

BOUNDLESS ENERGY"

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# **Climate Action 100+**

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Columbus, OH January 13, 2020

#### "Safe Harbor" Statement under the Private Securities Litigation Reform Act of 1995



This presentation contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Although AEP and each of its Registrant Subsidiaries believe that their expectations are based on reasonable assumptions, any such statements may be influenced by factors that could cause actual outcomes and results to be materially different from those projected. Among the factors that could cause actual results to differ materially from those in the forward-looking statements are: changes in economic conditions, electric market demand and demographic patterns in AEP service territories, inflationary or deflationary interest rate trends, volatility in the financial markets, particularly developments affecting the availability or cost of capital to finance new capital projects and refinance existing debt, the availability and cost of funds to finance working capital and capital needs, particularly during periods when the time lag between incurring costs and recovery is long and the costs are material, decreased demand for electricity, weather conditions, including storms and drought conditions, and the ability to recover significant storm restoration costs, the cost of fuel and its transportation, the creditworthiness and performance of fuel suppliers and transporters and the cost of storing and disposing of used fuel, including coal ash and spent nuclear fuel, the availability of fuel and necessary generation capacity and performance of generation plants, the ability to recover fuel and other energy costs through regulated or competitive electric rates, the ability to build or acquire renewable generation, transmission lines and facilities (including the ability to obtain any necessary regulatory approvals and permits) when needed at acceptable prices and terms and to recover those costs, new legislation, litigation and government regulation, including oversight of nuclear generation, energy commodity trading and new or heightened requirements for reduced emissions of sulfur, nitrogen, mercury, carbon, soot or particulate matter and other substances that could impact the continued operation, cost recovery and/or profitability of generation plants and related assets, evolving public perception of the risks associated with fuels used before, during and after the generation of electricity, including coal ash and nuclear fuel, timing and resolution of pending and future rate cases, negotiations and other regulatory decisions, including rate or other recovery of new investments in generation, distribution and transmission service and environmental compliance, resolution of litigation, the ability to constrain operation and maintenance costs, prices and demand for power generated and sold at wholesale, changes in technology, particularly with respect to energy storage and new, developing, alternative or distributed sources of generation, the ability to recover through rates any remaining unrecovered investment in generation units that may be retired before the end of their previously projected useful lives, volatility and changes in markets for coal and other energy-related commodities, particularly changes in the price of natural gas, changes in utility regulation and the allocation of costs within regional transmission organizations, including ERCOT, PJM and SPP, changes in the creditworthiness of the counterparties with contractual arrangements, including participants in the energy trading market, actions of rating agencies, including changes in the ratings of debt, the impact of volatility in the capital markets on the value of the investments held by the pension, other postretirement benefit plans, captive insurance entity and nuclear decommissioning trust and the impact of such volatility on future funding requirements, accounting standards periodically issued by accounting standard-setting bodies, and other risks and unforeseen events, including wars, the effects of terrorism (including increased security costs), embargoes, naturally occurring and human-caused fires, cyber security threats and other catastrophic events, the ability to attract and retain requisite work force and key personnel.

#### **INVESTOR RELATIONS**

#### Darcy Reese Managing Director

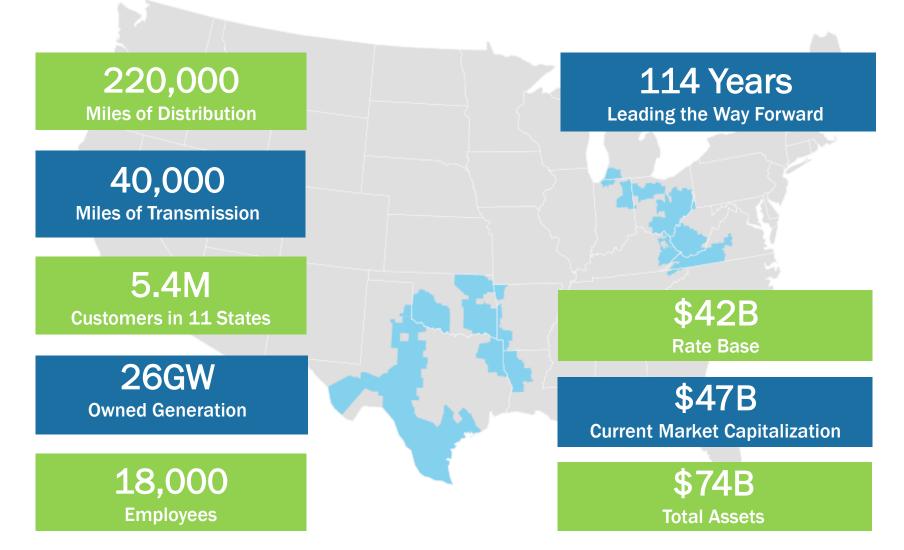
Investor Relations 614-716-2614 dlreese@aep.com

#### **Tom Scott**

Director Investor Relations 614-716-2686 twscott@aep.com

# The Premier Regulated Energy Company





Statistics as of September 30, 2019 except for market capitalization as of December 31, 2019 and rate base as of December 31, 2018

### **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

### **POSITIONING FOR THE FUTURE**

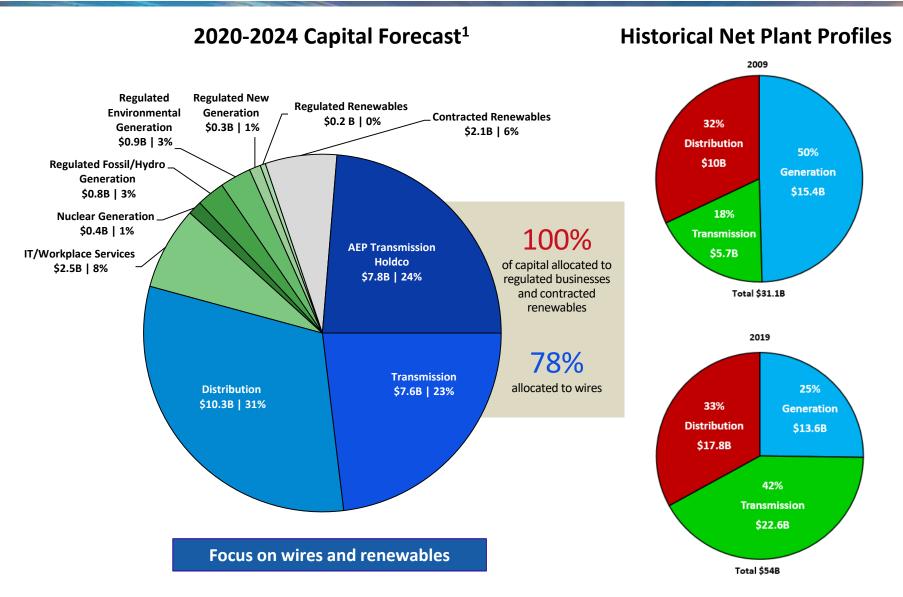
# **CAPITAL INVESTMENT OPPORTUNITIES**



Transmission	Grid modernization, aging infrastructure, physical/cyber security, reliability, market efficiency and economic development projects	
Distribution	Grid modernization, reliability improvement projects and distribution station refurbishment	
Renewables	Regulated renewables supported by integrated resource plans and contracted renewables	
Technology	Digitization, automation, cyber security, enterprise-wide applications	

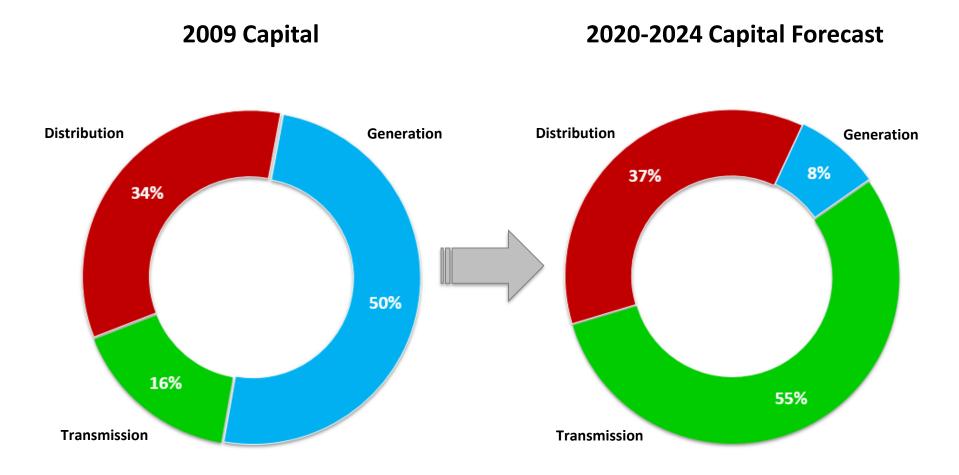
# 2020 - 2024 Capital Forecast of \$33B and Net Plant





<sup>1</sup> Does not include North Central Wind





# TRANSMISSION TRANSFORMATION



#### AEP STRATEGIC VISION: INVEST IN TRANSMISSION NETWORK

Diverse five-year capital investment portfolio of over \$15 billion across AEP's broad footprint Delivering significant customer benefits:

- Higher reliability
- Lower energy costs
- Economic development Technological
- Public policy goals

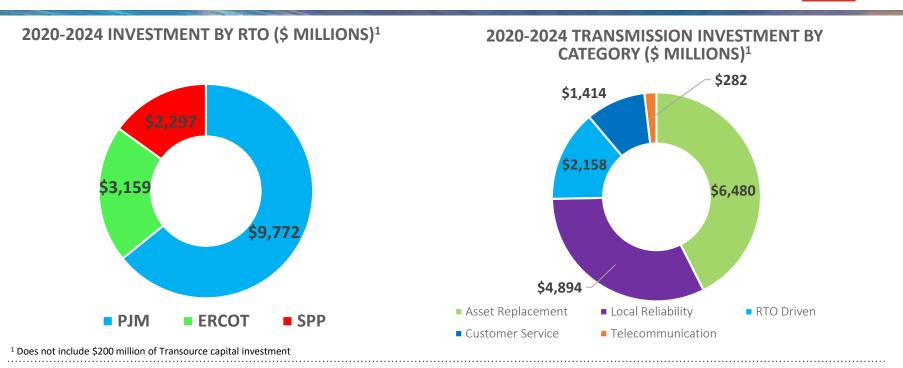
Disciplined execution:

- Low cost, high value solutions
- High speed delivery
  - Technological innovation

### **STABLE COST RECOVERY FRAMEWORK**

#### DELIVER VALUE TO CUSTOMERS AND PREDICTABLE EARNINGS GROWTH

# Five Year Transmission Capital Plan



#### **INVESTMENT CATEGORIES**

	ASSET REPLACEMENT	LOCAL RELIABILITY	RTO DRIVEN	CUSTOMER SERVICE	TELECOM
DRIVERS	<ul> <li>Asset condition, performance history and risk of failure</li> </ul>	<ul> <li>Transmission owner reliability planning criteria</li> </ul>	<ul> <li>RTO reliability planning criteria</li> <li>Market efficiency</li> <li>Public policy needs and goals</li> </ul>	<ul> <li>Connecting new and enhanced service requests</li> <li>Facilitating local economic development</li> </ul>	<ul> <li>Cyber-security requirements</li> <li>Asset health monitoring</li> <li>Efficient grid operations</li> </ul>

# UTILITY TRANSFORMATION

# **Identified Core Business Investments**



Improve Reliability Grow and Diversify the Business

Maintaining Strong Balance Sheet

#### **Current State of Distribution Grid**

- \$1.8B of annual investment
- \$2.7B investment needed to maintain current assets

#### **10-Year** Incremental Distribution Capital Investment Potential: ~\$18B<sup>1</sup>

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AEP invests in our customers' future by focusing on reliability and the customer experience. AEP has a strong track record in securing regulatory support and executing distribution investments.

Investment Opportunity	Capital Investment \$	Known and identified investments
Grid Modernization	\$2.4 billion	that will improve reliability and operability of the grid
Line Re-conductoring – Asset Renewal	\$13.0 billion	
Pole Replacements – Asset Renewal	\$0.5 billion	Partner with states to help spur economic development
Distribution Station Transformer and Breaker Replacements – Asset Renewal	\$1.4 billion	

<sup>1</sup>10-year capital investment potential is above current \$1.8B annual spend, 7-10% O&M required to support the capital investment

# **INVESTING IN REGULATED RENEWABLES**



### **Projected Resource Additions**

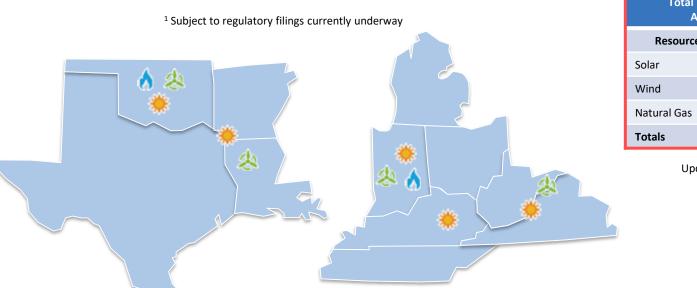


Solar Additions (MW) 🎇					
Operating Co:	2020- 2022	2023- 2027	2028- 2030		
APCo	15	300	750		
I&M	150	600	550		
КРСо	20 <sup>1</sup>	30	40		
PSO	11	600	600		
SWEPCO	-	-	300		
Totals	196	1,530	2,240		

Wind Additions (MW) 🎎				
Operating Co:	2023- 2027	2028- 2030		
APCo	-	300	-	
I&M	300	150	300	
КРСо	-	-	-	
PSO	675 <sup>1</sup>	400	200	
SWEPCO	810 <sup>1</sup>	600	-	
Totals	1,785	1,450	500	

Natural Gas Additions (MW)  🏠				
Operating Co:	2020- 2022	2023- 2027	2028- 2030	
1&M	18	18	788	
PSO	373 <sup>2</sup>	410 <sup>2</sup>	-	
Totals	391	428	788	

<sup>2</sup> To replace expiring PPA



Total Projected Resource Additions (MW)		
Resource 2020-2030		
Solar	3,966	
Wind	3,735	
Natural Gas 1,607		
Totals	9,308	

Updated 12/31/2019

## North Central Wind Overview





Jurisdiction (Docket #)	MW	% of Project
PSO (PUD 2019-00048)	675	45.5%
SWEPCO – AR (19-035-U)	155	10.4%
SWEPCO – LA (U-35324)	268	18.1%
SWEPCO – TX (49737)	309	20.8%
SWEPCO - FERC	78	5.2%
Total:	1,485	100%

7/15/19 Filings in AR, LA, OK & TX	Q3 2019 – Q3 2020 Regulatory Activity	Dec 2020 Sundance completion & purchase	Dec 2021 Traverse & Maverick completion & purchase
	2019	2020	2021

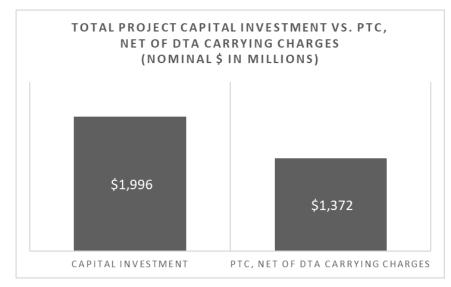
SWEPCO and PSO Regulated Wind Investment Opportunity				
Total Rate Base Investment	~\$2 billion (1,485 MW)			
	Name <u>MW</u> Investment <u>In-Service</u>			
North Central Wind	Sundance	199	\$307M	EOY 2020 (100% PTC)
	Traverse	999	\$1,287M	EOY 2021
	Maverick	287	\$402M	(80% PTC)
Net Capacity Factor	44.0%			
Customer Savings	~\$3 billion (30-year nominal \$)			
Developer	Invenergy			
Turbine Supplier	GE			

- Regulated rate base wind investment opportunity with ability to meaningfully reduce customer rates
  - Acquiring facilities on a fixed cost, turn-key basis at completion
  - Contingent upon satisfactory regulatory approvals
- □ Investment not included in the Company's current capital expenditure plan
- Acquisition can be scaled, subject to commercial limitations, to align with individual state resource needs and approvals

# North Central Wind Key Highlights of Regulatory Filing



 Expiring federal Production Tax Credit (PTC) provides a limited time opportunity to take advantage for benefit of customers



#### **Project Scalability**

- The projects are designed to be scalable with regulatory approvals, subject to commercial limitations
  - Minimum of 810 MWs required to move forward
  - Included "step-up" options in regulatory applications to provide states the ability to take more MWs should another state or state(s) reject applications

#### **Power and Gas Price Sensitivities**

 Wind investment produces net customer benefits across a wide range of production, power, and gas price sensitivities, including the full range of current U.S. Energy Information Administration (EIA) gas price scenarios and other publically available gas price forecasts.

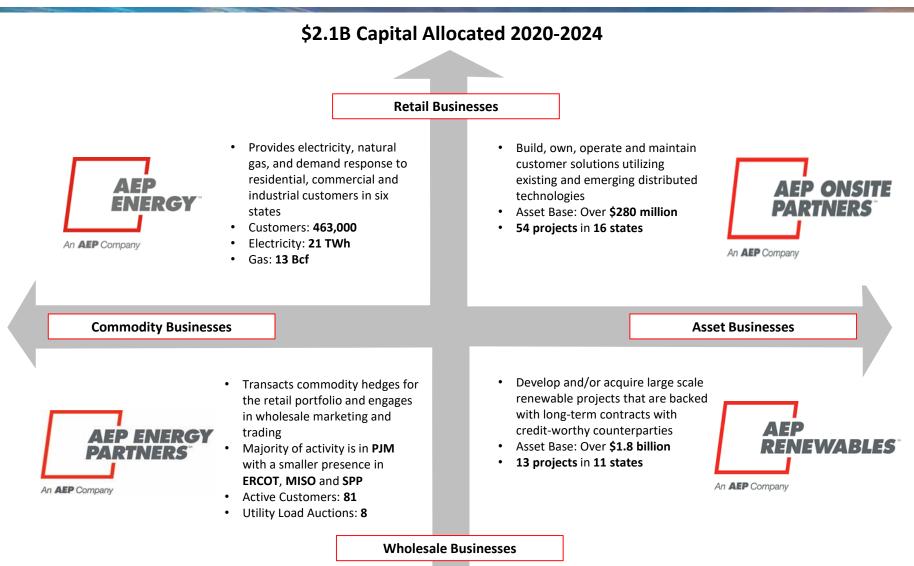
#### **Customer Guarantees Offered**

- Capital Cost Cap Guarantee Cost cap for 100% of aggregated filed capital cost of the wind facilities
- 2. Production Tax Credit Eligibility Guarantee– Facilities will be eligible for the federal PTC
- 3. Minimum Production Guarantee Guarantees a minimum production level for first 10-years of operation

# **INVESTING IN COMPETITIVE BUSINESS**

### **Competitive Businesses Strategy and Operations**





### **Customer Energy Solutions**









- Committed to nearly \$370 million in energy assets
- Portfolio of 63 operating and under construction projects in 18 different states
- Projects include customer sited solar projects, behind the meter energy storage assets, customer sited substations, peaking generation, energy efficiency projects and fuel cell projects





### **Universal Scale Renewable Projects**









- Asset base over \$1.8 billion
- Portfolio of 13 operating projects in 11 different states
- Projects include large scale wind, solar, and storage



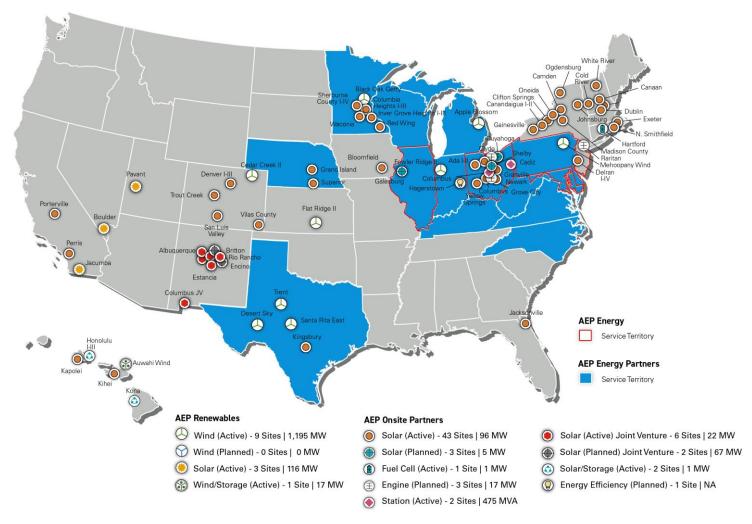


<sup>1</sup> AEP's 50% share

### **Competitive Businesses Presence**



AEP Competitive Businesses Active in 31 States (7 State overlap with AEP Utilities)



As of September 30, 2019

# ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

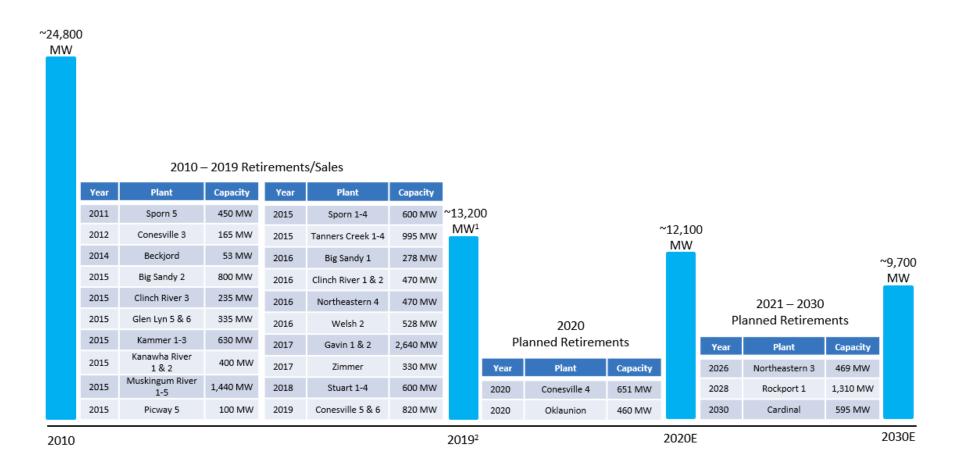


# **Transforming Our Generation Fleet - Environmental**





As of 09/30/2019. Future includes IRP forecasted additions and retirements through 2030. Energy Efficiency / Demand Response represents avoided capacity rather than physical assets.



<sup>1</sup> Includes 2012 Turk Plant addition and 40% of Conesville 4 that was acquired in conjunction with the sale of Zimmer Plant

<sup>2</sup> MW Capacity as of 9/30/2019



#### AEP's September 30, 2019 Renewable Portfolio (in MW)

Hydro, Wind, Solar and Pumped Storage	Owned MW	PPA MW	Total MW
AEP Ohio		209	209
Appalachian Power Company	785	575	1,360
Indiana Michigan Power Company	36	450	486
Public Service Company of Oklahoma		1,137	1,137
Southwestern Electric Power Company		469	469
Competitive Wind, Solar and Hydro	1,442	101	1,543
Total	2,263	2,941	5,204



APPROXIMATELY **11,900** MW of Renewable Generation Interconnected Across the U.S. via AEP's Transmission System Today

# **Emission Reduction Goals – Environmental**



AEP's Carbon Emission Reduction Goals 70% by 2030 80% by 2030<sup>1</sup> (both from a 2000 baseline)

#### **Strategy to Achieve**

- Investments in renewable energy within and outside of our traditional service territory
- **Technology deployment (e.g., energy storage)**
- Modernization of the grid with significant investments in transmission and distribution
- Increased use of natural gas
- **Optimization of our existing generating fleet**

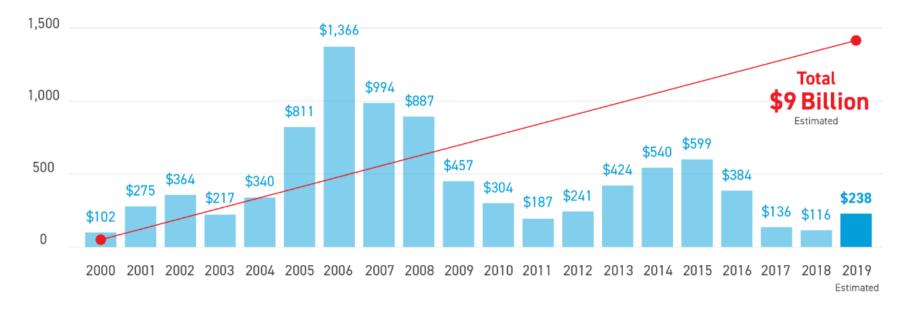
Environmental, Social and Governance (ESG) Reporting:

- AEP's Corporate Accountability Report
- Clean Energy Strategy: American Electric Power: Strategic Vision for a Clean Energy Future
- EEI ESG Sustainability
   Reporting: AEP's 2019 EEI ESG
   Report
- > AEP's CDP Survey Responses
- > AEP's GRI Report
- AEP also responds to investorrelated surveys, including MSCI and Sustainalytics

<sup>1</sup> Aspiration is zero emissions

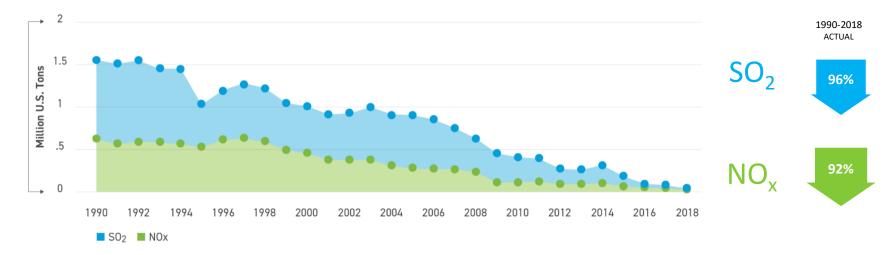


#### **INVESTMENT IN ENVIRONMENTAL CONTROLS \$** in millions





#### **TOTAL AEP SYSTEM NOx & SO<sub>2</sub> EMISSIONS**

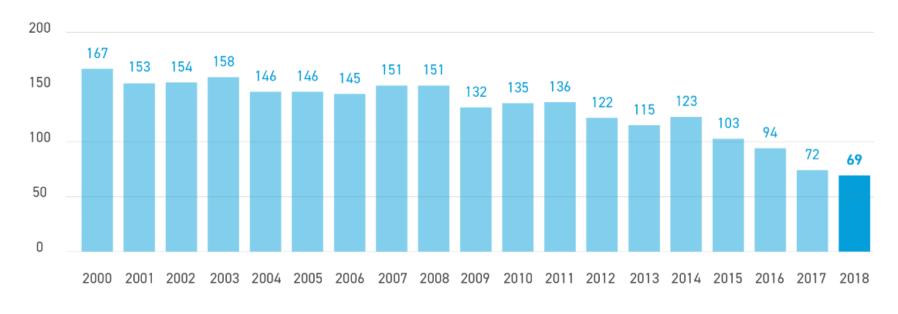


#### TOTAL AEP SYSTEM MERCURY EMISSIONS





#### TOTAL AEP SYSTEM - ANNUAL CO2 EMISSIONS in million metric tons





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#### **Our Employees**

- Forbes America's Best Employers for Diversity in 2019
- Forbes Inaugural Best Employers for Women in 2018
- Disability Equality Index Best Places to Work for Disability Inclusion in 2019
- Human Rights Campaign Best Places to Work for LGBT Equality in 2018
- VIQTORY Media Top 100 Military-Friendly Employers in 2019

#### **Our Communities (2018 Stats)**

- Energy assistance provided to customers ~ \$66 million
- New jobs provided through economic development ~ 15,000
- Philanthropic giving to more than 1,800 community organizations ~ \$26 million
- Corporate spend to locally-based suppliers ~ 49%









<b>Board Composition</b>				
7 Yrs	92%	38%		
Average Tenure	Independent	Diverse		

- 12 of 13 directors are independent
- Annual election of directors by majority vote
- Lead independent director elected annually
- Proxy access adopted
- Annual advisory vote on compensation

- Tenure and overboarding policies
- Annual shareholder engagement on strategy and ESG matters with lead independent director participation
- Environmental reports provided to Board at every meeting