Workshop, "The Power of Respect," and began training supervisors across AEP. This training ties into our safety culture of "See Something, Say Something, Do Something" to go beyond compliance and understand what it means to work in a harassment-free workplace. In addition to the interactive, peer-facilitated training, we provide supervisors with a toolkit to encourage workplace culture discussions. By the end of 2020, all supervisors will attend a workshop, and we will begin training all employees.

Companywide Required Training:

- FERC Affiliate Restrictions
- FERC Standards of Conduct
- *Principles of Business Conduct*
- Conflicts of Interest

ENTERPRISE SECURITY

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

AEP evaluates cyber and physical security risks using our risk management process, providing a more comprehensive approach to understanding and managing these risks in relation to other enterprise risks. It also enables decision-making based on the level of acceptable risk, as well as our priorities and resources.

The harsh reality of the digital world is that our infrastructure is under constant threat from cyber and physical attacks. Third-party products and services create new and growing risk to the power grid, prompting new regulations to protect it. As the threats become more sophisticated and far-reaching, it is a constant challenge to achieve the right level of risk management. AEP's comprehensive security strategy – known as "Defense in Depth" – assumes a broader range of possibilities, such as physical theft, unauthorized access to data, and incidental threats that do not specifically target protected systems or assets.



AEP's Defense in Depth approach to cyber and physical security allows us to deal with threats in real time. These strategies include monitoring, alerting and emergency response; employee education; forensic analysis; disaster recovery; and criminal activity reporting.

AEP's comprehensive security strategy – known as "Defense in Depth" – assumes a broader range of possibilities, such as physical theft, unauthorized access to data, and incidental threats that do not specifically target protected systems or assets.

Cyber & Physical Security

Businesses need to grow and innovate, which includes adopting new technologies, developing new and improved products and services for customers, and finding new revenue streams, channels and ways of creating value. Often, this involves digitalization and automation, opening the door to new threats and security risks to the electric power grid.

In addition, new mobile apps and services that we develop or purchase for customer use, along with our own increasing reliance on cloud-based programs, increases external connectivity to our network. This creates new entry points for potential attackers and poses new challenges for grid security. Our security access program monitors and manages these connections while providing controlled access that allows us to get our work done. We consider and test possible ways attackers could breach our systems. It is not a matter of whether it will occur but when. Our strategy includes preparation for recovery if a breach occurs, through policies, procedures and technology, as well as through educating our workforce about the growing threat.



AEP learns from and takes actions based on real-world events. Our Defense in Depth approach to cyber and physical security allows us to deal with threats in real time. These strategies include proactive threat intelligence, monitoring, alerting and emergency response; employee education; forensic analysis; disaster recovery; and criminal activity reporting. Through rapid notification and response when attacks and disasters are underway, we can reduce the impacts of cyberattacks and avoid or mitigate the damage before experiencing the full impact of the threat.

Our mission is to protect AEP's assets and information, enable the business to work securely and efficiently, and educate employees and contractors about their responsibility to keep AEP secure.

Every two years, we test our operational response to potential power grid vulnerabilities or emergencies through GridEx exercises developed by the North American Electric Reliability Corporation (NERC). These exercises allow AEP to practice and prepare our response to potential emergency scenarios in a controlled environment. This ensures we have the proper policies and procedures in place should an event occur. Through this controlled exercise, we can see how our policies and procedures are helping us respond to various events ranging from cyber and physical attacks to loss of our situational awareness tools.

In 2019, GridEx V tested operational response to multiple crises, including power outages, cyber-attacks on grid control systems, and physical attacks on infrastructure. AEP was one of more than 425 organizations from across the electric power industry and federal and state government agencies that participated in the drill.

In 2019, AEP employed a new scanning technology to check for vulnerability across a wider range of assets. This new tool allows us to scan both our Information Technology and Operational Technology, giving us greater insight into new areas of the network that may be vulnerable to a cyberattack. This reduces risks that could potentially jeopardize the security and reliability of data, the grid and our operating and control systems. It also improves our capability for monitoring, mitigating and alerting new risks of vendor-supplied equipment, operating systems and software connected to the internet.

Cloud computing has created new opportunities for AEP, and as we expand and rely upon these capabilities, we must mitigate the corresponding cybersecurity risks. We have aligned closely with AEP's Information Technology Cloud Center of Excellence to establish a proactive approach to address security risks associated with the cloud. Our Cloud Security Focus group leads our efforts to establish a strategy for various forms of cloud computing consistent with the Cloud Security Alliance (CSA) framework to develop a security roadmap.

AEP continues to be a leader in cyber security through participating in – and leading – industry and regulator-hosted discussions. Our collaboration with the National Governors Association (NGA) allows us to improve our coordination with government in responding to natural disasters and to physical and cyber risks or attacks. We are participating in workshops for states and the National Guard due to their pivotal role in disaster response. We also partner with private sector companies and government agencies to secure the grid.

Drones have great potential to improve efficiency and safety but can also pose physical and cyber risk. AEP's Drone Governance Team develops consistent processes and policies for drone usage. We are currently in the process of acquiring a new drone management software program to assist in tracking our inventory, training, maintenance and pilot data. We now require all newly purchased drones to be approved by the Chief Security Officer after review by the Cyber Security Team.

Cyber Security Governance

The cyber and physical security of the bulk electric system (BES) is highly regulated by the federal government through the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) Reliability Standards. We are routinely audited for compliance with federal standards in both cyber and physical security. In addition, the Board of Directors and the Audit Committee review our cyber and physical security efforts.

AEP's NERC compliance governance structure was developed specifically to respond to the current compliance environment and provides the direction, agility and organizational support needed to implement an industry-leading NERC compliance program.

Learn more in the [NERC Compliance section](#).

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

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

Security Awareness & Training

Our most important partners in protecting AEP's cyber and physical security are our employees. AEP's Security Awareness program reduces risk by promoting security best practices and providing awareness education to our employees and contractors. The success of our program depends on constant communication and reinforcement. Our mission is to protect AEP's assets and information, enable the business to work securely and efficiently, and educate employees and contractors about their responsibility to keep AEP secure.

AEP's Security Training Efforts

- Training covers a wide variety of topics such as policies and standards, domestic violence, workplace aggression, personally identifiable information (PII), password protection and active shooter situations.
- All AEP employees and contractors are required to complete annual Security Awareness Training, which covers issues such as tailgating, access management, phishing and other areas that affect day-to-day security.
- New employees receive training to educate them on their role in protecting the grid as well as information about AEP's security standards and tips to stay safe online.
- We provide NERC CIP Cyber Security Training for employees and supervisors with NERC CIP access. We also provide training on AEP's NERC CIP Information Protection Program.

Learn more about our employee training for [workforce safety and security](#).

Insider Threat

Threats to the grid can also come from within. In response, AEP established an Insider Protection and Prevention Program (IP3). To ensure best practices, we use insights and recommendations from security experts to develop a risk-based approach that continually identifies, assesses and ultimately protects AEP's critical assets from insider threats. All employees, contractors and other business partners that have access to any critical assets including personnel, facilities, information, equipment, networks and systems, are included. A cross-functional executive team composed of Physical Security, Cyber Security, Human Resources, Business Ethics and Compliance, Legal, and Information Technology oversees the program.

One of our greatest threats comes from phishing attacks on our system. Phishing is a form of attack in which malicious emails seek to obtain sensitive information such as user names, passwords, credit card details and other corporate data. Cyber criminals know that humans are the weakest link when it comes to protecting corporate data, and are continuously creating more sophisticated phishing emails to exploit this weakness. In early 2020, AEP adopted a new Phishing Accountability policy to educate employees on how to better identify risky emails and to hold employees accountable for doing so. We test our employees' ability to detect malicious emails with periodic phishing simulations. Employees who fail a phishing simulation, receive further education and training. Continued failure to identify risky emails could also result in disciplinary action.

Supply Chain Security

Third-party risk is a major challenge to power utilities as malicious actors have targeted equipment, software and service vendors with an increasing number of attacks. Our Third-Party Risk Governance Committee consists of our Chief Security Officer, Chief Procurement Officer, Chief Risk Officer, Chief Information Officer and Legal. This committee reviews performance of our third-party risk program, provides guidance and approves changes to the program and assessment processes. All primary contracts must abide by our security requirements.

Following approval from the Federal Energy Regulatory Commission (FERC), NERC has expanded the CIP Reliability Standards to require utilities to develop a plan for managing cyber-related risks within their supply chain. The effective date of the new standards was delayed to October 2020 due to the pandemic. The new standards require utilities to rank vendors based on risk and verify the authenticity of software manufacturers and the integrity of that software.

AEP has joined Fortress Information Security in launching the Asset-to-Vendor Network (A2V) for Power Utilities, a joint venture to promote collaboration among electric companies and reduce the costs associated with cybersecurity regulatory compliance. This network collaborates to evaluate and clear vendors for utility work, augmenting AEP's existing evaluation process.

RESPONDING TO THE COVID-19 PANDEMIC

Like the rest of the world, the COVID-19 pandemic has had a profound impact on AEP, our employees, customers and communities. We are taking proactive and necessary measures to address the pandemic, keeping health and safety as our top priorities. We activated our emergency oversight structure and incident management teams in accordance with AEP's Infectious Disease Plan.

Due to the critical nature of the services we provide, AEP has business continuity and emergency preparedness plans in place to address all types of emergencies, including a pandemic. This allows our crisis response team to take immediate action when an emergency arises. During the COVID-19 pandemic, our teams are closely monitoring the situation to continuously educate and communicate with our employees, partners and customers about the impacts and threats of the virus. We are also collaborating with our peer companies, government experts and public health agencies to adjust our response, as the situation rapidly evolves.

We are taking significant steps to keep our employees healthy while ensuring our ability to serve our customers. This includes:

- Instructing all employees who were able to work from home to do so to help prevent the spread of the virus;
- requiring employees working within 6 feet of one another for prolonged periods to wear a face covering if social distancing cannot be maintained;
- self-monitoring for symptoms by employees and contractors who are critical to business operations;
- closing all AEP facilities to outside visitors; and
- curtailing all non-essential travel and participation in face-to-face meetings.

Our line workers and other employees critical to maintaining service and deemed Essential Critical Infrastructure Workers by the U.S. Department of Homeland Security have been directed to work in smaller teams, adjust work schedules, practice social distancing, monitor themselves for any symptoms and take other preventative measures recommended by the Centers for Disease Control and Prevention.



Charge refactored its 3D printers to produce 1,200 face shields during the COVID-19 pandemic.

In addition, as employees grappled with unprecedented challenges and personal demands arising from the COVID-19 pandemic, AEP worked to develop a comprehensive set of pay and leave programs to support employees across a wide range of situations. This was guided by a goal to protect and provide fair continuation of wages and benefits while limiting exposure risk to protect the health of employees and their families.

Being mindful of the financial hardships and concerns our customers may have been facing, we have temporarily suspended all service disconnections for non-payment. We urged customers to try to keep their accounts current, however, if a customer is having trouble paying their bill, they can contact us by phone or through one of our social media platforms to arrange payment options. We are also continually monitoring and working to heighten employee and customer awareness of scams and cyber security risks that are emerging during this pandemic.

During the pandemic, the American Electric Power Foundation committed to donating \$3 million in emergency relief funds to support basic human needs and help address the hardships faced by customers and communities. Grants were made to nonprofit organizations across the AEP service area. In addition, we donated approximately 9,000 N95 masks, 110,000 nitrile gloves and 1,200 plastic face shields to health care facilities in the states we serve.

We have dedicated internal and external websites to provide updates to our stakeholders as the situation progresses. This includes recommendations on actions to prevent virus transmission, guidance for employees who may have contracted or come into contact with someone with COVID-19 and resources for our customers, communities and business partners. AEP's Chairman, President and CEO, Nick Akins, communicated with employees through a series of video messages committing to ensuring employees have the proper support and resources needed during this unprecedented time.

ENTERPRISE RISK & RESILIENCY

AEP's Enterprise Risk & Resiliency team works with business units and operating companies to proactively identify, assess, mitigate and manage risks. The team, which is comprised of the Enterprise Risk Oversight (ERO), Crisis Response and Enterprise Business Continuity & Resiliency (EBCR) teams, helps AEP better understand the full picture of a risk and the disruptions it can cause.

ERO defines and oversees the consistent application of AEP's risk management process in conjunction with our business units and operating companies. Application of the risk management process helps us identify strategic, financial, operational and regulatory risks, assess the threats and controls, evaluate the risk, plan mitigation strategies, and monitor risks for changing conditions.

Risks are reported by business units or operating companies to ERO. The Chief Risk Officer reports a summary view of risks to the Risk Executive Committee, which consists of senior leaders, to illustrate risk ranking and remediation dates and, ultimately, gain consensus on an action plan. This summary is then discussed and reviewed by the Audit Committee

of the Board of Directors.

AEP's Crisis Response team is responsible for the ongoing development and maintenance of emergency response plans and the associated strategies and actions to address our response to an event. Well-planned and executed responses can reduce the impacts to AEP and to our customers, shareholders and communities we serve.

The EBCR team defines and oversees AEP's business continuity process and supports our business units and operating companies in planning and preparation. This support ensures our organization's critical business functions and core assets – our people, equipment, technology, facilities and vendors – can continue to operate in the event of an emergency or can recover to an operational status within a defined timeframe. Plans are developed and tested to continuously improve our ability to effectively respond and recover in the event of an emergency.



AEP's new 10,000-square-foot, state-of-the-art Tier 3 data center serves as the backup data center for disaster recovery.

The risk of a cyberattack is an example of a risk that could interrupt business operations and affect several of our core assets. In 2019, AEP strengthened its integrated cyber response plan, which defines various levels of an event and uses an Incident Command System (ICS) structure to outline roles and responsibilities for response personnel. The plan brings various business units from across the enterprise into a single, unified response and organizational reporting structure if a cyber-incident were to occur. We have conducted exercises through enterprise tabletop incident simulations to test the plan. The ICS structure is also used for other crisis events, including the coronavirus pandemic.

In 2020, AEP's 10,000-square-foot, state-of-the-art Tier 3 data center became fully functional. This data center serves as the backup data center for disaster recovery, ensuring flexibility and reliability for business-critical applications. It serves as a critical component to AEP's Cyber Security and Technology Reliability programs.

As we have seen through recent events in California, wildfires can represent a serious risk to the electric grid and surrounding areas. AEP has evaluated this risk, and while our exposure is significantly lower given the location of our service territory, we will continue to monitor it as part of our ongoing risk management process. In addition, AEP is participating in the new CEO-led task force launched by the Edison Electric Institute (EEI) to address the growing threat of wildfires to the power sector.

Data Privacy & Protection

AEP believes that strong data security and privacy protections, utilizing technology and internal policies and practices, are vital for effective and trusted interactions. To accomplish our objective, AEP is enhancing the protection of high-value data through improved data inventory practices, security protocols, data lifecycle management and leadership accountability. This aligns with AEP's multi-year Personally Identifiable Information (PII) protection program that lays the foundation for this new initiative.

AEP continues to drive down the volume of PII storage repositories, achieving a reduction of 9% in 2019. In mid-2019, AEP completed a two-year project to deploy a Personal Data Portal to better protect the PII of incoming contractors. By the end of 2019, the Portal protected over 16,500 individual pieces of PII during electronic transit and significantly reduced the risk of unauthorized access, inappropriate use and accidental data loss.

AEP continues to leverage its Enterprise Data Privacy Governance Committee to revise our customer data privacy policy, address third-party risk of sharing customer data with aligned business partners, and better coordinate data access and privacy-related activities across our multiple jurisdictions. The Committee also monitors and coordinates our response to the changing legislative and regulatory landscape regarding data access and consumer privacy at the local, state and federal levels. The most consequential data access and privacy proceedings in 2019 were at the federal level, as well as in Ohio, Michigan, Virginia and Arkansas. AEP believes it is our corporate responsibility to advocate for prudent policies related to customer data access and consumer privacy regarding access, use, misuse, disclosure and loss.

The customer data privacy policy revision will incorporate a clearer commitment to customer privacy and data protection, details about the types of data AEP collects from its customers and website visitors, and better transparency into how we

use customer data to provide electric power and related services. We remain committed to providing our customers with information about how customer data is collected, stored, protected, used and disclosed.

AEP recently engaged with a certified Capability Maturity Model Integration (CMMI) Institute Partner to facilitate a detailed analysis of its current data management practices against the Data Management Maturity (DMM)SM Model. The analysis provides precise measures and information about strengths and achievements, which can be leveraged. It also illustrates gaps, challenges and a number of specific improvements, as well as a roadmap for rapid acceleration of capabilities. The purpose is to improve and consolidate our data management practices so that we treat our data as an asset that supports our business operations appropriately and is “fit for business.” AEP is the first electric power company in the world to conduct a comprehensive evaluation of data management capabilities against the DMM, taking a leadership role in the industry.

A CLEAN ENERGY FUTURE

The transition to a clean energy future is well underway, and AEP is making good progress. From diversifying our resource portfolio, deploying technologies to mitigate risk, modernizing the grid and working with our industry peers to achieve a low- to no-carbon future, we are at the forefront of this transformation. Climate change remains a significant risk and opportunity for which we are preparing to ensure we can deliver the clean, safe, reliable and secure electricity our customers expect from us, now and in the future.

We continue to monitor a variety of increasingly significant issues, including climate change legislation, which might receive consideration in the U.S. House and Senate after the 2020 election.

We are engaging many different stakeholders to understand their concerns and address their questions about our plans. In 2020, we are conducting a deeper analysis of how climate-related risks and opportunities may play out under different scenarios, the potential impact they could have on our company, and the new business opportunities they may provide. We expect to publish our findings by the end of the year.

In 2019, we revised our carbon emission reduction goals because we had already achieved significant emission reductions ahead of schedule. Our new 2030 goal is to reduce CO₂ emissions by 70% from a 2000 baseline. Through 2019, we achieved a 65% reduction in carbon emissions from our 2000 baseline. Our progress has been quicker than expected primarily due to lower utilization of coal generation accelerated by falling energy prices caused by low natural gas prices and the growth of subsidized renewables with zero fuel cost. We expect our 2050 goal to exceed 80% reduction and achieve larger reductions – with an aspiration of zero emissions. We committed to our stakeholders that we would review these goals annually as public policies, regulations, resource plans and advancing technologies change. Our new goals reflect this, and we are confident in our ability to achieve them.

Often, we are asked about our schedule for phasing out all coal units. We have been very transparent about planned retirements and sales of our coal units once they are confirmed. We believe it would be irresponsible and potentially harmful to our customers, employees, communities and regulatory commissions to follow any other path. These actions must occur in concert with our regulators and in the best interests of our customers. As we go through this process, our intent is to work collaboratively with those affected by these decisions.

Since 2011, AEP has retired more than 8,600 MW of coal-fueled generation; by the end of 2020, an additional 1,111 MW will be retired. Within the next 10 years, we plan to retire an additional 2,631 MW when we retire the Dolet Hills Station in Louisiana, Northeastern Unit 3 in Oklahoma, Rockport Unit 1 in Indiana, and the Cardinal Plant in Ohio. At the same time, we are continuing to grow our renewable portfolio. Our integrated resource plans suggest that this generation will include approximately 8,000 MW of wind and solar and 1,600 MW of new natural gas in our regulated utilities by 2030. These forecasted resource additions are ultimately subject to regulatory approval. Concurrent with this, we continue to grow our competitive renewable portfolio across the country.

Managing Climate Risk

AEP governs climate change risk through our Enterprise Risk & Resilience process. In 2019, we added climate change risk to the Material Risk Summary Watch List. Previously, we monitored climate change risks as part of our overall environmental risks.

We provide updates to management several times per year. AEP's Board of Directors also monitors climate risks and reviews potential opportunities as part of its oversight role. Discussions about carbon and climate risks and opportunities occur during Board meetings, strategic planning, and scenario planning and analysis sessions.

We monitor many types of climate-related risks. These range from the potential financial impact of earlier retirements of legacy fossil fuel units to the possibility of future regulation that may put a price on carbon. To mitigate these risks, we are optimizing the use of our remaining coal units and continuously evaluating their remaining useful lives. This process

informs the decisions we make about how we offer our units for service, how we invest additional capital to keep them operational or whether we choose to retire them.

Read more about AEP's climate risk strategy in our [2018 clean energy report](#).

One misconception about AEP's business is that we own and operate a natural gas distribution system similar to some of our peers. This comes up in the context of greenhouse gas emissions from natural gas, most notably fugitive methane emissions. AEP does not own or operate natural gas distribution, although we do use natural gas to generate electricity. The direct fugitive emissions from this process are minimal for AEP. However, the electric and gas industries realize that methane emissions are an important concern and have teamed up to include natural gas methane emissions in the annual EEI ESG/Sustainability Report. Participating companies with electric and gas operations provide data for both.

Technology and Climate

While there are many uncertainties about the future and climate change, the fact that technology will play a vital role is indisputable. Predicting which technologies will emerge as leaders is much more difficult. AEP is proactively seeking new technologies that will enhance service to customers, improve efficiency and help us accelerate the transition to a clean energy future. We are actively looking at battery storage technology as an enabler of future efficiencies for the grid, including increased use of intermittent renewable resources. We are also monitoring more advanced technologies, such as carbon capture and sequestration, hydrogen fuel cells and small modular nuclear reactors. These longer-term technology developments could have promise for a carbon-free future. Our efforts to increase adoption of electric transportation also provide substantial environmental and economic benefits. Learn more about these activities in the Electric Transportation section of this report.

In addition, AEP is a founding member of the Electric Power Research Institute's (EPRI) Low Carbon Resource Initiative. This five-year research and development project will design pathways for the energy sector to advance low-carbon technologies for large-scale deployment. The goal is to enable a risk-informed understanding of the options and technologies we can use to facilitate significant economy-wide decarbonization. The partnership between utilities, EPRI and the Gas Technology Institute will also explore global partnerships and demonstrations to accelerate the most promising options.

In 2019, AEP received an EPRI Technology Transfer Award in recognition of our work on the Integrating Technical Analyses of Climate-Related Science into Company Climate Risk Assessment, Planning, Greenhouse Gas Goal Setting and Outreach project. This project provides a technical foundation to inform company decision-making and stakeholder discussions regarding climate risk assessment and greenhouse gas emissions goal setting.

Learn more about AEP's [investment in and commitment to innovation and technology](#).

Just Transition

The concept of Just Transition posits that climate change is not only an environmental disruption; it is a social and economic disruption that affects those who are most vulnerable. It suggests that when a generation unit is retired in a community, where it is often the largest taxpayer and employer, the decision should be accompanied by a plan to help the community rebuild the social systems lost by the plant retirement. When AEP announces plans to retire generating units, we work with our employees to help them find new jobs within AEP or provide outplacement services to help them find new jobs if they cannot relocate. Our first concern is our people, and we are aware that plant closure decisions are life changing for employees.

In addition, AEP has a long history of pursuing and attracting economic development to our communities. This became more urgent when we started retiring coal plants during the past decade. Our economic development teams provide training and resources to local officials, giving them the tools to independently grow and diversify their communities. We also invest in local training and education programs that help people develop new skills needed in today's workforce.

One of AEP's most significant efforts is [Appalachian Sky](#), an initiative to attract the aviation and aerospace industry to

central Appalachia. Since 2017, this program has been helping revitalize some of the communities hardest hit by changes in the coal industry. A comprehensive workforce analysis found that coal industry workers have the skills that aerospace and advanced manufacturing companies need. Through this effort, several counties in Kentucky and West Virginia are certified as AEROREady, meaning they are excellent locations for these types of businesses. AEP is making targeted efforts to help revitalize these states and diversify their economies to attract new industry and jobs, and to empower local leaders to take charge of rebuilding their communities.

In addition to economic development, AEP has a strong commitment to meeting basic human needs, such as hunger and housing, access to broadband, and education. We address this through philanthropic giving and volunteerism. AEP's responsibility is to help build sustainable, vibrant communities and help them transition to a clean energy economy. When they succeed, we succeed.

ENVIRONMENTAL REGULATIONS

At AEP, noncompliance is not an option. We are committed to complying with all applicable environmental regulations and being good stewards of natural resources. To help us achieve operational excellence, we push ourselves toward prevention, accountability, engagement and continuous improvement.

The primary federal statutes we are subject to include the Clean Air Act, Clean Water Act, Resource Conservation and Recovery Act, Endangered Species Act and Safe Drinking Water Act. Environmental regulations developed under these laws are revised periodically, and it is critical that we stay current with changes to ensure we remain in compliance. As the scope and stringency of environmental regulations evolve, we face technical, operational and financial challenges that are common for our industry. These challenges include uncertainties with timing, scope and magnitude of future environmental regulations, which influence our decisions to upgrade or retire generating units. They also affect the planning process for new generation and transmission projects across our industry.

We actively participate in the development of regulations at the federal, state and local levels to ensure that new requirements are achievable, based on sound science, consistent with statutory authority and balanced with other rulemakings. New requirements should also consider the cost of compliance for customers and allow sufficient time for compliance.

For full disclosure on regulations affecting AEP, please [read our 10-K](#).

Long after we retire plants, our responsibility to environmental compliance continues for requirements that remain in effect at AEP-owned properties. This includes many existing state environmental requirements, in particular those related to the management of water and coal-combustion residuals. We continue to work closely with regulators and our local communities as we move through the decommissioning process.

Environmental Compliance

Our facilities are subject to a variety of environmental, regulatory and permitting requirements at the federal, state and local levels with which we must comply. Our goal is zero – zero violations of environmental regulations or laws and zero enforcement actions. We are 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 recordkeeping obligations.



One way we check on our own compliance is through internal audits which provide additional focus on controlling risks and providing assurance.

Whenever agencies identify concerns, we work with them to address those issues in a timely fashion. This could include identifying and implementing any corrective measures needed to mitigate future risks.

One way we check our own compliance is through internal environmental audits. Audits provide additional focus on controlling risks and providing assurance that robust compliance processes are developed and implemented systemwide. In 2019, we conducted internal audits of environmental programs at 54 locations.

Environmental audits reveal potential gaps in performance that are related to regulatory requirements and company policies and that require remediation. These could include areas such as recordkeeping, inspection criteria, training topics, and equipment configuration. Auditors also recognize practices that go beyond regulatory requirements to bring about robust and sustained compliance. Although reports are site-specific, we aggregate and share results and best practices across our entire system to improve performance throughout AEP.

Environmental Performance

AEP's Generation business unit has long used metrics to encourage self-reporting of events and to improve environmental performance. Our Environmental Performance Index (EPI) includes annual goals related to opacity, water discharge permits and oil and chemical spills. The EPI helps to keep prevention front of mind, encourages sharing of best practices and drives us to be more proactive in protecting the environment. Reinforcing its importance, we tie our Generation group's incentive compensation to EPI performance.

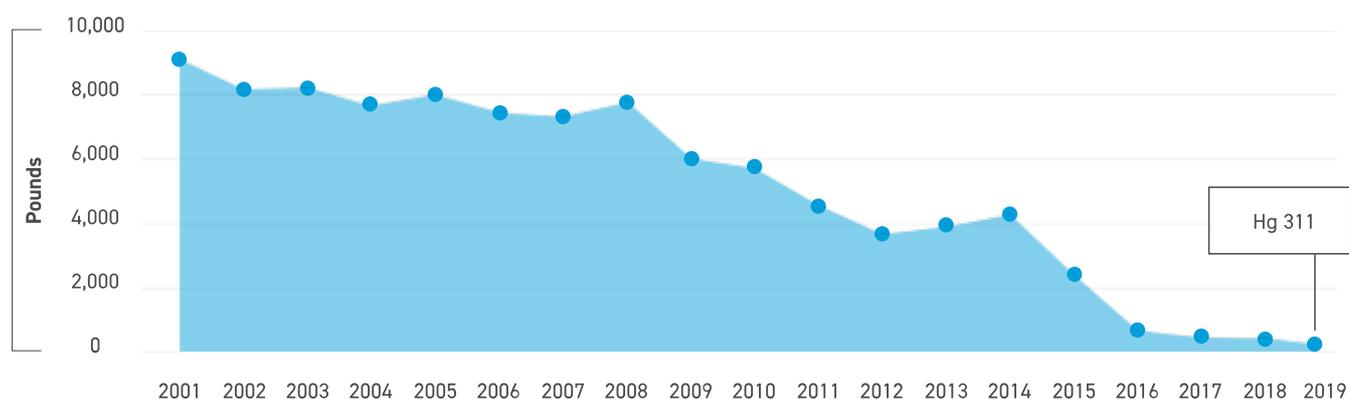
We set annual targets focusing on continuous improvement as we strive for zero enforcement actions and zero events. In addition, AEP's Generation organization instituted an Environmental Good Catch program, similar in manner to our Safety and Health Good Catch program. A "Good Catch" is an observation or recognition of a condition that could lead to a reportable environmental event and the subsequent actions taken by employees to correct the situation, preventing the event from occurring. This demonstrates AEP's commitment to an engaging and accountable culture – using knowledge sharing and lessons learned to prevent future non-compliance events.

Environmental compliance is a high priority for the lifecycle of every project we undertake. In our Transmission business, where a great deal of construction is taking place, project teams must complete a mandatory environmental compliance-training program. Our environmental specialists and engineers also provide support to ensure we achieve full compliance with environmental permit requirements. Our compliance record is excellent, especially given the scale of our business operations and we are always striving to do better.

AEP has made, and continues to make, significant long-term investments in environmental controls to reduce the impact of how we generate electricity. From 2000 through 2019, AEP invested approximately \$9 billion in environmental controls, primarily related to the Clean Air Act. These investments subsequently resulted in significant emissions reductions. Since 1990, AEP reduced its annual emissions of sulfur dioxide (SO₂) and nitrogen oxide (NO_x) by approximately 97% and 94%, respectively. Since 2001, AEP reduced its annual mercury emissions by approximately 97%.

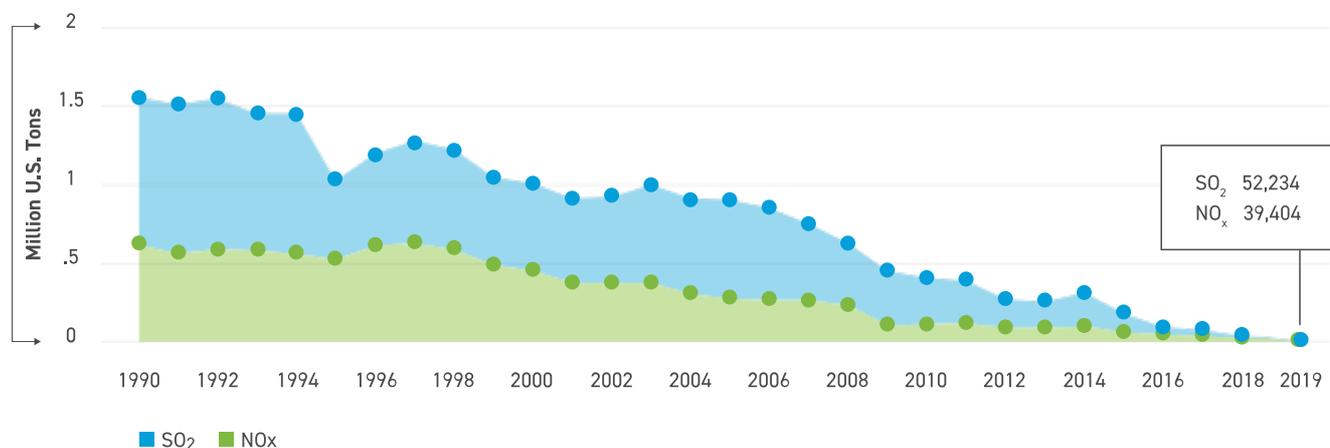
Additional information about mercury is located within the [Toxics Release Inventory program](#). Read more information about [carbon emissions](#).

TOTAL AEP SYSTEM MERCURY AIR EMISSIONS



AEP equity share of mercury air emissions from Toxic Release Inventory reporting. 2019 was estimated with MATS program emission monitors.

TOTAL AEP SYSTEM NO_x & SO₂ EMISSIONS



Direct annual emissions of SO₂ and NO_x from AEP's ownership share of generation as reported under Title IV of the 1990 Clean Air Act.

NEW SOURCE REVIEW

In 2019, AEP received approval for a modified agreement that will accelerate emission reductions from our remaining coal-fueled power plants in the Midwest, eliminate a requirement to install high-cost environmental controls at the Rockport Plant in Rockport, Indiana, and retire Rockport Unit 1 (1,310 MW) by the end of 2028. [Learn more about this modification.](#)

We report annually on our compliance with the consent decree requirements. The reports are available here:

- [2019 NSR Annual Report](#)
- [2018 NSR Annual Report](#)
- [2017 NSR Annual Report](#)
- [2016 NSR Annual Report](#)
- [2015 NSR Annual Report](#)
- [2014 NSR Annual Report](#)
- [2013 NSR Annual Report](#)

WATER MANAGEMENT

Water is essential for the production of electricity. Currently, 91% of power generated by AEP requires water. Water is the

fuel in our hydroelectric turbines and the steam electric process to produce steam and cool equipment, and is also used to scrub flue gas and transport combustion residuals. We return most of the water we use to its original source. Water consumption occurs when some of it is lost to evaporation or to a process, such as flue gas scrubbing, where it is released as water vapor. Our coal and natural gas supply chains rely on water to mine the coal and extract the natural gas.

Since 2014, we have reduced our water use from 7,382 million gallons/day (MGD) to 3,980 MGD – a reduction of nearly 46%. During that same timeframe, we also reduced our water consumption by almost 46% from 223 MGD to 121 MGD.

We participate in collaborative industry water “footprint” research to find new ways to reduce the use and consumption of water by power plants. A water “footprint” is the amount of water used in the production of the goods or services by a business – for example, the amount of water needed to make a pair of jeans or to produce a kilowatt of electricity. We are working with EPRI to test the application of a water footprint tool. This analysis will help us better understand how we use water resources, which will support better water management, reporting, benchmarking and disclosure activities at AEP’s generation facilities.

Water Use Reporting

Because we place a high value on the importance of transparency, AEP extensively reports on our usage and management of water throughout our system in different forums. We do this through both required reporting, such as the U.S. Energy Information Administration, and through voluntary reporting efforts. For example, we participate annually in the [CDP Water Survey](#) and provide extensive water data in our [Global Reporting Initiative \(GRI\) report](#).

Water Management in High-Risk Areas

AEP operates several power plants in drought-prone regions of the country that require careful management of water use. Since 1999, the Texas Commission on Environmental Control has mandated that all Texas water rights holders implement a water conservation plan. The plan must include voluntary, site-specific five-year and ten-year water conservation goals, as well as cost-effective solutions to ensure adequate water supply for all users in their regions. We update these plans every five years. In addition, we file annual updates with the Texas Water Development Board. We have comprehensive water conservation plans in place for the Oklaunion, Pirkey, Welsh, Wilkes and Knox Lee Power Plants. In 2019, the plants conserved an estimated 812 million gallons through these plans, demonstrating the effectiveness of this management approach.

In addition, we have a Drought Contingency Plan for the Knox Lee Plant and must comply with Drought Contingency Plans for three water providers who supply water to operate the plant.

AEP serves on the Texas Water Conservation Advisory Council, which makes recommendations to the state legislature every two years regarding the status of water conservation in Texas. We also support the Northeast Texas Regional Water Planning group.

Watershed Protection

Water is important to power production, but it is also essential for agriculture, drinking water and economic growth. In addition to planning for water needs, the states of Texas and Arkansas have initiatives to protect watersheds, and AEP participates in those. For example, in Texas, AEP participates in a state-mandated effort to quantify necessary environmental flows for streams and rivers. Environmental flows are the properties of water flow that strengthen or support aquatic ecosystems and human livelihood.

In addition, AEP participates in voluntary efforts to protect the watershed of Caddo Lake, a Ramsar Convention designated wetland area. The Caddo Lake Ramsar wetlands is one of only 26 such sites in the United States. In Arkansas, AEP remains involved in the Illinois River Watershed Partnership, which has increased its efforts to plant trees and bushes to stabilize riverbanks. Recently, the AEP Foundation presented the Partnership with a \$200,000 grant to support environmental education through 2021. In 2020, AEP joined EPRI’s Ohio River Interest Group. This will enable AEP to remain informed about Ohio River issues, such as invasive species, algal blooms, fish passage and endangered species management.

WASTE MANAGEMENT AND RECYCLING

We manage many types of waste resulting from the process of providing electricity, operating office buildings, construction, and repairing and replacing equipment. We continue to reduce and divert waste from landfills through beneficial reuse or recycling to minimize our environmental impacts caused by waste.

The amount of polychlorinated biphenyl (PCB)-containing equipment used across the company continues to decline. PCBs, known to have adverse health effects, have not been used in new electrical equipment in the U.S. since 1979 but are present in some of our older transformers and other pieces of electric equipment. We removed and recycled approximately 41,500 pieces of electrical equipment in 2019, and more than 1,000 of those contained PCBs at regulated levels.

While we had approximately 1,400 transmission and distribution equipment oil spills in 2019, only two of the spills contained greater than 500 parts per million (ppm) PCBs. Most spills occur due to severe weather events and public vehicle accidents that damage our equipment. Regardless of the cause, we respond immediately to each spill, clean it up, notify regulatory agencies where required and restore affected areas to pre-spill conditions.

AEP reports through the Toxic Release Inventory (TRI) program, part of the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA requires companies with 10 or more employees, in certain industries, to collect and publicly disclose information about how they manufacture, process or use any of nearly 650 chemicals on a special list developed by the U.S. EPA. Read more on our [TRI website](#).

WASTE RECYCLED IN 2019



159,300

pounds of paper + mixed office waste



169,000

pounds of batteries



28,950,000

pounds of scrap metal



430,000

pounds of electronic equipment, such as computers and phones



44,500

pounds of light bulbs



725,500

gallons of used oil

Coal Combustion Residuals

Coal ash and flue gas desulfurization material handling and disposal continues to be at the forefront of evolving federal and state rulemaking focused on the handling, storage and disposal of coal combustion residuals (CCR). CCRs are the solid material left over from the use of coal to generate electricity and represents AEP's single largest waste stream.

Read more about AEP's response to the Coal Combustion Residual Rule and Clean Water Act [in our 10-K](#).

AEP is in the midst of a multiyear plan to address the company's use of coal ash disposal areas. Currently, AEP has responsibility for 31 CCR ponds and landfills that fall under the CCR Rule. AEP remains committed to handling coal ash disposal in a way that puts safety first while protecting the environment, minimizing impacts to the communities near our facilities and managing our customers' costs. This includes following proper closure methods or installing new equipment to handle bottom ash.

Learn more about AEP's coal ash management efforts at our dedicated [CCR Rule Compliance website](#).

In 2019, AEP received an EPRI Technology Transfer Award for our work on the Geotechnical Stability of Coal Ash Ponds During and After Closure project. The project utilized a new approach to simulate what could occur following a pond failure. This groundbreaking work will help us understand the stability of ponds as they age.

Beneficial Reuse

CCRs have long been approved for use 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. By diverting CCRs to beneficial uses, we are reducing the need for waste disposal sites.

In 2019, AEP generated more than 4.1 million tons of CCRs and was able to beneficially use more than 1.5 million tons, or

nearly 39% of the total produced. Beneficial use of CCRs (considered to be products if they are beneficially used) avoided more than \$21 million in disposal costs in 2019 and generated more than \$13 million in revenues.

NUCLEAR WASTE MANAGEMENT

The U.S. Department of Energy oversees permanent disposal of spent nuclear fuel and historically has charged fees to plant owners for this disposal. However, following the government's decision to cease development of the Yucca Mountain storage facility in Nevada, nuclear generators no longer have a place for permanent disposal.

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 places the burden of interim storage on each nuclear facility. AEP is addressing this issue through dry cask storage on the assumption that a workable off-site solution will not exist before the current operating licenses for both Donald C. Cook nuclear units expire in 2034 and 2037.



AEP's current spent nuclear fuel cask storage facility can store 94 casks, or 3,008 spent nuclear fuel assemblies.

In 2012, the Cook Plant in Bridgman, Michigan, began a program of loading spent nuclear fuel into dry casks. The latest loading campaign took place in 2018, bringing the total to 44 dry casks that have been loaded into storage. The next loading campaign will occur in 2021. The casks can withstand tornadoes, earthquakes, floods, sabotage, missiles, aircraft and temperature extremes. Licensed by the Nuclear Regulatory Commission, the casks meet all applicable security, environmental and radiological requirements.

The current cask storage facility can store 94 casks, or 3,008 spent nuclear fuel assemblies. This would support the operation of both units through their current operating licenses. Expansion of the pad is possible 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 2019, the trust fund balance for the Cook Plant was approximately \$2.7 billion.

WILDLIFE PROTECTION

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For example, the developer for AEP's North Central Wind Energy Facilities project is conducting wildlife studies in accordance with all applicable law and the U.S. Fish and Wildlife Service (USFWS) Land-Based Wind Energy Guidelines and USFWS Eagle Conservation Plan Guidance for siting turbines. This is to minimize potential adverse impacts to wildlife and other environmental resources.

Avian Protection

For more than three decades, the utility industry, conservation groups, wildlife resource agencies and others have collaborated to understand why and how birds collide with or are electrocuted by power lines.

To reduce avian mortality, utilities have adopted voluntary company-specific Avian Protection Plans to mitigate the risks associated with bird interactions with electric facilities. We completed our Plan in 2013.

We consider avian protection when we design and engineer new facilities. When birds interact with electrical equipment and cause outages, it affects our customers, too. For example, a benefit of the design of the BOLD® transmission line is fewer occurrences of nesting and reductions in both collisions and electrocutions because of the lower tower height, the curved arm and the more compact design of the lines compared to traditional transmission lines and structures.

AEP manages interactions between birds and power lines through a systemwide plan across our 11-state service territory. Today, our primary challenge is larger species, which are more likely to be electrocuted in substations and on poles, or to collide with towers and lines.

The Plan has several key components:

- **Employee training and compliance** – Educate and train employees on compliance requirements to proactively prevent bird collisions and electrocutions.
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- **Nest management and avian enhancement options** – Adopt the use of safety tactics to keep birds away from wires such as installing a de-energized pole for bird nesting.
- **Avian reporting systems and risk assessment methodologies** – Continuously improve our monitoring and reporting capabilities.
- **Public education** – Promote the need for migratory bird and habitat conservation, working cooperatively with federal and state agencies and nonprofits.

In addition to our Avian Protection Plan, AEP is committed to adherence with all federal, state and local laws as they pertain to responsibly siting, constructing and operating renewable energy technologies, whether developed by us or purchased from another entity. This includes compliance with the Endangered Species Act, the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, as well as adherence to the USFWS's voluntary Land-Based Wind Energy Guidelines. As renewable energy continues to evolve and more is understood regarding potential unforeseen impacts to the environment and wildlife, AEP will adapt to avoid and mitigate impacts.

Habitat Conservation Plans

AEP's grid modernization program requires balancing business needs with environmental protection. With the magnitude of our construction activities, it is conceivable that we will come into contact with, or potentially have an impact on, a range of species. One way we are addressing this is by working with the USFWS to establish Habitat Conservation Plans (HCP).

In 2019, we began implementing an HCP across several transmission regions for the American burying beetle, an endangered insect with habitats across several states in our service territory. This multiyear HCP has allowed us to use pre-approved practices through a regional, programmatic approach to minimize impacts to the beetle and its habitat and to encourage its recovery. The HCP covers portions of Arkansas, Oklahoma and northern Texas where AEP currently has operations or the potential for future development.

We also continued development of a 30-year, systemwide multispecies HCP. This HCP is important because it will not only protect the covered species but also generate cost and time savings for our customers and AEP. Portions of the draft HCP are currently under review by USFWS, and we have initiated the required third-party review under the National Environmental Policy Act (NEPA). Administered by the USFWS, the HCP will enable transmission construction activities that could impact listed species, such as the Indiana bat, to proceed without case-by-case agency consultation, as long as

the practices and mitigation methods described in the plan are followed. The plan will cover construction activities in our 11 states.

We are working closely with wildlife protection agencies in each of our states to ensure the HCP is consistent with their goals and regulations and covers the species affected by our work. In 2020, we anticipate having a complete HCP ready for public review.

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During the summer, monarchs are found throughout the United States, particularly in areas where milkweed, their host plant, is available. Each year, monarchs undertake a multi-generational migration of thousands of miles to and from overwintering and breeding areas. These areas significantly overlap AEP's generation and transmission network.



An ESA listing for the butterfly could affect our ability to build new or replace old infrastructure, and affect our vegetation maintenance activities. We are well-positioned to participate in an effort to manage habitat within our right-of-way (ROW) corridors to help the butterfly and avoid the impacts of a possible listing.

As a result, we joined a conservation initiative with the USFWS to develop a Candidate Conservation Agreement with Assurances (CCAA). A CCAA is a formal agreement between the USFWS and one or more parties to address the conservation needs of a candidate species before the species becomes listed as endangered or threatened. Property managers voluntarily commit to conservation actions that will help stabilize or restore the species and possibly avoid a listing. AEP continues to coordinate with the University of Illinois-Chicago, as well as other power companies, oil and gas companies and state departments of transportation on the development of the collaborative monarch CCAA, which was finalized in April 2020.

ENVIRONMENTAL STEWARDSHIP

We value and practice environmental stewardship and conservation across our service territory. Whether through reclaiming former industrial land for outdoor recreation areas such as nature trails and campsites or integrating conservation measures into new and rebuilt transmission lines, AEP takes steps to preserve the natural ecosystem as we grow our business.

Promoting & Protecting Pollinators

Pollinators provide vital support to our natural ecosystems, including food production. The decline of pollinators has become an emerging issue of concern in recent years. A report by EPRI notes that globally, pollinators are in decline,

with some scientists estimating that 40% of pollinator species may be at risk of extinction in the coming decades. At AEP, we are taking measures to protect pollinators and promote their well-being. For example, in 2019 we joined the EPRI Pollinator Program to stay informed about this important issue.

During Pollinator Week (June 17-23), AEP joined other power companies across the country to raise awareness about the crucial role of pollinators in flower and plant fertilization and about our efforts to facilitate pollinator population growth through vegetation management. We highlighted Pollinator Week through social and internal media and organized an educational lobby event at AEP's headquarters. We provided anecdotes, photos and information on how AEP supports pollinators throughout our 11-state service territory.

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As with any construction project, AEP Transmission is responsible for the restoration of areas disturbed by project work, such as within the right-of-way around pole installations and the land under work pads, as well as the removal of access roads. This also includes planting permanent vegetation.

We are exploring the use of regionally specific native seed mixes for right-of-way applications in order to address permit compliance, site stability and the inhibition of tree regrowth. These efforts may help to reduce maintenance costs and foster good community relations.

The Native Seed Mix proof-of-concept project is a three-year evaluation that includes vegetation test plots (with regionally specific blends) in existing AEP easements at Clear Creek Metro Park in Hocking County, Ohio, as well as regions in Appalachian Power's and Public Service of Oklahoma Company's service territories. If sufficiently successful, native seed mixes could be used in our restoration efforts, except for areas such as farmlands, lawns and wetlands.

AEP is also exploring the use of native plant seeds for post-construction site restoration on the campus of our New Albany, Ohio, Transmission Headquarters. With help from local conservation organizations – such as the Ohio Department of Natural Resources, Audubon Society, National Wild Turkey Federation and Pheasants Forever – we developed seed mixes to support birds, pollinators, deer or turkey on a demonstration right-of-way plot. One of the seed mixes specifically supports solar sites, using plants that grow at a low height and reduce weed growth. As we expand our solar portfolio, these practices are important.

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In 2019, the construction of a new Transmission Service Center in Columbus, Ohio, near Big Walnut Creek, became part of a local environmental restoration effort. The property was devoid of vegetation and had a stream that was rerouted, culverted and severely incised, resulting in extremely low aquatic function. By working hand-in-hand with the U.S. Army Corps of Engineers, Ohio Environmental Protection Agency and City of Columbus, we were able to make significant improvements. The team restored approximately 1,800 linear feet of stream to a more natural condition, incorporated native plant species on surrounding upland areas and permanently protected a portion of the property from future

development. We are currently monitoring the project mitigation success in accordance with our Army Corps permit.

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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.

AEP is committed to social responsibility and sustainability. We are proactive in our efforts to protect people and the

environment by committing to:

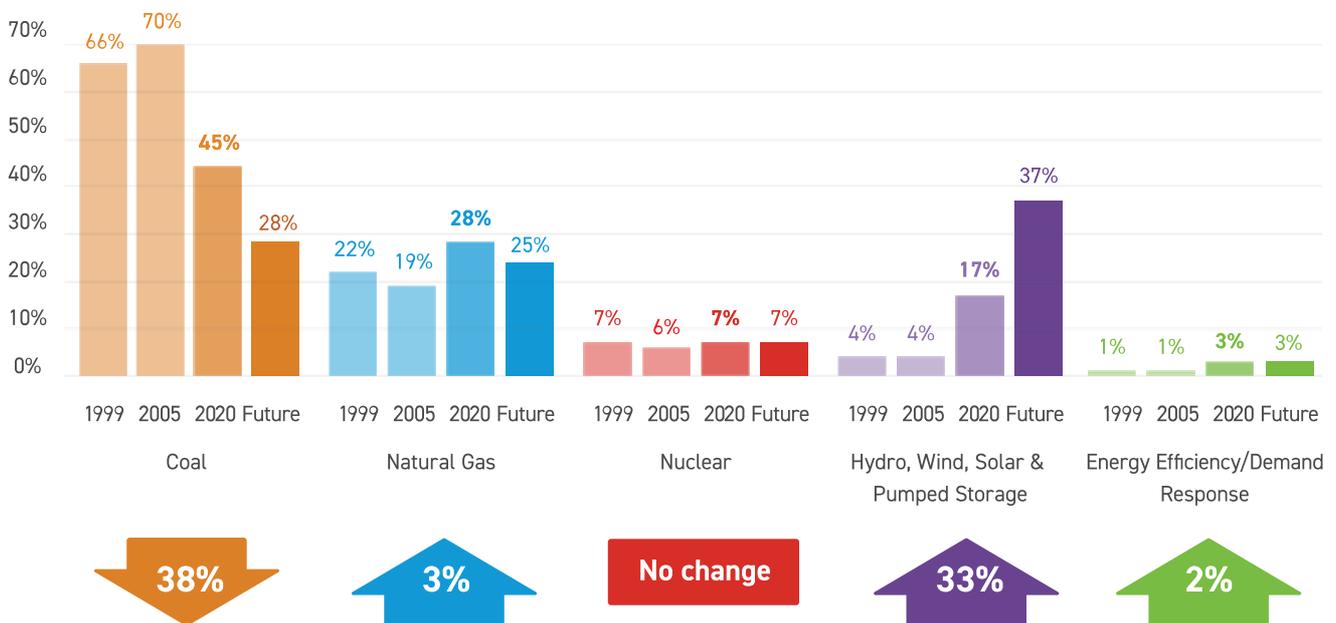
- **M**aintain compliance with all applicable Environment, Safety and Health (ES&H) requirements while pursuing the spirit of ES&H stewardship.
- **E**nsure that people working for or on behalf of AEP understand and integrate ES&H responsibilities into their business functions.
- **S**upport continual improvement of environmental performance and pollution prevention.
- **H**azard elimination through employee involvement and continual health and safety improvement.

SUSTAINABLE ELECTRICITY

The energy industry is experiencing a profound transformation, driven by decarbonization of the global economy; new, advanced technologies; and the growing electrification of energy demand. During the past decade, electric utilities have been at the forefront of this transition, diversifying resources, delivering clean energy solutions to customers and investing in a modern grid capable of optimizing all resources and technologies. The result is that customers have more control; in some cases, they can “pay as they go,” choose special time-of-day-rates to reduce bills, and opt for cleaner options to power their homes and businesses.

AEP has already made significant progress in reducing our carbon footprint. During the past decade, we retired, sold or converted to natural gas 12,339 megawatts (MW) of coal-fueled generation, ramped up our clean energy portfolio with more than 5,200 MW of total renewables, extended the life of our carbon-free nuclear units, and invested \$31.4 billion to modernize the transmission and distribution systems. In 2019, coal represented 45% of our generating capacity, compared with 70% in 2005. Through 2019, AEP reduced its carbon emissions profile by 65%, putting us well on our way to our goal of reducing our carbon footprint by 70% by 2030.

TRANSFORMING OUR GENERATION FLEET— AEP’S GENERATING RESOURCE PORTFOLIO



As of March 31, 2020. Future includes IRP forecasted additions and retirements through 2030. Energy Efficiency/Demand Response represents avoided capacity rather than physical assets.

Looking ahead, we will continue to invest in clean energy solutions for customers. By 2030, our current integrated resource plans for our regulated utilities include the addition of up to another 4,149 MW of solar, 3,935 MW of wind and 1,607 MW of natural gas. In addition, we are committed to investing \$2.1 billion in contracted renewables from 2020 through 2024 across the U.S. Today, this competitive business manages a renewable portfolio of 1,572 MW across 11 states.

As we transition to a cleaner energy future, we will take steps to ensure we continue to provide the safe and reliable electricity that is the backbone of our nation’s economy and powers our customers’ daily lives.

Integrated Resource Planning

As a regulated utility, we must provide our customers with reliable energy. To meet this demand in a cost-effective manner, we use a long-term approach to resource planning. We determine our energy and capacity needs well into the future to help us find the best mix of energy resources at reasonable costs to our customers. Achieving this requires striking the right balance of renewable energy sources – such as solar, wind and hydro – and 24/7 sources such as natural gas, nuclear and coal, as well as other advancements in resource technology that drive a more efficient grid.

Integrated Resource Plans (IRP) provide a snapshot of a potential future generating mix, based on today’s assumptions.

An IRP is not a commitment to a specific course of action, as the future is uncertain and decisions relating to AEP's generation resources are subject to regulatory approval. Rather, it is a roadmap, showing the amount, timing, cost and type of potential future resource additions. It must cover both energy and capacity needs and do so at a reasonable cost.

Our publicly filed IRPs use a planning horizon of 10 to 20 years. They demonstrate how we plan to meet customer demands for reliable and affordable energy and allow us to estimate future emissions from our generation resources. We are entering the latter phases of our retirement of generating units in many jurisdictions. This makes the planning process extremely important as AEP transitions to a cleaner energy future.

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

AEP'S PROJECTED RESOURCE ADDITIONS

	2020-2022	2023-2027	2028-2030	TOTALS
 SOLAR	196	1,753	2,200	4,149
 WIND	1,785	1,450	700	3,935
 NATURAL GAS	391	428	788	1,607
				TOTAL: 9,691

As of April 2020

INTEGRATED RESOURCE PLAN REQUIREMENTS

State Jurisdiction	AEP Operating Company	Filing Frequency	Planning Period	Stakeholder Input Process
Arkansas*	Southwestern Electric Power Company	3 years	20 years*	Yes
Indiana	Indiana Michigan Power Company	3 years	20 years	Yes
Louisiana	Southwestern Electric Power Company	4 years	20 years	Yes
Kentucky	Kentucky Power Company	3 years	15 years	No
Michigan	Indiana Michigan Power Company	5 years	20 years	Yes
Ohio**	AEP Ohio	**	**	No
Oklahoma	Public Service Company of Oklahoma	3 years	10 years	No
Virginia	Appalachian Power	3 years	15 years	No***
West Virginia	Appalachian Power & Wheeling Power Company	5 years	10 years	No

* SWEPCo IRP uses a 20-year planning period for both Louisiana and Arkansas. Arkansas requires a minimum 10-year plan.

** Integrated resource plan required only under special circumstances.

*** Virginia has a formal regulatory hearing, with public intervention, before the Virginia SCC for such IRP submittals.

IRPs are filed with state regulatory commissions. Regulatory proceedings and requirements for IRPs vary widely from state to state. Some states require significant stakeholder engagement processes ahead of filing, and some have significant testimony and discovery periods. Commission actions also vary: In some states IRPs are merely recognized, while in others they are approved and found to be in the public interest.

New IRPs filed in 2019 by Appalachian Power (APCo), Indiana Michigan Power (I&M), Southwestern Electric Power Company (SWEPCo) and Kentucky Power call for additions of renewable energy over their respective planning periods. Based on the inputs and results of IRP analyses, the economic addition of renewables over these planning horizons would lower costs to customers compared to other resource decisions.

[Read about the details of these and other projects in our Renewables section.](#)

AEP Operating Company by State	Case Number/Docket
Southwestern Electric Power Company – Louisiana	SWEPCO LA I-33013 SWEPCO's LA DRAFT 2019 IRP
Southwestern Electric Power Company – Arkansas	SWEPCO AR Doc.07-011-U

Public Service Company of Oklahoma - Oklahoma	Docketless Case
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 2019, according to the U.S. Energy Information Administration (EIA), renewables accounted for 19% of the nation’s electricity generating mix and are projected to grow to 38% by 2050. The EIA forecasts that 76% of new capacity additions in 2020 will be from solar and wind. The EIA also projects that by 2021, electricity generation from renewables will exceed that of coal and nuclear and will overtake natural gas by 2045.

As renewable resources become more affordable due to advances in technology and support from federal tax credits, we see these clean options capturing larger and larger shares of our integrated resource plans (IRPs). In addition, AEP’s transition to a clean energy future is tied to our grid modernization investments.

Our goal, as outlined in our IRPs, is to increase regulated renewable energy on our system by approximately 8,000 MW by 2030. At the same time, we are expanding our renewable footprint beyond our traditional service territory. We plan to invest \$2.1 billion in contracted renewables from 2020 through 2024. Through our competitive operations, we offer low cost of capital and energy project expertise to potential partners, creating attractive energy solutions for customers. This is especially appealing to companies, universities and municipalities that often have their own renewable energy goals.

The North Central Wind Energy Facilities project and AEP Renewables, a subsidiary of AEP Energy Supply, are leading the charge for our renewable energy strategy.

North Central Wind Energy Facilities Project

In 2019, Southwestern Electric Power Company (SWEPCO) and Public Service Company of Oklahoma (PSO) filed proposals to acquire and jointly own three wind generation facilities in north central Oklahoma. The North Central Wind Energy Facilities (NCWEF) will provide 1,485 MW of new wind capacity, with 810 MW allocated to SWEPCO customers across Arkansas, Louisiana and Texas and 675 MW to PSO customers in Oklahoma. The facilities are strategically located to tap into the region’s wind resources and AEP’s existing transmission systems, which allows for easy interconnection to the regional power grid.

In February 2020, the Oklahoma Corporation Commission unanimously approved a settlement agreement allowing PSO to move forward with the project. Once the facilities are in operation, PSO’s use of wind energy will increase from 22% to 34%. In May 2020, SWEPCO received final approval in Arkansas by the Arkansas Public Service Commission. SWEPCO continues to work through the regulatory process to gain approval in Louisiana and Texas.

The plan includes provisions for states to increase their portion of the project in the event another state decides not to

AEP’S RENEWABLE PORTFOLIO (in MW)

Hydro, Wind, Solar & Pumped Storage	Owned MW	PPA MW	Total MW
AEP Ohio	—	209	209
Appalachian Power	785	575	1,360
Indiana Michigan Power	36	450	486
Public Service Company of Oklahoma	—	1,137	1,137
Southwestern Electric Power Company	—	469	469
Competitive Wind, Solar and Hydro	1,471	101	1,572
Total	2,292	2,941	5,233

As of March 31, 2020

move forward with its share of the project.

If approved by the state regulatory commissions, the project would provide more than \$3 billion in energy savings to our customers in Oklahoma, Arkansas, Louisiana and Texas over the 30-year life of the facilities. In addition to lowering bills, NCWEF will help insulate customers from energy price volatility over the life of the project. The project, which is eligible for the federal Production Tax Credit once approved, is scheduled to come online in 2020 and 2021.

Competitive Renewables

AEP Renewables, a subsidiary of AEP Energy, develops, owns and operates utility-scale wind and solar energy generation projects throughout the United States. These renewable energy facilities sell the energy they produce to utilities, electric cooperatives, municipalities or corporate customers.

2019 was a transformational year for [AEP Renewables](#), as we invested \$1.4 billion in contracted renewables, bringing to 13 the number of projects we now have in 11 states. In April 2019, we acquired Sempra Renewables, LLC and its 724 MW of operating wind generation, including a battery storage asset. The deal included seven operating wind farms in Colorado, Hawaii, Indiana, Kansas, Michigan, Minnesota and Pennsylvania, all with long-term power purchase agreements in place for 100% of the energy produced.



In July 2019, we completed the purchase of 75% stake of the Santa Rita East Wind Project near San Angelo, Texas.

In July 2019, we completed the purchase of 75% stake (227 MW) of the Santa Rita East Wind Project near San Angelo, Texas. With the addition of these new projects, the AEP Renewables portfolio now includes 1,302 MW of renewable generation.

Through these acquisitions, we now have a greater ability to expand our development of contracted renewable projects. For example, AEP Renewables signed a long-term purchase agreement with Evergy to buy the energy from Flat Ridge 3, a 128 MW wind farm that is currently under construction and expected to be operational by the end of 2020.

AEP's Investments in Renewables

- In early 2020, I&M received approval from the Indiana Utility Regulatory Commission to build and operate its largest solar generation facility in St. Joseph County, Indiana. I&M will collaborate on this 20 MW project with the University of Notre Dame. This project also provides educational and research opportunities and supports I&M's and Notre Dame's sustainability goals.
- In early 2019, Appalachian Power's proposal to provide its customers with the opportunity to purchase 100% renewable energy was approved by the Virginia State Corporation Commission. The renewable energy will come from APCo's existing or planned renewable resources. Participants who use 1,000 kWh of energy per month will pay an additional \$4.25 per month.
- In early 2020, APCo issued a Request for Proposals for up to 200 MW of solar energy resources located in Virginia that will reduce customer costs and further diversify its electric generation mix. The RFP also gives developers the option of including battery storage system with their proposals.
- Public Service Company of Oklahoma (PSO) is requesting proposals for PV Solar and Reciprocating Internal Combustion Engine (RICE) resources for commercial operation. Both projects will be located at the Fort Sill Military Base in Lawton, Oklahoma. The net minimum output of the PV Solar will be 10 MW to 14 MW. The net minimum output of the RICE will be approximately 36 MW. The project, owned and operated by PSO, will provide power to PSO's system during normal operations. In the event of an outage or validated threat to the electric supply to Fort Sill, these

assets will first be used to restore power to Fort Sill. This project is mutually beneficial as it simultaneously supports PSO's system and the Army's goal of enhancing its energy resilience for its military installations.

- OnSite Partners, an AEP competitive business, has a portfolio of distributed energy solutions that includes 59 projects across 18 states, with a total investment of \$322 million. Another four projects that are currently in various stages of construction represent an additional investment of \$41 million. The projects use a variety of technologies, such as behind-the-meter solar, community solar, substations, batteries and a fuel cell.
- AEP Energy was instrumental in powering the John Glenn International Airport in Columbus, Ohio, with 100% clean energy. The Columbus Regional Airport Authority estimates the new deal will save nearly \$13 million in energy costs.
- Google broke ground on a \$600 million data center in New Albany, Ohio, powered by 100% renewable energy supplied by AEP Energy.
- Today, approximately 11,900 MW of renewable generation is interconnected across the U.S. via AEP's transmission system.

Meeting Customer Demands

Our customers' demand for clean energy is a key driver in the growth of our renewable energy portfolio. We listen to our customers' needs and develop solutions for them. We do this through surveys, one-on-one meetings and other channels of engagement and we will continue to see further expansion of renewables and other technologies to address customer preferences. What we have learned is that a strong majority of customers, especially large commercial and industrial customers, want clean energy.

In our regulated jurisdictions, we need the support of our regulatory entities to be able to invest in clean energy resources. Renewable resources are becoming more cost-competitive compared to other forms of generation and this has led to increasing penetration of renewables within the Regional Transmission Organizations (RTOs). As a result, RTOs have been required to both clarify and reconsider some of their rules to take into consideration these increasing volumes of intermittent generation. In some cases, this has led to market changes that reduce the value of renewable resources in the market. Although these changes are intended to provide renewable resources the proper credit for the value they bring to the market, the reductions work against our efforts to provide the low-cost renewable options that our customers expect.

In November 2019, the Public Utilities Commission of Ohio (PUCO) found that there was no generation supply need for AEP Ohio's plan to develop 400 MW of solar power from two projects in the state's Highland County. Through the plan, AEP Ohio would have entered into long-term contracts with the project developers for the power. This proposal was part of a 2016 commitment we made to pursue development of 900 MW of renewable resources in the state. If developed, this project would have been the single largest clean energy commitment in Ohio history and would have doubled the state's renewable generation capacity. In addition, it would have created 4,000 construction jobs and 150 permanent jobs.

Despite this setback, we remain committed to supporting renewable energy projects that will improve our future generation mix while adding tax revenue and reducing long-term electricity costs for our customers.

RENEWABLE PORTFOLIO & ENERGY EFFICIENCY STANDARDS

Energy Efficiency (EE) 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

HB6, passed in 2019, amended the benchmark requirements and requires the winding down of EE requirements in Ohio by the end of 2020.

MICHIGAN (mandatory)

1% annual reduction of previous-year retail sales in 2012 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 (mandatory)

2% savings over 2019 levels by calendar year 2025.

Note: Indiana EE goals are determined through the Integrated Resource Planning Process (SB412).

Renewable Portfolio Standards (RPS)

Michigan (mandatory)

Phase-in program increasing to 15% by 2021.

Indiana (voluntary)

Phase-in program increasing to 10% by 2025.

Oklahoma (voluntary)

Goal of 15% by 2015.

Texas (mandatory)

Goal of 5,880 MW by 2015; 10,000 MW by 2025.

Ohio (mandatory)

RPS requirements drop to 8.5% by 2026, after which it terminates.

Virginia (mandatory)

100% renewable and carbon free resources by 2050.

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.

TRADITIONAL GENERATION

Coal Fleet Optimization

According to the 2020 Sustainable Energy in America Factbook, coal met 45% of the U.S. demand in 2010 compared with 23% in 2019. The abundance of low-cost natural gas, the near-doubling of renewable generating capacity in the U.S., and a decade of research and technological innovation have hastened the retirement of coal-fired generation.

The picture is similar for AEP's coal fleet. At the end of 2019, coal represented 45% of AEP's generating capacity, compared with 70% in 2005. And, in the past decade, AEP has sold, retired or converted to natural gas a total of 12,339 MW of coal-fueled generating capacity. By 2030, more than half of AEP's coal units will be within 10 years of reaching the end of their depreciable life.

In 2019, we completed our scheduled retirements of Conesville Units 5 and 6, with a combined capacity of 820 MW. In 2020, we plan to retire 1,111 MW of coal generating facilities, including the 460 MW (AEP's ownership) Oklaunion Plant in Oklahoma and the 651 MW (AEP's ownership) Conesville Unit 4 in Ohio. AEP's interest in the Oklaunion Plant is co-owned by AEP Texas and Public Service Company of Oklahoma.

In early 2020, Southwestern Electric Power Company (SWEPCo) said in an Arkansas rate case settlement agreement that it would seek regulatory approval to retire the Dolet Hills Power Station by the end of 2026. SWEPCo owns 40% of the facility, which generates 650 MW of power (SWEPCo's share is 257 MW). Cleco Corp. owns 50% and operates the facility located at Mansfield, Louisiana.

In April 2020, SWEPCo and Cleco jointly filed a letter notifying the Louisiana Public Service Commission that SWEPCo



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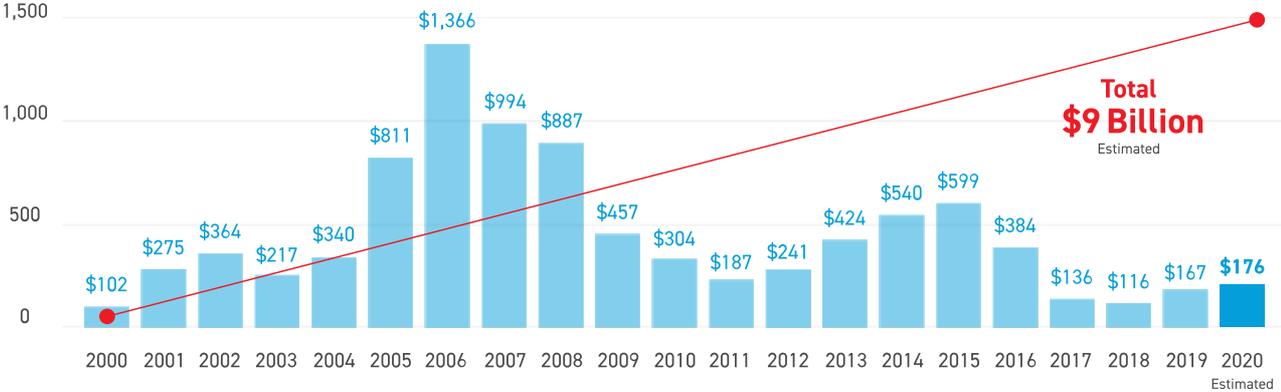
subsidiary Dolet Hills Lignite Company (DHLC) would cease lignite mining in June 2020. DHLC provides 100% of the fuel supply to the plant from the Oxbow Mine, which is jointly owned by SWEPCo and Cleco. Based on the remaining estimated fuel supply for Dolet Hills Power Station’s seasonal operations, SWEPCo revised the expected retirement date of the plant to September 2021. The permanent mine closure and plant retirement require regulatory approvals.

If AEP’s plans are approved, we will retire more than 3,700 MW of coal generation from 2020 through 2030.

While our strategy is to invest in cleaner energy options, we are committed to mitigating risk around our current coal fleet through this transition. That means we are managing our remaining coal fleet to reduce the need for capital investment over time while continuing safe and reliable operation of the units. We will seek opportunities, as appropriate for our customers and when approved by regulations, to accelerate retirement dates and associated accounting depreciation rates. This has the potential to mitigate risk to both our customers and shareholders while providing a reliable source of electricity.

Our remaining coal units are available to provide critical 24/7 energy and other services to the grid and are equipped with environmental controls to assure compliance with current regulations. AEP expects to make additional investments in future years in order to comply with air and water quality standards.

INVESTMENTS IN ENVIRONMENTAL CONTROLS \$ in millions



Although we have no plans to build another coal plant, we continue to monitor the development of new technologies, including carbon capture and storage for both coal and natural gas. Should any of these technologies be demonstrated commercially to improve the scalability, we would want to have those technology options available for consideration.

[Learn more about AEP’s strategic vision for reducing carbon emissions.](#)

Natural Gas

Natural gas is a fundamental part of our portfolio, and we expect that will continue into the future. High-efficiency combined-cycle natural gas plants play a key role in a diverse resource portfolio. As wind and solar generation capacity increase, natural gas gives us the flexibility needed to ensure the grid operates uninterrupted when intermittent, renewable resources are unavailable.

Because natural gas facilities rely on a constant supply of fuel to operate, it is critical that we maintain a steady flow of natural gas to our generation plants at all times. This is why several of our natural gas units are directly connected to multiple pipelines, which offer differing degrees of flexibility. Another challenge we face is an aging and highly utilized natural gas infrastructure, which sometimes affects our ability to receive natural gas to meet demand during peak periods. Although pipeline operators are becoming more flexible in terms of offering rate schedules that are more conducive to power generators, we continue managing risk when procuring and scheduling natural gas delivery for our units.

Nuclear & Hydro

Nuclear energy is one of the most reliable carbon-free sources of electricity. The Donald C. Cook Nuclear Plant in Bridgman, Michigan, can provide 2,288 MW of electricity when operating at full power. The plant's two units are located along Lake Michigan's eastern shore, producing carbon-free electricity to serve our customers in Michigan and Indiana.

Cook's two units originally were designed for a 40-year life, but, in 2005, the licenses were extended by 20 years to 2034 for Unit 1 and 2037 for Unit 2. In 2019, the plant completed two refueling outages.

In addition to refueling the reactor and performing regular maintenance and testing activities, crews performed reactor vessel inspections, replaced mechanical parts and made other repairs. The work inside the reactor was an important milestone because it showed that previous efforts to maintain and protect the integrity and longevity of the reactor have been successful.

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

Another clean energy resource serving our customers for more than a century is hydroelectric power. AEP has 933 MW of hydro and pumped storage on its system, serving customers in five states. In March 2020, AEP announced a study of 10 hydro plants, totaling approximately 113 MW, for potential sale. This is the result of our ongoing strategic evaluation of our generating assets to ensure our investments are going to support infrastructure and the energy innovations that our customers want and need. With all of our assets, we look at the possible risks and value they bring to AEP and what part each plays in the portfolio of assets managed by the company.

If this study results in the sale of these facilities, there is the possibility for impacts to employees at the plants and in other areas that support these facilities. As we have done before, we will work with our employees through this transition. Any potential sale would not occur before late 2020 at the earliest.

Traditional Programs

For years, AEP has provided customers with a broad array of traditional energy efficiency and demand response programs to help them use energy more efficiently. We have excelled in meeting the requirements and expectations of legislators and regulators, worked cooperatively with a variety of interested stakeholders and delivered exceptional results for our customers.

Today, we are increasingly applying the concept of beneficial electrification to achieve these objectives. Beneficial electrification is the use of electricity to help customers replace fossil fuels to reduce overall emissions and energy costs, improve local environmental conditions and optimize the use of the grid. Electric vehicles, voice-enabled home energy management apps and high-tech industrial technologies are just a few of the many ways we are helping our customers to achieve even better results.

Energy Efficiency Programs

We view energy efficiency as a readily deployable, competitively priced and clean resource that provides many benefits to our customers and the environment. Today, AEP offers customers more than 120 programs across nearly all of our 11-state service territory. In 2019, AEP's energy efficiency programs resulted in more than 1 million MWh of energy reduction and more than 300 MW of demand reduction. From 2008 through 2019, these programs have cumulatively reduced annual consumption by over 9 million MWh and peak demand by approximately 2,900 MW.

In 2019, the American Council for an Energy Efficient Economy (ACEEE) recognized Southwestern Electric Power Company (SWEPCo) with an Exemplary Program Award based on its effectiveness and innovation in helping Arkansas residential customers achieve greater levels of energy efficiency.

The U.S. Environmental Protection Agency (EPA) announced its 2020 ENERGY STAR® awards for businesses and organizations that have made outstanding contributions to protecting the environment through energy efficiency. AEP Ohio, AEP Texas and SWEPCO were named ENERGY STAR Partner of the Year – Sustained Excellence winners. Appalachian Power Company (APCo) and Public Service Company of Oklahoma (PSO) were recognized with an ENERGY STAR Partner of the Year – Energy Efficiency Program Delivery award. In addition, AEP Ohio was a joint recipient with JadeTrack and Columbia Gas for an Excellence in Data Collection award.

Within our own operations, we take measures to reduce energy consumption. We reduced our kilowatt-hour (kWh) usage, normalized for weather, by approximately 32% in 2019, compared with the 2007 baseline, in more than 290 buildings. This resulted in approximately \$6 million in cost savings. We achieved these energy consumption reductions mostly through equipment investments, such as new lighting, heating and cooling systems, along with employee education.

AEP has nine LEED-certified facilities across its service territory. The most recent certifications include our new transmission center in Oklahoma and two service centers in Indiana.

2019 AEP SYSTEM ENERGY EFFICIENCY RESULTS & ESTIMATED AVOIDED CO₂ EMISSIONS

Operating Company	Annual Energy Savings (MWh)	Annual Demand Savings (MW)	Avoided CO ₂ Emissions (USTons)
AEP Ohio	559,741	86	238,224
Appalachian Power	84,739	23	70,461
Kentucky Power	213	0	207
Southwestern Electric Power Company	63,722	30	57,691
Indiana Michigan Power	167,428	25	48,705
Public Service Company of Oklahoma	146,157	92	76,353
AEP Texas	70,589	46	32,884
Total	1,092,591	302	524,707

Demand Response

AEP’s demand response programs lower costs and support the power grid by helping to reduce load in periods of peak demand, such as during extreme hot and cold weather. Some programs include special rate structures that encourage our customers to reduce their energy consumption during these peak demand periods. For some customers, we have contracts that allow us to “interrupt” their power consumption during peak times in exchange for reduced rates.

Peak demand is the amount of power used at times of maximum power usage and varies across our service territory. For example, Appalachian Power’s system peak generally occurs on winter weekday mornings, when electric heating and appliance usage are happening at the same time that commercial equipment and industrial machinery are ramping up for the workday. Public Service Company of Oklahoma’s system, on the other hand, typically peaks 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 grew with the economy and population, new capacity was needed. In the future, the adoption of new technologies, such as distributed resources may affect when peak demand occurs on the system. Therefore, AEP considers the possibility of adding not only new generation resources, but also considers demand response programs as an option for meeting customer peak needs.

Challenges

The successes of our energy efficiency and demand response programs have reduced overall electricity usage and demand requirements across the power grid. A significant amount of this improvement has come from programs that used low-cost incentives for our customers. However, as lighting and other appliance efficiency standards increase, these cost-effective options are dwindling.

The next generation of energy efficiency options includes relatively expensive and more involved customer decisions, such as improving home insulation or upgrading HVAC equipment. The incentives needed are much higher, making them less cost-effective and putting them out of reach for many customers.

AEP also shares the concern that some legislators and regulators have expressed regarding the impact of higher program costs, especially for our low- and moderate-income customers. We have seen this concern raised by

policymakers in several states across our service territory. The key from a policymaking perspective is that capital can be deployed efficiently to reduce customers' bills and drive efficiency in delivering customer preferences for renewable energy, energy efficiency, and energy management services.

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Home Energy Management

Today's technology makes it easier than ever to manage energy use, bills and services. Our customers have access to a growing number of choices for home energy management, and they expect a personalized experience with product and service offerings. To be their preferred choice, we have to give customers relevant and timely energy insights, as well as tailored solutions to help them understand and control their energy use and bills. We offer these insights and solutions in a manner that is consistent with their lifestyle while simultaneously managing the system for the benefit of all customers.

Home Energy Management (HEM) is a collection of integrated solutions that gives us the foundation to do all of these things. The continued integration of smart meters throughout our service areas is a key driver of our HEM expansion, as it facilitates enhanced data accuracy and increases our ability to provide personalized information for customers.

HEM is particularly beneficial to our low-income customers who are sensitive to fluctuations in their utility bills. Through HEM solutions, we can deliver proactive alerts, including energy savings tips and links to energy efficiency programs. In addition, we can help customers increase their ability to control monthly costs.

In 2019, AEP developed a strategy to implement a single HEM data portal enabling two-way data flow with our customers. Customers will now have the ability to access their energy information through one platform instead of being directed to

several third-party portals or websites. The portal will integrate information from multiple digital channels (web, mobile, voice) into one consistent platform for a better customer experience. This enhances our ability to deliver more personalized information to our customers, such as bill comparisons, proactive alerts, personalized cost savings tips and usage breakdown by appliance – giving the customer more insight and control over their energy usage while simultaneously reducing costs. AEP was awarded the inaugural Strategic Vision award by Oracle for this project.

We also offer an HEM voice-assisted app that integrates with voice service devices. Through the app, customers can use voice commands to access their account or energy use information using either platform. [Learn more in Customer Engagement.](#)

Residential customers of AEP Ohio who have smart meters can participate in a HEM program that allows them to manage their energy use in real time through the It's Your Power! mobile app. This app allows customers to pinpoint what uses the most electricity in their home so customers can make money-saving choices without sacrificing comfort. When paired with an AEP Ohio Energy Bridge, It's Your Power! can also be used to control smart home devices, such as remotely adjust their thermostat, set a budget goal for electricity usage, and pay their bill online.

Public Service Company of Oklahoma's PowerHours program offers three options for customers to increase their energy savings through the Time of Day program, the Direct Load Control program, or a combination of both.

Beneficial Electrification

Electrification of end-use technologies in industry, buildings and the transportation sector, combined with cleaner electricity from the grid, creates a clear pathway for a low-carbon future. This enables customers to be more energy efficient through the use of more electricity while replacing direct fossil fuel use. This trend will continue as society looks to replace fossil fuels with clean electricity to heat homes and buildings, power vehicles and operate industrial equipment. The road to beneficial electrification is complex and challenging, but the long-term reward is significant for the environment, society and business.

Increased adoption of electrification technologies such as electric vehicles (EVs) require effective planning to ensure infrastructure is in place to meet our customers' needs and the right policies and regulations to support them. Further, we are working with technology and research partners, customers, policymakers and other stakeholders to

understand the implications and opportunities of large-scale electrification as we transform to a digital economy. Through this engagement, we can identify and support opportunities for strategic electrification, maximize benefits for all customers and ensure development of policies and regulations that help our customers and communities.

In 2019, the West Virginia Public Service Commission expressed support to expand Appalachian Power's (APCo) Energy Efficiency (EE) program to include Beneficial Electrification (BE). This policy demonstrates an important shift in expanding the focus of Energy Efficiency programs from simply a reduction in electricity consumption toward helping customers achieve reductions in overall energy use, costs and environmental impacts. The EE stakeholder process will be used to consider the appropriate BE applications to include in the program.

For more information about beneficial electrification technologies and resources, visit www.energyconversionhub.com.



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Electric Transportation

The electric mobility revolution continues to accelerate throughout the world and in our service territory. Electric vehicle (EV) adoption provides substantial environmental and economic benefits for society. It will also have substantial impacts

on many major industries, including the electric utility industry.

According to the Edison Electric Institute (EEI), there are more than 1.3 million EVs on the road today in the U.S. By 2030, the total number of EVs will climb above 18 million. Our objective is to increase adoption of electric transportation in our service territory and provide charging options that optimize the use of the grid for the benefit of all customers. To increase adoption of EVs in our service territory, AEP is helping raise awareness through education about the benefits of EVs with customers. In 2019, we launched the Electric Car Education and Awareness campaign throughout most of the AEP enterprise. The campaign, which continues through 2020, focuses on four key messages: affordable to buy, affordable to maintain, easy to refuel and easy to get around. The web-based campaign includes event materials, social animations, fleet case studies and a targeted three-month digital campaign. We are installing EV charging options where we park our personal and company vehicles, and we are helping mature transportation corridors to enable long-distance electric travel for all drivers.

We are seeing greater adoption – confirming our growth forecasts. At the end of 2019, there were nearly 14,000 registered EVs across our service territory, with nearly half of those in Ohio. By 2030, we estimate EVs to make up 1% to 3% of all vehicles in our service territory.

Our commitment to electrification includes providing tools and guidance to help customers better manage their vehicle fleets, such as www.electriccarcalculator.com. These tools show that replacing a vehicle with a similar EV can provide a 50% reduction in first-year fuel cost, as well as a 100% reduction in tailpipe emissions. When fleet managers understand these benefits specific to their needs, they are empowered to make informed decisions about EVs that benefit their businesses, customers and communities.

Across much of our service territory, we offer customers options and rates that encourage the efficient use of the grid and make it affordable for customers to charge their EVs. For example, by offering rates that encourage overnight charging, customers can save money because they are charging during off-peak periods. This also helps us better manage the demand on the grid to ensure reliability, which benefits all of our customers. Such EV-friendly rates are the types of initiatives that will enable quicker adoption.

We believe AEP is well-positioned to play an important role in supporting EV market development. We are actively working with policymakers, automakers and customers to develop and implement incentive programs to jump-start and support adoption of EVs in our service territories.

In 2019, AEP continued to expand the use of EVs throughout our own company, including integration of EVs into our fleet of work vehicles.

2019 EV Accomplishments

We continued working on EV programs across several markets to achieve benefits for all customers and reduce charging costs for drivers. In 2020, Indiana Michigan Power (I&M) successfully implemented new tariffs for its customers, while APCo received approval in 2019 for a new EV tariff in Virginia.

EV program activities include:

- In 2019, Oklahoma’s governor extended the state’s tax credit for alternative fuel vehicles through 2027. Oklahomans adopting EVs, or other “clean-burning” vehicles, will receive a tax credit calculated according to the vehicle’s weight.
- We support the development of an electric vehicle infrastructure that all communities can access. AEP Ohio’s \$10 million fund for charging infrastructure includes deployment targets for priority segments, such as multi-family housing, workplaces and disadvantaged communities. The fund is nearly fully subscribed.
- In 2020, we will be actively involved in supporting



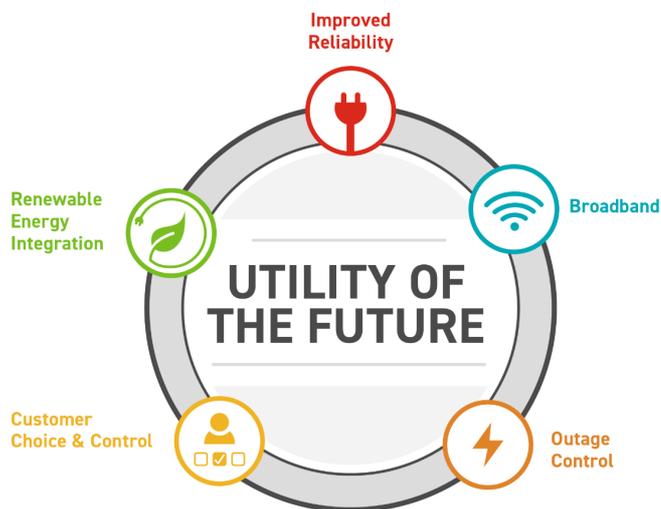
various EV tax credits at the state and federal levels. The Ohio Senate is considering a tax credit for the purchase of electric vehicles and charging stations for either commercial or personal use. As the federal EV tax credit expires for manufacturers such as Tesla and GM, which have sold over 200,000 EVs, we are working with legislators and others to extend this program.

In 2019, I&M assisted Three Rivers Community Schools in Michigan to develop the charging infrastructure for the school district's two new electric buses.

- In Louisiana, SporTran, the City of Shreveport's transportation system, debuted three new electric buses, bringing its EV fleet to eight. Southwestern Electric Power Company (SWEPCO) provided a \$150,000 matching grant to SporTran to purchase an EV charger for the city's electric bus fleet. The new-generation charger will enable electric buses to charge in just 30-45 minutes, compared to the four- to five-hour charge time required previously. Shreveport's electric bus fleet is the largest in Louisiana.
- In 2019, I&M assisted Three Rivers Community Schools in Michigan to develop the charging infrastructure for the school district's two new electric buses. It required a transformer upgrade and identifying the best locations to install the chargers. The new buses are quieter, cost less to maintain and provide health benefits by reducing exposure to diesel exhaust fumes.
- In Virginia, the residential off-peak rate schedule was approved in 2019. The rate schedule offers reduced cost electricity for EV customers who choose to charge off-peak, while allowing them to keep their household on a traditional rate schedule. Additional off-peak use reduces costs for other customers through better utilization of the grid.
- Approved in 2020, the IM PluggedIn Pilot is a robust program that plays an important role in encouraging plug-in electric vehicle adoption and incenting off-peak charging behavior in a way that optimizes the overall electric system. Under the pilot, I&M will provide residential and small commercial customers a rebate to offset wiring and charger installation. Multi-family dwellings and other commercial and industrial customers will also be part of the pilot program and eligible to take advantage of one of two incentive options to help offset charging infrastructure costs. I&M is currently working to launch the program.

GRID RELIABILITY & RESILIENCE

Having a modern, reliable, resilient and secure grid is critical to a clean energy future. From 2020 through 2024, we plan to invest approximately \$26 billion on transmission and distribution infrastructure to expand, strengthen and modernize our network. We are installing new equipment and facilities that support and integrate renewable and distributed energy resources, and we are using analytics and other tools to monitor and predict potential reliability and security risks. We are leveraging the convergence between the electric utility and, system communications, and transportation industries to modernize the grid and address critical socio-economic needs. Through this, we are providing customers with access to reliable, affordable and cleaner energy options and opening access to broadband opportunities in underserved areas.



Reliability Investments

Maintaining the approximately 260,000 miles in our transmission and distribution network comes with an array of challenges even as we upgrade our infrastructure to meet modern-day needs. While our transmission and distribution system is built to last, equipment naturally wears over time, which can increase the risk of failure, outages and efficiency loss. It also affects the customer experience. Making investments to upgrade and replace our aging transmission and distribution grid is essential to maintaining the highest levels of reliability, resilience and customer satisfaction.

AEP works to maintain and expand our transmission system for the needs of our customers. However, at this point, much of our system is nearing or past the end of its useful life. This is a situation being faced by AEP and other utilities across the country. The Edison Electric Institute estimates that 30% of the U.S. transmission system is at, or near, the end of its useful life. We proactively identify equipment that could be a risk to system reliability. We identified nearly 10,600 miles of power lines and more than 360 transformers expected to exceed their design life in the next decade.

Although AEP actively maintains all infrastructure on our grid, there comes a time when replacement is more appropriate than rehabilitation based on condition, performance and risk of failure. As equipment approaches the end of its useful life, there are consequences to consider. Tower structures become weaker, other parts deteriorate and lines have a higher risk of frequent and prolonged outages due to failure. These can also lead to safety considerations for workers and the public. AEP wants to ensure our system remains strong, resilient and safe for generations to come. Therefore, we plan to continue our investments to replace and upgrade equipment and facilities that have the most direct reliability benefit to customers.

AEP's distribution system is no exception. The average age of our distribution poles is 31 years, with more than 1 million poles older than 45 years. Our Operating Companies utilize asset programs to replace and upgrade the aging infrastructure on the distribution system. These programs include replacements of poles, small conductor, service transformers, and protective and voltage regulator equipment. The replacements are planned based on the age and condition of the assets and are prioritized into the overall Operating Company budget for reliability improvement.

To address these aging distribution infrastructure needs requires \$2.7 billion in annual on-system capital investment simply to maintain the current age profile of our system.

While our aggregate load growth is low across the system, there are pockets of higher load growth driven by mixtures of industrial, commercial and residential development. We update annual load forecasts for substations and circuits and plan necessary capacity additions to assure that the growing load can be served reliably. These capacity improvements typically provide incremental reliability improvement by reducing the exposure of existing circuits, adding capacity for recovery of customers during abnormal conditions, and strengthening the circuits both physically and electrically.

We also leverage data analytics and digital technology to reduce failures, increase safety, improve grid reliability and reduce risks. For example, AEP's Asset Health Center (AHC) provides proactive operational and predictive awareness that allows us to make informed decisions about transmission assets that need maintenance or replacement. This helps us reduce risk by identifying safety issues in real time and informs our capital investment strategy. Since 2012, we have also installed and managed real-time performance monitors, saving the company up to \$45 million by preventing transformer failures. The deployment of monitoring and analytics to the grid have been a priority for AEP. These enhanced tools will allow for us to better monitor the system, improve resilience and improve response times to outage conditions.

We are also developing data analytic and visibility tools that make it easier for our distribution engineers and operations personnel to visualize where high-value reliability improvements can be implemented. More detailed reports to analyze specific outage causes and locations are then utilized to develop and prioritize reliability improvement investments. Along with traditional solutions, innovative solutions being considered to improve reliability include distributed generation, energy storage and microgrids.

Vegetation Management

When it comes to vegetation management, AEP has some of the most challenging geography and terrain across the nation. This makes prevention of outages and equipment failures from overgrown and/or fallen vegetation one of our biggest and most expensive challenges. In addition to maintaining what is growing inside our rights-of-way (ROW), we also evaluate the health of trees outside the ROW as part of our management process.

We manage vegetation growth immediately surrounding our power lines – within our defined easements for operational integrity – with a combination of performance-based (such as targeting low-performing circuits) and cycle-based (regularly scheduled) maintenance strategies. Executing an effective vegetation management program across our service area is a significant expense that has a direct effect on service reliability and customer satisfaction. We carefully manage our programs to ensure they are cost-effective, using a variety of tools and techniques. This includes helicopters for aerial inspections, approved herbicide applications and tree trimming. We also continuously evaluate new, more efficient

equipment in the field while integrating artificial intelligence solutions into our planning process to maximize cost efficiency.

Our operating companies work with state regulatory commissions for approval to implement more aggressive and proactive cycle-based vegetation management programs. We have successfully done this in Ohio, Oklahoma, West Virginia, Indiana and Kentucky.

Vegetation Management at AEP:

- During the past five years, AEP has spent more than \$1.89 billion on vegetation management, including \$539 million in 2019.
- Since 2010, Kentucky Power has cleared nearly 10,000 miles of overhead lines in its service territory, reducing outages caused by trees inside the ROW by over 70%.
- In 2019, falling trees accounted for approximately 29% of the total AEP customer minutes of interruption.

Leveraging Drone Technology

Drones are an effective means of inspecting power lines for regular maintenance and surveilling damage after storms. Since 2017, we have tested and used camera-equipped drones for power line patrols and inspections. We also use drones to conduct inspections of generation, transmission, system communications and distribution equipment. Our drone governance structure ensures we comply with specific requirements regarding physical and cybersecurity, corporate risk assessments and federal regulations.

The Advantages of Drones Include:

- Cameras can capture images underneath components on a structure, such as insulator assemblies, while helicopter pilots and observers can only look down.
- Working conditions are safer because no one is required to climb a tower or ride in a helicopter.
- Drones can access hard-to-reach areas possibly not accessible by helicopter.
- Drones are quieter than helicopters, which is a benefit when flying in populated areas.
- Drones provide the ability to assess damage more quickly after an outage.



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In 2019, Public Service Company of Oklahoma (PSO) completed a second round of transmission line inspection testing using drones and visual observers on land owned by the Choctaw Nation of Oklahoma (CNO). This collaboration between PSO, CNO and AirXOS (part of GE Aviation) helped to prove the safety and effectiveness of drone flights using Beyond Visual Line of Sight (BVLOS) technology. This clears the way for future tests without visual observers as we continue to study the feasibility of extending our use of drones.

Grid Assurance

While the nation has improved its ability to respond to the major disasters and power outages that result from catastrophes, there are increasing threats that present new challenges for protecting and recovering quickly from a catastrophic power outage. These include more frequent and extreme weather events and physical, cyber or electromagnetic attacks. Maintaining an adequate inventory of vital equipment needed to replace critical infrastructure in the case of such an event is one challenge to improving grid resiliency.

Transmission components are expensive and often difficult to transport over long distances. In addition, the manufacturing process itself is complex, with lead times for ordering new equipment often extending more than a year. As a result, it is expensive for individual companies to purchase and keep a large quantity of spare transmission equipment on standby. For this reason, in 2018, AEP joined seven other major utility companies in becoming founding subscribers of Grid Assurance, LLC.

Grid Assurance helps members restore power more quickly following a high-impact, low-frequency event by providing a cost-effective method of meeting the collective resilience needs of the transmission grid. The new company's inventory of long-lead-time critical transmission equipment, such as transformers and circuit breakers, is arriving at secure storage facilities. The first assets arrived in late 2019, and arrivals will continue until the final assets are delivered in late 2020. As a subscriber, AEP will have faster access to the equipment and logistical support necessary for prompt deployment after a catastrophic event.

Distributed Energy Resources & Reliability

Distributed Energy Resources (DERs) have the potential to provide society with increased energy reliability and security while reducing our reliance on traditional large, centralized generating stations. DERs include rooftop solar panels, wind turbines, home energy management systems and battery storage systems. As these decentralized, local sources of energy generation and control become more widespread, we need the infrastructure in place to integrate them with the grid safely and efficiently.

As power from more alternative energy sources enters the grid, we face some significant challenges, such as maintaining grid reliability when voltage levels vary. This includes balancing the load when excess power is generated and flows back through the grid from DERs. We need to understand and plan for these dramatic changes so we can integrate them into our operation of the grid. We are making progress to address these challenges.

Many of our large commercial and industrial (C&I) customers have been early adopters of private generation, such as rooftop solar. These users want more control over their systems, as well as lower costs and increased reliability of the power that drives their businesses and keeps them competitive. As the economics of DERs such as private solar continues to improve, C&I customers are increasing their adoption rate.

DERs may be changing the way we view the electric power system, but they will not change our need for a resilient, reliable system that provides customers with the energy and capacity they need all day, every day. All customers – including those with installed private generation – require constant connection to the grid not only to export excess generation to the utility but also to provide generation at all times when their consumption of energy exceeds their ability to generate for themselves. AEP's investments in our transmission and distribution systems are preparing the grid for this – a dynamic grid where the direction and magnitude of energy flows looks very different than has historically been the case.

In 2019, Southwestern Electric Power Company (SWEPCo) piloted the Helia EDGE platform, developed by Helia Technologies, Inc., in Shreveport, Louisiana, to better integrate DERs and improve the grid's resiliency. The Helia platform aides in voltage support and corrects power factor (PF) through DERs. The pilot project allows for SWEPCo to call on customer owned DERs to support the grid for voltage, frequency, energy, and power factor support during extreme weather events, such as heat waves. With the Helia platform and distribution system working together, customers connected to the circuit do not experience low voltage under high-load circumstances.

AEP supports a customer's right to install their own generating equipment, but it is imperative that the company continues to pursue rates for those customers that reflect the true cost to serve them. Rate structures like traditional net metering, which shifts costs from customers with generation to non-generating customers, must be addressed to more fairly



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compensate the benefits private generation provides to the grid.

NERC Compliance

We have a responsibility to our customers to keep their lights on 24/7. The growing reality of cyber and physical threats to our industry's infrastructure is raising concerns with regulators and customers alike. As a result, the Federal Energy Regulatory Commission (FERC) is driving the North American Electric Reliability Corporation (NERC) to develop unparalleled regulations for our industry. These regulations protect the grid and keep it safe, reliable and secure. Our challenge is that the regulations are constantly evolving and new rules are being developed. NERC's Critical Infrastructure Protection (CIP) Standards reflect the increased focus on protecting the grid from cyber threats.

Today, there are approximately 900 continually evolving requirements in effect within the NERC Standards. AEP must meet each of these requirements to remain in full compliance and avoid harsh financial penalties, often in the millions of dollars. To manage the risk of non-compliance, AEP is increasing the number and sophistication of proactive controls as one of several methods we are developing to track, manage and prioritize the ever-growing list of NERC obligations. Due to the increased number and complexity of the NERC Standards, along with AEP's significant geographic footprint, we are continually in the process of completing or preparing for compliance audits. We must maintain a constant state of audit readiness across AEP. To prepare, we maintain a strong focus on outreach efforts across AEP to communicate new changes and requirements to the NERC Standards.

AEP's NERC compliance governance structure was developed specifically to respond to the current compliance environment and provides the direction, agility and organizational support needed to implement an industry-leading NERC compliance program. This governance structure, in collaboration with regulators and industry leaders, has resulted in the implementation of a three-year strategic plan for achieving operational excellence in NERC compliance. In addition, AEP's safety culture provides a strong foundation for ensuring that compliance is one of the essential elements of the program's strategic plan. Every employee at AEP has a role in delivering reliable, safe, secure electricity to all of our customers, and compliance plays a critical role in achieving this goal.

TECHNOLOGY & INNOVATION

From generation to transmission and distribution, we are taking bold steps to create new solutions for our customers. We are leveraging the power of data analytics to better understand our infrastructure and machine learning and artificial intelligence to integrate and optimize our assets. We are partnering with our communities and entrepreneurial businesses and using next-generation tools, including virtual and augmented realities, robots and more, to propel our solutions forward.

In May 2020, we named our first Chief Information and Technology officer, who will lead technology initiatives across AEP. This includes information technology, innovation, digital initiatives and telecommunications. We believe AEP is well-positioned to leverage our scale, industry experience and skilled workforce to achieve our goal of being the energy company of the future. While we have come a long way in our innovation journey, we remain committed to leading the energy industry and providing customers with innovations that will power their 21st century needs.

A Culture of Innovation

At AEP, innovation has been part of the fabric of our culture for more than a century. Today, our sights are set on the next 100 years. AEP has dedicated teams working to identify, create and execute on opportunities at local and global levels.

Our Focus

Our Innovation and Technology operating model focuses on scouting new technologies, validating them fast, partnering

with AEP business units to demonstrate their benefits to customers and policymakers, securing timely regulatory support or contractual approvals and deploying them at scale.

We currently use three technology accelerator programs to cost-effectively scout for start-up technologies in the U.S. and internationally and to validate the benefits of their technologies. Validation is achieved through short-term pilots, in collaboration with practitioners and experts in AEP operating companies and business units.

Our main focus on innovation is to create cost-effective benefits for customers, such as piloting microgrids. AEP Ohio installed a microgrid at the Columbus Zoo and received regulatory support for this first-of-its-kind technology. We believe that microgrids eventually can help increase the resiliency of energy systems by maintaining power in areas where critical public service facilities, such as police and fire stations, medical facilities and emergency shelters, are located.

AEP Charge

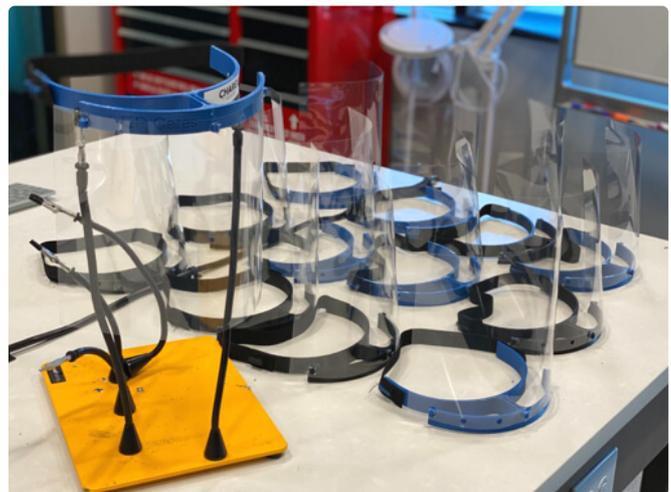
AEP Charge leverages transformative technologies in order to deliver timely, cost-reducing innovative capabilities for our customers and employees. Charge engages the business at large, ranks opportunities against an established prioritization framework, and rapidly creates technologies for immediate consideration and implementation. Once a solution is successfully rolled out and benefits realized, Charge partners with IT to scale the solution for broader consumption.

Charge's goal is to achieve \$200 million in savings for AEP by 2023. Through 2019, Charge has delivered more than \$40 million in estimated value across the Company. Some of the Charge projects in 2019 included:

- **CircuitSafe™** – A new desktop and mobile app for AEP dispatchers and line workers that improves the safety and efficiency of Distribution log on/off activity. The app uses direct web portal access and GPS to allow line workers to quickly and safely do their work. This application has been deployed to our Distribution dispatchers and line workers across the entire AEP footprint.
- **Digital Commissioning Checklist** – A comprehensive checklist that summarizes the required tasks for testing and commissioning substation assets. The new digital checklist provides enhanced transparency and more effective process controls to ensure assets are documented and tested, driving grid reliability and safety. The digital checklist enhances communication between construction teams, and it drives efficiency by reducing oversight and possible rework.
- **Safety & Health Dashboard** – A new tool that enhances the visibility of analytics following a safety incident. This dashboard helps us identify proactive safety actions and training opportunities in support of Zero Harm.

In the wake of COVID-19, the Charge team piloted several products to help AEP and others efficiently handle the impacts and threats of the virus. In response to recommendations that business owners check the temperature of workers before they arrive at work, the Charge team researched and launched a pilot on wearable technologies that enable essential workers to self-monitor their temperature. This eliminates the need for them to come into a central location, risking exposure to others.

To help supply critical medical supplies for front-line workers, Charge refactored its 3D printers to produce 1,200 face shields that were distributed throughout our service territory. Charge also helped with business continuity planning by creating and updating digital tools to survey and document business issues impacted by the COVID-19 outbreak. This included developing an app, logic and analytics for business leaders to manage multiple scenarios across multiple business units, helping to ensure work could continue.



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Charge is continually seeking to develop internally generated intellectual property and to build collaborative partnerships in

the Columbus, Ohio area to potentially co-author new technology offerings. We are also investigating ways of sharing the solutions we develop with others in our industry and beyond. New technology offerings may present new pathways to generate revenue for AEP. As our need for digital advancement evolves, the Charge team will continue to develop or recruit the talent needed to apply new advancements in areas such as artificial intelligence, machine learning and data analytics.

Global Innovation

The CEOs of AEP, Enel (Italy) and Hydro-Québec (Canada) formed the International Energy Innovators Consortium to co-develop technologies that are not currently available. This collaboration of technology experts in microgrids, big data analytical tools and e-mobility yields joint initiatives with the potential to serve the customers of all three companies.

We are also partnering with Enel-X (Italy), Innogy (Germany), ESB (Ireland), China Light and Power (Hong Kong), Hydro-Québec and other international utilities to identify opportunities to co-validate, co-develop and co-invest in new technologies.

In addition, the CEO-led Global Sustainable Electricity Partnership provides access to a global information hub for innovative technologies, business models and public policies that are enabling development and deployment of new technologies. AEP has been a member since the 1990s and gains valuable insights from other international CEOs on how they are solving similar challenges to those facing our customers.

Smart Columbus

AEP was a foundational partner with Columbus, Ohio, in the city's successful bid for the U.S. Department of Transportation's (DOT) Smart City Challenge grant in 2016. The Smart Columbus project has helped community leaders and organizations take a fresh approach to mobility, local economic growth and fostering a sustainable community. The goals of the program align with AEP's efforts to increase the electrification of the transportation system and make the electric grid smarter and more efficient.

AEP Ohio, the local utility serving Columbus and communities in 61 of Ohio's 88 counties, in 2018 launched an electric vehicle (EV) charging station rebate program that provided \$9.5 million in incentives to install charging stations for public use, at workplaces, in multi-family housing units and in low-income areas throughout the service territory.

In the two years the program has been active, more than 300 chargers have been installed, including approximately 290 level 2 chargers and 25 DC fast charging stations. Applications to reach the original target of 375 total chargers have outpaced the outstanding available funds, with more than 200 projects in the pipeline.

Data collected about charger utilization will help Columbus and other cities around the nation make better decisions about where to place charging infrastructure. While EV adoption is on the rise, many drivers point to charging station availability and "range anxiety" as barriers to making the switch to an EV. Through data collection, analytics and collaborative efforts, we can ensure that investments in EV charging occur in the right places from a system and customer perspective.

Learn more in the [Grid Modernization section](#).

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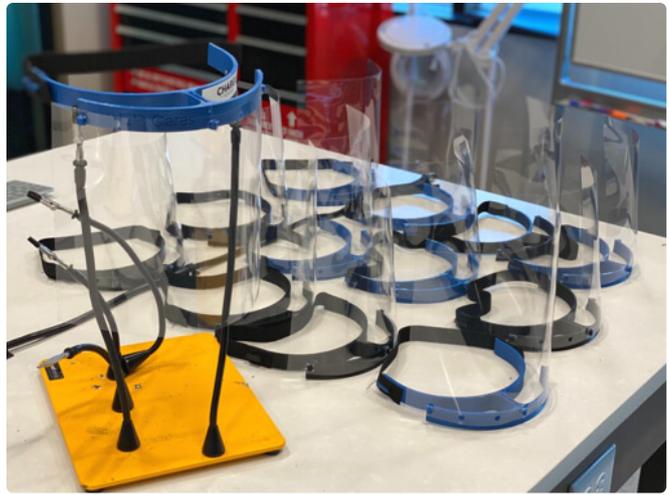
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GRID MODERNIZATION

The radical shift in resources to generate electricity, evolving uses of distribution systems, societal expectations, consumer demand for clean energy, and changing markets are driving the need for major capital investments in the electric grid. At AEP, we are making these investments to create a smarter, more sophisticated system, providing universal access to cleaner, cost-effective power, and tailored energy solutions.

Data Analytics

Technology advancements in analytics are making things possible today that were unimaginable not so long ago. At AEP, we are using these advancements to reinvent what it means to be a modern energy company.

We are using data and analytics to solve problems, optimize processes and discover new business opportunities. As we continue to improve data management across AEP, we will be able to expand our use of analytics. Already, we have completed several initiatives that provide monitoring, prediction and optimization capabilities that did not previously exist. These efforts are enabling us to enhance safety, reliability and customer value.

As we learn and advance our expertise in this space, we are using data analytics and artificial intelligence to make recommendations to our customers based on their preferences identified through their interactions with us. Currently, our customer interactions are largely transactional, such as paying a bill or turning power on and off. Having this new functionality gives us more information to target our offerings to meet customer expectations. Learn more about how we are leveraging analytics to improve the customer experience in the [Customer Engagement section](#).



We strive to find the right mix of projects and technologies that modernize and optimize the grid while maintaining affordability for our customers.

MODERNIZING DISTRIBUTION

As we integrate new tools and technologies into the grid, the distribution system becomes more complex and an increasingly important resource. For example, advanced planning tools help us better understand how changing energy resources will affect our distribution system so that we can adapt or change course. We are also coordinating with transmission planning to understand how the changes in distribution affect the transmission grid.

Smart Metering

Advanced Metering Infrastructure (AMI), or smart metering, is a foundational technology of the modern power grid that enables other technologies, including integration of distributed energy resources (DERs). With AMI meters, customers have access to both historical and real-time usage data. This gives them more knowledge of their energy consumption and helps them identify ways to save money through more efficient energy use.

AMI meters also continuously capture data across many metrics, including energy usage, voltage and temperature. These data points enable a wide range of customer engagement programs, as well as other service enhancements. This includes quickly initiating or reconnecting service remotely, sharing energy use habits with customers, and accurately

billing customers' electricity usage every month. AMI meters also provide significant savings and improve worker safety across our service territories because it reduces or eliminates fieldwork. Through year-end 2019, AEP deployed over 3.15 million AMI meters, equipping a total of 56% of our electric customers with a smart meter. We have plans to deploy an additional 1.4 million over the next several years.



AMI, or smart metering, is a foundational technology of the modern power grid.

Smart Circuits

Distribution Automation Circuit Reconfiguration (DACR) is an electrical process that detects faults in line sections and can reconfigure circuits to quickly restore power to customers on another section of the circuit. Using this “self-healing” technology, we can strategically reroute electricity, reducing the number of customers affected during an outage while AEP crews make repairs. Since 2010, DACR technology has been applied to approximately 360 circuits.

Another technology we are installing is Volt/VAR Optimization (VVO). This technology automatically controls voltage levels on distribution circuits to more closely match the voltages demanded by our customers. Using VVO helps both the distribution system and our customers achieve greater energy efficiency while ensuring the same customer experience. In addition, the technology helps the power grid balance the capacity coming from DERs, improving grid adaptability. Since 2010, VVO technology has been applied to more than 260 circuits.

As we continue to digitize our substations and other grid components to be compatible with new technologies such as DACR, we are also shortening the lengths of circuits on our system. By reducing the number of AEP customers exposed on a single circuit, we can lessen the impact of outages on the grid when they occur.

Smart Grid Command Center

Network disruptions can happen at any time of the day or night. For this reason, our experts must be available quickly to identify and resolve issues whenever they occur. Our Smart Grid Command Center in Ohio offers 24/7 service monitoring for our entire network communications between AMI, DACR, VVO and underground network vaults.

What does this mean for our customers? More reliable service through faster identification and resolution of issues. If a router fails on a utility pole in Texas, the first to know about it will be our Smart Grid Command Center. The Command Center will identify the problem and resolve it remotely, if possible, or dispatch a local work crew to the site to make the repair.

Underground Network Monitoring

Underground Network (UGN) monitoring changes the way we collect, communicate and use information and data to support the Operations, Engineering, and Planning functions of our critical UGN systems.

With sensors and state-of-the-art telecom technology, we can see the underground system as we never have before, allowing us to proactively manage the system. The insights we get from this real-time monitoring also provides line crews

more information about the facilities before they enter and as they prepare to perform their work, making it a safer work environment. Having this data supports our ability to predict and prevent failures.

In 2019, SWEPCo completed a five-year, \$15 million Underground Network Risk Mitigation project to improve the underground electric network in downtown Shreveport, Louisiana. This project comes on the heels of AEP completing a multiyear, \$84 million initiative across our operating companies to modernize and reinforce our underground electrical networks.

MODERNIZING TRANSMISSION

AEP continues to make significant investments to modernize the transmission grid, replace aging facilities, target poorly performing assets such as outdated substations and utility poles, and improve grid security. These improvements help reduce our future costs to maintain the electric power system and ensure the continued reliability of the grid for our customers.

A large portion of AEP’s investment focuses on replacing or upgrading facilities identified as underperforming or obsolete. Replacing them reduces maintenance costs while improving efficiency and reliability performance. In addition, our investments are enhancing grid security and modernizing the telecommunications network that supports the electric system. This enables us to locate, diagnose and respond more quickly when reliability issues occur.

AEP’s planned transmission investments are determined by four key drivers, as shown in the diagram below. The value and benefits of the investments are outlined in a 2020 comprehensive study completed by Guidehouse Inc., which supports AEP’s thoughtful transmission planning.

VALUE DRIVERS AND BENEFITS FOR TRANSMISSION INVESTMENTS

SAFETY	RELIABILITY & RESILIENCE	ENVIRONMENT & EFFICIENT REGIONAL MARKETS	ECONOMIC
NERC COMPLIANCE	REDUCE CUSTOMER IMPACTS	CLEAN ENERGY ECONOMY	FINANCIAL VALUE
PUBLIC SECURITY	SECURITY	CONNECTING MARKETS	COMMUNITY BENEFITS
Public Safety	Reduce Transmission Related Outages	Market Efficiency & Congestion Relief	Direct, Indirect, Induced Economic Benefits
Operating Personnel Safety	Reduce Customer Interruption Costs	Increased Access to Economic Generation	Increased Job Creation
Hospitals & Life Support Equipment	Reduce Possibility of Catastrophic Failure & Cascading Outages	Increased Renewable Energy Integration	Income, Property & Miscellaneous Taxes
Replacing Hazardous Material & Equipment	Societal Impact of Power Outages	Increased Ability to Handle Intermittent Energy Supply	
	Increase Physical, Cyber, Operational Security & System Health	Reduce Transmission Losses	
	Enhance Black Start Capabilities		
	System Hardening to Withstand Extreme Weather Events		

Source: Guidehouse

BOLD® Advantages

AEP's Breakthrough Overhead Line Design® (BOLD®) technology is an example of groundbreaking innovation designed to improve reliability, grid resilience and services for customers. BOLD features lower tower profiles and increase capacity within the same right-of-way. This makes it an attractive design option in dense areas and a conscientious response to public objections to taller and more conspicuous traditional towers. In addition, the single-pole design provides important environmental benefits, including fewer line losses and avian interactions.

Highlights of BOLD projects in 2019 that addressed the need for higher transmission capacity in congested areas include:

- The Deer Creek-to-Sorenson rebuild in Fort Wayne, Indiana, which includes replacement of 35 miles of 90-year old 138-kV double-circuit line with modern infrastructure as part of the ongoing asset renewal for the benefit of customers.
- The Jug Street Corridor rebuild that featured more than 6 miles of 345-kV double-circuit line rebuild in New Albany, Ohio, to address a need to add capacity to an existing corridor.



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

Prefabricated Transmission

Since 2015, AEP has worked with prefabricated technology to build transmission substations more efficiently, safely and less expensively. In addition to efficiency gains, prefabrication can reduce the length of construction-related outages, speed up installation, improve safety by minimizing risk exposure and minimize waste. There were 14 prefabricated conductor assembly or structural assembly installations in 2018, with an additional 34 projects in 2019 and 37 more projected for installation in 2020.

In July 2019, AEP Transmission installed its first 345-kV prefabricated Rural Bay structure at Princess Station in Cannonsburg, Kentucky. At 21 feet assembled, it is the widest component ever transported on the AEP system. A second structure was installed at the West Carroll Station in Hillsville, Virginia, in August.

In addition, 98 prefabricated foundations were installed in 2019. We were able to combine prefabricated foundations with prefabricated structural assemblies twice, first at West Carroll in Virginia and second at Causeway in Texas. It is our intent to make these foundations the standard, rather than the exception, as cost savings and time efficiencies grow.

Extended Reality

The thread that connects the legacy analog power grid of the past with the modern, digital grid of the future may lie in the three-dimensional and colorful world of augmented and virtual reality, or extended reality (XR). We are using XR and its wearable technologies to help us bridge the real and digital worlds, saving us money and time while enhancing safety and training efforts.

AEP has used XR since 2017, when we first used it as a potential tool for conducting virtual site visits of field operations. Today, we use XR for a multitude of purposes, including training, construction and more. A single employee equipped with XR goggles can conduct a virtual site visit, entering a station and interacting with stakeholders remotely through web streaming. A new employee can also use XR to train for fieldwork without leaving the safety of an office setting. Additionally, safety training can effectively use XR to provide virtual scenarios for seldom occurring events.

We have developed several new projects around this exciting technology:

- New station engineering design standards models are using the XR technology to conduct virtual site visits, as the design develops, to quickly identify errors within the models that may have been overlooked using traditional 2D or 3D models. Based on the early success of this pilot program, we updated our Station Engineering Design Standards to include XR review of all design models going forward. We also released updates that improve how engineers can visually collaborate on a single design remotely.
- In response to the success of our Station Standards VR efforts last year, we realized that VR provides an excellent opportunity for immersive training. We created a VR learning platform with several training experiences centering on safety, including fire extinguisher and qualified observer educational modules.

MODERNIZING TELECOMMUNICATIONS

Although we are an energy company, we cannot do any part of our jobs without a robust telecommunications network operating behind the scenes. Our ability to capture and communicate the vast amounts of data coming through the devices, equipment, facilities, networks and applications of our smart grid is essential to every single one of our business activities – and our telecommunications needs are growing every day.

It is imperative we have the proper infrastructure in place to support our evolving telecommunications needs and meet both current and future operational demands to deliver high-quality customer service. Much like the aging grid, our telecommunications system is undergoing a significant transformation.

AEP operates one of the largest private fiber optics networks belonging to of any energy company in the U.S.

From collecting and transmitting outage updates to customers via our mobile apps to downloading real-time grid data in the field, this network supports everything we do. We are expanding it to meet the data needs of an increasingly digital smart grid, our operations and our customers' needs. Our investments also support opportunities for the dual use of fiber for grid modernization and enabling Internet Service Providers to make the final connection to areas that lack broadband coverage. This is critical to the economic development and social well-being of our communities. Learn more in the Regulatory section of this report.

In 2017, we began a 10-year, \$694 million initiative to modernize our fiber optics system that serves as the backbone of the power grid and our business operations. Our initial phase, the \$521 million Telecom Transmission Modernization Program, will continue through 2021. The focus during this initial phase has been to upgrade major fiber optic routes and expand telecom networks to our substations. Through 2019, we have installed more than 2,300 miles of fiber optic cable, with another approximately 1,680 miles currently in process through 2020.



Having the proper infrastructure in place to support our evolving telecommunication needs to meet both current and future operational demands is imperative.

ENERGY STORAGE

As we introduce more renewable generation into our energy mix, the need to invest in energy storage grows. Energy storage can help smooth the flow of power as generation from intermittent resources such as wind and solar varies.

The recent reduction in cost of commercially available energy storage technologies, particularly those leveraging Lithium-ion technology, has created an increased interest across our industry for proposed deployments of energy storage in the grid. AEP has seen a significant increase in project proposals from developers to pair renewable energy generation (solar or wind) with energy storage and connect to the AEP Transmission system.

We are also investigating and actively pursuing the application of Bulk Energy Storage Systems as transmission assets in situations where they can help to cost-effectively maintain or improve the reliability of the transmission system, compared to traditional options of building new transmission lines or stations. An example of this is the proposed installation of a 2 MW storage device adjacent to the Middle Creek station in Kentucky, to effectively take the place of a transmission line rebuild. Energy storage projects are being considered on the distribution system as well.

Storage technology supports local reliability and demand response for our customers, and it is integrated into our distribution and resource planning processes. For example, batteries are a relatively flexible solution that can be mobilized and relocated to meet changing demand in the system. We have pilot projects in AEP Ohio to help improve the reliability of sections of circuits. We are evaluating similar projects throughout most of our operating companies.

Applications of Distributed Energy Storage

- **Reliability improvements** - AEP has more than a decade of experience with battery storage, which can provide back-up power in case of an outage. During that time we installed three 2-MW NaS (sodium sulfur) batteries in Appalachian Power, AEP Ohio and Indiana Michigan Power.
- **Frequency regulation** - Batteries have the ability to rapidly respond to balance load and generation in real time on the grid. Regional transmission organizations (RTOs) are recognizing the need for greater amounts of frequency regulation to maintain system stability with the increased integration of variable generation resources.
- **Firming of renewables** - Wind and solar often have points in time where they do not produce electricity. Deploying batteries to combine with wind and/or solar energy can allow for better use and management of variable renewable energy sources.
- **Peak shaving** - Batteries can provide power during peak demand times to meet customer demand while alleviating strain on the power grid. APCo's current RFPs for solar energy resources include a battery storage option.
- **Power quality** - Batteries are capable of conditioning the flow of power to protect sensitive electronic equipment.

We make use of energy storage across our generation portfolio, such as in the Byllesby Hydroelectric Plant in Virginia, operated by Appalachian Power (APCo). The Byllesby facility is paired with 4 MW of battery storage, which enhances the flexibility of the 100-year-old plant so it can respond rapidly to changes in grid demand. The battery system also provides an additional revenue stream to AEP.

Another type of storage – pumped storage – has been serving customers of APCo since the mid-1960s. The Smith Mountain Pumped Storage Project can generate 585 MW of electricity for up to 11 hours or can be used for short periods to meet peak energy needs.

New energy storage projects may allow solar power to be delivered past sunset and into evening peak demand periods. We continue to explore opportunities to leverage the unique aspects of energy storage resources for expanded use in transmission, distribution and wholesale applications. Policymaking on these issues is extremely important to our ability to enable new technology and deploy it on the transmission and distribution grid.

SAFETY & HEALTH AT AEP

No aspect of our work is more important than safety and health, whether it is for an AEP employee, a contractor or a member of the community. Zero Harm is core to our values and at the heart of everything we do. It means we believe all occupational illnesses and injuries are preventable. Because We Care that everyone goes home in the same or better condition than when they came to work. We Care about our people, our customers and our communities. This includes AEP's efforts to take proactive and necessary measures to address the COVID-19 pandemic, keeping health and safety as our top priorities. Read more about [AEP's response to COVID-19](#).

Sadly, one of our employees did not make it home in 2019 due to fatal injuries sustained on the job. An AEP employee died when his vehicle rolled over a hill due to road erosion. In response, we took immediate action to refocus our workforce by taking time to pause and adding new steps to mitigate risks. The impact of this loss to family, friends and coworkers is profound. We remain committed to doing all we can to prevent events like this from happening again.

Zero Harm means achieving zero injuries, zero occupational illnesses and zero fatalities. Getting to Zero Harm means reflecting on our past, with an understanding of how much we stand to lose with a single shortcut. AEP is deeply committed to a safety culture where employees not only believe Zero Harm can be achieved but also demonstrate it every day as well. Although we experienced a slight increase in injury events in 2019, 83% of our reporting work locations across the company did not experience a DART (Days Away, Restricted or Job Transfer) event.

In our fourth year of our Zero Harm transformation, we are focusing more on learning from events and developing leading indicators. We have created tools, training and processes that allow our employees to better use information from events and leading indicators to change behaviors. We are also improving the way leaders communicate safety to cultivate accountability, employee engagement and oversight. This requires a learning-centric safety culture, where events are viewed objectively and used as opportunities to prevent future harm while we learn from those who do it well. It takes our safety culture to a new level with a focus on communicating, learning and continuously improving. Our efforts include:

- **Standardizing Processes:** Creating standards for our work puts our best practices into play and enables our teams to avoid unnecessary risk.
- **Identifying & Addressing Hazards:** The work we do is challenging, and hazards are present at every job. Having strategies to identify, understand and control hazards is a fundamental part of our safety culture.
- **Sharing Information:** Sharing lessons learned from injuries and leading indicators such as Good Catches makes our employees and contractors safer. This creates awareness about potential risks and actions that can prevent injuries. We use this information to make better decisions about how we do our work.

Internal audits of our safety and health management system and compliance processes are part of our quest for Zero Harm. The audits flag potential hazards that could lead to harm, allowing us to take proactive corrective and preventive action. In 2019, we audited safety and health programs at 27 locations. We share the audit results with business unit leaders and safety professionals across the company to leverage best practices and lessons learned. In addition, the Audit Committee of the board receives the results.

2019 SAFETY & HEALTH PERFORMANCE

	2018	2019
Employee DART Rate	0.393	0.412
Contractor DART Rate	0.507	0.544
Combined Employee & Contractor DART Rate	0.446	0.477
Combined Employee & Contractor DART Events	161	178
Employee Severity Rate	17,568	22,719

* The severity rate is meant to show how critical each injury and illness is. The concept is that an employee who must miss time from work or be restricted in their activity to heal and recover has a more severe injury or illness than one who can immediately return to work.



SAFETY & HEALTH INITIATIVES

The safety and health of our employees, contractors and the public is our highest priority. We continue to make significant progress; however, we still have work to do to get to Zero.

We take every opportunity to get better at what we do and learn how to work safer. Continually assessing our performance enables prioritization, immediate attention to at-risk behaviors and identification of supporting best practices. During 2019, we continued implementing new technologies, processes and systems to help us better understand our performance. Through these processes, we identified slips, trips, falls and stepped-in-hole injuries, as well as overexertion (sprains and strains), as the most common injuries among employees. We are strengthening our programs around these injury types to encourage hazard recognition and risk mitigation.

The actions we take to keep our employees safe extend to our contractor workforce. We are working with our contractors to ensure that new team members learn the right and wrong way to complete a job and that they understand our commitment to Zero Harm. For example, in addition to contractor training, AEP Ohio's largest tree-trimming contractor gives green hard hats to all of its entry-level crew members. It is a way for everyone to identify the newest person on a job site and watch out for them. It gives everyone a clear, visible indication of who may need attention and to check and adjust their understanding of safety expectations.



The Good Catch program encourages employees to proactively share information about unsafe conditions or events where there was no resulting harm or damage.

Standardizing Processes

In 2019, more than 1,800 contractor companies worked over 36 million hours on our behalf. Having a standardized and common set of systems and processes across AEP is foundational to providing our contractors clear and consistent expectations. We aim to have a common onboarding program to provide a common work experience across AEP's territory so they know what we expect of them.

During 2019, we began implementation of a new systemwide contractor safety data management system, which will centralize contractor safety event information across all of our businesses. This new system houses contractor qualifications and tracks hours worked. When fully implemented in 2020, the system will simplify communication with contractors and serve as a resource and communication center. Users will be able to find AEP's Supplemental Safety and Health Terms and Conditions, templates and videos. It can also push safety updates to contractors, keeping them informed of the latest safety information and news.

Additionally in 2019, we issued new Supplemental Safety and Health Terms and Conditions for use in all contracts, standardizing this important information across all of AEP. It also makes it easier for contractors to understand AEP's requirements. We are doing this in collaboration with contractors to ensure understanding and to set clear expectations.

We also recognize the need for different focus areas for AEP employees and our contractor workforce. Our contractors have different needs and, starting in 2020, we are providing clarity on what is expected of our employees and contractors, together and separately, in achieving Zero Harm.

Identifying & Addressing Hazards

The work we do is challenging, and every job has hazards that require focused attention to prevent harm. Having strategies to identify, understand and control hazards is a fundamental part of our safety culture. Increasingly, we are using the number of CORE visits conducted or Good Catches logged, to identify hazards before injuries occur. By identifying

patterns in at-risk behaviors, we are able to better adapt training programs and safety governance processes, further reducing risk.

CORE Visits

Coaching through Observation, Recognition and Engagement (CORE) is a leadership tool used to assess a variety of activities. The visits connect employees with their leaders in a two-way dialogue to improve engagement and performance. In 2019, leaders documented more than 28,700 CORE visits. We use this information to identify trends and areas for improvement.

In 2019, AEP Texas piloted a standard CORE visit framework that helps improve understanding of how employees in the field can work safer. It identifies both successes and opportunities associated with knowledge gaps and employees' use of safety controls. Having this information helps employees identify hazards before those hazards turn into events. Starting in 2020, all business units will use this framework to conduct targeted assessments of high-risk activities.

Good Catch Program

AEP's Good Catch program encourages proactive sharing of information about unsafe conditions or events that resulted in no harm or damage. Through the program, situations are reported and corrected, and learnings are communicated across the organization. In 2019, employees reported more than 6,500 Good Catches, an increase of 32% compared with 2018. We continue to see the quantity and quality of Good Catches improve. Beginning in 2020, we are capturing more Good Catches for the most common injury types – slips, trips, falls, stepped-in-hole and overexertion (strains and sprains). We are also capturing the number of times a job is stopped to encourage crew members to ask questions when unsure or something seems unsafe.

Preventing Overexertion

Approximately 30% of employee DART (Days Away, Restricted or Job Transfer) injuries are caused by overexertion. To reduce these types of injuries, we developed four key recommendations for prevention: improve lifting and weight awareness; create instructional videos on how to provide feedback about safety issues; incorporate ergonomics into tool selection criteria; and develop role-specific stretching and flexibility plans for employees.

For example, we are adding labels on materials and equipment to indicate their weight and provide the appropriate lifting strategy to avoid injury. We continuously seek opportunities to reduce exposure to overexertion injuries. In 2020, we will deploy a micro-learning course to help employees make better decisions about what materials they lift and how they should lift materials. Employees will learn about ergonomics, lifting techniques and risk factors. The lessons build on each other and provide opportunities for interaction.

Sharing Information

Sharing lessons learned from injuries and Good Catches helps our employees work safer. It creates awareness about potential risks and actions that can prevent injuries and enables us to make better decisions about how we do our work. To be effective in communicating important safety and health information, we must have the proper tools, analytics and communication channels in place.

To maintain our focus on safety and health throughout the year, we communicate key safety events, Good Catches and policy updates across AEP. These include safety alerts, web-based tools such as a safety and health dashboard, a private Facebook page and a safety and health video channel.

Data Analytics

Data analytics provides us with insight into patterns and trends so that we can identify underlying causes of common safety and health events. Analytics can also help improve our prevention efforts. One example of this is the installation of in-cab camera technology across our entire fleet. This technology has been installed in more than 6,900 vehicles to-date.

Driving is a critical task for many people at AEP. Our employees collectively drove more than 95 million miles behind the wheel for work in 2019. Telematics equipment monitors speed, idling, braking, driving, seat belt use and other vehicle data. The information gathered helps us learn about how we drive and identify risky driving behaviors. Our drivers' skills are improving through publishing tailored safe driving best practices and providing guidance to supervisors on a monthly basis so they can have safe driving conversations with their teams. This is an example of where we are using information to improve behaviors.

SAFETY OF THE PUBLIC

Our commitment to safety extends beyond AEP's employees and contractors to our communities. We are constantly improving ways to communicate safety information to our neighbors, public contractors and first responders who are at risk of coming into contact with our electrical facilities. We use multiple communication channels, including advertising, videos, direct mail, in-person training, social media campaigns and school education programs.

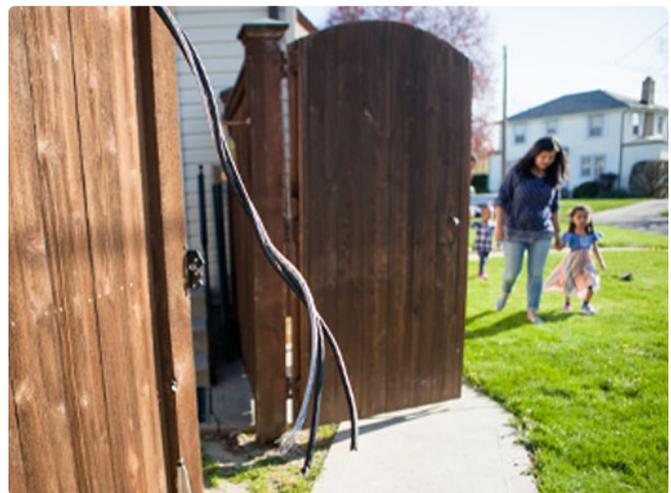
Unfortunately, despite our education and outreach efforts, four public fatalities occurred in the AEP service territory in 2019 due to electrical contact. In response, we increased our public safety efforts to increase public education and awareness for staying safe near electrical facilities.

During 2019, AEP nearly doubled the number of published safety messages to approximately 2,000 messages shared across our social media platforms – Twitter, Facebook and LinkedIn. We have found weekly #SafetySaturday posts and posts with photos, links or infographics to be the most successful at increasing public safety awareness and engagement. We also engage with the public through promotion of “[Call Before You Dig](#),” electrical safety awareness events and school safety programs.

In 2019, AEP Ohio built a new educational “live-line trailer” equipped with an array of innovative displays that demonstrate the potential dangers of electricity. The trailer travels to schools, safety conventions and county fairs. Visitors get to witness demonstrations of dangerous situations, such as a car crash or fallen tree, to learn how to protect themselves in these situations.

Because first responders may be the first to encounter a downed power line, we conduct outreach and education with them to ensure they stay safe when responding to an emergency. In 2019, Public Service Company of Oklahoma (PSO) offered specialized training to teach first responders how to deal with a downed power line, how to safely exit a vehicle in contact with a power line, how electric system circuit protection works and other electrical safety best practices.

We continue to develop our public safety education programs, including participating in an Edison Electric Institute (EEI) working group that is developing common public safety messaging for all electric utilities. Once complete, this will provide a stronger, more consistent message about public safety across our industry.



We are constantly seeking better ways to communicate safety information to our neighbors, public contractors and first responders who may come in contact with our electrical facilities.

WORKFORCE SAFETY & SECURITY

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

While we take great measures to ensure our employees' physical security at work – such as identification badges, secured turnstile entrances, and physical security desks and personnel – we stress the need for situational awareness at all times. We offer several workplace safety training initiatives to teach our employees to think about safety not just at work but at home and in public as well.



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

AEP Workplace Training Initiatives:

- **Active Shooter Response training:** An interactive walk-about exercise that takes place in the employee's actual workplace to build situational awareness of their surroundings.
- **Customer Threat and Aggressive Behavior training:** For our field employees, this includes de-escalation techniques when someone threatens the safety of our employees.
- **How to Recognize Workplace Aggression training:** Employees learn how to identify workplace aggression warning signs and behavioral indicators, and what to do if someone displays these signs.

Throughout 2020, we are providing all managers and supervisors with training on prevention techniques, such as understanding the warning signs of an event. If we see employees are struggling emotionally, we want to be able to identify the behavior and provide any help and support that we can. By putting these efforts in place, we stay true to our commitment to providing a safe working environment for all employees.

OUR WORKFORCE

We are transforming the way we do our work. The skills we need and the expectations of new generations who are fast becoming the majority of our workforce are rapidly changing and now are a primary focus area. Technology is playing a pivotal role in how this unfolds. According to the World Economic Forum, 65% of children entering primary school today will hold jobs that do not currently exist. Digital platforms and artificial intelligence (AI) are creating greater efficiencies, cost savings and new career opportunities. Access to enormous amounts of data are informing how we act, invest and engage.

While we will still have a significant need to hire new talent, we are reorganizing many of our traditional job roles and reassessing how we will perform our work in the future. The COVID-19 pandemic also brought forward thinking about where the work is done. Our business units are preparing to integrate new technologies into existing workflows while identifying new work processes that can better leverage our changing workforce.

AEP is committed to disclosing our human capital management data. The following metrics can be found in our [2020 GRI Report](#):

- [New Employee Hires, Employee Terminations and Employee Turnover](#)
- [Parental Leave Retention Rate](#)
- [Average Hours of Training per Employee](#)
- [Percentage of Employee Receiving Regular Performance Reviews](#)

Protecting Our Employees During the COVID-19 Pandemic

When prospective employees are considering their career options, they are looking for companies that share their values, offer competitive wages and benefits, provides opportunities for learning new skills and achieving career advancement, and allow flexibility to balance work and personal interests. During the COVID-19 pandemic, AEP took significant steps to keep our employees healthy while ensuring our ability to serve our customers. We instructed all employees who were able to work from home to do so to help prevent the spread of the virus, closed all AEP facilities to outside visitors and curtailed all non-essential travel and participation in face-to-face meetings.

In addition, as employees grappled with unprecedented challenges and personal demands arising from the COVID-19 pandemic, AEP worked to develop a comprehensive set of pay and leave programs to support employees across a wide range of situations. This was guided by a goal to protect and provide fair continuation of wages and benefits while limiting exposure risk to protect the health of employees and their families.

We also made several enhancements to AEP's Medical Plan and Retirement Savings 401(k) Plan for employees impacted by COVID-19. The AEP Medical Plan changes align with new federal requirements and provides temporary enhancements to employees and their families with flexible options, many with no cost, when seeking health care. AEP's 401(k) changes provide hardship relief through the Coronavirus Aid, Relief and Economic Security (CARES) Act, which provides options for accessing funds from 401(k) accounts due to financial hardship related to the coronavirus.

[Learn more in COVID-19.](#)



During the COVID-19 pandemic, AEP took significant steps to keep our employees healthy while ensuring our ability to serve our customers.

As we seek to attract and retain the top talent for jobs that range from line workers to data scientists to digital experts, AEP knows the competition is fierce. We are committed to providing a safe, diverse and inclusive workplace and an engaged culture. Here are some of the many benefits offered to our employees:

AEP Employee Benefits

- Medical (includes same-sex partner benefits)
- Dental
- Vision
- Critical illness plans
- Accidental death insurance
- Health care flexible spending account
- Life insurance (and supplemental)
- Long-term disability insurance
- Training programs

- Legal services
- Vacation purchase program
- 401(k)

- Wellness program
- Employee Assistance Program
- Financial planning
- Adoption assistance
- Education assistance
- Retirement benefits

Digital Transformation

Across society, consumers are increasingly integrating mobile digital technology into their daily lives, from online shopping and operating their home security systems to remotely turning lights on and off and adjusting thermostats. At AEP, we are integrating digital into the way we organize, behave and operate to remain competitive, better serve our customers and create sustainable value. This operating model gives us a place to test insights and develop valuable products, services and solutions quickly for customers and become more efficient ourselves.

As we continue our digital transformation, we are creating opportunities for employees to remain open to test new ideas. We are encouraging a collaborative mindset that sparks curiosity and creativity – staying true to our heritage of innovation. Our employees must be agile, willing to challenge the status quo to test new ideas and insights, and able to accept failure as part of success.

For example, we are leveraging artificial intelligence (AI) to help solve some of our key business challenges. In 2019, we began a demonstration called “AI Olympics,” where we encouraged a group of forward-looking employees to submit ideas that can showcase AI as viable solutions. The goal is to create awareness about the capabilities of AI and the kinds of challenges it can help solve.

The Future of Work

At AEP, we are in the midst of the disruption and change that comes with the need to adapt to an evolving landscape. We now have a multigenerational workforce that increasingly prefers alternative work styles and work environments beyond the traditional office environment. The rise of mobile and wearable technology, artificial intelligence (AI), Internet of Things (IoT), virtual and augmented reality, drones and networks powered by 5G are among the transformational changes reshaping the workplace.

While the work is changing, the technical and physical skills required to maintain and operate the grid remain critical. Merging these different needs requires a core mindset of continuous learning and continuous improvement. We must transform our workforce by helping employees develop the skills needed to accomplish their work using these new digital platforms.

The workplace as we know it today must also transform to accommodate the work of the future. We are rethinking where we do our work by assessing options such as virtual or remote work, and we are exploring new ways to get work done. We are learning a lot about remote working as approximately 12,000 of our employees, including over 80% of call center employees, are working from home in response to the COVID-19 pandemic. We are also adapting offices and other facilities to accommodate new technology and enable our employees to be more productive and collaborative.

We are working with our business units to identify the changes they anticipate to their operations over the next several years. We are conducting extensive research and analysis to understand our current workflows and the way our employees currently do their work. We are also asking ourselves whether it is more effective and efficient to hire contractors, to engage third parties or to use process automation. This allows us to be more flexible as business needs and skillsets change as well as to become more efficient.

WORKFORCE PLANNING & DEVELOPMENT

Although our annual employee turnover rate remains steadily low at approximately 8.7%, we anticipate that about 4,500 employees will leave or retire from 2020 through 2024. Many of these employees are highly experienced and have significant institutional knowledge of the company, our operations and systems. When competition for top talent is fierce, we must be more deliberate and strategic in seeking individuals with the right mix of talent and experience.

We see this level of turnover across our workforce as an opportunity to identify our future talent needs within AEP. Our digital transformation requires our employees to have skillsets that merge analytics with traditional job functions. This need spans our entire business, from our facility maintenance staff and our line workers to our customer service teams. Sometimes, a new technology simply requires a quick update of existing equipment or skills. Other times, it requires a more thorough examination of the staffing capabilities needed to manage new equipment, new processes or new software. Developing employees with these new skillsets is critical to becoming a modern energy company.

Another challenge we must address is the shortage of skilled labor, such as line mechanics. In our Transmission and Distribution departments, we have two Line Mechanic Apprentice training programs registered with the Department of Labor. We grant journeyman status to all program graduates. In addition, eligible veterans may apply their GI Bill benefits while in the apprenticeship program. We currently have more than 800 apprentices, with more than 50 using their GI Bill benefits. If successful, this new training method can be effective in helping reduce this skilled labor shortage.

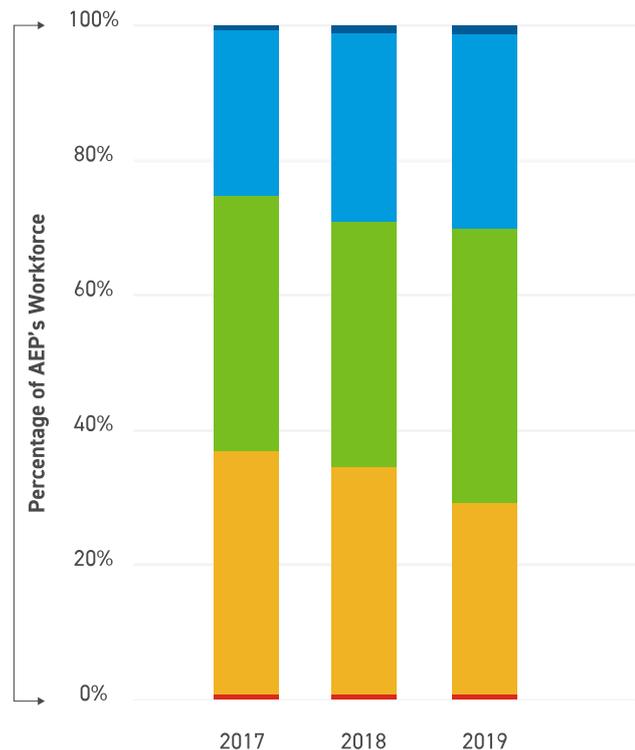
We also tap into our pool of retired employees to address labor shortages. For example, when we take a power plant offline, many employees leave prior to the plant's closure to pursue other jobs or accept new positions within AEP. This often results in a temporary shortage of labor to operate the plant until its scheduled closure. At our coal plant in Conesville, Ohio, more than 10 retirees came back to work to help operate the facility until its scheduled closure in May 2020. This helped ensure the plant operated safely while keeping the lights on for our customers.

We are collaborating with the Business Roundtable (BRT), the Ohio BRT, the International Brotherhood of Electrical Workers, and universities and community colleges throughout our operating regions to meet our future business needs. Together we are working to implement educational programs to provide students, as well as current and future AEP employees, with the tools to transition into these new skillsets.

Preparing Our Future Talent Pipeline

Amid this change, we must be proactive in creating a talent pool that meets our future business needs. At AEP, we are preparing our workforce for the future by providing opportunities to learn new skills and engaging higher education institutions to better prepare the next generation with the skills that we will need. We are also building a pipeline of future talent by investing in our [Credits CountSMSTEM education](#) program. And we are investing in our talent recruiting efforts to become more effective at connecting our new, cutting-edge work roles with today's top candidates.

AEP WORKFORCE DEMOGRAPHICS



2019

- 1% Generation Z (1997 & beyond)
- 32% Millennials (Generation Y, 1981-1996)
- 36% Generation X (1965-1980)
- 31% Baby Boomers (1946-1964)
- <1% Traditionalist (1942 & before)

AEP has training alliances with several community colleges, universities and vocational and technical schools across our 11-state service territory. We work with these institutions to develop academic programs that will 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 Centers, Texas State Technical College, Prairie View A&M University, Morgan State University, Tennessee State University, Bridge Valley Community & Technical College and Oklahoma State University Institute of Technology, among many others.

In collaboration with AEP and several other businesses, educators and community leaders, Columbus State Community College launched the Office of Talent Strategy in late 2019. The new office is working to ensure a larger talent pipeline exists with the skills and training to fill in-demand jobs in areas such as data analytics, cybersecurity and cloud technologies. The Office will also utilize research and data to forecast workforce needs and facilitate policies that strengthen the talent pool of the future.

In 2019, AEP joined with the BRT, the Ohio BRT and Columbus State to submit an application to the Department of Education to take part in Columbus State's federal work-study (FWS) program. Under this experimental program, AEP may hire eligible Columbus State students as interns for part-time Information Technology (IT) positions while they are attending school. These positions offer students the ability to use FWS funding to help pay for their educational expenses while obtaining valuable practical work experience in the field of information technology. Our participation in the Department of Education's FWS experimental site program will also provide AEP with access to a larger IT talent pipeline when these students finish school.

AEP also has robust co-op and internship programs across a variety of business units. For example, during the summer of 2019, we hired 41 college co-op students and interns and three high school interns at our transmission business. In Appalachian Power, we worked with The Education Alliance to bring three high school students to work as paid interns learning technical as well as professional skills.

In 2019, AEP teamed up with students from the South-Western Career Academy in Grove City, Ohio, to construct a new learning lab at an AEP training facility. The students, currently studying electrical trades, got firsthand field experience as they assisted AEP workers in tasks such as adding secondary voltage and underground conductors. Based on the success of this program, AEP will continue to explore new opportunities to engage students as they prepare for electrical trade careers.

Developing our Employees

Transformational change requires a more progressive and thoughtful approach in how we train, develop and retain our employees. Our goal is to prepare our company and workforce for the skillsets needed to align with our future strategy. AEP provides a broad range of training and assistance that supports lifelong learning and transition development. This is especially important as we move closer toward a digital future that requires a more flexible, innovative and diverse workforce.

We have robust processes to achieve this, including 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 2019, AEP employees completed approximately 1.1 million hours of training in programs for which we track participation and supported more than 1,000 employees with education reimbursement.

AEP provides development opportunities for employees at every level, whether through informal professional development opportunities or formal development programs. 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.

CULTURE OF ENGAGEMENT

A strong and healthy culture fosters engaged employees and creates the foundation for long-term success. An engaged, collaborative and empowered workforce not only improves morale and performance but also fuels innovation, sparks ingenuity and drives continuous improvement. We need a culture that supports agility to succeed in a fast-paced, changing work environment. This includes building on our commitment to customers, safety, operational excellence and innovation. Our focus on culture is deliberate and unwavering, and we are making good progress toward achieving the high-performing culture we seek.

To measure our engagement progress, AEP conducts an annual employee culture survey through Gallup, Inc. In 2019, AEP achieved notable improvement in nearly every survey question. AEP's grand mean engagement score is in the 87th percentile, compared to Gallup's overall company database. This represents a substantial increase from the 12th percentile in 2014 when we first conducted the survey. Our progress is noteworthy and is the result of an engaged and committed workforce at all levels.



91%
culture survey
participation rate



Improved our overall grand
mean Engagement score from
the 12th percentile in 2014 to
the **87th percentile** in 2019



Improved our Inclusiveness
Index score from 3.99 in
2017 to **4.09 in 2019**

We also saw a slight improvement in our Well-Being score from 4.06 in 2018 to 4.16 in 2019. Well-being is an important indicator of employee engagement. It follows that companies that build a culture of well-being position their employees to perform at their best. Today, we provide a wide range of programs that support employees' well-being. These include a wellness program, financial planning and advice experts, mental health benefits, adoption assistance and many other benefits that support employees in their personal and professional lives.

In 2019, we introduced new questions to begin measuring our focus on innovation. The responses to these questions give us insights into AEP's encouragement of idea generation and forward thinking along with areas for improvement.

In early 2020, AEP was recognized for its culture journey with the annual Gallup Exceptional Workplace Award. AEP was one of 38 companies recognized, and one of two electric companies who made the list. We are very proud of this prestigious award.

Having a high-performing, highly engaged workforce requires equipping people the tools they need to be successful and to contribute in meaningful ways. One way we do this is through our Power up & Lead culture leadership workshop. In these interactive sessions, new AEP employees learn about our common cultural language and better understand how daily behaviors affect their work environment. Employees leave these sessions with the knowledge, tools and resources to be more collaborative, effective and engaged.

In addition, AEP launched a best practice forum for leaders to share research, insights and lessons learned. We also provide coaching opportunities for leaders and teams to better support them through their culture journey.



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. Our talent acquisition team builds direct relationships with military bases across the country to provide veterans with a pipeline to careers at AEP. We invest in attracting veterans because they have the technical training, experience and personal characteristics that make them a great fit for careers in the energy industry. They also bring a mindset of safety, which is a core value of AEP's business, making them attractive recruits for our company.

We hold open houses for veterans so they can learn about skilled craft positions within the company, watch live demonstrations of line mechanic work and learn about 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 partner with external initiatives that are designed to provide veterans with mentoring services, career development opportunities or skills matching services.

Our partnerships include:

- [U.S. Army Partnership for Youth Success \(PaYS\)](#)
- [Troops to Energy Jobs](#)
- [Overwatch Partnership](#)

Public Service Company of Oklahoma (PSO) received recognition in 2019, for the second straight year, as a Veteran Employer Champion for its efforts in hiring and supporting military veterans.

LABOR RELATIONS

Nearly one fourth of AEP's workforce is represented by labor unions. We value the relationships we have with our unionized employees and believe in a trusting, collaborative and respectful partnership. We are working with our labor partners to strengthen these relationships to ensure we have a culture that attracts and supports employees who can adapt to the rapid changes occurring in our company and industry. Our partnership with labor unions is critical to meeting the growing expectations of our customers and adapting to the challenges of rapidly changing technologies. We also have multiyear contracts in place with our union partners to enhance continuity for both the company and our workforce.

Our relationship often goes beyond the confines of a contract. Together, we are expanding our focus on safety and culture while enhancing productivity. We are also working with labor leaders to support infrastructure development across the nation while developing the talent pipeline and skills needed for the future. We share many common interests on the policy front and collaborate on issues important to each of us. Our labor-management relationship continues to strengthen as our workforce becomes more flexible, creative and engaged. Our partnership with organized labor is instrumental with regulatory, legislative and rate-related issues.

AEP continues to be a leader in the planning and organizing of the annual National Labor and Management Public Affairs Committee (LAMPAC) meeting. This collaborative effort of labor and management is designed to bring together energy company executives and leaders from IBEW to advance the common objectives of the electric power industry and IBEW members.

10%
of AEP's employees
are military veterans, and
6% of AEP's new hires
are veterans

**AEP's Military
Veteran ERG**
is another way we
support our more than
**1,800 military
veteran employees**



Military veteran benefits provided in addition to AEP's traditional benefits:

- Paid time off to attend funeral services for a service member with whom they have served.
- Pay differential for employees in the Reserves or National Guard who are ordered to active duty in emergency situations.

2019 ORGANIZED LABOR AT AEP

Labor Unions	Number of Employees
International Brotherhood of Electrical Workers	3,191
Utility Workers Union of America	501
United Steelworkers of America	313
United Mine Workers of America	126
International Union of Operating Engineers	2
Total	4,133

As of 12/31/19

DIVERSITY & INCLUSION

At AEP, we value a supportive, inclusive business environment for our employees that reflects the diversity of the communities where we live, work and operate. We are committed to providing opportunities for all employees to advance and unlock the power of perspectives to better serve our customers, drive innovation and generate sustainable growth for our company.

Diversity and inclusion are key components to our business strategy. We believe a commitment to diversity and inclusion allows us to remain competitive and to attract and retain the best talent. A diverse, inclusive and highly engaged workforce not only improves organizational performance but also improves company culture – creating an environment that welcomes different experiences, beliefs, ideas, backgrounds and thoughts.

Our Diversity & Inclusion Vision: We are committed to a culture where differences are valued and recognized as a significant, positive influence on AEP’s ability to serve and support our employees, customers, suppliers and other key stakeholders.

DIVERSITY & INCLUSION STRATEGIC PLAN ROADMAP TO 2025



AEP is committed to disclosing our human capital management data. The following metrics can be found in our [2020 GRI Report](#):

- [EEO-1](#)
- [Ratio of Basic Salary and Remuneration of Women to Men](#)
- [Incidents of Discrimination and Corrective Actions Taken](#)

[Learn more about our progress in our 2020 Sustainability Goals Progress Report.](#)

Partnerships for Success

We fuel our diversity efforts through a number of internal and external initiatives, programs and partnerships. Through educational institutions, professional associations, community organizations, employee resource groups (ERGs) and leadership development forums, we focus on building and fostering partnerships that give us greater access to diverse talent.

We are proud to support and participate in a number of partnerships, including Paradigm for Parity®, the CEO Action for Diversity & Inclusion™ pledge and the Columbus Commitment: Achieving Pay Equity. We also have relationships with many other diverse organizations such as the National Society of Black Engineers, Prospanica and Human Rights

Campaign (HRC). These partnerships expose AEP to more diverse talent and help us become a recognized partner and leader among potential employees. We also have alliances with several colleges and universities that broaden our access to diverse candidates.

AEP EMPLOYEE REPRESENTATION*

as of Dec. 31, 2019	Employees	Females	%	Minorities	%
Total Employment	17,573	3,454	20%	3,233	18%
Officials & Managers	3,326	543	16%	419	13%
Professionals	5,743	1,578	27%	1,128	20%

as of Dec. 31, 2018	Employees	Females	%	Minorities	%
Total Employment	17,930	3,409	19%	3,127	17%
Officials & Managers	3,288	494	15%	384	12%
Professionals	5,598	1,503	27%	1,062	19%

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

DIVERSITY & INCLUSION INITIATIVES AT AEP

Diversity & Inclusion Advisory Council

AEP's Diversity & Inclusion Advisory Council reinforces our commitment to a diverse and inclusive workforce. AEP is a dynamic and growing energy company that serves an increasingly diverse workforce, community and customer base. This requires AEP to have a long-term diversity and inclusion strategy that sustains market and industry relevancy, growth, innovation and long-term success. The Council's role is to ensure alignment of our initiatives, monitor our progress and provide guidance companywide.

Listening Tour

Now in its second year, the AEP Diversity & Inclusion Listening Tour is a process for hearing firsthand the state of diversity and inclusion across our company. The listening tour provides employees with a safe place to talk about diversity within AEP, to engage leaders and to discuss ways to take ownership by cultivating a culture of inclusion. In total, we held 24 sessions at 22 locations across AEP, engaging more than 700 employees.

D&I Employee Town Hall

In August 2019, we hosted a Diversity and Inclusion Employee Town Hall webcast, in which a panel of six employees – including Chairman, President and CEO Nick Akins – shared their personal stories, experiences and journey as they related to matters of diversity and inclusion.

D&I Liaisons

In early 2020, AEP tapped 19 employees representing many business units across the enterprise, to serve as Diversity & Inclusion liaisons. The liaisons will work with their business unit leaders and AEP's Chief Diversity & Inclusion officer, to communicate and promote D&I awareness. A key focus will be consistent, ongoing communications about the value of having a diverse and inclusive work environment.



Inclusive Leadership Education & Awareness

In 2019, AEP rolled out a new Inclusive Leadership workshop as part of our strategic initiatives to demonstrate our commitment to the CEO Action for Diversity & Inclusion Pledge. During these interactive sessions, we discuss common unconscious biases, how they may appear at AEP and their potential impact in the workplace. We met our goal of 90% leadership attendance. Managers and supervisors can then develop action plans to better manage their teams, including hiring and recruiting, career development and interacting with customers.

Employee Resource Groups

One of the best ways for AEP to demonstrate our commitment to a trusting and inclusive work environment is to empower employees to form and participate in Employee Resource Groups (ERGs). Our ERGs reflect the diverse makeup of our workforce and enable us to gain valuable insight into the diverse communities we serve. They also help increase engagement across the company by providing employees with a safe space to discuss work-related issues and to develop innovative solutions. ERG members 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 of new employees. [View a full list of ERGs at AEP.](#)

Multicultural Holiday

In keeping with our intentional focus of fostering an inclusive culture, employees have the option annually to select a day that reflects a religious observance, a cultural celebration or a federal holiday not currently observed by the company.

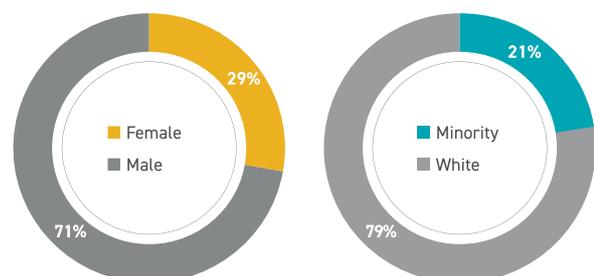
LEADERSHIP DIVERSITY

Diversity matters at all levels. Having employees, leaders and board members who represent different experiences, thought processes, generations, genders, and races and ethnic backgrounds gives us a broader perspective on business issues, challenges and solutions. It advances us to a place of viewing differences as strengths. It also solidifies our commitment to building a high-performing workforce that reflects the diverse communities we serve.

In 2019, the AEP Women's Leadership Series launched a new program called Lead with Confidence and Courage to Thrive. This interactive leadership program helps women discover ways to build confidence, relationships, and a leadership brand to create career opportunities. It provides a pathway for employees to advance and unlock the power of perspectives to better serve our customers, drive innovation and generate sustainable growth for our company. It also creates a foundation for long-term success planning and career mobilization for emerging leaders.

In 2020, AEP was recognized by [2020 Women on Boards](#) as a Winning "W" Company for the third consecutive year. The recognition is for Russell 3000 companies whose boards have 20% or more seats held by women. AEP's 13-member board includes four women, or 31%. Leadership diversity lays the foundation for enabling a more inclusive workforce that breaks down silos and creates a trusting, engaging and collaborative work environment. While we are making progress, this is a journey, and we still have a long way to go.

2020 LEADERSHIP DIVERSITY



Includes AEP's Board of Directors, AEP Leadership and Regional Utility Presidents as of April 30, 2020.

SUPPLIER DIVERSITY

AEP's diversity and inclusion efforts extend beyond our workforce to the customers and communities we serve, including our supplier base. Small and diverse suppliers enable innovation, increase competition, improve savings and enhance the AEP brand. We want our pool of suppliers and business partners to align to the diversity of our communities by making it easier for diverse suppliers to do business with us.



Supplier Code of Conduct



Supplier Code of Conduct FAQs

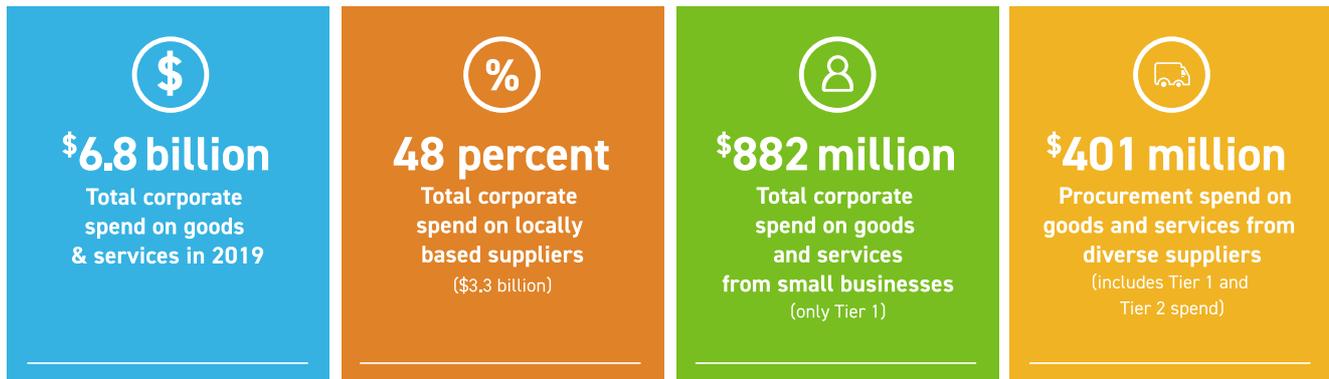
The Supplier Diversity Program focuses on maximizing opportunities for diverse businesses, which include those owned by women, minorities (including Hispanic, African American, Asian American, and Native American), veterans, LGBTQ, HUBZone and service-disabled veterans. Our goal is to develop a pool of diverse, strategic suppliers and business partners that mirror the customers we serve, and we set a target of 13% diverse spend by 2023 [includes Tier 1 (prime) and Tier 2 (subcontractors) suppliers]. In 2019, we increased our diverse spend to 7.4% of the spend managed through Procurement.

We continue to improve our Tier 2 supplier program, which allows us to understand the impact of our diverse supplier spend through our direct suppliers. The Tier 2 program demonstrates the importance we place in understanding how our spend trickles down through our supply chain to affect the communities we serve.

In 2019, we updated our supplier terms and conditions in an effort to better inform and engage suppliers about our expectations. Suppliers must now adhere to standardized data collection and reporting practices. We also focused our efforts on increasing the number of qualified, diverse Tier 2 suppliers. One challenge we face is that many qualifying enterprises are small-scale operations, which are often unable to devote the resources necessary to become an AEP supplier. We will continue to work with our suppliers to develop new strategies around this issue moving forward.

In 2019, we began implementing a new supplier diversity champion program. Over the next year, we will educate and prepare these champions to create awareness of our supplier diversity goals both inside and out of our business.

AEP'S 2019 DIVERSE SPEND PROFILE



AEP's Partnership With Connecting The Dots

Giving back to our communities is fundamental to AEP's vision of powering a new and brighter future for our customers and communities. This includes working with small and diverse suppliers, such as King Business Interiors – a woman-owned, small business focused on environmental and community stewardship.

Darla King, chief executive officer of King Business Interiors, created a gently used furniture bank called Connecting the Dots. The program works with 50 companies to collect the surplus of unwanted, slightly used furniture that they donate to 200 non-profit organizations across central Ohio. King recognized an opportunity to connect corporations like AEP with non-profits and start-ups, who were in need of free furniture. AEP has been in partnership with Connecting the Dots for 22 years.

AEP recently donated two floors of office furniture to Connecting the Dots after a remodel project. The donation supported Pilot Dogs, a non-profit organization that provides guide dogs to the legally blind. AEP's donation helped Pilot Dogs furnish its newly expanded headquarters – allowing the organization to focus more on its mission and less

on the financial burden of buying new furniture.

“Connecting the Dots enables organizations to spend their limited money on more important aspects of their business,” said King. “When new companies and charities are trying to grow, the last thing they need to spend money on is office furniture.”

In addition to helping nonprofits, Connecting the Dots is beneficial for the environment – giving used items a second purpose while reducing landfill waste and the need for natural resources to make new furniture.



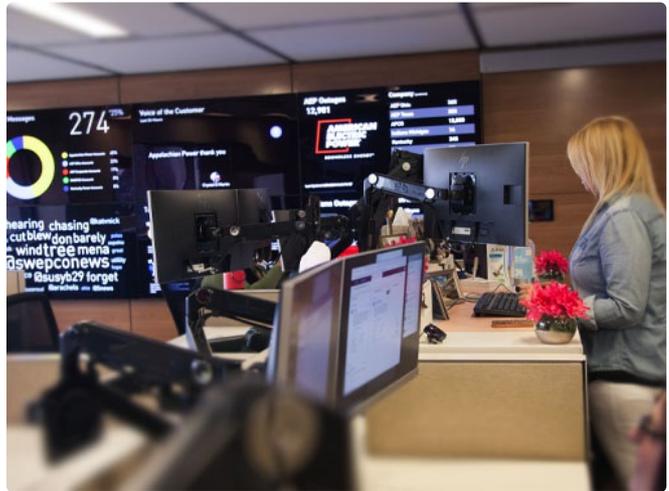
Darla King, chief executive officer of King Business Interiors.

CUSTOMER EXPERIENCE

At AEP, our goal is to provide world-class service while creating positive, lasting relationships with our customers. We are doing this by meeting our customers in the communication channel of their choice while providing tailored solutions that make it simple, fast and convenient to do business with us. Our multiyear customer experience strategy focuses on developing people, processes, technology and customer-driven insights to help us exceed our customers' growing expectations and changing needs, especially during crisis situations like the COVID-19 pandemic.

Being mindful of the financial hardships and concerns our customers may have been facing, we temporarily suspended all service disconnections for nonpayment. We worked with our customers to arrange payment options and communicated with them about potential scams that were emerging during this time. In addition, to ensure the safety and health of our call center representatives, more than 80% of AEP's customer care agents worked from home so they could provide continued service and support for our customers. [Learn more about AEP's response to COVID-19.](#)

From first contact to delivery of service, changes in service and even how we can best serve our customers during crisis situations, we are studying each touchpoint with our customers to understand and improve their overall experience and satisfaction.

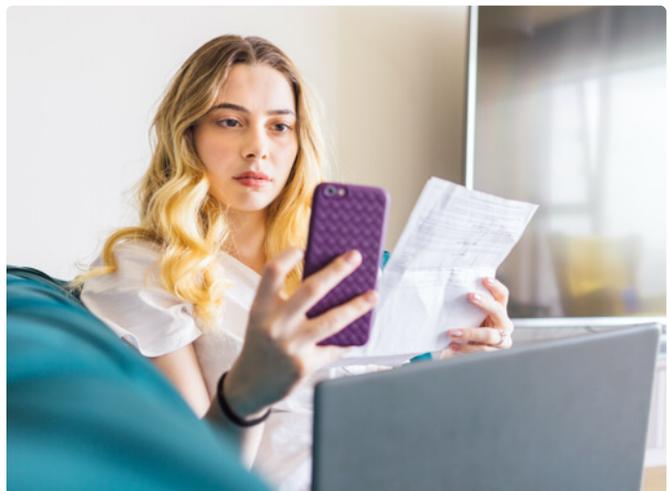


Our dedicated Social Media Center helps us better meet our customers needs in the communication channel of their choice.

CUSTOMER ENGAGEMENT AT AEP

Across AEP, many factors influence our customers' overall experience with us. From initial communication and account management to billing, payment history and social media posts, their experience with each connection forms their opinion about AEP. Giving customers multiple channels to engage with us is critical to the AEP customer experience. Customers drive the channels through which we communicate, and we work diligently to ensure every channel yields a positive solution. When we engage with a customer, we want to communicate about the topics that matter to them. As we integrate new customer relationship management tools, we are enhancing our capabilities to respond to customers' individual needs more efficiently and cost-effectively.

In 2020, more than 80% of our customer care agents worked from home to support our small business customers impacted by the COVID-19 pandemic, we created a web-based resource center with information on federal aid made available to our customers. In addition, we trained a group of our call center representatives to provide dedicated support for small businesses that want to apply for federal Small Business Administration (SBA) programs. We also created resource pages for our residential customers on each of our Operating Company websites. [Learn more about our efforts to support our customers.](#)



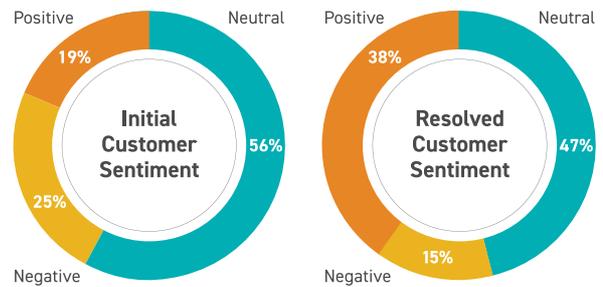
Giving customers multiple channels to engage with us is critical to the AEP customer experience.

Social Media

Our customers are increasingly using a variety of social media platforms to connect with us. In today's digital world, customers expect immediate response from us, day or night. This is especially true during outages, when customers expect real-time, accurate information about restoration efforts. AEP manages several social media channels including Facebook, Twitter and LinkedIn through our Social Media Center. Recognized by J.D. Power as a best practice, we staff our Social Media Center with customer care agents seven days a week, ensuring that, on average, a customer who reaches out through Facebook or Twitter can expect a response within minutes.

Having a dedicated Social Media Center and social media strategy helps us make a significant impact on our customer sentiment, improve our overall customer satisfaction, provide new marketing channels and enhance our company's reputation. Social media gives us a near-real-time snapshot of our overall customer satisfaction levels.

SHIFTING SOCIAL MEDIA SENTIMENT



These charts illustrate how a meaningful conversation on social media can improve the customer experience. Any time a customer starts a conversation with AEP or any of its subsidiaries on Facebook, Twitter, LinkedIn or Instagram, we note the sentiment both at the beginning and the end of our conversation, and hope to see improvement. Our social media conversations effectively wipe out 40% of negative sentiment by resolving customer concerns in their channel of choice.

Customer Perceptions & Expectations

In 2019, we began the rollout of a new, centralized customer relationship management (CRM) system, giving us better information about what our customers want, their perceptions and expectations of AEP and how they want to engage with us.

In 2019, we expanded the Voice of the Customer Program through an enhanced post-call survey for customers who contact our Customer Operations Centers. The survey measures customer satisfaction and ease of doing business with AEP for phone and digital channels in real time, giving us important information about what caused the customers' concerns and at what point it occurred. We share these survey results with call center employees and other internal stakeholders to learn from them, so we can deliver a better experience in the future.

In addition to direct customer feedback, we couple data from the J.D. Power Customer Satisfaction Survey and other research firms to compare our performance with that of our utility peers and other industries, such as banking, telecommunications and retail. This gives us a more complete picture of a customer's experience with AEP, including any feedback they provide and preferences they may have. Having this information allows us to improve service to our customers with the tailored energy solutions they want.

AEP Ohio was designated a Customer Champion in the 2019 Cogent Syndicated Utility Trusted Brand & Customer Engagement™ Residential study for the second year in a row. The report was based on a survey of more than 67,000 residential customers of the nation's 140 largest utility companies. AEP Ohio was one of 40 utilities to earn this award.

In 2019, Public Service Company of Oklahoma (PSO) was named a Utility Customer Champion in the Cogent Syndicated Utility Trusted Brand & Customer Engagement™: Residential study from Escalent, a top human behavior and analytics firm. The award honors utilities that exhibit exceptional performance on Brand Trust, Service Satisfaction and Product Experience.

Supporting Our Wholesale, Transmission Owner and Generation Customers

When we think about customers, we generally think about the retail customers of local distribution companies. However, AEP also serves large-scale non-affiliate customers who directly connect to our transmission grid and have different needs. Our transmission customers include wholesale (electric co-operatives and municipalities) and other transmission

owners and generation interconnections (independent power producers).

Power quality and reliability is a priority for these customers. In general, as AEP and customers continue to modernize their equipment, their systems become more sensitive to power quality issues such as voltage variations and momentary power outages. By acting on customers' needs for power or infrastructure change, we can provide additional transparency about energy use and deliver targeted solutions to meet their energy needs of tomorrow.

By providing support to our electrically interconnected partners through communications and stakeholder engagement meetings, we proactively identify customer pain points, load criticality and other infrastructure concerns, so that we can resolve issues prior to a problem occurring.

Customer Digital Assistant Channel

The new voice channel (via voice service devices, such as Amazon's Alexa) allows customers to access information within their and other AEP digital customer applications, such as the mobile app. They can also get answers to questions, such as "How can I save energy?" or "How much is my average bill?" During 2019, the top three questions asked by customers were "What is my bill?" (39%), "What is my energy usage?" (12%) and "What is my daily average energy usage?" (9%). Customers are just beginning to interact with these devices on things beyond music and entertainment.

Paperless customers are now able to pay bills via voice service devices. We plan to add new features, including the ability for customers to report an outage or enroll in an AEP program or service.

Keeping Customers Informed

AEP's mobile app makes it easier for customers to do business with us, including the ability to pay their bill, monitor their energy use and report or check on the status of an outage. AEP's customer mobile app has been downloaded over 570,000 times and, on average, has over 165,000 active devices per day. We continually work to update and improve the app, and in 2019, we added new features, including historical weather data and in-app surveys.

In 2019, Indiana Michigan Power (I&M) launched the WattsUp Energy Portal enabling customers to review their energy use when it is convenient for them. The portal program also sends automated emails to participating customers showing their energy cost mid-way through their billing cycle, as well as an estimate of their bill based on their to-date usage that month.

Estimated Wait Times

Improving the interaction customers have with AEP is better for them and for us. This is especially true when customers are on hold waiting for assistance. In late 2019, we provided all customers with an estimated wait time and implemented an automated callback feature. Customers can opt-in for a return call rather than wait on hold. This feature proved valuable – especially during heavy call volumes – and we achieved a 96% rate in callbacks.

Speech-to-Text

Our roadmap for continuously improving the customer experience includes leveraging more advanced technologies and customer input to enable data-driven decisions and to optimize customer engagement. In 2020, we will begin a speech-to-text program that converts customer calls into transcripts. Digitally analyzing these transcripts will provide more granular information on why customers are calling and the issues they are experiencing. This will enable us to be more effective in resolving customers' inquiries.

CUSTOMER ASSISTANCE & PAYMENT OPTIONS

Sometimes our customers experience financial hardships and need help paying their energy bills. These hardships can put customers in a tough situation where they have to choose between electricity and other basic human needs. This problem is not limited to just a few people. Within AEP's service territory, the median income is 20% below the U.S. average and 96% of our customers live in counties where the median income is below the national average.

AEP has several initiatives and resources to help customers manage their energy bills, including monthly payment plans and energy assistance grants and programs. We also offer programs and resources to help our customers lower their electric bills and reduce their energy consumption, such as energy efficiency programs, rebates and incentives. 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: [Neighbor to Neighbor Fund](#)
- AEP Ohio: [Community Assistance Program](#), [Neighbor to Neighbor Program](#), [Ohio PIPP Plus](#)
- Kentucky Power: [Home Energy Assistance in Reduce Temperatures program](#), [Temporary Heating Assistance in Winter program](#)
- Indiana Michigan Power: [Neighbor to Neighbor Fund](#), [Energy Share](#)
- Public Service Company of Oklahoma: [Light A Life Fund](#)
- Southwestern Electric Power Company: [Neighbor to Neighbor Fund](#)

The funding available to support our energy assistance programs comes from a variety of sources, including the government, social service agencies and voluntary customer contributions. Income guidelines determine eligibility. Government-sponsored energy assistance programs provided approximately \$65 million in federal and private energy assistance in 2019. We also received more than 24,200 pledges totaling more than \$6.6 million in energy assistance from our self-serve agency websites.

Flexible Payment Options

A top pain point for our customers is their billing and payment experience. Our customers want simple and secure payment options through multiple digital channels. In response, we are continuing to simplify the payment process through creative mechanisms, such as working with regulators to implement rate structures that absorb or recover credit card fees rather than having customers pay them, as well as more flexible payment options.

The Public Service Company of Oklahoma (PSO) PowerPay program allows customers to pre-pay for their electricity. On a daily basis, PSO charges customers for their electricity usage. We notify customers of their current balance, including how much energy they used the previous day and approximately the number of days that remain in their account. PowerPay customers in arrears are able to keep the lights on while paying off their past due balance.

In Indiana, qualified I&M residential and small commercial customers can sign up for an EZ Bill Plan. Each customer receives a custom rate based on the location's previous 12 months of energy use and expected weather in the coming year. This gives customers predictability of their monthly bills, as long as they remain enrolled in the program.

[Read about AEP's efforts to support our customers during the COVID-19 pandemic.](#)

ENERGY ASSISTANCE PROVIDED TO HELP CUSTOMERS PAY THEIR ELECTRIC BILLS in millions

Operating Company	2017	2018	2019
Appalachian Power	\$26.0	\$24.1	\$27.9
AEP Ohio	\$10.2	\$7.2	\$7.4
Public Service Company of Oklahoma	\$10.1	\$13.3	\$11.2
Indiana Michigan Power	\$7.0	\$12.1	\$9.2
Southwestern Electric Power Company	\$5.9	\$6.9	\$5.9
Kentucky Power	\$3.6	\$2.7	\$3.2
Totals	\$62.8	\$66.4	\$64.8

COMMUNITY

Giving back to our communities is fundamental to our vision of powering a new and brighter future. Through volunteerism and corporate giving, AEP proudly supports the vibrancy and resilience of the communities we serve – as an energy provider and a system of community support. In 2019, AEP and the American Electric Power Foundation donated nearly \$30 million to support more than 1,800 community organizations.

We focus our corporate giving on education, especially STEM (Science, Technology, Engineering and Math) programs, and basic human needs, such as the elimination of hunger, emergency shelter and affordable housing. We are committed to working with the public and private sectors to help those students and their families gain access to nutritious food and a secure, safe place to live. We also support many cultural and community initiatives important to our customers.

The need to support our local communities was never more prevalent than during the COVID-19 pandemic. In 2020, the AEP Foundation committed to donating \$3 million in emergency funds to support basic human needs and address the hardships faced by customers and communities. Grants have been made to nonprofit organizations across the AEP service area. We recognized the importance of providing our local communities with these additional funds to support their efforts in providing food and shelter to families in need.

Investing in Education

AEP’s most significant area of philanthropic giving is STEM education, with programs ranging from pre-kindergarten through higher education. Focusing on STEM provides a pathway out of poverty for urban and rural youth. Many 21st century jobs will require proficiency in STEM courses, and these jobs have a high likelihood of delivering a living wage.

Credits CountSM, the signature program of the AEP Foundation, addresses the issues of college preparedness and affordability for underserved urban and rural students who seek to explore STEM careers and gain college credit toward a professional credential or an associate’s degree while still in high school.

The Credits Count program, funded by the AEP Foundation in partnership with local community colleges and public school districts, now operates in all seven AEP operating companies. Since the program’s creation in 2014, the AEP Foundation has committed more than \$14 million across our service territory. It has reached more than 56,000 students through college readiness testing, middle school STEM exploration opportunities, summer and in-school support to enhance science, math and language proficiency, tuition and materials, as well as earned credits toward college and college scholarship awards for those who continue in a degree or credentialed field of study.

Credits Count Student Success

“The AEP Credits Count Program helped accelerate my education and gave me a huge advantage that I am thankful for now more than ever.”

Christopher Gardner, a 2018 graduate of both Northwood High School and Bossier Parish Community College (BPCC) in Louisiana. He earned 42 BPCC college credits—all of which transferred to Louisiana Tech University, where he enrolled in the Mechanical Engineering program.

“Credits Count gave me confidence to take college classes.”

Youmna Yasser graduated from Whetstone High School (Columbus, OH) in 2018 with 21 college credits from

PHILANTHROPIC GIVING Corporate & AEP Foundation

	2017	2018	2019
Arkansas	\$206,181	\$182,515	\$490,849
Indiana	\$825,889	\$2,874,554	\$2,900,136
Kentucky	\$913,229	\$502,627	\$678,166
Louisiana	\$1,277,686	\$1,262,107	\$617,728
Michigan	\$518,117	\$1,002,976	\$577,434
Ohio	\$7,913,164	\$13,588,375	\$14,160,172
Oklahoma	\$1,455,584	\$648,412	\$1,678,159
Tennessee	\$45,950	\$72,882	\$69,160
Texas	\$1,137,950	\$1,742,257	\$3,024,319
Virginia	\$704,271	\$1,505,815	\$1,302,213
West Virginia	\$1,226,449	\$1,134,545	\$2,367,745
Other*	\$547,790	\$981,558	\$1,755,262
Total	\$16,772,260	\$25,498,563	\$29,621,342

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

AEP Community Connections Reports

Columbus State Community College. She plans to study Computer Engineering at The Ohio State University.



Youmna Yasser (on the left), a 2018 graduate from Whetstone High School (Columbus, OH).

A \$450,000 grant from the AEP Foundation targeted two county school systems in rural West Virginia with a comprehensive STEM learning program and outreach plan to engage families. One element was a computer-based supplemental math curriculum provided to all elementary students in Lincoln and Logan counties. Over the first two years of the program, the number of Logan County students scoring at the “proficient” math performance level increased by 18%, and the number of Lincoln County students scoring at the “far below basic” math performance level decreased by 21%.

Gathering Place is a nearly 100-acre waterfront park in Tulsa, Oklahoma, designed to be a welcoming, natural space where a diverse community can come together to explore, learn and play. In 2019, the AEP Foundation provided a five-year, \$1.25 million grant to provide resources for field trip programs at Gathering Place. Each school year, more than 15,000 students will participate in experiential learning through this grant. The funding supports curriculum that is dedicated primarily for students in low-income communities and Title I schools.

In 2019, The AEP Foundation provided a \$100,000 grant to the Power and Energy Center (PEC) at The Bradley Department of Electrical and Computer Engineering, at Virginia Tech. PEC is important because of its dedicated work in the engineering field of electric power systems. The power industry in the U.S. is undergoing an unprecedented transformation to integrate distributed energy resources, including renewable energy, microgrids and advanced technologies. This grant helps advance technology for the future power grid while developing the next generation of power engineers.

Additional Educational Investments

- The AEP Foundation awarded Texas A&M University – Kingsville’s Frank H. Dotterweich College of Engineering a \$100,000 grant in 2019 to enhance and expand instructional and research laboratory facilities.
- In 2019, the AEP Foundation awarded the Potawatomi Zoological Society in South Bend, Indiana a \$216,000 grant to provide camps, classes and scout activities to students.
- A \$100,000 grant to Northwest Arkansas Community College for their Improving Lives and Community Landscapes through Skilled Trades’ Workforce Training, Safety, Resources, and Placement program. The program creates opportunities for safe, well-trained workers to enter skilled trades in the state and beyond.
- Virginia ED Strategies received a \$25,000 grant to fund the Rural Math Innovation Network, which will help prepare 4,500 rural Virginia students for STEM careers, including increasing success on college and career math readiness tests and reducing achievement gaps among rural students.

Investing in Basic Human Needs

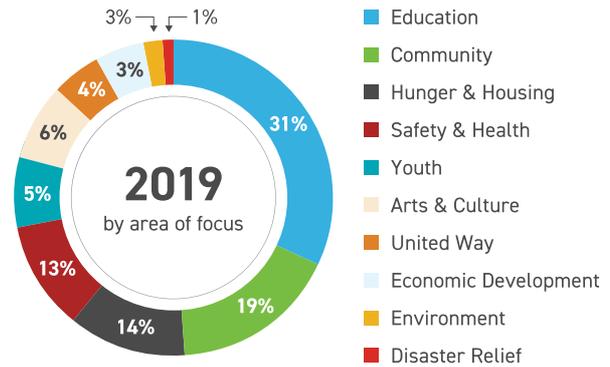
Community organizations play a pivotal role in the well-being of individual community members as well as the social fabric of the community. These organizations provide assistance for housing, food, education, skills training and more. Investing in the resources of community organizations helps to bridge the gap between the potential of an individual to be independent and the obstacles to success that person might face. When we elevate and invest in our communities, we are helping to build a brighter future.

For example, the AEP Foundation awarded a \$50,000 grant to Foster Angels of South Texas. Foster Angels meets the needs of foster children in emergency housing when traditional resources have been exhausted. The organization

provides support through educational assistance, help acquiring adoption certificates, transportation and food.

In 2019, Appalachian Power provided \$50,000 to food banks across West Virginia, Virginia and Tennessee. In addition, the AEP Foundation provided a \$25,000 grant to the Mountaineer Food Bank for its program providing fresh fruits and vegetables throughout southern West Virginia, along with a \$15,000 grant to Kanawha Valley Senior Services in West Virginia to support its meal delivery program.

CHARITABLE GIVING BY AREA OF FOCUS



VOLUNTEERISM AT AEP

Supporting community projects and programs requires more than financial support. It requires time and labor to make progress possible. Every year, AEP employees from around our service territory give their time, talent and financial donations to a variety of organizations in the communities where we live and work. Our employees are a force of voices, hands and hearts caring together to make our communities stronger and better for us all. Most importantly, our employees are consistent in their efforts, both when times are good and when hardship strikes.

The value of employee volunteerism to our communities and to AEP is long lasting and impactful. It helps to enhance the quality of life, advance and expand education opportunities for underserved populations, and create shared social and economic benefits. Through the collective efforts of our employee volunteers, we are strengthening the social fabric of our communities.

In 2019, AEP launched a corporate-wide Caring Together volunteer program to encourage employees to get involved in our communities. The program provides the opportunity for employees to coordinate volunteer efforts, sign up to volunteer and report hours committed to such efforts. Within six months of the program launch, more than 1,600 associates reported getting involved in activities to make their communities better.

During 2019, Kentucky Power launched 100 Acts of Appreciation, a campaign to celebrate its 100th anniversary. Throughout the year, employees fanned out across eastern Kentucky to volunteer while the company awarded grants to local organizations to show appreciation for the social support they provide to our communities. Acts of Appreciation included large events such as Read to Me Day, Tree Day and the Power Up the Pantry food drive, as well as employee-led coat drives. The campaign culminated with a \$100,000 grant from the AEP Foundation to sponsor a multi-use theater at the Highlands Museum & Discovery Center.



In 2018, our employees gave more than \$20,000 in special relief donations to The Salvation Army through the AEP Emergency Disaster Fund.

Examples of Employee Volunteer Efforts in 2019

- More than \$1.4 million in employee giving and company/AEP Foundation matching has been provided through the AEP Emergency Disaster Relief Fund since 2004. This supports employees and families who suffer losses following disasters and personal tragedies, and victims of natural disasters domestically and around the world.
- Since 2001, Appalachian Power has reached more than 275,000 students and donated 6,500 books to

local schools participating in Read to Me Day.

- AEP Texas employee volunteers have helped deliver more than 16,000 meals in San Angelo through the Meals for the Elderly since 1993.
- In 2019, 125 employees from Public Service Company of Oklahoma (PSO) volunteered for the Fresh Paint Days project, part of the statewide nonprofit Keep Oklahoma Beautiful. Employees painted 15 structures – improving buildings and parks across PSO’s service territory.

ECONOMIC AND BUSINESS DEVELOPMENT

Building strong, vibrant and sustainable communities requires innovation, investment and collaboration among state, regional and local business partners. AEP’s Economic & Business Development (E&BD) team puts its expertise and partnerships to work supporting economic development and growth within our local communities. Through training, education and financial support, we work to strengthen the economic vitality of our communities to attract people and jobs, which in turn, builds a stronger social safety net for all.

Our National Customers team manages corporate relationships with many of our largest customers to provide customized solutions to meet their energy needs. For instance, when a Colgate-Palmolive facility in Ohio had a catastrophic transformer failure and fire on their electrical facilities, our E&BD team, AEP Ohio, and AEP Transmission combined efforts to provide an immediate response and economical solution. We provided a mobile transformer and new switchgear to avoid plant closure and the need for expensive generators. AEP’s comprehensive, customer-centric response coupled with its flexibility and attention to detail were major drivers in bringing Colgate-Palmolive’s operation back on line in a manner that defied the clock and paved the way for the plant’s single greatest month of production in history.

AEP's Commitment to Our Customers

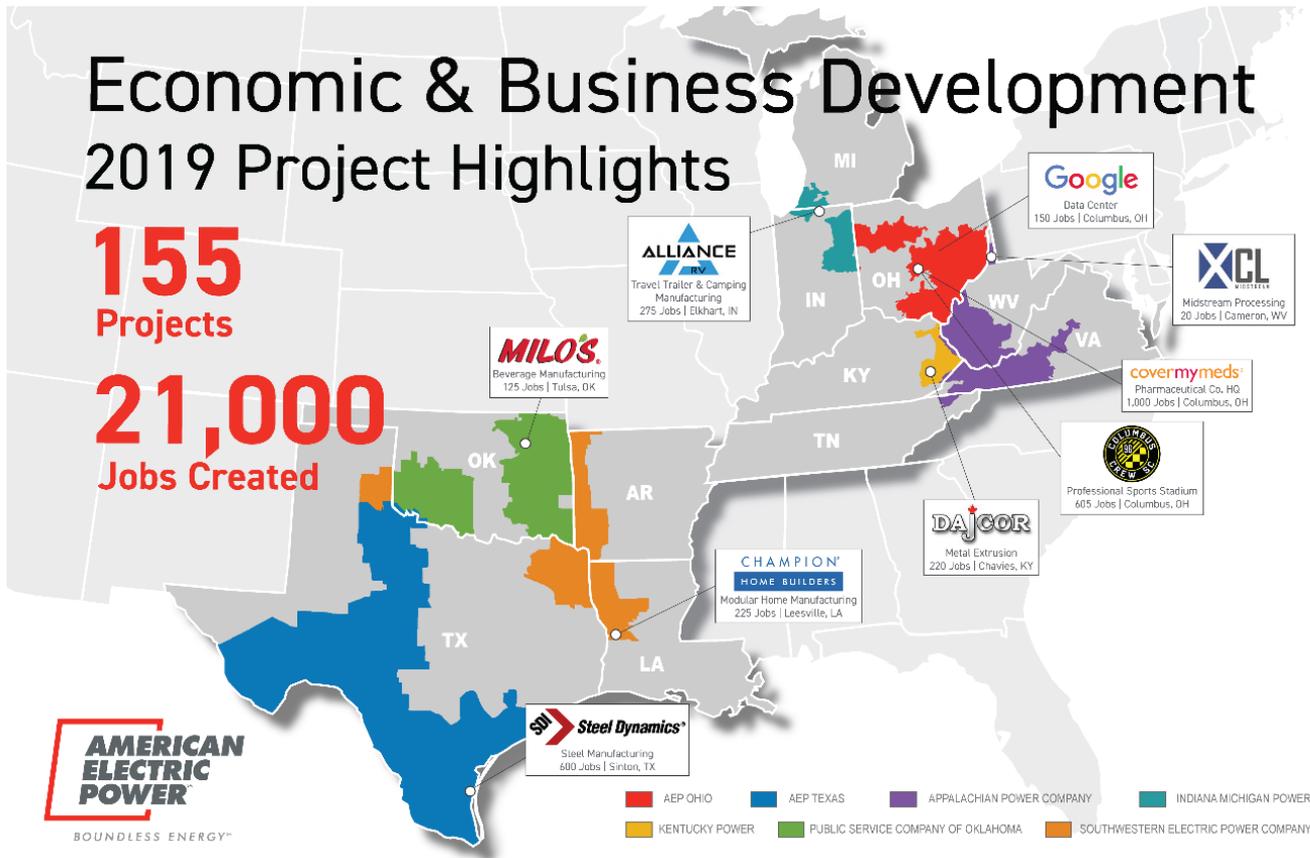
- AEP was recognized by Platt’s as one of 12 worldwide finalists in the category “Award of Excellence– Power.”
- In 2019, AEP, in partnership with Edison Electric Institute and World Resource Institute, created a Customer Energy & Emissions report to provide our customers with their specific greenhouse gas emissions rates based on their location, which can be used to calculate emissions associated with our customers’ energy use. Following a successful pilot, the report will be available annually for customers to access starting in 2020.

In 2019, the E&BD team facilitated, partnered with and supported 155 projects that will bring more than 21,000 jobs to the local economies across our 11-state service territory. Economic development helps our communities in several ways, including increasing the tax base, job development, economic diversification and capacity-building for long-term sustainability. AEP actively works to support industries experiencing high growth.

For example, Steel Dynamics Incorporated (SDI) announced plans to build a mill within the AEP Texas footprint. The E&BD team worked collaboratively with AEP Texas and AEP Transmission to address SDI’s needs regarding energy delivery. The industrial project consists of an approximately \$1.9 billion steel mill with energy delivery requirements equal to the combined demand of 400 Walmart Supercenters. The facility will create approximately 600 jobs with an average annual salary of \$76,000. With construction beginning in 2020, SDI anticipates beginning operations in 2021.

AEP remains committed to increasing grid capacity in Central Ohio, paving the way for large-scale data center

development. As a result, the region has become a leader in the industry with more than \$600 million invested by Google, \$1.3 billion by Amazon and over \$750 million invested by Facebook – excluding a 500,000-square-foot expansion announced in 2019. Additionally, AEP Energy partnered with Google to power its newest data center with 100% renewable energy. Over time, the agreement enables AEP Energy to build up to 100 MW of new wind and solar in the region to meet the center’s demand.



Location Advisory Services

AEP provides comprehensive location advisory services to companies looking to expand or locate new operations in our service territory. AEP’s Quality Sites Program identifies sites that have infrastructure and utilities in place and have completed due diligence studies to help growing businesses minimize overall site location risk, save time and reduce development costs. This includes property searches and screening, custom community and site analysis, and introductions to local economic development partners and industry resources. [Learn more about this program](#) and the location of quality sites in AEP’s service territory.

Beyond our current customers, AEP proactively identifies and manages business relationships with prospective customers in target industry sectors to secure investment in new facilities across the AEP system. In addition to pursuing domestic companies, our efforts include recruiting foreign direct investment (FDI) to our service territory, which is a key source of capital, job creation and innovation.

In January 2020, Volvo Mack Trucks and the nation’s largest medicinal tea producer, Traditional Medicinals, each announced plans to invest millions and create hundreds of new jobs in southwest Virginia. Volvo Mack Trucks chose to locate in an existing manufacturing building in Roanoke County, which will result in 250 high-paying jobs. The company expects to begin manufacturing medium-duty trucks from start to finish this summer. Traditional Medicinals is in the process of building an East Coast manufacturing and distribution center in Franklin County. The company announced it picked the Franklin County location out of roughly 50 prospects through a process that took about two years. Traditional Medicinals’ \$29.7 million investment will create 56 jobs.

Supporting the Federal Sector

The federal government and military are an important customer segment and growth area for AEP. We provide electric service through our regulated utilities to over 3,500 federal accounts. Our team works to help our federal and military customers meet their sustainability and resiliency goals. The federal government has a comprehensive framework for action through 2020 that calls for using resources more efficiently and acquiring more energy from renewable resources. To support that initiative, we help the federal government mitigate the effects of climate change on military operations, installations and national security while enhancing the reliability of their service.

In February 2020, the U.S. Army Corps of Engineers Huntsville awarded Southwestern Electric Power Company a Utility Energy Service Contract (UESC) for Red River Army Depot at Texarkana, Texas. The projected size of this project is approximately \$92 million, and it is the first UESC contract awarded to AEP in over 20 years.

Public Service Company of Oklahoma (PSO) is requesting proposals for PV Solar and Reciprocating Internal Combustion Engine (RICE) resources for commercial operation. Both projects will be located at the Fort Sill Military Base in Lawton, Oklahoma. The project will be owned and operated by PSO and will provide power to PSO's system during normal operations. In the event of an outage or validated threat to the electric supply to Fort Sill, these assets will first be used to restore power to Fort Sill. This project is mutually beneficial as it simultaneously supports PSO's system and the Army's goal of enhancing energy resilience.

Supporting Appalachian Communities

AEP is building stronger partnerships with our local communities to help revitalize some of the areas hit hardest by the changes in the coal industry. In the heart of Appalachia, the states particularly affected by this are Kentucky, Ohio, Virginia and West Virginia. These states have experienced the loss of jobs, tax revenue to support local public services, and the loss of indirect economic benefits from having a locally employed workforce. To help these states make the transition and diversify their economies, AEP remains committed to attracting new industry and jobs and empowering local leaders to take the lead in rebuilding their communities.

In Kentucky, we began by conducting a comprehensive regional workforce analysis of AEP's Kentucky territory. Among the findings is that coal industry workers, many of whom lost their jobs due to mine and coal plant closings, have the skills that aerospace and advanced manufacturing companies need. For example, the region has eight times the national average of metalworkers, which are skills the aerospace industry is looking for.

Equipped with the study's findings, AEP and our regional economic development partners launched Appalachian Sky – an initiative to attract the aerospace and aviation industry to AEP's central Appalachia service region. AEP commissioned a leading aerospace consultancy to determine the viability of developing the aerospace industry in Appalachia's coal and steel country. Thirty counties in the region, which includes Kentucky, Ohio and West Virginia, are now certified AEROready™, a certification that assures aerospace companies that the certified regions, sites and communities are suitable for their operations.

In 2019, the seven-county region surrounding Raleigh County Memorial Regional Airport and the six-county region around Yeager Airport in Charleston, both in West Virginia, received AEROready certification, meaning a total of 21 counties and four commercial airports have the coveted certification. Appalachian Power's West Virginia Advantage Plan, a funding source of \$3.4 million for site readiness projects, small business trainings and other economic development projects,



AEP remains committed to attracting new industry and jobs and empowering local leaders to take the lead in rebuilding their communities.

provided funding for these certifications. In addition, the AEP Foundation awarded Marshall University a \$750,000 grant to establish an aviation program at the school and Yeager Airport.

In addition to counties in Kentucky, Ohio and West Virginia, AEP-served counties have been independently validated as AEROREady™ in Texas, Oklahoma, Louisiana and Indiana.

Other efforts include the Kentucky Power Coal Plus Program that helps reopen struggling coal businesses to put miners back to work in Eastern Kentucky. Coal Plus gives Kentucky Power the flexibility to offer special contracts with coal companies and coal processing businesses. For example, companies can receive a discount for operating under a special rate. In 2019, the Kentucky Public Service Commission renewed the Coal Plus Program for 2020.

Appalachian Power is partnering with Marshall University's Robert C. Byrd Institute and the U.S. Economic Development Administration to undertake a comprehensive analysis of the skills and abilities of workers in 23 additional West Virginia counties. The study, which will identify opportunities to diversify the state's economy, is funded by a grant from the U.S. Economic Development Administration and matching funds from Appalachian Power. APCo is also undertaking a comprehensive business sites gap analysis study in its West Virginia service territory. This project will evaluate more than 30 sites in order to provide comprehensive plans to allow localities to prepare the sites for future industry.

Environmental, Social & Governance Data

At AEP, we understand the importance of providing clear, accurate and consistent data and information in a timely manner. AEP's ESG Data Center reflects our commitment to transparency by proactively sharing data and information about our sustainability goals, strategy and environmental, social and governance performance. This demonstrates that we are listening to our stakeholders and addressing issues that are most relevant for our business.

We also map our sustainability performance to several frameworks, including: TCFD, SASB, CDP and GRI Reports.

ESG Reports

The metrics and data points for the ESG Data Center are gathered from several sources, including GRI, CDP and EEI ESG/Sustainability Report. The quality control and assurance process for the data center differs from that of the 2020 Corporate Accountability Report, and is not included in the scope of the internal audit process.



ESG Data Center

ESG Data



ESG Data Glossary

Energy

Owned and Firm PPA Nameplate Generation Capacity (MW)

	2017	2018	2019
Total Owned Nameplate Generation Capacity (MW)	28,804	28,462	28,431
Coal	14,506	14,056	13,230
Natural Gas	7,853	7,809	7,678
Nuclear	2,278	2,278	2,288
Total Renewable Energy Resources	4,167	4,319	5,235
Hydroelectric	964	933	933
Solar	26	200	239
Wind	3,177	3,186	4,063

Generation (MWh)

	2017	2018	2019
Net Generation for the Data Year	108,631,253	104,375,491	92,519,718
Coal	69,405,395	63,001,348	52,275,891
Natural Gas	11,959,828	13,318,616	13,953,693
Nuclear	17,592,001	17,610,815	16,157,850
Petroleum	20,335	0	0
Total Renewable Generation	9,653,694	10,444,712	10,132,284
Hydro	775,636	1,160,659	1,018,253
Solar	37,828	33,795	31,975
Wind	8,840,230	9,250,258	9,082,056

AEP Facility Performance (non-utility power generation facilities)

	2017	2018	2019
AEP facility energy consumption (KWh)	126,441,222	151,853,197	135,853,591

Emissions

Scope 1 Emissions Breakdown

	2017	2018	2019
CO ₂ (MT)	72,344,128	68,732,609	58,447,520
Mercury (Lbs)	432	395	311
Mercury (kg)	196	179	140.9
SO ₂ (Lbs)	151,352,543	137,291,386	104,466,589
SO ₂ (MT)	68,652	62,274	47,385

NO _x (Lbs)	104,980,269	99,830,243	78,809,057
NO _x (MT)	47,618	45,282	35,747

Emissions CO₂e

	2017	2018	2019
Total Scope 1 emissions CO ₂ e (MT)	78,760,420	75,361,246	64,776,307
CO ₂ (MT)	78,001,430	74,661,649	64,157,262
CH ₄ (MT CO ₂ e)	239,428	225,741	190,755
N ₂ O (MT CO ₂ e)	329,753	310,447	262,141
SF ₆ (MT CO ₂ e)	189,810	163,408	166,149
Total Scope 2 Emissions CO ₂ e (MT)			
Location Based	12,957,602	15,739,423	14,514,119
Market Based	8,271,179	14,479,514	12,724,618
Total Scope 3 CO ₂ e (MT)	5,840,762	4,656,228	3,902,207

Emission Intensity

	2017	2018	2019
Scope 1 and 2 intensity (MT CO ₂ e/total revenue \$)	0.005956	0.005623	0.005096
Scope 1 and 2 intensity (MT CO ₂ e/MWh generated)	0.8029	0.8293	0.8570

Water

Water Withdrawal

Water withdrawals for facilities wholly owned and operated by AEP, excluding water supplied to the Comanche Plant by the city of Lawton and groundwater withdrawals.

	2017	2018	2019
Total Water Withdrawal (Million Gallons per day)	4,914.56	4,172.84	3,980.19
Total Water Withdrawal (Million Gallons/ year)	1,793,814	1,523,087	1,452,769
Total Water Withdrawal (Liters/year)	6,790 Billion	5,766 Billion	5,499 Billion
Total Water Withdrawal (m3/year)	6,790 Million	5,766 Million	5,499 Million

Water Withdrawal by Source Breakdown

	2017	2018	2019
Surface Water Withdrawal (Million Gallons per day)Surface water withdrawal that excludes groundwater and Comanche Plant	4,913	4,171	3,979
Surface Water Withdrawal (Million Gallons/ year)	1,793,300	1,522,685	1,452,470
Surface Water Withdrawal (m3/year)Fresh surface water only	6,788 Million	5,764 Million	5,498 Million
Groundwater (m3/year) Not measured prior to 2018	NA	7,306,941	6,984,231
Other (m3/year)Represents Comanche Plant	1,951,140	1,525,092	1,138,772

Water Discharge

Water discharge is surface water only. Water discharge data is estimates derived from plant water balance diagrams and water withdrawal information

	2017	2018	2019
Total Water Discharge (Million Gallons per day)	4,781	4,065	3,881
Total Water Discharge (Million Gallons/ year)	1,745,039	1,483,816	1,416,383
Total Water Discharge (Billions of Liters/year)	6,606	5,617	5,362
Total Water Discharge (Mega liters/year)	6,605,690	5,616,853	5,361,588

Water Consumption

All water consumption is freshwater. Water consumption data is estimates derived from plant water balance diagrams and water withdrawal information.

	2017	2018	2019
Total Water Consumption (Million Gallons per day)	157.61	132.06	121.18
Total Water Consumption (Million Gallons/ year)	57,528	48,202	44,230
Total Water Consumption (Billions of Liters/year)	218	182	167
Total Water Consumption (m3/year)	218 Million	182 Million	167 Million

Water Intensity

Water intensity data is an average value across our steam electric system. AEP does not include renewable MWhs in intensity metrics because renewables require no water consumption.

	2017	2018	2019
Consumptive Water use intensity (gallons/Net MWh)	908	579	851
Consumptive Water use intensity (Billions of liters/Net MWh)	0.0000034	0.0000022	0.0000032
Non- Consumptive Water use intensity (gallons/Net MWh)	65,224	55,718	58,350.06
Non- Consumptive Water use intensity (Billions of liters/Net MWh)	0.0002469	0.0002109	0.0002209

Waste

Coal Combustion Products

	2017	2018	2019
Total CCPs Generated (Tons)	6,240,397	4,846,451	4,123,466
Total CCPs Diverted from Landfill (Tons)	2,556,315	1,865,401	1,593,164
Total CCP Diverted from Landfill Percent	41%	38%	39%

Other Waste Data

	2017	2018	2019
Recycled Paper and Office Waste (Lbs)	512,500	382,000	159,300
Recycled Scrap Metal Waste (Lbs)	33,500,000	50,500,000	28,950,000
Batteries Recycled (Lbs)	334,000	216,000	169,000
Electronic Waste Recycled(Lbs)	27,000	234,000	430,000
Light Bulbs Recycled (Lbs)	37,000	40,200	44,500
Recycled used Oil (Gallons)	423,600	400,500	725,500

Grid Reliability & Energy Efficiency

Grid Overview

	2017	2018	2019
Transmission Lines (miles)	~40,000	~40,000	~40,001
Distribution Lines (miles)	~219,000	~220,000	~221,000

Reliability

	2017	2018	2019
System Average Interruption Duration Index (SAIDI) (Minutes)	215	256.6	228.8
System Average Interruption Frequency Index (SAIFI) - Number of interruptions	1.389	1.531	1.406
Customer Average Interruption Duration index (CAIDI) (Minutes)	154.8	167.7	162.8
Customer Average Interruption Frequency (CAIFI) (Minutes)	2.04	2.16	1.996
Average System Availability Index (ASAI)	99.96%	99.95%	99.96%

EE Programs & Smart Meters

	2017	2018	2019
Incremental Annual Electricity Savings from Energy Efficiency Measures (MWh)	1,032,000	1,022,257	1,098,444
Annual Demand Savings (MW)	286	273	302
Avoided CO2 Emissions (MT)	886,000	525,189	527,212
Percent of total Electric Customers with smart meters (at end of year)	34%	47%	56%

Safety & Health and Workforce

Safety & Health

	2017	2018	2019
Employee DART Rate	0.445	0.393	0.412
Contractor DART Rate	0.582	0.507	0.544
Employee and Contractor DART Rate	0.507	0.446	0.477
Total Employee Recordable Incident Rate (TRIR)	0.804	0.672	0.673
Employee Lost Time Incident Rate (LTIR)	0.316	0.310	0.329
Employee Fatalities	0	1	1
Public Fatalities due to electrical contacts	5	6	4

Workforce

	2017	2018	2019
Total Number of Employees Does not include AEP subsidiaries, Co-Ops, interns, AEP Energy employees or employees on unpaid leave-of-absence.	17,666	17,582	17,408
Number of full-time Employees	17,691	17,537	17,458
Number of part-time Employees	26	28	29

Total Number of Represented Employees	4,476	4,417	4,133
Total Number of Veteran Employees	1,839	1,814	1,742
Total number of Professionals Does not include AEP subsidiaries, AEP Energy employees or employees on unpaid leave-of-absence.	5,413	5,598	5,743
Total number of Officials and Managers Aligns with 2019 EEO-1 Report. Data as of October 2019	3,228	3,288	3,326
Total number of executive/senior level officials Aligns with 2019 EEO-1 Report. Data as of October 2019	218	225	234

Workforce Diversity

	2017	2018	2019
Total Female Employees Does not include AEP subsidiaries, Co-Ops, interns, AEP Energy employees or employees on unpaid leave-of-absence	3,299	3,409	3,454
Number of Female Professionals	1,433	1,503	1,578
Number of Female Officials and Managers	457	494	543
Number of Female employees in an Executive/Senior level position Aligns with 2019 EEO-1 Report. Data as of October 2019	36	36	40
Total Minority Employees Does not include AEP subsidiaries, Co-Ops, interns, AEP Energy employees or employees on unpaid leave-of-absence	3,014	3,127	3,233
Number of Minority Professionals	995	1,062	1,128
Number of Minority Officials and Managers	363	384	419
Number of minority employees in an Executive/Senior level position Aligns with 2019 EEO-1 Report. Data as of October 2019.	17	22	25

Workforce Planning

	2017	2018	2019
Planned Employee Leave or Retirement over the next 5 years	/	3,859	4,533

Employee Turnover	6%	6.80%	8.68%
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Workforce Demographics The Workforce Demographics are based on Pew Research

Traditionalists (1945 and Before)	<1%	<1%	<1%
Baby Boomers (1946-1964)	39%	35.76%	30.84%
Generation X (1965-1980)	35%	35.36%	36.16%
Millennials (1981-1996)	25%	28.23%	31.78%
Generation Z (1997 and Beyond)	<1%	<1%	<1%

Employee Education Enhancements/Education Reimbursements

	2017	2018	2019
Total Hours of Employee Training (Hours)	985,686	1,007,153	1,130,628
Amount spent on Tuition Assistance	\$1,915,561	\$2,043,839	\$2,063,794
Total number of career development advancements	1,261	1,241	1,227
Number of development advancements for female employees	262	288	250
Number of development advancements for minority employees	216	192	244

Customer, Community and Economic Impact

Customers

	2017	2018	2019
Residential	4,618,785	4,649,514	4,661,713
Commercial	705,104	709,606	712,800
Industrial	47,996	47,957	47,676
Other	29,604	30,304	30,177
Total Customers	5,401,489	5,437,381	5,452,366

Customer Assistance

	2017	2018	2019
Number of residential customers participating in an energy affordability program	468,140	401,280	428,057
Energy Assistance Funds Provided to Low-Income Customers	\$62.8 Million	\$56.3 Million	\$64.9 Million

Charitable Giving

	2017	2018	2019
Total Charitable giving (Corporate & AEP Foundation)	\$16.8 Million	\$25.5 Million	\$29.6 Million

Percent of Charitable Giving by area of Focus

Education	40%	32%	31%
Community	14%	17%	19%
Hunger and Housing	10%	12%	14%
Safety and Health	11%	11%	13%
Arts and Culture	7%	7%	6%
Youth	8%	9%	5%
Other	10%	12%	11%

Suppliers

	2017	2018	2019
Total Supplier Spend	\$7 Billion	\$6.9 Billion	\$6.8 Billion
Diverse Supplier Spend	\$849.5 Million	\$365 Million	\$401 Million
Locally-Based Supplier Spend	\$3.1 Billion	\$3.4 Billion	\$3.3 Billion

Small Business Supplier Spend	/	\$971 Million	\$882 Million
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Economic

	2017	2018	2019
Total Revenue	\$15.42 Billion	\$16.2 Billion	\$15.56 Billion
Total Assets	\$64.7 Billion	\$68.8 Billion	\$75.9 Billion
Total Annual Capital Expenditures/investments (nominal dollars)	\$6,045 Million	\$5,964 Million	\$7,567 Million
Economic Development Contributions	\$621,000	\$1,323,038	\$2,597,874
Estimated Jobs Supported by AEP's Economic and Business Development	18,000	14,700	21,000
Total Spend on employee Wages	\$2.3 Billion	\$2.3 Billion	\$1.9 Billion

Financial Performance

	2017	2018	2019
Earnings per Share	\$3.89	\$3.90	\$3.89
Cash Dividends per Common Share	\$2.39	\$2.53	\$2.71
Book Value Per share	\$37.17	\$38.58	\$39.73
AEP 10K Report Links (by year released)	2016 Report	2017 Report	2018 Report

Taxes Paid

	2017	2018	2019
Local and State	\$1,170 Million	\$1,166 Million	\$1,220 Million
Federal	\$198 Million	\$80 Million	\$118 Million

Lobbying and Political Contributions

	2017	2018	2019
Corporate Political Contributions	\$479,600	\$419,600	\$642,600
Internal and External Lobbying Expenses	\$6.4 Million	\$6.7 Million	\$7.4 Million
Total Lobbying or political Portion of Trade Association Dues/Payments	1.3 Million	\$1.6 Million	\$1.5 Million
Total Contributions made by AEP's 5 PACs	/	\$516,750	\$439,950

Governance

Governance Overview

	2017	2018	2019
Board Meetings Held	7	7	7
Average Board attendance	98%	97%	97%
Total number on the Board of Directors	12	13	13

Director Gender

Men	9	9	9
Woman	3	4	4

Director Age

50s	2	2	3
60s	8	9	7
70s	2	2	4
Board Average Age	64.2	65.2	65.5

Director Tenure

0-5 years	4	4	3
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6-10 years	4	4	6
11-15 years	4	4	4
Average years of Tenure	8	9	8

Director Ethnic Diversity

White	10	11	11
Hispanic	1	1	2
African American	1	1	0
Other	0	0	0

Governance Disclosures

- [AEP's Principles of Corporate Governance](#)
- [AEP Director Independence Standards](#)
- [AEP Bylaws](#)
- [AEP's Certificate of Incorporation](#)
- [AEP Code of Business Conduct and Ethics](#)
- [Criteria for Evaluating Directors](#)
- [AEP Principles of Business Conduct](#)
- [AEP Supplier Code of Conduct](#)
- [Supplier Code of Conduct FAQs](#)

Policy and Disclosures

Publicly Available Policies

- [Environment, Safety and Health Policy](#)
- [Corporate Political Contributions Policy](#)
- [Shareholder Approval of Future Executive Severance Agreements Policy](#)
- [AEP's Insider Trading Policy](#)
- [Related Person Transaction Approval Policy](#)

Internal Policies

- Sexual Harassment Policy
- Anti-Discrimination Policy
- AEP's PII Data Privacy Protection Policy
- AEP's Prohibition Against Pornography and Offensive Material Policy
- AEP's Whistle Blower Protection Policy
- AEP's Anti Fraud Policy
- AEP's Social Media Policy
- Policy development & Maintenance Policy
- Policy against Retaliation

To help ensure employee safety and security, many AEP policies are internal policies only. All employees have access to

all policies through the AEP intranet database.

ABOUT THIS REPORT

The 2020 Corporate Accountability Report marks AEP's 11th integrated report and 14th year of reporting on our environmental, social, governance (ESG) and economic performance. This report gives a comprehensive view of AEP's progress as a business and community partner to build a brighter and sustainable future together. This report reflects AEP's longstanding commitment to transparency and is a robust representation of AEP's past performance and future strategy. AEP's 2020 Corporate Accountability Report has been prepared in accordance with the GRI Standards: Core option.

In 2020, AEP is also mapping our disclosure to the Sustainability Accounting Standards Board (SASB) standards, which are a broader ESG set of metrics used by some of our stakeholders in the financial community. For the second year, we are also mapping our disclosure to the Task Force for Climate-related Financial Disclosure (TCFD), which is a framework also used by many stakeholders and is solely climate-focused.



2020 Message from the Chairman brochure

Build Your Own PDF

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

Past Reports



2019



2018



Clean Energy Report



2017



2016



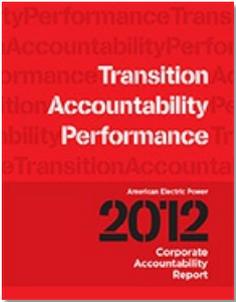
2015



2014



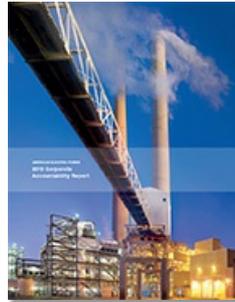
2013



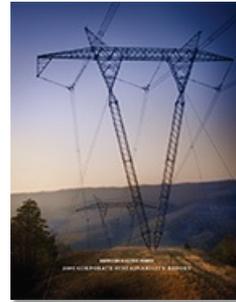
2012



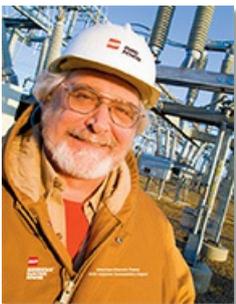
2011



2010



2009



2008



2006

STATEMENT OF AEP'S BOARD OF DIRECTORS

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

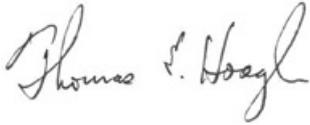
The AEP Board of Directors has assigned responsibility for overseeing the company's ESG/sustainability initiatives to the Board's Committee on Directors and Corporate Governance (the Committee). This report provides a comprehensive account of AEP's performance, integrating financial with ESG/sustainability reporting. Stakeholders have expressed approval and appreciation for AEP's leadership with this integrated approach to corporate reporting, as well as the company's commitment to transparency and engagement. The Committee fully supports this approach.

The Committee and company management regularly review and discuss AEP's ESG/sustainability initiatives and performance. Management and the Board recognize the role of ESG performance in creating long-term value for our shareholders and our disclosure reflects our commitment to transparency of these issues. With this year's report, the company is launching a new ESG Data Center to facilitate easier access to this information for investors and other stakeholders.

The 2020 Corporate Accountability Report provides robust disclosure about AEP's 2019 performance, as well as a forward look of the company's strategy. The report describes AEP's ongoing transition to a clean energy future, including progress toward achieving carbon dioxide emissions reduction goals. The report also expresses the company's intent to update its clean energy report later this year. In addition, the report provides information about the company's efforts to

support its employees, customers and communities as the COVID-19 pandemic continues to unfold.

The Committee believes this document provides a clear presentation of AEP's strategy and its ESG performance. The Board has emphasized that management will continue to be evaluated by its success in executing the company's strategic plan, including its ability to respond to changing circumstances like the one we are seeing with the current public health crisis.



Thomas E. Hoaglin

Lead Director of the AEP Board of Directors and Chairman of the Committee on Directors and Corporate Governance
May 2020

2020 AUDIT STATEMENT

AEP Audit Services performed a limited review of selected company performance statements within the 2020 AEP Corporate Accountability Report that were deemed to have reputational, financial, or compliance aspects. Financial information was reconciled with AEP's audited financial statements and other sources as deemed appropriate. Nonfinancial statements were substantiated with press releases, internal communications, or source data from the business units. Forward-looking information was verified as consistent with public information disclosed by AEP.

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



Andrew Reis
Vice President Audit Services
May 15, 2020

AEP'S SUSTAINABILITY GOALS

AEP's sustainability goals reflect our corporate strategy and Strategic Framework for Sustainable Development. Our goals map to the United Nations Sustainable Development Goals (SDGs) and this marks our first report showing the linkage between AEP's performance and the SDG targets. This connection demonstrates how AEP contributes to creating shared value for our business and society.

AEP'S Strategy for Sustainable Development

Our strategy for a sustainable future is to ensure that the production and delivery of energy enables positive social and economic change for our customers, employees and communities as we collaboratively shape our future. We are 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 use our knowledge, voice, skills and relationships to enable innovation, bring new technologies to market, modernize the grid to optimize all resources and technologies, and develop a diverse, inclusive workforce for the 21st century.
- **ADVANCE ENVIRONMENTAL STEWARDSHIP** – We continuously seek to improve operations across our business to reduce, mitigate or eliminate the resulting impacts on the environment. We are committed to reducing our carbon footprint.
- **HELP TO BUILD STRONG LOCAL COMMUNITIES** – Create shared value for our customers, employees and the communities we serve. Through philanthropy, we support basic human needs, including affordable housing and food security. Through our economic development activities, we help our communities to be sustainable by expanding economic opportunities.
- **DEVELOP A BRIGHTER ENERGY FUTURE** – Work with our customers and communities to define and develop a clean energy future, giving them choices and timely information while providing safe, reliable, affordable electricity.

Sustainability Accounting Standards Board (SASB)

This year marks AEP's first year mapping our disclosure to the SASB Standards for Electric Utilities & Power Generators. Our response reflects year-end 2019 performance. Our SASB report is mapped to our comprehensive 2020 Corporate Accountability Report and ESG Data Center – which serves as our foundation for all sustainability and ESG-related reporting.

[AEP's 2020 SASB Report](#)

Task Force on Climate-related Financial Disclosure (TCFD)

The Task Force on Climate-related Financial Disclosure (TCFD) is a voluntary reporting framework to provide decision-useful information to investors about climate risks, opportunities and governance. This is AEP's second year of mapping our overall disclosure to the TCFD framework and covers calendar year 2019 data. The data presented is from our 2020 Corporate Accountability Report, Strategic Vision for a Clean Energy Future Report, and ESG Data Center – which serves as our foundation for all sustainability and ESG-related reporting.

[AEP's 2020 TCFD Report](#)

Customer Emissions Report

American Electric Power is excited to announce the launch of the Edison Electric Institute's (EEI) Electric Company Carbon Emissions and Electricity Mix Reporting Template for Customers. This template was created in collaboration between EEI member electric utility companies, corporate customers, World Resource Institute and EEI. The purpose of this effort is to provide customers with consistent, timely and relevant data that customer can then use for their reporting efforts or strategy development. EEI's template provides the following quantitative and qualitative information for 2018 and 2019 year data:

- Electricity delivered by operating company (MWh)
- Carbon Emissions Intensity Rates (lbs CO₂/MWh)
 - Utility Average
 - Utility Specific Residual Mix
- Resource Mix (%)
- Third-party certification/verification.
- Qualitative narrative describing reported carbon emissions, resource mix, and clean energy goals.
- Notes section for electric companies to disclose whether and how RECs are accounted for in the emission intensity rates.

Customers can [access the template here](#), which also includes instructions and details about the template.

EEI ESG/Sustainability Reports

AEP participates in an EEI-led ESG/Sustainability Committee, composed of electric utilities and financial industry specialists. The effort encourages voluntary reporting of ESG/sustainability information in both quantitative and qualitative formats; it was the first industry-focused and investor-driven ESG reporting framework. AEP is a founding member of this group and issues this report every year.

- [AEP's 2020 EEI ESG/Sustainability Report](#)

GRI Reports

AEP's 2020 Corporate Accountability Report has been prepared in accordance with the GRI Standards: Core option. The GRI Standards provide a voluntary reporting framework used by organizations around the world as the basis for sustainability reporting. We are also using the Electric Utility Sector Supplement for reporting on industry-specific information.

- [AEP's 2020 GRI Report](#)

CDP Reports

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

2020:

- [CDP Climate Report – AEP's 2020 Response](#) (PDF)
- [CDP Water Report – AEP's 2020 Response](#) (PDF)



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