

**UNITED STATES  
 SECURITIES AND EXCHANGE COMMISSION  
 WASHINGTON, D.C. 20549**

**FORM 10-K**

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended **December 31, 2022**

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

<b>Commission File Number</b>	<b>Registrants; Address and Telephone Number</b>	<b>States of Incorporation</b>	<b>I.R.S. Employer Identification Nos.</b>
1-3525	AMERICAN ELECTRIC POWER CO INC.	New York	13-4922640
333-221643	AEP TEXAS INC.	Delaware	51-0007707
333-217143	AEP TRANSMISSION COMPANY, LLC	Delaware	46-1125168
1-3457	APPALACHIAN POWER COMPANY	Virginia	54-0124790
1-3570	INDIANA MICHIGAN POWER COMPANY	Indiana	35-0410455
1-6543	OHIO POWER COMPANY	Ohio	31-4271000
0-343	PUBLIC SERVICE COMPANY OF OKLAHOMA	Oklahoma	73-0410895
1-3146	SOUTHWESTERN ELECTRIC POWER COMPANY 1 Riverside Plaza, Columbus, Ohio 43215-2373 Telephone (614) 716-1000	Delaware	72-0323455

**Securities registered pursuant to Section 12(b) of the Act:**

<b>Registrant</b>	<b>Title of each class</b>	<b>Trading Symbol</b>	<b>Name of Each Exchange on Which Registered</b>
American Electric Power Company Inc.	Common Stock, \$6.50 par value	AEP	The NASDAQ Stock Market LLC
American Electric Power Company Inc.	6.125% Corporate Units	AEPPZ	The NASDAQ Stock Market LLC

## Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant American Electric Power Company, Inc., AEP Texas Inc., AEP Transmission Company, LLC, Appalachian Power Company, Ohio Power Company and Southwestern Electric Power Company, are well-known seasoned issuers, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrants Indiana Michigan Power Company and Public Service Company of Oklahoma, are well-known seasoned issuers, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrants are not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes  No

Indicate by check mark whether the registrants (1) have filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrants were required to file such reports), and (2) have been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrants have submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

Indicate by check mark whether American Electric Power Company, Inc. is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large Accelerated filer  Accelerated filer  Non-accelerated filer

Smaller reporting company  Emerging growth company

Indicate by check mark whether AEP Texas Inc., AEP Transmission Company, LLC, Appalachian Power Company, Indiana Michigan Power Company, Ohio Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company are large accelerated filers, accelerated filers, non-accelerated filers, smaller reporting companies, or emerging growth companies. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large Accelerated filer  Accelerated filer  Non-accelerated filer

Smaller reporting company  Emerging growth company

If an emerging growth company, indicate by check mark if the registrants have elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrants are shell companies (as defined in Rule 12b-2 of the Exchange Act). Yes  No

AEP Texas Inc., AEP Transmission Company, LLC, Appalachian Power Company, Indiana Michigan Power Company, Ohio Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company meet the conditions set forth in General Instruction I(1)(a) and (b) of Form 10-K and are therefore filing this Form 10-K with the reduced disclosure format specified in General Instruction I(2) to such Form 10-K.

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	<b>Aggregate Market Value of Voting and Non-Voting Common Equity Held by Nonaffiliates of the Registrants as of June 30, 2022 the Last Trading Date of the Registrants' Most Recently Completed Second Fiscal Quarter</b>	<b>Number of Shares of Common Stock Outstanding of the Registrants as of December 31, 2022</b>
American Electric Power Company, Inc.	\$49,300,311,811	513,866,081 (\$6.50 par value)
AEP Texas Inc.	None	100 (\$0.01 par value)
AEP Transmission Company, LLC (a)	None	NA
Appalachian Power Company	None	13,499,500 (no par value)
Indiana Michigan Power Company	None	1,400,000 (no par value)
Ohio Power Company	None	27,952,473 (no par value)
Public Service Company of Oklahoma	None	9,013,000 (\$15 par value)
Southwestern Electric Power Company	None	3,680 (\$18 par value)

(a) 100% interest is held by AEP Transmission Holdco.

NA Not applicable.

### **Note on Market Value of Common Equity Held by Nonaffiliates**

American Electric Power Company, Inc. owns all of the common stock of AEP Texas Inc., Appalachian Power Company, Indiana Michigan Power Company, Ohio Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company and, indirectly, all of the LLC membership interest in AEP Transmission Company, LLC (see Item 12 herein).

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## Documents Incorporated By Reference

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Description	Part of Form 10-K into which Document is Incorporated
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Portions of Proxy Statement of American Electric Power Company, Inc. for 2023 Annual Meeting of Shareholders.

Part III

**This combined Form 10-K is separately filed by American Electric Power Company, Inc., AEP Texas Inc., AEP Transmission Company, LLC, Appalachian Power Company, Indiana Michigan Power Company, Ohio Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company. Information contained herein relating to any individual registrant is filed by such registrant on its own behalf. Except for American Electric Power Company, Inc., each registrant makes no representation as to information relating to the other registrants.**

**You can access financial and other information at AEP's website, including AEP's Principles of Business Conduct, certain committee charters and Principles of Corporate Governance. The address is [www.AEP.com](http://www.AEP.com). Investors can obtain copies of our SEC filings from this site free of charge, as well as from the SEC website at [www.sec.gov](http://www.sec.gov).**

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## **GLOSSARY OF TERMS**

**When the following terms and abbreviations appear in the text of this report, they have the meanings indicated below.**



Term	Meaning
AEGCo	AEP Generating Company, an AEP electric utility subsidiary.
AEP	American Electric Power Company, Inc., an investor-owned electric public utility holding company which includes American Electric Power Company, Inc. (Parent) and majority-owned consolidated subsidiaries and consolidated affiliates.
AEP Credit	AEP Credit, Inc., a consolidated VIE of AEP which securitizes accounts receivable and accrued utility revenues for affiliated electric utility companies.
AEP East Companies	APCo, I&M, KGPCo, KPCo, OPCo and WPCo.
AEP Energy	AEP Energy, Inc., a wholly-owned retail electric supplier for customers in Ohio, Illinois and other deregulated electricity markets throughout the United States.
AEP Energy Supply, LLC	A nonregulated holding company for AEP's competitive generation, wholesale and retail businesses, and a wholly-owned subsidiary of AEP.
AEP OnSite Partners	A division of AEP Energy Supply, LLC that builds, owns, operates and maintains customer solutions utilizing existing and emerging distributed technologies.
AEP Renewables	A division of AEP Energy Supply, LLC that develops and/or acquires large scale renewable projects that are backed with long-term contracts with creditworthy counterparties.
AEP System	American Electric Power System, an electric system, owned and operated by AEP subsidiaries.
AEP Texas	AEP Texas Inc., an AEP electric utility subsidiary.
AEP Transmission Holdco	AEP Transmission Holding Company, LLC, a wholly-owned subsidiary of AEP.
AEP Wind Holdings, LLC	Acquired in April 2019 as Sempra Renewables LLC, develops, owns and operates, or holds interests in, wind generation facilities in the United States.
AEPEP	AEP Energy Partners, Inc., a subsidiary of AEP dedicated to wholesale marketing and trading, hedging activities, asset management and commercial and industrial sales in deregulated markets.
AEPRO	AEP River Operations, LLC, a commercial barge operation sold in November 2015.
AEpsc	American Electric Power Service Corporation, an AEP service subsidiary providing management and professional services to AEP and its subsidiaries.
AEPTCo	AEP Transmission Company, LLC, a wholly-owned subsidiary of AEP Transmission Holdco, is an intermediate holding company that owns the State Transcos.
AEPTCo Parent	AEP Transmission Company, LLC, the holding company of the State Transcos within the AEPTCo consolidation.
AEPTHCo	AEP Transmission Holding Company, LLC, a subsidiary of AEP, an intermediate holding company that owns transmission operations joint ventures and AEPTCo.
AFUDC	Allowance for Equity Funds Used During Construction.
AGR	AEP Generation Resources Inc., a competitive AEP subsidiary in the Generation & Marketing segment.
ALJ	Administrative Law Judge.
AOCl	Accumulated Other Comprehensive Income.
APCo	Appalachian Power Company, an AEP electric utility subsidiary.
Appalachian Consumer Rate Relief Funding	Appalachian Consumer Rate Relief Funding LLC, a wholly-owned subsidiary of APCo and a consolidated VIE formed for the purpose of issuing and servicing securitization bonds related to the under-recovered ENEC deferral balance.
APTCo	AEP Appalachian Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.



Term	Meaning
APSC	Arkansas Public Service Commission.
ARAM	Average Rate Assumption Method, an IRS approved method used to calculate the reversal of Excess ADIT for rate-making purposes.
ARO	Asset Retirement Obligations.
ASU	Accounting Standards Update.
ATM	At-the-Market.
CAA	Clean Air Act.
CARES Act	Coronavirus Aid, Relief, and Economic Security Act signed into law in March 2020.
CCR	Coal Combustion Residual.
CLECO	Central Louisiana Electric Company, a nonaffiliated utility company.
CO <sub>2</sub>	Carbon dioxide and other greenhouse gases.
CO <sub>2e</sub>	Carbon dioxide equivalent.
Conesville Plant	A retired, single unit coal-fired generation plant totaling 651 MW located in Conesville, Ohio. The plant was jointly-owned by AGR and a nonaffiliate.
Cook Plant	Donald C. Cook Nuclear Plant, a two-unit, 2,296 MW nuclear plant owned by I&M.
COVID-19	Coronavirus 2019, a highly infectious respiratory disease. In March 2020, the World Health Organization declared COVID-19 a worldwide pandemic.
CRES provider	Competitive Retail Electric Service providers under Ohio law that target retail customers by offering alternative generation service.
CSAPR	Cross-State Air Pollution Rule.
CSPCo	Columbus Southern Power Company, a former AEP electric utility subsidiary that was merged into OPCo effective December 31, 2011.
CWA	Clean Water Act.
CWIP	Construction Work in Progress.
DCC Fuel	DCC Fuel XI, DCC Fuel XII, DCC Fuel XIII, DCC Fuel XIV, DCC Fuel XV, DCC Fuel XVI, DCC Fuel XVII and DCC Fuel XVIII consolidated VIEs formed for the purpose of acquiring, owning and leasing nuclear fuel to I&M.
Desert Sky	Desert Sky Wind Farm LLC, a 170 MW wind electricity generation facility located on Indian Mesa in Pecos County, Texas in which AEP owns a 100% interest.
DHLC	Dolet Hills Lignite Company, LLC, a wholly-owned lignite mining subsidiary of SWEPCo.
DIR	Distribution Investment Rider.
DOE	U. S. Department of Energy.
EIS	Energy Insurance Services, Inc., a nonaffiliated captive insurance company and consolidated VIE of AEP.
ELG	Effluent Limitation Guidelines.
ENEC	Expanded Net Energy Cost.
Equity Units	AEP's Equity Units issued in August 2020 and March 2019.
ERCOT	Electric Reliability Council of Texas regional transmission organization.
ESP	Electric Security Plans, a PUCO requirement for electric utilities to adjust their rates by filing with the PUCO.
ETT	Electric Transmission Texas, LLC, an equity interest joint venture between AEP Transmission Holdco and Berkshire Hathaway Energy Company formed to own and operate electric transmission facilities in ERCOT.
Excess ADIT	Excess accumulated deferred income taxes.
FAC	Fuel Adjustment Clause.
FASB	Financial Accounting Standards Board.
Federal EPA	United States Environmental Protection Agency.
FERC	Federal Energy Regulatory Commission.





Term	Meaning
FGD	Flue Gas Desulfurization or scrubbers.
FIP	Federal Implementation Plan.
FTR	Financial Transmission Right, a financial instrument that entitles the holder to receive compensation for certain congestion-related transmission charges that arise when the power grid is congested resulting in differences in locational prices.
GAAP	Accounting Principles Generally Accepted in the United States of America.
GHG	Greenhouse gas.
I&M	Indiana Michigan Power Company, an AEP electric utility subsidiary.
IMTCo	AEP Indiana Michigan Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.
IRA	On August 16, 2022 President Biden signed into law legislation commonly referred to as the “Inflation Reduction Act” (IRA).
IRS	Internal Revenue Service.
ITC	Investment Tax Credit.
IURC	Indiana Utility Regulatory Commission.
KGPCo	Kingsport Power Company, an AEP electric utility subsidiary.
KPCo	Kentucky Power Company, an AEP electric utility subsidiary.
KPSC	Kentucky Public Service Commission.
KTCO	AEP Kentucky Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.
kV	Kilovolt.
KWh	Kilowatt-hour.
Liberty	Liberty Utilities Co., a subsidiary of Algonquin Power & Utilities Corporation.
LPSC	Louisiana Public Service Commission.
MATS	Mercury and Air Toxic Standards.
Maverick	Maverick, part of the North Central Wind Energy Facilities, consists of 287 MWs of wind generation in Oklahoma.
MISO	Midcontinent Independent System Operator.
Mitchell Plant	A two unit, 1,560 MW coal-fired power plant located in Moundsville, West Virginia. The plant is jointly owned by KPCo and WPCo.
MMBtu	Million British Thermal Units.
MPSC	Michigan Public Service Commission.
MTM	Mark-to-Market.
MW	Megawatt.
MWh	Megawatt-hour.
NAAQS	National Ambient Air Quality Standards.
NERC	North American Electric Reliability Corporation.
Nonutility Money Pool	Centralized funding mechanism AEP uses to meet the short-term cash requirements of certain nonutility subsidiaries.
NCWF	North Central Wind Energy Facilities, a joint PSO and SWEPCo project, which includes three Oklahoma wind facilities totaling approximately 1,484 MWs of wind generation.
NOL	Net operating losses.
NOLC	Net operating loss carryforwards.
NO <sub>x</sub>	Nitrogen oxide.
NPDES	National Pollutant Discharge Elimination System.
NRC	Nuclear Regulatory Commission.
NSR	New Source Review.







Term	Meaning
OATT	Open Access Transmission Tariff.
OCC	Corporation Commission of the State of Oklahoma.
ODFA	Oklahoma Development Finance Authority.
OHTCo	AEP Ohio Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.
Oklunion Power Station	A retired, single unit coal-fired generation plant totaling 650 MW located in Vernon, Texas. The plant was jointly-owned by AEP Texas, PSO and certain nonaffiliated entities.
OKTCo	AEP Oklahoma Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.
OPCo	Ohio Power Company, an AEP electric utility subsidiary.
OPEB	Other Postretirement Benefits.
Operating Agreement	Agreement, dated January 1, 1997, as amended, by and among PSO and SWEPCo governing generating capacity allocation, energy pricing, and revenues and costs of third-party sales. AEPSC acts as the agent.
OTC	Over-the-counter.
OVEC	Ohio Valley Electric Corporation, which is 43.47% owned by AEP.
Parent	American Electric Power Company, Inc., the equity owner of AEP subsidiaries within the AEP consolidation.
PATH-WV	PATH West Virginia Transmission Company, LLC, a joint venture-owned 50% by FirstEnergy and 50% by AEP.
PCA	Power Coordination Agreement among APCo, I&M, KPCo and WPCo.
PFD	Proposal for Decision.
PJM	Pennsylvania – New Jersey – Maryland regional transmission organization.
PM	Particulate Matter.
PPA	Purchase Power and Sale Agreement.
PSA	Purchase and Sale Agreement.
PSO	Public Service Company of Oklahoma, an AEP electric utility subsidiary.
PTC	Production Tax Credit.
PUCO	Public Utilities Commission of Ohio.
PUCT	Public Utility Commission of Texas.
Racine	A generation plant consisting of two hydroelectric generating units totaling 48 MWs located in Racine, Ohio and formerly owned by AGR. Racine was sold to a nonaffiliate in December 2021.
Registrant Subsidiaries	AEP subsidiaries which are SEC registrants: AEP Texas, AEPTCo, APCo, I&M, OPCo, PSO and SWEPCo.
Registrants	SEC registrants: AEP, AEP Texas, AEPTCo, APCo, I&M, OPCo, PSO and SWEPCo.
REP	Texas Retail Electric Provider.
Restoration Funding	AEP Texas Restoration Funding LLC, a wholly-owned subsidiary of AEP Texas and a consolidated VIE formed for the purpose of issuing and servicing securitization bonds related to storm restoration in Texas primarily caused by Hurricane Harvey.
Risk Management Contracts	Trading and non-trading derivatives, including those derivatives designated as cash flow and fair value hedges.
Rockport Plant	A generation plant, jointly-owned by AEGCo and I&M, consisting of two 1,310 MW coal-fired generating units near Rockport, Indiana.
ROE	Return on Equity.
RPM	Reliability Pricing Model.
RTO	Regional Transmission Organization, responsible for moving electricity over large interstate areas.





Term	Meaning
Sabine	Sabine Mining Company, a lignite mining company that is a consolidated VIE for AEP and SWEPCo.
Santa Rita East	Santa Rita East Wind Holdings, LLC, a consolidated VIE whose sole purpose is to own and operate a 302 MW wind generation facility in west Texas in which AEP owns an 85% interest.
SEC	U.S. Securities and Exchange Commission.
Sempra Renewables LLC	Sempra Renewables LLC, acquired in April 2019 (subsequently renamed as AEP Wind Holdings LLC), consists of 724 MWs of wind generation and battery assets in the United States.
SIA	System Integration Agreement, effective June 15, 2000, as amended, provides contractual basis for coordinated planning, operation and maintenance of the power supply sources of the combined AEP.
SIP	State Implementation Plan.
SNF	Spent Nuclear Fuel.
SO <sub>2</sub>	Sulfur dioxide.
SPP	Southwest Power Pool regional transmission organization.
SSO	Standard service offer.
State Transcos	AEPTCo's seven wholly-owned, FERC regulated, transmission only electric utilities, which are geographically aligned with AEP's existing utility operating companies.
Sundance	Sundance, acquired in April 2021 as part of the North Central Wind Energy Facilities, consists of 199 MWs of wind generation in Oklahoma.
SWEPCo	Southwestern Electric Power Company, an AEP electric utility subsidiary.
SWTCo	AEP Southwestern Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.
TA	Transmission Agreement, effective November 2010, among APCo, I&M, KGPCo, KPCo, OPCo and WPCo with AEPSC as agent.
Tax Reform	On December 22, 2017, President Trump signed into law legislation referred to as the "Tax Cuts and Jobs Act" (the TCJA). The TCJA includes significant changes to the Internal Revenue Code of 1986, including a reduction in the corporate federal income tax rate from 35% to 21% effective January 1, 2018.
TCA	Transmission Coordination Agreement dated January 1, 1997, by and among, PSO, SWEPCo and AEPSC, in connection with the operation of the transmission assets of the two public utility subsidiaries.
Transition Funding	AEP Texas Central Transition Funding III LLC, a wholly-owned subsidiary of AEP Texas and consolidated VIE formed for the purpose of issuing and servicing securitization bonds related to restructuring legislation in Texas.
Transource Energy	Transource Energy, LLC, a consolidated VIE formed for the purpose of investing in utilities which develop, acquire, construct, own and operate transmission facilities in accordance with FERC-approved rates.
Traverse	Traverse, part of the North Central Wind Energy Facilities, consists of 998 MWs of wind generation in Oklahoma.
Trent	Trent Wind Farm LLC, a 156 MW wind electricity generation facility located in west Texas in which AEP owns a 100% interest.
Turk Plant	John W. Turk, Jr. Plant, a 650 MW coal-fired plant in Arkansas that is 73% owned by SWEPCo.
UMWA	United Mine Workers of America.
UPA	Unit Power Agreement.
Utility Money Pool	Centralized funding mechanism AEP uses to meet the short-term cash requirements of certain utility subsidiaries.
VIE	Variable Interest Entity.
Virginia SCC	Virginia State Corporation Commission.



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<b>Term</b>	<b>Meaning</b>
WPCo	Wheeling Power Company, an AEP electric utility subsidiary.
WVPSC	Public Service Commission of West Virginia.
WVTCo	AEP West Virginia Transmission Company, Inc., a wholly-owned AEPTCo transmission subsidiary.

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## FORWARD-LOOKING INFORMATION

This report made by the Registrants contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Many forward-looking statements appear in “Item 7 – Management’s Discussion and Analysis of Financial Condition and Results of Operations,” but there are others throughout this document which may be identified by words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “will,” “should,” “could,” “would,” “project,” “continue” and similar expressions, and include statements reflecting future results or guidance and statements of outlook. These matters are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Forward-looking statements in this document are presented as of the date of this document. Except to the extent required by applicable law, management undertakes no obligation to update or revise any forward-looking statement. 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.
- The impact of pandemics and any associated disruption of AEP’s business operations due to impacts on economic or market conditions, costs of compliance with potential government regulations, electricity usage, supply chain issues, customers, service providers, vendors and suppliers.
- The economic impact of increased global trade tensions including the conflict between Russia and Ukraine, and the adoption or expansion of economic sanctions or trade restrictions.
- Inflationary or deflationary interest rate trends.
- Volatility and disruptions in financial markets precipitated by any cause, including failure to make progress on federal budget or debt ceiling matters; 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 (i) if expected sources of capital, such as proceeds from the sale of assets or subsidiaries, do not materialize or do not materialize at the level anticipated, and (ii) 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 SNF.
- The availability of fuel and necessary generation capacity and the performance of generation plants.
- The ability to recover fuel and other energy costs through regulated or competitive electric rates.
- The ability to transition from fossil generation and 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, including favorable tax treatment, and to recover those costs.
- New legislation, litigation or government regulation, including changes to tax laws and regulations, oversight of nuclear generation, energy commodity trading and new or heightened requirements for reduced emissions of sulfur, nitrogen, mercury, carbon, soot or PM and other substances that could impact the continued operation, cost recovery and/or profitability of generation plants and related assets.
- The impact of federal tax legislation on results of operations, financial condition, cash flows or credit ratings.
- The risks before, during and after generation of electricity associated with the fuels used or the byproducts and wastes of such fuels, including coal ash and SNF.
- 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.
- The impact of changing expectations and demands of customers, regulators, investors and stakeholders, including heightened emphasis on environmental, social and governance concerns.
- Changes in utility regulation and the allocation of costs within RTOs 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, OPEB, 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.
- Other risks and unforeseen events, including wars and military conflicts, 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 the requisite work force and key personnel.

The forward-looking statements of the Registrants speak only as of the date of this report or as of the date they are made. The Registrants expressly disclaim any obligation to update any forward-looking information, except as required by law. For a more detailed discussion of these factors, see “Risk Factors” in Part I of this report.

The Registrants may use AEP’s website as a distribution channel for material company information. Financial and other important information regarding the Registrants is routinely posted on and accessible through AEP’s website at [www.aep.com/investors/](http://www.aep.com/investors/). In addition, you may automatically receive email alerts and other information about the Registrants when you enroll your email address by visiting the “Email Alerts” section at [www.aep.com/investors/](http://www.aep.com/investors/).

### ***Company Website and Availability of SEC Filings***

Our principal corporate website address is [www.aep.com](http://www.aep.com). Information on our website is not incorporated by reference herein and is not part of this Form 10-K. We make available free of charge through our website our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such documents are electronically filed with, or furnished to, the SEC. The SEC maintains a website at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements and other information regarding AEP.

## PART I

### **ITEM 1. BUSINESS**

#### **GENERAL**

##### ***Overview and Description of Major Subsidiaries***

AEP was incorporated under the laws of the State of New York in 1906 and reorganized in 1925. It is a public utility holding company that owns, directly or indirectly, all of the outstanding common stock of its public utility subsidiaries and varying percentages of other subsidiaries.

The service areas of AEP's public utility subsidiaries cover portions of the states of Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia. Transmission networks are interconnected with extensive distribution facilities in the territories served. The public utility subsidiaries of AEP have traditionally provided electric service, consisting of generation, transmission and distribution, on an integrated basis to their retail customers. Restructuring laws in Michigan, Ohio and the ERCOT area of Texas have caused AEP public utility subsidiaries in those states to unbundle previously integrated regulated rates for their retail customers.

The member companies of the AEP System have contractual, financial and other business relationships with the other member companies, such as participation in the AEP System savings and retirement plans and tax returns, sales of electricity and transportation and handling of fuel. The companies of the AEP System also obtain certain accounting, administrative, information systems, engineering, financial, legal, maintenance and other services at cost from a common provider, AEPSC.

As of December 31, 2022, the subsidiaries of AEP had a total of 16,974 employees. Because it is a holding company rather than an operating company, AEP has no employees. The material subsidiaries of AEP are as follows:

##### ***AEP Texas***

Organized in Delaware in 1925, AEP Texas is engaged in the transmission and distribution of electric power to approximately 1,094,000 retail customers through REPs in west, central and southern Texas. As of December 31, 2022, AEP Texas had 1,594 employees. Among the principal industries served by AEP Texas are petroleum and coal products manufacturing, chemical manufacturing, oil and gas extraction, pipeline transportation and support activities for mining. The territory served by AEP Texas also includes several military installations. AEP Texas is a member of ERCOT. AEP Texas is part of AEP's Transmission and Distribution Utilities segment.

##### ***AEPTCo***

Organized in Delaware in 2006, AEPTCo is a holding company for the State Transcos. The State Transcos develop and own new transmission assets that are physically connected to the AEP System. Individual State Transcos (a) have obtained the approvals necessary to operate in Indiana, Kentucky, Michigan, Ohio, Oklahoma and West Virginia, subject to any applicable siting requirements, (b) are authorized to submit projects for commission approval in Virginia and (c) have been granted consent to enter into a joint license agreement that will support investment in Tennessee. Neither AEPTCo nor its subsidiaries have any employees. Instead, AEPSC and certain AEP utility subsidiaries provide services to these entities. AEPTCo is part of the AEP Transmission Holdco segment.



### ***APCo***

Organized in Virginia in 1926, APCo is engaged in the generation, transmission and distribution of electric power to approximately 965,000 retail customers in the southwestern portion of Virginia and southern West Virginia, and in supplying and marketing electric power at wholesale to other electric utility companies, municipalities and other market participants. APCo owns 6,681 MWs of generating capacity. APCo uses its generation to serve its retail and other customers. As of December 31, 2022, APCo had 1,650 employees. Among the principal industries served by APCo are coal-mining, primary metals, pipeline transportation, chemical manufacturing and paper manufacturing. APCo is a member of PJM. APCo is part of AEP's Vertically Integrated Utilities segment.

### ***I&M***

Organized in Indiana in 1907, I&M is engaged in the generation, transmission and distribution of electric power to approximately 609,000 retail customers in northern and eastern Indiana and southwestern Michigan, and in supplying and marketing electric power at wholesale to other electric utility companies, rural electric cooperatives, municipalities and other market participants. I&M owns or leases 3,662 MWs of generating capacity, which it uses to serve its retail and other customers. In December 2022, the Rockport Plant, Unit 2 lease ended and I&M and AEGCo acquired 100% of the interests in the Rockport Plant. AEGCo's 50% ownership share of Rockport Plant, Unit 2 is being billed to I&M under a FERC-approved UPA. I&M's purchased power from AEGCo and I&M's 50% ownership share of Rockport Plant, Unit 2 electricity generated represents a merchant resource for I&M until Rockport Plant, Unit 2 is retired in 2028. As of December 31, 2022, I&M had 2,016 employees. Among the principal industries served are primary metals, transportation equipment, chemical manufacturing, plastics and rubber products and fabricated metal product manufacturing. I&M is a member of PJM. I&M is part of AEP's Vertically Integrated Utilities segment.

### ***KPCo***

Organized in Kentucky in 1919, KPCo is engaged in the generation, transmission and distribution of electric power to approximately 163,000 retail customers in eastern Kentucky, and in supplying and marketing electric power at wholesale to other electric utility companies, municipalities and other market participants. KPCo owns 1,075 MWs of generating capacity. KPCo uses its generation to serve its retail and other customers. As of December 31, 2022, KPCo had 285 employees. Among the principal industries served are petroleum and coal products manufacturing, chemical manufacturing, coal-mining, oil and gas extraction and pipeline transportation. KPCo is a member of PJM. KPCo is part of AEP's Vertically Integrated Utilities segment. In October 2021, AEP entered into a Stock Purchase Agreement to sell KPCo to Liberty Utilities Co. The closing of the sale is subject to receipt of FERC authorization under Section 203 of the Federal Power Act and clearance under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. See "Disposition of KPCo and KTCo" section of Note 7 for additional information.

### ***KGPCo***

Organized in Virginia in 1917, KGPCo provides electric service to approximately 49,000 retail customers in Kingsport and eight neighboring communities in northeastern Tennessee. KGPCo does not own any generating facilities and is a member of PJM. It purchases electric power from APCo for distribution to its customers. As of December 31, 2022, KGPCo had 53 employees. KGPCo is part of AEP's Vertically Integrated Utilities segment.

### ***OPCo***

Organized in Ohio in 1907 and re-incorporated in 1924, OPCo is engaged in the transmission and distribution of electric power to approximately 1,521,000 retail customers in Ohio. OPCo purchases energy and capacity at auction to serve generation service customers who have not switched to a competitive generation supplier. As of December 31,

2022, OPCo had 1,713 employees. Among the principal industries served by OPCo are primary metals, petroleum and coal products manufacturing, plastics and rubber products, chemical manufacturing, pipeline transportation and data centers. OPCo is a member of PJM. OPCo is part of AEP's Transmission and Distribution Utilities segment.

## ***PSO***

Organized in Oklahoma in 1913, PSO is engaged in the generation, transmission and distribution of electric power to approximately 575,000 retail customers in eastern and southwestern Oklahoma, and in supplying and marketing electric power at wholesale to other electric utility companies, municipalities, rural electric cooperatives and other market participants. PSO owns 4,380 MWs of generating capacity, which it uses to serve its retail and other customers. As of December 31, 2022, PSO had 1,030 employees. Among the principal industries served by PSO are paper manufacturing, oil and gas extraction, petroleum and coal products manufacturing, plastics and rubber products and pipeline transportation. PSO is a member of SPP. PSO is part of AEP's Vertically Integrated Utilities segment.

## ***SWEPCo***

Organized in Delaware in 1912, SWEPCo is engaged in the generation, transmission and distribution of electric power to approximately 551,000 retail customers in northeastern and panhandle of Texas, northwestern Louisiana and western Arkansas, and in supplying and marketing electric power at wholesale to other electric utility companies, municipalities, rural electric cooperatives and other market participants. SWEPCo owns 5,585 MWs of generating capacity, which it uses to serve its retail and other customers. As of December 31, 2022, SWEPCo had 1,372 employees. Among the principal industries served by SWEPCo are petroleum and coal products manufacturing, food manufacturing, paper manufacturing, oil and gas extraction and chemical manufacturing. The territory served by SWEPCo includes several military installations, colleges and universities. SWEPCo also owns and operates a lignite coal-mining operation. SWEPCo is a member of SPP. SWEPCo is part of AEP's Vertically Integrated Utilities segment.

## ***WPCo***

Organized in West Virginia in 1883 and re-incorporated in 1911, WPCo provides electric service to approximately 41,000 retail customers in northern West Virginia and in supplying and marketing electric power at wholesale to other market participants. WPCo owns 780 MWs of generating capacity which it uses to serve its retail and other customers. As of December 31, 2022, WPCo had 220 employees. Among the principal industries served by WPCo are coal-mining, primary metals, pipeline transportation, chemical manufacturing and paper manufacturing. WPCo is a member of PJM. WPCo is part of AEP's Vertically Integrated Utilities segment.

## ***Service Company Subsidiary***

AEPSC is a service company subsidiary that provides accounting, administrative, information systems, engineering, financial, legal, maintenance and other services at cost to AEP subsidiaries. The executive officers of AEP and certain of the executive officers of its public utility subsidiaries are employees of AEPSC. As of December 31, 2022, AEPSC had 6,572 employees.

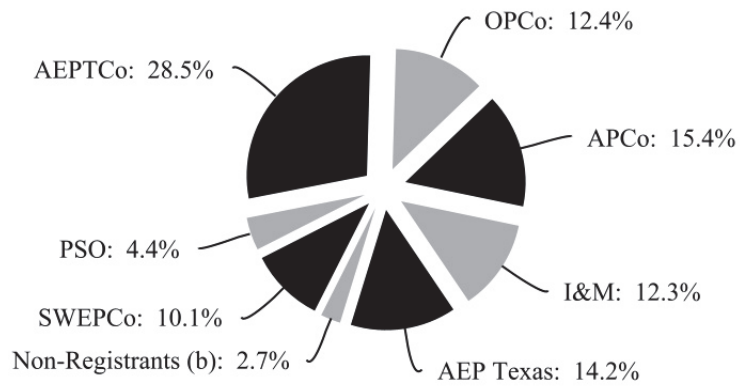
### *Public Utility Subsidiaries by Jurisdiction*

The following table illustrates certain regulatory information with respect to the jurisdictions in which the public utility subsidiaries of AEP operate:

<u>Principal Jurisdiction</u>	<u>AEP Utility Subsidiaries Operating in that Jurisdiction</u>	<u>Authorized Return on Equity (a)</u>
FERC	AEPTCo - PJM	10.35 % (b)
	AEPTCo - SPP	10.50 %
Ohio	OPCo	9.70 %
West Virginia	APCo	9.75 %
	WPCo	9.75 %
Virginia	APCo	9.20 %
Indiana	I&M	9.70 %
Michigan	I&M	9.86 %
Texas	AEP Texas	9.40 %
	SWEPCo	9.25 % (c)
Tennessee	KGPCo	9.50 %
Kentucky	KPCo	9.30 %
Louisiana	SWEPCo	9.50 %
Arkansas	SWEPCo	9.50 %
Oklahoma	PSO	9.40 %

- (a) Identifies the predominant current authorized ROE, and may not include other, less significant, permitted recovery. Actual ROE varies from authorized ROE.
- (b) In December 2022, the FERC issued an order removing the 50 basis point RTO incentive from OHTCo transmission formula rates effective February 2022, reducing OHTCo's authorized ROE to 9.85%.
- (c) In February 2022, SWEPCo filed a motion for rehearing with the PUCT challenging several errors in the final order, which included a challenge of the approved ROE. In April 2022, the PUCT denied the motion for rehearing. In May 2022, SWEPCo filed a petition for review with the Texas District Court seeking a judicial review of the several errors challenged in the PUCT's final order.

**Percentage of AEP Consolidated Pretax Income by Registrant Subsidiary (a)  
for the year ended December 31, 2022**



- (a) Pretax income does not include intercompany eliminations.
- (b) Excludes \$363 million loss on expected sale of the Kentucky Operations.



## **CLASSES OF SERVICE**

AEP and subsidiaries recognize revenues from customers for retail and wholesale electricity sales and electricity transmission and distribution delivery services. AEP's subsidiaries within the Vertically Integrated Utilities, Transmission and Distribution Utilities, AEP Transmission Holdco and Generation & Marketing segments derive revenue from the following sources: Retail Revenues, Wholesale and Competitive Retail Revenues, Other Revenues from Contracts with Customers and Alternative Revenues. For further information relating to the sources of revenue for the Registrants, see Note 19 - Revenues from Contracts with Customers for additional information.

## **FINANCING**

### *General*

Companies within the AEP System generally use short-term debt to finance working capital needs. Short-term debt may also be used to finance acquisitions, construction and redemption or repurchase of outstanding securities until such needs can be financed with long-term debt. In recent history, short-term funding needs have been provided for by cash on hand, term loan issuances and AEP's commercial paper program. Funds are made available to subsidiaries under the AEP corporate borrowing program. Certain public utility subsidiaries of AEP also sell accounts receivable to provide liquidity. See "Financial Condition" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

AEP's revolving credit agreement (which backstops the commercial paper program) includes covenants and events of default typical for this type of facility, including a maximum debt/capital test. In addition, the acceleration of AEP's payment obligations, or the obligations of certain of its major subsidiaries, prior to maturity under any other agreement or instrument relating to debt outstanding in excess of \$50 million, would cause an event of default under the credit agreement. As of December 31, 2022, AEP was in compliance with its debt covenants. With the exception of a voluntary bankruptcy or insolvency, any event of default has either or both a cure period or notice requirement before termination of the agreement. A voluntary bankruptcy or insolvency of AEP or one of its significant subsidiaries would be considered an immediate termination event. See "Financial Condition" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

AEP's subsidiaries have also utilized, and expect to continue to utilize, additional financing arrangements, such as securitization financings and leasing arrangements, including the leasing of coal transportation equipment and facilities.

## **ENVIRONMENTAL AND OTHER MATTERS**

### *General*

AEP subsidiaries are currently subject to regulation by federal, state and local authorities with regard to air and water-quality control and other environmental matters, and are subject to zoning and other regulation by local authorities. The environmental issues that management believes are potentially material to the AEP System are outlined below.

## ***Clean Water Act Requirements***

Operations for AEP subsidiaries are subject to the CWA, which prohibits the discharge of pollutants into waters of the United States except pursuant to appropriate permits and regulates systems that withdraw surface water for use in power plants. In 2014, the Federal EPA issued a final rule setting forth standards for water withdrawals at existing power plants that is intended to reduce mortality of aquatic organisms pinned against a plant's cooling water intake screen (impingement) or entrained in the cooling water. The standards affect all plants withdrawing more than two million gallons of cooling water per day. A schedule for compliance with the standard is established by the permit agency and incorporated in NPDES permits.

In November 2015, the Federal EPA issued a final rule revising ELG for electricity generating facilities. The rule established limits on FGD wastewater, fly ash and bottom ash transport water and flue gas mercury control wastewater to be imposed in NPDES permits as soon as possible after November 2018 and no later than December 2023. The Federal EPA further revised the rule in August 2020 for FGD wastewater and bottom ash transport water extending the compliance date to December 2025 and establishing additional options.

In January 2020, the Federal EPA issued a final rule revising the scope of the "waters of the United States" subject to CWA regulation. In August 2021, this rule was vacated by a federal court and shortly thereafter, in December 2021, the Federal EPA proposed a rule that would roll back the definition of "waters of the United States" to the pre-2015 definition. That rule was finalized in January 2023 and becomes effective in March 2023. See "Environmental Issues - Clean Water Act Regulations" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

## ***Coal Ash Regulation***

AEP's operations produce a number of different coal combustion by-products, including fly ash, bottom ash, gypsum and other materials. A rule by the Federal EPA regulates the disposal and beneficial re-use of coal combustion residuals, including fly ash and bottom ash generated at coal-fired electric generating units. The rule requires certain standards for location, groundwater monitoring and dam stability to be met at landfills and certain surface impoundments at operating facilities. If existing disposal facilities cannot meet these standards, they will be required to close. In August 2020, the Federal EPA revised the CCR rule to include a requirement that unlined CCR storage ponds cease operations and initiate closure by April 11, 2021. The revised rule provides two options for seeking an extension of that date. AEP filed extension requests for seven facilities, to date, the Federal EPA has not finalized any of those requests. In July 2022, the Federal EPA proposed a conditional approval of the extension request for AEP's Mountaineer facility, but that request has since been withdrawn. See "Environmental Issues - Coal Combustion Residual (CCR) Rule" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

## ***Clean Air Act Requirements***

The CAA establishes a comprehensive program to protect and improve the nation's air quality and control mobile and stationary sources of air emissions. The major CAA programs affecting AEP's power plants are described below. The states implement and administer many of these programs and could impose additional or more stringent requirements.

### ***The Acid Rain Program***

The CAA includes a cap-and-trade emission reduction program for SO<sub>2</sub> emissions from power plants and requirements for power plants to reduce NO<sub>x</sub> emissions through the use of available combustion controls, collectively called the Acid Rain Program. AEP continues to meet its obligations under the Acid Rain Program through the installation of controls,

use of alternate fuels and participation in the emissions allowance markets.

### *National Ambient Air Quality Standards*

The CAA requires the Federal EPA to review the available scientific data for criteria pollutants periodically and establish a concentration level in the ambient air for those substances that is adequate to protect the public health and welfare with an extra safety margin. The Federal EPA also can list additional pollutants and develop concentration levels for them. These concentration levels are known as NAAQS.

Each state identifies the areas within its boundaries that meet the NAAQS (attainment areas) and those that do not (non-attainment areas). Each state must develop a SIP to bring non-attainment areas into compliance with the NAAQS and maintain good air quality in attainment areas. All SIPs are submitted to the Federal EPA for approval. If a state fails to develop adequate plans, the Federal EPA develops and implements a plan. As the Federal EPA reviews the NAAQS and establishes new concentration levels, the attainment status of areas can change and states may be required to develop new SIPs. See “Environmental Issues - Clean Air Act Requirements” section of Management’s Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

### *Hazardous Air Pollutants (HAP)*

The CAA also requires the Federal EPA to investigate HAP emissions from the electric utility sector and submit a report to Congress to determine whether those emissions should be regulated. In 2011, the Federal EPA issued a rule setting Maximum Achievable Control Technology standards for new and existing coal and oil-fired utility units and New Source Performance Standards for emissions from new and modified power plants. In 2014, the U.S. Supreme Court determined that the Federal EPA acted unreasonably in refusing to consider costs in determining if it was appropriate and necessary to regulate HAP emissions from electric generating units. The Federal EPA has engaged in additional rulemaking activity but the 2011 rule remains in effect.

### *Regional Haze*

The CAA establishes visibility goals for certain federally designated areas, including national parks, and requires states to submit SIPs that will demonstrate reasonable progress toward preventing impairment of visibility in these protected areas. In 2005, the Federal EPA issued its Clean Air Visibility Rule, detailing how the CAA’s best available retrofit technology requirements will be applied to facilities built between 1962 and 1977 that emit more than 250 tons per year of certain pollutants in specific industrial categories, including power plants.

### *Cross State Air Pollution*

CSAPR is a regional trading program designed to address interstate transport of emissions that contribute significantly to non-attainment and maintenance of the ozone and PM NAAQS in downwind states. CSAPR relies on SO<sub>2</sub> and NO<sub>x</sub> allowances and individual state budgets to compel further emission reductions from electric utility generating units. Interstate trading of allowances is allowed on a restricted basis. In January 2021, the Federal EPA finalized a revised CSAPR rule, which substantially reduces the ozone season NO<sub>x</sub> budgets in 2021-2024. Several utilities and other entities potentially subject to the Federal EPA’s NO<sub>x</sub> regulations have challenged that final rule in the U.S. Court of Appeals for the District of Columbia Circuit and oral arguments were held in September 2022. Management cannot predict the outcome of that litigation, but believes it can meet the requirements of the rule in the near term, and is evaluating its compliance options for later years, when the budgets are further reduced. In addition, in February 2023, the EPA Administrator finalized the denial of 2015 Ozone NAAQS SIPs for 19 states. A FIP that further revises the ozone season NO<sub>x</sub> budgets under the existing CSAPR program in those states is expected to be finalized in the spring of 2023 and will likely take effect for the 2023 ozone season. Management is evaluating the impacts of the rule changes.



## Climate Change

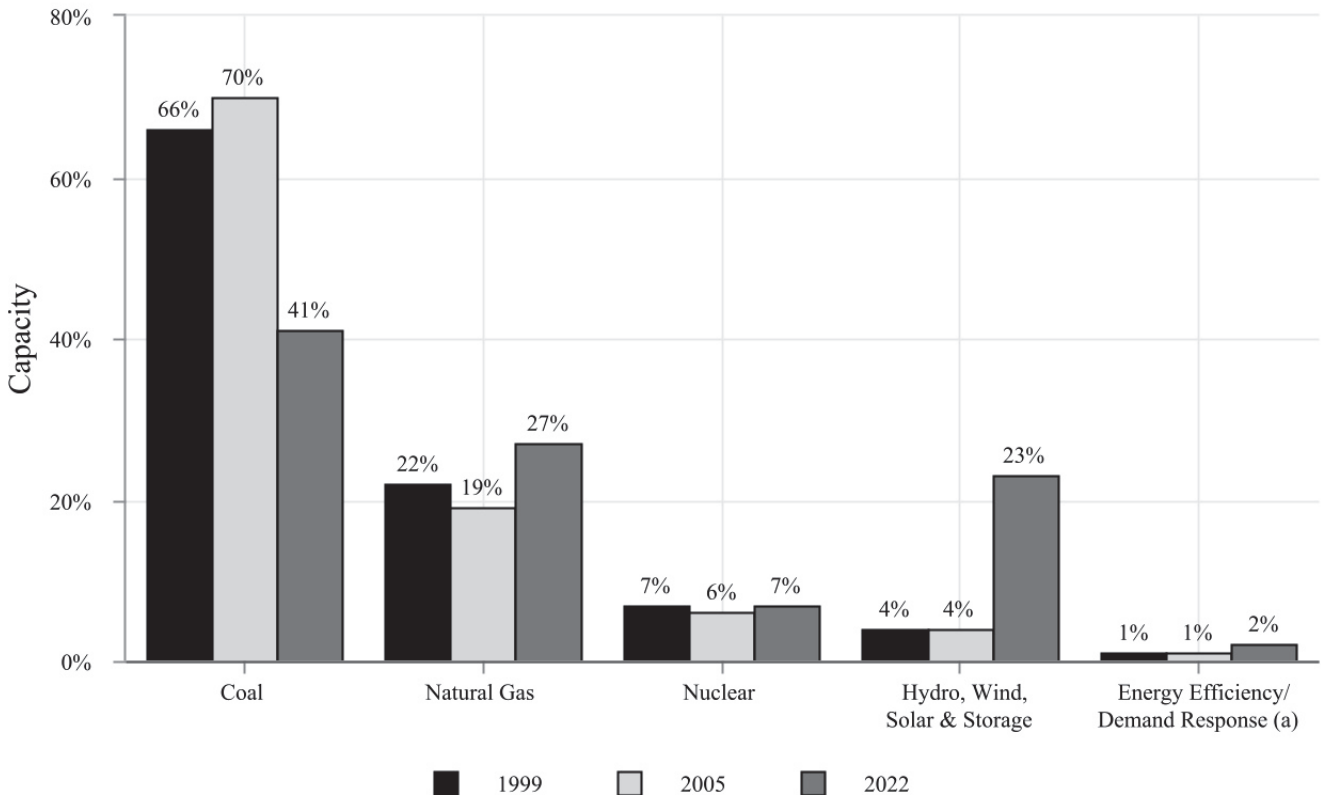
In October 2022, AEP announced new intermediate and long-term CO<sub>2</sub> emission reduction goals, based on the output of AEP's integrated resource plans. See "Corporate Governance" section for additional information.

To date, the Federal EPA has twice taken action to regulate CO<sub>2</sub> emissions from new and existing fossil fueled electric generating units under the existing provisions of the CAA and both attempts have been struck down by the courts. The Federal EPA has announced it expects to propose a new rule in 2023. Management expects emissions to continue to decline over time as AEP diversifies generating sources and operates fewer coal units. The projected decline in coal-fired generation is due to a number of factors, including the ongoing cost of operating older units, the relative cost of coal and natural gas as fuel sources, increasing environmental regulations requiring significant capital investments and changing commodity market fundamentals.

## Transforming AEP's Generation Fleet

The electric utility industry is in the midst of an historic transformation, driven by changing customer needs, evolving public policies, stakeholder demands, demographics, competitive offerings, technologies and commodity prices. AEP is also transforming to be more agile and customer-focused as a valued provider of energy solutions. AEP's long-term commitment to reduce CO<sub>2</sub> emissions reflects the current direction of the company's resource plans to meet those needs. As of December 31, 2022, the AEP System owned generating capacity of approximately 25,000 MWs. In 2022, coal represented 41% of AEP's generating capacity compared with 70% in 2005. Transforming AEP's generation portfolio to include, where there is regulatory support, more renewable energy and focusing on the efficient use of energy, demand response, distributed resources and technology solutions to more efficiently manage the grid over time is part of this strategy.

The graph below summarizes AEP's generation capacity by resource type for the years 1999, 2005 and 2022:



(a) Energy Efficiency/Demand Response represents avoided capacity rather than physical assets.

## *Renewable Sources of Energy*

The states AEP serves, other than Kentucky, Oklahoma, West Virginia and Tennessee, have established mandatory or voluntary programs to increase the use of energy efficiency, alternative energy or renewable energy sources. Management actively monitors AEP's compliance position and is on pace to meet the relevant requirements or benchmarks in each applicable jurisdiction.

As of December 31, 2022, AEP's regulated utilities had long-term contracts for 2,750 MWs of wind, 80 MWs of hydro and 65 MWs of solar power. Additionally, AEP's regulated utilities own and operate 1,484 MWs of wind, 805 MWs of hydro and 36 MWs of solar power delivering renewable energy to the companies' customers.

I&M owns four solar projects that make up I&M's 15 MW Clean Energy Solar Pilot Project and its 20 MW St. Joseph solar facility went into operation in 2021. In 2020, PSO received approval from the OCC and SWEPCo received approval from the APSC and LPSC to acquire the NCWF, comprised of three Oklahoma wind facilities totaling 1,484 MWs, on a fixed cost turn-key basis at completion. Both the APSC and LPSC approved the flex-up option, agreeing to acquire the Texas portion, which the PUCT denied. PSO owns 45.5% and SWEPCo owns 54.5% of the project, which cost approximately \$2 billion. The 199 MW Sundance wind facility was acquired and placed in service in April 2021 and the 287 MW Maverick wind facility was acquired and placed in service in September 2021. The 998 MW Traverse wind facility was acquired and placed in service in March 2022.

AEP's regulated utilities have significant plans to add new renewable generation. SWEPCo is seeking approval from state regulators to acquire three renewable energy projects totaling 999 MWs. PSO is seeking approval from its state regulator to acquire 996 MW of new renewable projects. Additionally, AEP's regulated utilities issued RFPs in 2022 seeking additional owned renewable energy projects totaling 4,800 MWs.

The growth of AEP's renewable generation portfolio reflects the company's strategy to diversify generation resources to provide clean energy options to customers that meet both their energy and capacity needs. In addition to gradually reducing AEP's reliance on coal-fueled generating units, the growth of renewables and natural gas helps AEP to maintain a diversity of generation resources.

The integrated resource plans submitted to state regulatory commissions by AEP's regulated utility subsidiaries reflect AEP's strategy to balance reliability and cost with customers' desire for clean energy in a carbon-constrained world. AEP has committed significant capital investments to modernize the electric grid and integrate these new resources. Transmission assets of the AEP System interconnect approximately 22,600 MWs of renewable generation.

AEP Energy Supply, LLC is a holding company with several divisions, including AEP Renewables and AEP OnSite Partners.

AEP Renewables develops, owns and operates utility scale renewable projects backed with long-term contracts with creditworthy counterparties throughout the United States. In February 2022, AEP management announced the beginning of a process to sell all or a portion of AEP Renewables' competitive contracted renewables portfolio. During November 2022, the 235 MW Flat Ridge 2 wind facility was sold. For more information on the pending sale of the competitive contracted renewables portfolio, see the "Contracted Renewable Generation Facilities" section of Management's Discussion and Analysis. As of December 31, 2022, AEP Renewables owned projects operating in 11 states, including approximately 1,200 MWs of installed wind capacity and 165 MWs of installed solar capacity.

AEP OnSite Partners works directly with wholesale and large retail customers to provide tailored solutions to reduce their energy costs based upon market knowledge, innovative applications of technology and deal structuring capabilities. AEP OnSite Partners targets opportunities in distributed solar, combined heat and power,



energy storage, waste heat recovery, energy efficiency, peaking generation and other energy solutions that create value for customers. AEP OnSite Partners pursues and develops behind the meter projects with creditworthy customers. As of December 31, 2022, AEP OnSite Partners owned projects located in 22 states, including approximately 168 MWs of installed solar capacity, and approximately 26 MWs of solar projects under construction.

## *End Use Energy Efficiency*

Beginning in 2008, AEP ramped up efforts to reduce energy consumption and peak demand through the introduction of additional energy efficiency and demand response programs. These programs, commonly and collectively referred to as demand side management, were implemented in jurisdictions where appropriate cost recovery was available. Since that time, AEP operating company programs have reduced annual consumption by over 10 million MWhs and peak demand by approximately 3,313 MWs. Management estimates that its operating companies spent approximately \$1.6 billion since 2008 to achieve these levels.

Energy efficiency and demand reduction programs have received regulatory support in most of the states AEP serves, and appropriate cost recovery will be essential for AEP operating companies to continue and expand these consumer offerings. Appropriate recovery of program costs, lost revenues, and an opportunity to earn a reasonable return ensures that energy efficiency programs are considered equally with supply side investments. As AEP continues to transition to a cleaner, more efficient energy future, energy efficiency and demand response programs will continue to play an important role in how the company serves its customers.

Management believes its experience providing robust energy efficiency programs in several states positions AEP to be a cost-effective provider of these programs as states develop their implementation plans.

## *Corporate Governance*

In response to environmental issues and in connection with its assessment of AEP's strategic plan, the Board of Directors continually reviews the risks posed by new environmental rules and requirements that could alter the retirement date of coal-fired generation assets. The Board of Directors is informed of new environmental regulations and proposed environmental regulations or legislation that would significantly affect AEP. In addition, the Board holds extended meetings twice a year to provide extra time for a more robust review of the Company's strategy, including discussions about carbon and carbon risk. The Board's Committee on Directors and Corporate Governance oversees AEP's annual Corporate Sustainability Report, which includes information about AEP's environmental, social, governance and financial performance.

AEP originally set CO<sub>2</sub> emission reduction goals in 2018 after considering input from its annual corporate governance outreach effort with shareholders.

In October 2022, AEP announced new intermediate and long-term CO<sub>2</sub> emission reduction goals, based on the output of the AEP's integrated resource plans, which take into account economics, customer demand, grid reliability and resiliency, regulations and the company's current business strategy. AEP adjusted its near-term CO<sub>2</sub> emission reduction target from a 2000 baseline to a 2005 baseline, upgraded its 80% reduction by 2030 target to include full Scope 1 emissions and accelerated its net-zero goal by five years to 2045. AEP's total Scope 1 GHG estimated emissions in 2022 were approximately 52.5 million metric tons, a 65% reduction from AEP's 2005 Scope 1 GHG emissions (inclusive of emission reductions that result from plants that have been sold). AEP has made significant progress in reducing CO<sub>2</sub> emissions from its power generation fleet and expects its emissions to continue to decline. Technological advances, including advanced energy storage, advanced nuclear reactors, hydrogen production and public policies are among the factors that will determine how quickly AEP can achieve net-zero emissions while continuing to provide reliable, affordable power for customers.



### *Other Environmental Issues and Matters*

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 imposes costs for environmental remediation upon owners and previous owners of sites, as well as transporters and generators of hazardous material disposed of at such sites. See “The Comprehensive Environmental Response Compensation and Liability Act (Superfund) and State Remediation” section of Note 6 included in the 2022 Annual Report for additional information.

### *Environmental Investments*

Investments related to improving AEP System plants’ environmental performance and compliance with environmental quality standards during 2020, 2021 and 2022 and the current estimate for 2023 are shown below. Estimated construction expenditures are subject to periodic review and modification and may vary based on the ongoing effects of regulatory constraints, environmental regulations, business opportunities, market volatility, economic trends and the ability to access capital. In addition to the amounts set forth below, AEP expects to make investments in future years in connection with the modification and addition at generation plants’ facilities for environmental quality controls. Such future investments are needed in order to comply with environmental standards that have been adopted and have deadlines for compliance after 2022 or have been proposed and may be adopted. Future investments could be significantly greater if emissions reduction requirements are accelerated or otherwise become more stringent or in response to rules governing the beneficial use and disposal of coal combustion by-products. The cost of complying with applicable environmental laws, regulations and rules is expected to be significant to the AEP System. AEP typically recovers costs of complying with environmental standards from customers through rates in regulated jurisdictions. Failure to recover these costs could reduce future net income and cash flows and possibly harm AEP’s financial condition. See “Environmental Issues” section of Management’s Discussion and Analysis of Financial Condition and Results of Operations and Note 6 - Commitments, Guarantees and Contingencies included in the 2022 Annual Report for additional information.

#### **Historical and Projected Environmental Performance and Compliance Investments**

	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Estimate (a)</b>
	<b>(in millions)</b>			
AEP (b)	\$ 102.2	\$ 94.3	\$ 225.9	\$ 150.7
APCo	21.3	60.0	129.0	65.9
I&M	31.8	7.2	5.0	—
PSO	—	—	—	0.2
SWEPco	(3.6)	3.9	18.2	4.8

(a) Estimated amounts are exclusive of debt AFUDC.

(b) Includes expenditures of the subsidiaries shown and other subsidiaries not shown. The figures reflect construction expenditures, not investments in subsidiary companies.

Management currently estimates investments related to improving AEP System plants’ environmental performance and compliance with environmental quality standards will be less than \$100 million annually for the years 2024 through 2026. These cost estimates could change based on: (a) potential state rules that impose more stringent standards, (b) additional rulemaking activities in response to court decisions, (c) actual performance of the pollution control technologies installed, (d) changes in costs for new pollution controls, (e) new generating technology developments, (f)

total MWs of capacity retired and replaced, including the type and amount of such replacement capacity, (g) compliance with the Federal EPA's revised coal combustion residual rules and (h) timing of implementation.

## HUMAN CAPITAL MANAGEMENT

Attracting, developing and retaining high-performing employees with the skills and experience needed to serve our customers efficiently and effectively is crucial to AEP's growth and competitiveness and is central to our long-term strategy. AEP invests in employees and continues to build a high performance and inclusive culture that inspires leadership, encourages innovative thinking and welcomes everyone.

The following table shows AEP's number of employees by subsidiary as of December 31, 2022:

<u>Subsidiary</u>	<u>Number of Employees</u>
AEPSC	6,572
AEP Texas	1,594
APCo	1,650
I&M	2,016
OPCo	1,713
PSO	1,030
SWEPCo	1,372
Other	1,027
<b>Total AEP</b>	<b>16,974</b>

Of AEP's 16,974 employees, less than 0.1% are Traditionalists (born before 1946), approximately 20% are Baby Boomers (born 1946-1964), approximately 37% are Generation X (born 1965-1980), approximately 38% are Millennials (born 1981-1996) and approximately 5% are Generation Z (born after 1996).

### *Safety*

Achieving Zero Harm means every employee returns home at the end of their shift in the same condition as 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. AEP has put tools, training and processes in place to strengthen our safety-first culture and mindset. AEP's focus is on learning from events and has proactive programs to prevent harm. One common industry safety metric utilized by AEP to track incidents is the Days Away/Restricted or Transferred (DART) rate. A DART event is an event that results in one or more lost days, one or more restricted days or results in an employee transferring to a different job within the company. The DART rate is a mathematical calculation (number of DART events multiplied by 200,000 work hours and divided by total YTD hours worked) that describes the number of recordable injuries per 100 full-time employees. In 2022, AEP's employee DART Rate performance improved to 0.424 as compared to 0.430 in 2021.

### *Diversity, Equity and Inclusion (DEI)*

AEP is committed to cultivating a diverse and inclusive environment that supports the development and advancement of all. We foster an inclusive workplace that encourages diversity of thought, culture and background and actively work to eliminate unconscious biases. DEI is a strategic priority for AEP and our efforts are guided by four principles:

- Establishing leadership accountability around DEI outcomes.
- Building and maintaining a workforce that reflects the communities we serve.
- Promoting an inclusive culture where all employees can thrive.
- Supporting the communities we serve so they will prosper.

We believe our workforce should generally reflect the diversity of our customers and the communities we serve so that we may better understand how to tailor our services to meet their expectations. As of December 31, 2022, women comprised approximately 20% of AEP's workforce and 20% was represented by racially or ethnically diverse employees.

Our DEI progress is tied to enterprise, business unit and operating company annual incentive compensation objectives, which is measured through our annual employee culture survey. In addition, the Human Resources Committee of the Board of Directors provides oversight of our compensation and human resources policies and practices, including an annual review of our diversity, equity and inclusion strategy, results of our culture survey and compliance with equal opportunity laws.

AEP has taken actions to denounce all forms of racism in the wake of the racial and social unrest across the country in recent years. To accelerate our diversity and inclusion strategy, AEP facilitates “Community Conversations” for employees to discuss how race and equity issues impact the individual and the workplace and provide tools to take action; provides "Mitigating Bias in Candidate Selection" training for all supervisors with a direct report and employees involved in the interview process; created dedicated faith or meditation rooms; developed affirmative action plans for all AEP sites with more than 50 employees; and, conducts pay equity studies to identify and address pay variances for female and minority employees. We are also signatories of the CEO Action for Diversity and Inclusion pledge, Paradigm for Parity and several other local and industry DEI initiatives to demonstrate our commitment to advancing diversity and inclusion within the workplace.

In addition, we’re committed to working with the communities we serve to advance equity for our employees, customers and neighbors of color. The American Electric Power Foundation created the Delivering on the Dream grant program to help dismantle systemic racism and prejudice while prioritizing diversity, equity and inclusion. This five-year, \$5 million initial investment funds organizations with programs dedicated to advancing social justice in the communities we serve.

## ***Culture***

AEP believes in doing the right thing every time for our customers, each other and our future. AEP leaders at all levels are responsible for fostering an environment that supports a positive culture and for acting in a manner that positively models it. A high-performance culture forms the foundation for long-term success. An engaged, collaborative and empowered workforce is more likely to embrace a change mindset, drive continuous improvement, accept accountability, meet expectations, take ownership, and value personal growth. AEP is committed to driving our culture forward. Employees are given an opportunity to share their perspectives by participating in the Employee Culture Survey, administered by Gallup, Inc., that measures the progress we are making in improving our culture. In addition to engagement, the survey measures well-being and inclusiveness. In 2022, 86% of our organization participated in the survey and we continued to improve our grand mean score to remain in the top decile compared to Gallup’s overall company database. Additionally, in 2022, AEP received the Gallup Exceptional Workplace Award for the third consecutive year. The award recognizes organizations with engaged workplace cultures. Company executives also have candid meetings with employees to discuss our challenges, opportunities, what is going well and what can be even better.

## ***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 (ERG). The ERGs at AEP include Abled and Differently-Abled Partnering Together, the Black ERG, the Asian-American Employee Partnership ERG, the Hispanic Origin Latin American ERG, the Military Veteran ERG, the Native American Tribes Interacting, Observing and Networking ERG, the Pride Partnership and the Women at Work ERG. 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 AEP by providing employees with a safe space to discuss work-related issues and to develop innovative solutions. ERGs play an active role in AEP’s diversity and inclusion efforts, including recruitment of new employees.





## ***Training and Professional Development***

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. AEP has training alliances with several community colleges, universities and vocational and technical schools across our 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. AEP also 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. AEP has 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 2022, AEP employees completed more than 950,000 hours of training in programs for which we track participation. In addition, AEP invested more than \$3 million in employee education, supporting approximately 1,000 employees through our tuition reimbursement program.

## ***Compensation and Benefits***

AEP cares about the wellbeing of our employees and we recognize their importance to our success. We provide market competitive compensation and benefits, including health, wellness and assistance programs to our employees and their families to help them thrive at home and work. We ensure the pay we offer is competitive in the marketplace by market pricing many of our positions using robust compensation survey information. Nearly all AEP employees participate in an annual incentive program that rewards individual performance and achievement of business goals, which fosters a high-performance culture. AEP also offers employees physical and mental health programs, including medical, dental and life insurance, along with a health and well-being program to help employees and their families stay healthy and feeling their best. Additionally, AEP's retirement programs position our employees for financial stability in retirement.

## ***Labor Relations***

Nearly one fourth of AEP's workforce is represented by labor unions. We value the relationships we have with our union represented employees and believe in a trusting, collaborative and respectful partnership. We continuously work 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.

## **BUSINESS SEGMENTS**

### ***AEP's Reportable Segments***

AEP's primary business is the generation, transmission and distribution of electricity. Within its Vertically Integrated Utilities segment, AEP centrally dispatches generation assets and manages its overall utility operations on an integrated basis because of the substantial impact of cost-based rates and regulatory oversight. Intersegment sales and transfers are generally based on underlying contractual arrangements and agreements. AEP's reportable segments are as follows:

- Vertically Integrated Utilities
- Transmission and Distribution Utilities
- AEP Transmission Holdco
- Generation & Marketing

The remainder of AEP's activities is presented as Corporate and Other, which is not considered a reportable segment. See Note 9 - Business Segments included in the 2022 Annual Report for additional information on AEP's segments.

## **VERTICALLY INTEGRATED UTILITIES**

### **GENERAL**

AEP's vertically integrated utility operations are engaged in the generation, transmission and distribution of electricity for sale to retail and wholesale customers through assets owned and operated by AEGCo, APCo, I&M, KGPCo, KPCo, PSO, SWEPCo and WPCo. AEPSC, as agent for AEP's public utility subsidiaries, performs marketing, generation dispatch, fuel procurement and power-related risk management and trading activities on behalf of each of these subsidiaries.

### **ELECTRIC GENERATION**

#### ***Facilities***

As of December 31, 2022, AEP's vertically integrated public utility subsidiaries owned approximately 23,500 MWs of domestic generation. See Item 2 – Properties for more information regarding the generation capacity of vertically integrated public utility subsidiaries.

#### ***Fuel Supply***

The following table shows the owned and leased generation sources by type (including wind purchase agreements), on an actual net generation (MWhs) basis, used by the Vertically Integrated Utilities:

	<b>2022</b>	<b>2021</b>	<b>2020</b>
Coal and Lignite	43%	50%	45%
Nuclear	21%	22%	24%
Natural Gas	19%	16%	18%
Renewables	17%	12%	13%

An increase/decrease in one or more generation types relative to previous years reflects the addition of renewable resources, retirement of traditional fossil fuel units and price changes in one or more fuel commodity sources relative to the pricing of other fuel commodity sources. AEP's overall 2022 fossil fuel costs for the Vertically Integrated Utilities

increased 1.1% on a dollar per MMBtu basis from 2021.

## *Coal and Lignite*

AEP's Vertically Integrated Utilities procure coal and lignite under a combination of purchasing arrangements including long-term contracts, affiliate operations and spot agreements with various producers, marketers and coal trading firms. Coal and lignite consumption decreased 11% in 2022 from 2021 due to a combination of the retirement of Dolet Hills Power Plant, lower amounts of lignite inventory available due to the planned retirement of the Pirkey Power Plant in March 2023 and lower generation at the coal fired power plants.

Management projects that the Vertically Integrated Utilities will be able to secure and transport coal and lignite of adequate quality and quantities to operate their coal and lignite-fired units; however, with current global dynamics and demand, supplies could be a challenge. As of December 31, 2022, through subsidiaries, AEP owns, leases or controls 3,000 railcars, 319 barges, 4 towboats and a coal handling terminal with approximately 18 million tons of annual capacity to move and store coal for use in AEP generating facilities. AEP will procure additional railcar and barge/towboat capacity as needed based on demand.

Spot coal prices strengthened significantly in the back half of 2021 and continued to increase throughout 2022 for all coal basins to all-time highs, with the exception of Powder River Basin coal which somewhat stabilized in 2022 to more historical levels. These price increases were primarily due to increases in global and domestic demand for coal. AEP's strategy for purchasing coal includes layering in supplies over time. The price impact of this process is reflected in subsequent periods and with the current elevated prices will drive delivered coal prices up over the next few years for purchases made in 2021 and 2022. The price paid for coal and lignite delivered in 2022 increased approximately 10.6% from 2021 primarily due to the increase in coal prices from all coal basins.

The following table shows the amount of coal and lignite delivered to the Vertically Integrated Utilities' plants during the past three years and the average delivered price of coal and lignite purchased by the Vertically Integrated Utilities:

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Total coal and lignite delivered to the plants (in millions of tons)	20.4	18.2	19.4
Average cost per ton of coal and lignite delivered	\$ 56.16	\$ 50.76	\$ 53.95

The coal supplies at the Vertically Integrated Utilities plants vary from time to time depending on various factors, including, but not limited to, demand for electric power, unit outages, transportation infrastructure limitations, space limitations, plant coal consumption rates, availability of acceptable coals, labor issues and weather conditions, which may interrupt production or deliveries. As of December 31, 2022, the Vertically Integrated Utilities' coal inventory was approximately 35 days of full load burn. While inventory targets vary by plant and are changed as necessary, the current coal inventory target for the Vertically Integrated Utilities is approximately 27 days of full load burn.

## *Natural Gas*

The Vertically Integrated Utilities consumed approximately 126 billion cubic feet of natural gas during 2022 for generating power. This represents an increase of 16.5% from 2021. Several of AEP's natural gas-fired power plants are connected to at least two pipelines which allow greater access to competitive supplies and improve delivery reliability. A portfolio of term, seasonal, monthly and daily natural gas supply agreements and term natural gas transportation agreements provide natural gas requirements for each plant, as appropriate. AEP's natural gas supply transactions are based on market prices.

The following table shows the amount of natural gas delivered to the Vertically Integrated Utilities' plants during the past three years and the average delivered price of natural gas purchased by the Vertically Integrated Utilities.

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Total natural gas delivered to the plants (in billions cubic feet)	126.0	108.0	113.1
Average delivered price per MMBtu of purchased natural gas	\$ 6.94	\$ 8.92	\$ 2.14

## *Nuclear*

I&M has made commitments to meet the current nuclear fuel requirements of the Cook Plant. I&M has made and will make purchases of uranium in various forms in the spot, short-term and mid-term markets.

For purposes of the storage of high-level radioactive waste in the form of SNF, I&M completed modifications to its SNF storage pool in the early 1990's. I&M entered into an agreement to provide for onsite dry cask storage of SNF to permit normal operations to continue. I&M is scheduled to conduct further dry cask loading and storage projects on an ongoing periodic basis. The year of expiration of each NRC Operating License is 2034 for Unit 1 and 2037 for Unit 2. Management is currently evaluating applying for license extensions for both units.

### ***Nuclear Waste and Decommissioning***

As the owner of the Cook Plant, I&M has a significant future financial commitment to dispose of SNF and decommission and decontaminate the plant safely. The cost to decommission a nuclear plant is affected by NRC regulations and the SNF disposal program. The most recent decommissioning cost study was completed in 2021. The estimated cost of decommissioning and disposal of low-level radioactive waste for the Cook Plant was \$2.2 billion in 2021 non-discounted dollars, with additional ongoing estimated costs of \$7 million per year for post decommissioning storage of SNF and an eventual estimated cost of \$33 million for the subsequent decommissioning of the spent fuel storage facility, also in 2021 non-discounted dollars. As of December 31, 2022 and 2021, the total decommissioning trust fund balance for the Cook Plant was approximately \$3 billion and \$3.5 billion, respectively. The balance of funds available to eventually decommission Cook Plant will differ based on contributions and investment returns. The ultimate cost of retiring the Cook Plant may be materially different from estimates and funding targets as a result of the:

- Escalation of various cost elements (including, but not limited to, general inflation and the cost of energy).
- Further development of regulatory requirements governing decommissioning.
- Technology available at the time of decommissioning differing significantly from that assumed in studies.
- Availability of nuclear waste disposal facilities.
- Availability of a United States Department of Energy facility for permanent storage of SNF.

Accordingly, management is unable to provide assurance that the ultimate cost of decommissioning the Cook Plant will not be significantly different than current projections. AEP will seek recovery from customers through regulated rates if actual decommissioning costs exceed projections. See the "Nuclear Contingencies" section of Note 6 - Commitments, Guarantees and Contingencies included in the 2022 Annual Report for additional information with respect to nuclear waste and decommissioning.

### ***Low-Level Radioactive Waste***

The Low-Level Waste Policy Act of 1980 mandates that the responsibility for the disposal of low-level radioactive waste rests with the individual states. Low-level radioactive waste consists largely of ordinary refuse and other items that have come in contact with radioactive materials. Michigan does not currently have a disposal site for such waste available. I&M cannot predict when such a site may be available. However, the states of Utah and Texas have licensed low-level radioactive waste disposal sites which currently accept low-level radioactive waste from Michigan waste generators. There is currently no set date limiting I&M's access to either of these facilities. The Cook Plant has a facility onsite designed specifically for the storage of low-level radioactive waste. In the event that low-level radioactive waste disposal facility access becomes unavailable, it can be stored onsite at this facility.





## ***Counterparty Risk Management***

The Vertically Integrated Utilities segment also sells power and enters into related energy transactions with wholesale customers and other market participants. As a result, counterparties and exchanges may require cash or cash related instruments to be deposited on transactions as margin against open positions. As of December 31, 2022, counterparties posted approximately \$14 million in cash, cash equivalents or letters of credit with AEPSC for the benefit of AEP's public utility subsidiaries (while, as of that date, AEP's public utility subsidiaries posted approximately \$207 million with counterparties and exchanges). Since open trading contracts are valued based on market prices of various commodities, exposures change daily. See the "Quantitative and Qualitative Disclosures About Market Risk" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

## ***Certain Power Agreements***

### ***I&M***

The UPA between AEGCo and I&M, dated March 31, 1982 (the I&M Power Agreement), provides for the sale by AEGCo to I&M of all the capacity (and the energy associated therewith) available to AEGCo at the Rockport Plant. Whether or not power is available from AEGCo, I&M is obligated to pay a demand charge for the right to receive such power (and an energy charge for any associated energy taken by I&M). The I&M Power Agreement will continue in effect until the debt obligations of AEGCo secured by the Rockport Plant have been satisfied and discharged (currently expected to be December 2028).

In April 2021, AEGCo and I&M executed an agreement to purchase 100% of the interests in Rockport Plant, Unit 2 effective at the end of the lease term on December 7, 2022. Beginning December 8, 2022, AEGCo and I&M applied the joint plant accounting model to their respective 50% undivided interests in the jointly owned Rockport Plant, Unit 2 as well as any future investments made prior to the current estimated retirement date of December 2028.

Prior to the termination of the lease, I&M assigned 30% of the power to KPCo. See the "UPA between AEGCo and KPCo" section of Note 16 - Related Party Transactions for additional information. Beginning December 8, 2022, AEGCo billed 100% of its share of the Rockport Plant to I&M and ceased billing to KPCo. KPCo reached an agreement with I&M, from the end of the lease through May 2024, to buy capacity from Rockport Plant, Unit 2 through the PCA at a rate equal to PJM's RPM clearing price.

### ***OVEC***

AEP and several nonaffiliated utility companies jointly own OVEC. The aggregate equity participation of AEP in OVEC is 43.47%. Parent owns 39.17% and OPCo owns 4.3%. Under the Inter-Company Power Agreement (ICPA), which defines the rights of the owners and sets the power participation ratio of each, the sponsoring companies are entitled to receive and are obligated to pay for all OVEC capacity (approximately 2,400 MWs) in proportion to their respective power participation ratios. The aggregate power participation ratio of APCo, I&M and OPCo is 43.47%. The ICPA terminates in June 2040. The proceeds from charges by OVEC to sponsoring companies under the ICPA based on their power participation ratios are designed to be sufficient for OVEC to meet its operating expenses and fixed costs. OVEC's Board of Directors, as elected by AEP and nonaffiliated owners, has authorized environmental investments related to their ownership interests, with resulting expenses (including for related debt and interest thereon) included in charges under the ICPA. OVEC financed capital expenditures in excess of \$1 billion in connection with flue gas desulfurization projects and the associated scrubber waste disposal landfills at its two generation plants through debt issuances, including tax-advantaged debt issuances. Both OVEC generation plants are operating with the new environmental controls in-service. See Note 17 - Variable Interest Entities and Equity Method Investments for

additional information.

## **ELECTRIC DELIVERY**

### ***General***

Other than AEGCo, AEP's vertically integrated public utility subsidiaries own and operate transmission and distribution lines and other facilities to deliver electric power. See Item 2 – Properties for more information regarding the transmission and distribution lines. Most of the transmission and distribution services are sold to retail customers of AEP's vertically integrated public utility subsidiaries in their service territories. These sales are made at rates approved by the state utility commissions of the states in which they operate, and in some instances, approved by the FERC. See Item 1. Business – Vertically Integrated Utilities – Regulation – Rates. The FERC regulates and approves the rates for both wholesale transmission transactions and wholesale generation contracts. The use and the recovery of costs associated with the transmission assets of the AEP vertically integrated public utility subsidiaries are subject to the rules, principles, protocols and agreements in place with PJM and SPP, and as approved by the FERC. See Item 1. Business – Vertically Integrated Utilities – Regulation – FERC. As discussed below, some transmission services also are separately sold to nonaffiliated companies.

Other than AEGCo, AEP's vertically integrated public utility subsidiaries hold franchises or other rights to provide electric service in various municipalities and regions in their service areas. In some cases, these franchises provide the utility with the exclusive right to provide electric service within a specific territory. These franchises have varying provisions and expiration dates. In general, the operating companies consider their franchises to be adequate for the conduct of their business. For a discussion of competition in the sale of power, see Item 1. Business – Vertically Integrated Utilities – Competition.

### ***Transmission Agreement***

APCo, I&M, KGPCo, KPCo and WPCo own and operate transmission facilities that are used to provide transmission service under the PJM OATT and are parties to the TA. OPCo, which is a subsidiary in AEP's Transmission and Distribution Utilities segment that provides transmission service under the PJM OATT, is also a party to the TA. The TA defines how the parties to the agreement share the revenues associated with their transmission facilities and the costs of transmission service provided by PJM. The TA has been approved by the FERC.

### ***Transmission Coordination Agreement and Open Access Transmission Tariff***

PSO, SWEPCo and AEPSC are parties to the TCA. Under the TCA, a coordinating committee is charged with the responsibility of: (a) overseeing the coordinated planning of the transmission facilities of the parties to the agreement, including the performance of transmission planning studies, (b) the interaction of such subsidiaries with independent system operators and other regional bodies interested in transmission planning and (c) compliance with the terms of the OATT filed with the FERC and the rules of the FERC relating to such tariff. Pursuant to the TCA, AEPSC has responsibility for monitoring the reliability of their transmission systems and administering the OATT on behalf of the other parties to the agreement. The TCA also provides for the allocation among the parties of revenues collected for transmission and ancillary services provided under the OATT. These allocations have been determined by the FERC-approved OATT for the SPP.

## ***Regional Transmission Organizations***

AEGCo, APCo, I&M, KGPCo, KPCo and WPCo are members of PJM, and PSO and SWEPCo are members of SPP (both FERC-approved RTOs). RTOs operate, plan and control utility transmission assets in a manner designed to provide open access to such assets in a way that prevents discrimination between participants owning transmission assets and those that do not.

## **REGULATION**

### ***General***

AEP's vertically integrated public utility subsidiaries' retail rates and certain other matters are subject to traditional cost-based regulation by the state utility commissions. AEP's vertically integrated public utility subsidiaries are also subject to regulation by the FERC under the Federal Power Act with respect to wholesale power and transmission service transactions. I&M is subject to regulation by the NRC under the Atomic Energy Act of 1954, as amended, with respect to the operation of the Cook Plant. AEP and its vertically integrated public utility subsidiaries are also subject to the regulatory provisions of, much of the Energy Policy Act of 2005, which is administered by the FERC.

### ***Rates***

Historically, state utility commissions have established electric service rates on a cost-of-service basis, which is designed to allow a utility an opportunity to recover its cost of providing service and to earn a reasonable return on its investment used in providing that service. A utility's cost-of-service generally reflects its operating expenses, including operation and maintenance expense, depreciation expense and taxes. State utility commissions periodically adjust rates pursuant to a review of: (a) a utility's adjusted revenues and expenses during a defined test period and (b) such utility's level of investment. Absent a legal limitation, such as a law limiting the frequency of rate changes or capping rates for a period of time, a state utility commission can review and change rates on its own initiative. Some states may initiate reviews at the request of a utility, customer, governmental or other representative of a group of customers. Such parties may, however, agree with one another not to request reviews of or changes to rates for a specified period of time.

Public utilities have traditionally financed capital investments until the new asset is placed in-service. Provided the asset was found to be a prudent investment, it was then added to rate base and entitled to a return through rate recovery. Given long lead times in construction, the high costs of plant and equipment and volatile capital markets, management actively pursues strategies to accelerate rate recognition of investments and cash flow. AEP representatives continue to engage state commissioners and legislators on alternative rate-making options to reduce regulatory lag and enhance certainty in the process. These options include pre-approvals, a return on construction work in progress, rider/trackers, formula rates and the inclusion of future test-year projections into rates.

The rates of AEP's vertically integrated public utility subsidiaries are generally based on the cost of providing traditional bundled electric service (i.e., generation, transmission and distribution service). Historically, the state regulatory frameworks in the service area of the AEP vertically integrated public utility subsidiaries reflected specified fuel costs as part of bundled (or, more recently, unbundled) rates or incorporated fuel adjustment clauses in a utility's rates and tariffs. Fuel adjustment clauses permit periodic adjustments to fuel cost recovery from customers and therefore provide protection against exposure to fuel cost changes.

The following state-by-state analysis summarizes the regulatory environment of certain major jurisdictions in which AEP's vertically integrated public utility subsidiaries operate. Several public utility subsidiaries operate in more than one jurisdiction. See Note 4 - Rate Matters included in the 2022 Annual Report for more information regarding pending rate matters.



## ***Indiana***

I&M provides retail electric service in Indiana at bundled rates approved by the IURC, with rates set on a forecasted cost-of-service basis. Indiana provides for timely fuel and purchased power cost recovery through a fuel cost recovery mechanism.

## ***Oklahoma***

PSO provides retail electric service in Oklahoma at bundled rates approved by the OCC. PSO's rates are set on a cost-of-service basis. Fuel and purchased energy costs are recovered or refunded through a fuel adjustment clause.

## ***Virginia***

APCo currently provides retail electric service in Virginia at unbundled generation and distribution rates approved by the Virginia SCC. Virginia generally allows for timely recovery of fuel costs through a fuel cost recovery mechanism. In addition to base rates and fuel cost recovery, APCo is permitted to recover a variety of costs through rate adjustment clauses including transmission services provided at OATT rates based on rates established by the FERC.

## ***West Virginia***

APCo and WPCo provide retail electric service at bundled rates approved by the WVPSC, with rates set on a combined cost-of-service basis. West Virginia generally allows for timely recovery of fuel costs through the ENEC which trues-up to actual expenses. In addition to base rates and fuel cost recovery, APCo and WPCo are permitted to recover a variety of costs through surcharges.

## ***FERC***

The FERC regulates rates for interstate power sales at wholesale, transmission of electric power, accounting and other matters, including construction and operation of hydroelectric projects. The FERC regulations require AEP's vertically integrated public utility subsidiaries to provide open access transmission service at FERC-approved rates, and AEP has approved cost-based formula transmission rates on file at the FERC. The FERC also regulates unbundled transmission service to retail customers. In addition, the FERC regulates the sale of power for resale in interstate commerce by: (a) approving contracts for wholesale sales to municipal and cooperative utilities at cost-based rates and (b) granting authority to public utilities to sell power at wholesale at market-based rates upon a showing that the seller lacks the ability to improperly influence market prices. AEP's vertically integrated public utility subsidiaries have market-based rate authority from the FERC, under which much of their wholesale marketing activity takes place. The FERC requires each public utility that owns or controls interstate transmission facilities, directly or through an RTO, to file an open access network and point-to-point transmission tariff that offers services comparable to the utility's own uses of its transmission system. The FERC also requires all transmitting utilities, directly or through an RTO, to establish an Open Access Same-time Information System, which electronically posts transmission information such as available capacity and prices, and requires utilities to comply with Standards of Conduct that prohibit utilities' transmission employees from providing non-public transmission information to the utility's marketing employees. Additionally, the vertically integrated public utility subsidiaries are subject to reliability standards promulgated by the NERC, with the approval of the FERC.

The FERC oversees RTOs, entities created to operate, plan and control utility transmission assets. AEGCo, APCo, I&M, KGPCo, KPCo and WPCo are members of PJM. PSO and SWEPCo are members of SPP.

The FERC has jurisdiction over certain issuances of securities of most of AEP's public utility subsidiaries, the

acquisition of securities of utilities, the acquisition or sale of certain utility assets and mergers with another electric utility or holding company. In addition, both the FERC and state regulators are permitted to review the books and records of any company within a holding company system.

## **COMPETITION**

AEP's vertically integrated public utility subsidiaries primarily generate, transmit and distribute electricity to retail customers of AEP's vertically integrated public utility subsidiaries in their service territories. These sales are made at rates approved by the state utility commissions of the states in which they operate, and in some instances, approved by the FERC, and are not subject to competition from other vertically integrated public utilities. Other than AEGCo, AEP's vertically integrated public utility subsidiaries hold franchises or other rights that effectively grant the exclusive ability to provide electric service in various municipalities and regions in their service areas.

AEP's vertically integrated public utility subsidiaries compete with self-generation and with distributors of other energy sources, such as natural gas, fuel oil, renewables and coal, within their service areas. The primary factors in such competition are price, reliability of service and the capability of customers to utilize alternative sources of energy other than electric power. With respect to competing generators and self-generation, the public utility subsidiaries of AEP believe that they currently maintain a competitive position.

Changes in regulatory policies and advances in newer technologies for batteries or energy storage, fuel cells, microturbines, wind turbines and photovoltaic solar cells are reducing costs of new technology to levels that are making them competitive with some central station electricity production. The costs of photovoltaic solar cells in particular have continued to become increasingly competitive. The ability to maintain relatively low cost, efficient and reliable operations and to provide cost-effective programs and services to customers are significant determinants of AEP's competitiveness.

## **SEASONALITY**

The consumption of electric power is generally seasonal. In many parts of the country, demand for power peaks during the hot summer months, with market prices also peaking at that time. In other areas, power demand peaks during the winter. The pattern of this fluctuation may change due to the nature and location of AEP's facilities and the terms of power sale contracts into which AEP enters. In addition, AEP has historically sold less power, and consequently earned less income, when weather conditions are milder. Unusually mild weather in the future could diminish AEP's results of operations. Conversely, unusually extreme weather conditions could increase AEP's results of operations.

## **TRANSMISSION AND DISTRIBUTION UTILITIES**

### **GENERAL**

This segment consists of the transmission and distribution of electricity for sale to retail and wholesale customers through assets owned and operated by AEP Texas and OPCo. OPCo is engaged in the transmission and distribution of electric power to approximately 1,521,000 retail customers in Ohio. OPCo purchases energy and capacity to serve standard service offer customers and provides transmission and distribution services for all connected load. AEP Texas is engaged in the transmission and distribution of electric power to approximately 1,094,000 retail customers through REPs in west, central and southern Texas.

AEP's transmission and distribution utility subsidiaries own and operate transmission and distribution lines and other facilities to deliver electric power. See Item 2 – Properties, for more information regarding the transmission and distribution lines. Transmission and distribution services are sold to retail customers of AEP's transmission and distribution utility subsidiaries in their service territories. These sales are made at rates approved by the PUCT for AEP Texas and by the PUCO and the FERC for OPCo. The FERC regulates and approves the rates for wholesale transmission transactions. As discussed below, some transmission services also are separately sold to nonaffiliated companies.



AEP's transmission and distribution utility subsidiaries hold franchises or other rights to provide electric service in various municipalities and regions in their service areas. In some cases, these franchises provide the utility with the exclusive right to provide electric service. These franchises have varying provisions and expiration dates. In general, the operating companies consider their franchises to be adequate for the conduct of their business.

The use and the recovery of costs associated with the transmission assets of the AEP transmission and distribution utility subsidiaries are subject to the rules, protocols and agreements in place with PJM and ERCOT, and as approved by the FERC. In addition to providing transmission services in connection with power sales in their service areas, AEP's transmission and distribution utility subsidiaries also provide transmission services for nonaffiliated companies through RTOs.

### ***Transmission Agreement***

OPCo owns and operates transmission facilities that are used to provide transmission service under the PJM OATT; OPCo is a party to the TA with other utility subsidiary affiliates. The TA defines how the parties to the agreement share the revenues associated with their transmission facilities and the costs of transmission service provided by PJM. The TA has been approved by the FERC.

### ***Regional Transmission Organizations***

OPCo is a member of PJM, a FERC-approved RTO. RTOs operate, plan and control utility transmission assets to provide open access to such assets in a way that prevents discrimination between participants owning transmission assets and those that do not. AEP Texas is a member of ERCOT.

## **REGULATION**

OPCo provides distribution and transmission services to retail customers within its service territory at cost-based rates approved by the PUCO or by the FERC. AEP Texas sets its rates through a combination of base rate cases and interim Transmission Cost of Services (TCOS) and Distribution Cost Recovery Factor (DCRF) filings. AEP Texas may file interim TCOS filings semi-annually and DCRF filings annually to update its rates to reflect changes in its net invested capital. Transmission and distribution rates are established on a cost-of-service basis, which is designed to allow a utility an opportunity to recover its cost of providing service and to earn a reasonable return on its investment used in providing that service. The cost-of-service generally reflects operating expenses, including operation and maintenance expense, depreciation expense and taxes. Utility commissions periodically adjust rates pursuant to a review of: (a) a utility's adjusted revenues and expenses during a defined test period and (b) such utility's level of investment.

### ***FERC***

The FERC regulates rates for transmission of electric power, accounting and other matters. The FERC regulations require AEP to provide open access transmission service at FERC-approved rates, and it has approved cost-based formula transmission rates on file at the FERC. The FERC also regulates unbundled transmission service to retail customers. The FERC requires each public utility that owns or controls interstate transmission facilities to, directly or through an RTO, file an open access network and point-to-point transmission tariff that offers services comparable to the utility's own uses of its transmission system. The FERC also requires all transmitting utilities, directly or through an RTO, to establish an Open Access Same-time Information System, which electronically posts transmission information such as available capacity and prices, and requires utilities to comply with Standards of Conduct that prohibit utilities' transmission employees from providing non-public transmission information to the utility's marketing employees. In addition, both the FERC and state regulators are permitted to review the books and records of any company within a holding company system. Additionally, the transmission and distribution utility subsidiaries are subject to reliability standards as set forth by the NERC, with the approval of the FERC.



## **SEASONALITY**

The delivery of electric power is generally seasonal. In many parts of the country, demand for power peaks during the hot summer months. In other areas, power demand peaks during the winter months. The pattern of this fluctuation may change due to the nature and location of AEP's transmission and distribution facilities. In addition, AEP transmission and distribution has historically delivered less power, and consequently earned less income, when weather conditions are milder. In Texas, where there is residential decoupling, unusually mild weather in the future could diminish AEP's results of operations. Conversely, unusually extreme weather conditions could increase AEP's results of operations.

## **AEP TRANSMISSION HOLDCO**

### **GENERAL**

AEPTHCo is a holding company for (a) AEPTCo, which is the direct holding company for the State Transcos and (b) AEP's Transmission Joint Ventures.

### ***AEPTCo***

AEPTCo wholly owns the State Transcos which are independent of, but respectively overlay, the following AEP electric utility operating companies: APCo, I&M, KPCo, OPCo, PSO, SWEPCo and WPCo. The State Transcos develop, own, operate and maintain their respective transmission assets. Assets of the State Transcos interconnect to transmission facilities owned by the aforementioned operating companies and nonaffiliated transmission owners within the footprints of PJM, MISO and SPP. APTCo, IMTCo, KTCo, OHTCo and WVTCo are located within PJM. IMTCo also owns portions of the Greentown station assets located in MISO. OKTCo and SWTCo are located within SPP.

IMTCo, KTCo, OHTCo, OKTCo and WVTCo own and operate transmission assets in their respective jurisdictions. The Virginia SCC and WVPSC granted consent for APCo and APTCo to enter into a joint license agreement that will support APTCo investment in the state of Tennessee. SWTCo does not currently own or operate transmission assets.

The State Transcos are regulated for rate-making purposes exclusively by the FERC and earn revenues through tariff rates charged for the use of their electric transmission systems. The State Transcos establish transmission rates each year through formula rate filings with the FERC. The rate filings calculate the revenue requirement needed to cover the costs of operation and debt service and to earn an allowed ROE. These rates are then included in an OATT for PJM, MISO and SPP.

The State Transcos own, operate, maintain and invest in transmission infrastructure in order to maintain and enhance system integrity and grid reliability, grid security, safety, reduce transmission constraints and facilitate interconnections of new generating resources and new wholesale customers, as well as enhance competitive wholesale electricity markets. A key part of AEP's business is replacing and upgrading transmission facilities, assets and components of the existing AEP System as needed to maintain reliability.

The State Transcos provide the capability to build, replace and upgrade existing facilities. As of December 31, 2022, the State Transcos had \$12.8 billion of transmission and other assets in-service with plans to construct approximately \$3.3 billion of additional transmission assets, excluding CWIP, through 2025. Additional investment in transmission infrastructure is needed within PJM and SPP to maintain the required level of grid reliability, resiliency, security and efficiency and to address an aging transmission infrastructure. Additional transmission facilities will be needed based on changes in generating resources, such as wind or solar projects, generation additions or retirements and additional new customer interconnections. The State Transcos will continue their investment to enhance physical and cyber

security of assets, and are also investing in improving the telecommunication network that supports the operation and control of the grid.

In October 2021, AEP entered into a Stock Purchase Agreement to sell KTCO to Liberty Utilities. The closing of the sale is subject to receipt of FERC authorization under Section 203 of the Federal Power Act and clearance under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. See “Disposition of KPCo and KTCO” section of Note 7 for additional information.

## AEP THCO JOINT VENTURE INITIATIVES

AEP has established joint ventures with other electric utility companies for the purpose of developing, building and owning transmission assets that seek to improve reliability and market efficiency and provide transmission access to remote generation sources in North America (Transmission Joint Ventures). The Transmission Joint Ventures currently include:

Joint Venture Name	Location	Projected or Actual Completion Date	Owners (Ownership %)	Total Estimated/Actual Project Costs at Completion (in millions)	Approved Return on Equity
ETT	Texas (ERCOT)	(a)	Berkshire Hathaway Energy (50%) AEP (50%)	\$ 4,100.0 (a)	9.6 %
Prairie Wind	Kansas	2014	Evergy, Inc. (50%) Berkshire Hathaway Energy (25%) AEP (25%)	158.0	12.8 %
Pioneer	Indiana	2018	Duke Energy (50%) AEP (50%)	191.0	10.52 % (b)
Transource Missouri	Missouri	2016	Evergy, Inc. (13.5%) (d) AEP (86.5%) (d)	310.5	11.1 % (c)
Transource West Virginia	West Virginia	2019	Evergy, Inc. (13.5%) (d) AEP (86.5%) (d)	86.0	10.5 %
Transource Maryland	Maryland	2023	Evergy, Inc. (13.5%) (d) AEP (86.5%) (d)	27.6 (e)	10.4 %
Transource Pennsylvania	Pennsylvania	2023	Evergy, Inc. (13.5%) (d) AEP (86.5%) (d)	243.6 (e)	10.4 %
Transource Oklahoma	Oklahoma	2026	Evergy, Inc. (13.5%)(d) AEP (86.5%) (d)	111.0 (f)	10.0 %
Transource Energy	Pennsylvania	2029	Evergy, Inc. (13.5%) (d) AEP (86.5%) (d)	76.3 (g)	10.4 %

- (a) ETT is undertaking multiple projects and the completion dates will vary for those projects. ETT's investment in completed and active projects in ERCOT is expected to be \$4.1 billion. Future projects will be evaluated on a case-by-case basis.
- (b) In May 2020, Pioneer received FERC approval authorizing an ROE of 10.02% (10.52% inclusive of the RTO incentive adder of 0.5%).
- (c) The ROE represents the weighted-average approved ROE based on the costs of two projects developed by Transource Missouri; the \$64 million Iatan-Nashua project (10.3%) and the \$247 million Sibley-Nebraska City project (11.3%).
- (d) AEP owns 86.5% of Transource Missouri, Transource West Virginia, Transource Maryland, Transource Pennsylvania and Transource Oklahoma through its ownership interest in Transource Energy, LLC (Transource). Transource is a joint venture with AEP THCo and Evergy, Inc. formed to pursue competitive transmission projects. AEP THCo and Evergy, Inc. own 86.5% and 13.5% of Transource, respectively.
- (e) See "Independence Energy Connection Project" section of Note 4 for additional information.
- (f) In 2016, Transource Kansas received approval from the FERC authorizing an ROE of 9.8% (10.3% inclusive of the RTO incentive adder of 0.5%) for future competitive transmission projects in SPP. In October 2020, Transource was awarded the Sooner-Wekiwa project by SPP and the project was assigned to Transource Kansas. In November 2020, Transource Kansas was renamed Transource Oklahoma. The project is expected to go in-service in 2026.
- (g) In October 2022, Transource Energy's North Delta A proposal was awarded by the New Jersey Board of Public Utilities. The project is expected to go in-service in 2029. The project consists of a new transmission substation with two transformers and nine breakers and will connect to existing transmission lines.

Transource Missouri, Transource West Virginia, Transource Maryland, Transource Pennsylvania and Transource Oklahoma are consolidated joint ventures by AEP. All other joint ventures in the table above are not consolidated by AEP. AEP's joint ventures do not have employees. Business services for the joint ventures are provided by AEPSC and other AEP subsidiaries and the joint venture partners. In 2022, approximately 461 AEPSC employees and 294 operating company employees provided service to one or more joint ventures.

## REGULATION

The State Transcos and the Transmission Joint Ventures located outside of ERCOT establish transmission rates annually through forward-looking formula rate filings with the FERC pursuant to FERC-approved implementation protocols. The protocols include a transparent, formal review process to ensure the updated transmission rates are prudently-incurred and reasonably calculated. The IMTCo-owned Greentown station assets acquired from Duke Energy Indiana, LLC in December 2018 are located in MISO. IMTCo utilizes a historic cost recovery model to recover MISO assets.

The State Transcos' and the Transmission Joint Ventures' (where applicable) rates are included in the respective OATT for PJM and SPP. An OATT is the FERC rate schedule that provides the terms and conditions for transmission and related services on a transmission provider's transmission system. The FERC requires transmission providers such as PJM and SPP to offer transmission service to all eligible customers (for example, load-serving entities, power marketers, generators and customers) on a non-discriminatory basis.

The FERC-approved formula rates establish the annual transmission revenue requirement (ATRR) and transmission service rates for transmission owners in annual rate base filings with the FERC. The formula rates establish rates for a one-year period based on the current projects in-service and proposed projects for a defined timeframe. The formula rates also include a true-up calculation for the previous year's billings, allowing for over/under-recovery of the transmission owner's ATRR. PJM and SPP pay the transmission owners their ATRR for use of their facilities and bill transmission customers taking service under the PJM and SPP OATTs, based on the terms and conditions in the respective OATT for the service taken. Additionally, the State Transcos are subject to reliability standards promulgated by the NERC, with the approval of the FERC.

Management continues to monitor the FERC's 2019 Notice of Inquiry regarding base ROE policy, the FERC's 2020 and 2021 supplemental Notice of Proposed Rulemaking (NOPR) regarding transmission incentives policy, and various other matters pending before the FERC with the potential to affect the transmission ROE methodology.

In April 2021, the FERC issued a supplemental NOPR proposing to modify its incentive for transmission owners that join RTOs (RTO Incentive). Under the supplemental NOPR, the RTO Incentive would be modified such that a utility would only be eligible for the RTO Incentive for the first three years after the utility joins a FERC-approved Transmission Organization. This is a significant departure from a previous NOPR issued in 2020 seeking to increase the RTO Incentive from 50 basis points to 100 basis points. The supplemental NOPR also required utilities that have received the RTO Incentive for three or more years to submit, within 30 days of the effective date of a final rule, a compliance filing to eliminate the incentive from its tariff prospectively. The supplemental NOPR was subject to a 60-day comment period followed by a 30-day period for reply comments. In July 2021, AEP submitted reply comments. AEP is awaiting a final rule from the FERC.

In the annual rate base filings described above, the State Transcos in aggregate filed rate base totals of \$9.9 billion, \$8.4 billion and \$7 billion for 2022, 2021 and 2020, respectively. The total filed transmission revenue requirements, including prior year over/under-recovery of revenue and associated carrying charges were \$1.7 billion, \$1.4 billion and \$1.2 billion for 2022, 2021 and 2020, respectively.

The rates of ETT, which is located in ERCOT, are determined by the PUCT. ETT sets its rates through a combination of base rate cases and interim Transmission Cost of Services (TCOS) filings. ETT may file interim TCOS filings semi-annually to update its rates to reflect changes in its net invested capital.





## **GENERATION & MARKETING**

### **GENERAL**

The AEP Generation & Marketing segment subsidiaries consist of a wholesale energy trading and marketing business, a retail supply and energy management business and competitive generating assets.

AEP Energy Supply, LLC is a holding company with several divisions, including AEP Renewables and AEP OnSite Partners.

AEP Renewables develops, owns and operates utility scale renewable projects backed with long-term contracts with creditworthy counterparties throughout the United States. AEP Renewables works directly with stakeholders to ensure that customers have clean, sustainable renewable energy to meet their environmental goals. As of December 31, 2022, AEP Renewables owned projects operating in 11 states, including approximately 1,200 MWs of installed wind capacity and 165 MWs of installed solar capacity. In October 2019, AEP Renewables entered into an agreement to construct Flat Ridge 3, a wind farm in Kansas. The 128 MW facility was placed into service in December 2021. In November 2020, AEP Renewables signed a Purchase and Sale Agreement to acquire 75% of the Dry Lake Solar Project, a 100 MW solar facility in southern Nevada. This facility was placed into service in May 2021. In February 2022, AEP management announced the beginning of a process to sell all or a portion of AEP Renewables' competitive contracted renewables portfolio. For more information on the pending sale of the competitive contracted renewables portfolio, see the "Contracted Renewable Generation Facilities" section of Management's Discussion and Analysis.

AEP OnSite Partners works directly with wholesale and large retail customers to provide tailored solutions to reduce their energy costs based upon market knowledge, innovative applications of technology and deal structuring capabilities. AEP OnSite Partners targets opportunities in distributed solar, combined heat and power, energy storage, waste heat recovery, energy efficiency, peaking generation and other energy solutions that create value for customers. AEP OnSite Partners pursues and develops behind the meter projects with creditworthy customers. As of December 31, 2022, AEP OnSite Partners owned projects located in 22 states, including approximately 168 MWs of installed solar capacity, and approximately 26 MWs of solar projects under construction.

With respect to the wholesale energy trading and marketing business, AEP Generation & Marketing segment subsidiaries enter into short-term and long-term transactions to buy or sell capacity, energy and ancillary services in ERCOT, SPP, MISO and PJM. These subsidiaries sell power into the market and engage in power, natural gas and emissions allowances risk management and trading activities. These activities primarily involve the purchase-and-sale of electricity (and to a lesser extent, natural gas and emissions allowances) under forward contracts at fixed and variable prices. These contracts include physical transactions, exchange-traded futures, and to a lesser extent, OTC swaps and options. The majority of forward contracts are typically settled by entering into offsetting contracts. These transactions are executed with numerous counterparties or on exchanges.

With respect to the retail supply and energy management business, AEP Energy is a retail energy supplier that supplies electricity and/or natural gas to residential, commercial, and industrial customers. AEP Energy provides various energy solutions in Illinois, Pennsylvania, Delaware, Maryland, New Jersey, Ohio and Washington, D.C. AEP Energy had approximately 736,000 customer accounts as of December 31, 2022. AEP has initiated a strategic evaluation of its ownership in AEP Energy. Potential alternatives may include, but are not limited to, continued ownership or a sale of all or a part of AEP Energy. Management has not made a decision regarding the potential alternatives, but expects to complete the strategic evaluation in the first half of 2023.

The primary fossil generation subsidiary in the Generation & Marketing segment has historically been AGR. However, in the third quarter 2022, AGR sold the 595 MW Cardinal Plant, its last remaining fossil generation. Other subsidiaries in this segment own or have the right to receive power from additional generation assets. See Item 2 – Properties for

more information regarding the generation assets of the Generation & Marketing segment.

## **REGULATION**

AGR is a public utility under the Federal Power Act, and is subject to the FERC's exclusive rate-making jurisdiction over wholesale sales of electricity and the transmission of electricity in interstate commerce. Under the Federal Power Act, the FERC has the authority to grant or deny market-based rates for sales of energy, capacity and ancillary services to ensure that such sales are just and reasonable. The FERC granted AGR market-based rate authority in December 2013. The FERC's jurisdiction over rate-making also includes the authority to suspend the market-based rates of AGR and set cost-based rates if the FERC subsequently determines that it can exercise market power, create barriers to entry or engage in abusive affiliate transactions. Periodically, AGR is required to file a market power update to show that it continues to meet the FERC's standards with respect to generation market power and other criteria used to evaluate whether it continues to qualify for market-based rates. Other matters subject to the FERC jurisdiction include, but are not limited to, review of mergers, and dispositions of jurisdictional facilities and acquisitions of securities of another public utility or an existing operational generating facility.

Specific operations of AGR are also subject to the jurisdiction of various other federal, state, regional and local agencies, including federal and state environmental protection agencies. AGR is also regulated by the PUCT for transactions inside ERCOT. Additionally, AGR is subject to mandatory reliability standards promulgated by the NERC, with the approval of the FERC.

## **COMPETITION**

The AEP Generation & Marketing segment subsidiaries face competition for the sale of available power, capacity and ancillary services. The principal factors of impact are electricity and fuel prices, new market entrants, construction or retirement of generating assets by others and technological advances in power generation. Other factors impacting competitiveness include environmental regulation, transmission congestion or transportation constraints at or near generation facilities, inoperability or inefficiencies, outages and deactivations and retirements at generation facilities.

Technology advancements, increased demand for clean energy, changing consumer behaviors, low-priced and abundant natural gas, and regulatory and public policy reforms are among the catalysts for transformation within the industry that impact competition for AEP's Generation & Marketing segment. AGR also competes with self-generation and with distributors of other energy sources, such as natural gas, fuel oil, renewables and coal, within their service areas. The primary factors in such competition are price, unit availability and the capability of customers to utilize sources of energy other than electric power.

Changes in regulatory policies and advances in newer technologies for batteries or energy storage, fuel cells, microturbines, wind turbines and photovoltaic solar cells are reducing costs of new technology to levels that are making them competitive with some central station electricity production. The ability to maintain relatively low cost, efficient and reliable operations and to provide cost-effective programs and services to customers are significant determinants of AGR's competitiveness. The costs of photovoltaic solar cells in particular have continued to become increasingly competitive.

This segment's retail operations provide competitive electricity and natural gas in deregulated retail energy markets in six states and Washington, D.C. Each such retail choice jurisdiction establishes its own laws and regulations governing its competitive market, and public utility commission communications and utility default service pricing can affect customer participation in retail competition. Sustained low natural gas and power prices, low market volatility and maturing competitive environments can adversely affect this business.

This segment also engages in procuring and selling output from renewable generation sources under long-term contracts to creditworthy counterparties. New sources are not acquired without first securing a long-term placement of

such power. Existing sources do not face competitive exposure. Competitive nonaffiliated suppliers of renewable or other generation could limit opportunities for future transactions for new sources and related output contracts.

## SEASONALITY

The consumption of electric power is generally seasonal. In many parts of the country, demand for power peaks during the hot summer months, with market prices also peaking at that time. In other areas, power demand peaks during the winter months. The pattern of this fluctuation may change.

### *Fuel Supply*

The following table shows the generation sources by type, on an actual net generation (MWhs) basis, used by the Generation & Marketing segment:

	<u>2022</u>	<u>2021</u>	<u>2020</u>
Coal	41%	38%	46%
Renewables	59%	62%	54%

### *Counterparty Risk Management*

Counterparties and exchanges may require cash or cash related instruments to be deposited on these transactions as margin against open positions. As of December 31, 2022, counterparties posted approximately \$498 million in cash, cash equivalents or letters of credit with AEP for the benefit of AEP's Generation & Marketing segment subsidiaries (while, as of that date, AEP's Generation & Marketing segment subsidiaries posted approximately \$115 million with counterparties and exchanges). Since open trading contracts are valued based on market prices of various commodities, exposures change daily. See the "Quantitative and Qualitative Disclosures About Market Risk" section of Management's Discussion and Analysis of Financial Condition and Results of Operations included in the 2022 Annual Report for additional information.

### *Certain Power Agreements*

As of December 31, 2022, the assets utilized in this segment included approximately 1,200 MWs of company-owned domestic wind power facilities and 177 MWs of domestic wind power from long-term purchase power agreements. Additional long term purchased power agreements have been entered into for 77 MWs of wind that are operating and an additional 640 MWs of wind and 1,659 MWs of solar capacity which are all seeking permits or under construction. These agreements are all contingent on completion of construction which is expected by the end of 2025.

In March 2022, AGR entered into an Asset Purchase agreement with a nonaffiliated electric cooperative to sell Cardinal Plant, Unit 1, a competitive generation asset totaling 595 MWs. The FERC approved the sale in May 2022 and the sale closed in the third quarter of 2022. The proceeds from the sale were not material. Concurrent with the closing of the sale, AGR executed a PPA with the nonaffiliated electric cooperative for rights to Unit 1's power and capacity through 2028. AGR also retained certain obligations related to environmental remediation.

## **INFORMATION ABOUT OUR EXECUTIVE OFFICERS**

The following persons are executive officers of AEP. Their ages are given as of February 23, 2023. The officers are appointed annually for a one-year term by the board of directors of AEP.

### **Julia A. Sloat**

President and Chief Executive Officer

Age 53

President since August 2022 and Chief Executive Officer since January 2023. Executive Vice President from January 2021 to August 2022, Chief Financial Officer from January 2021 to November 2022. Senior Vice President, Treasury & Risk and Treasurer from January 2019 to December 2020. President and Chief Operating Officer of OPCo from May 2016 to December 2018.

### **Nicholas K. Akins**

Executive Chair of the Board of Directors

Age 62

Chairman of the Board from January 2014 to December 2022, President from January 2011 to August 2022 and Chief Executive Officer from November 2011 to December 2022.

### **Christian T. Beam**

Executive Vice President - Energy Services

Age 54

Executive Vice President - Energy Services since September 2022. President and Chief Operating Officer of APCo from January 2017 to September 2022. Vice President, Projects Controls & Construction from January 2013 to December 2016.

### **David M. Feinberg**

Executive Vice President, General Counsel and Secretary

Age 53

Executive Vice President since January 2013. General Counsel and Secretary since January 2012.

### **Greg B. Hall**

Executive Vice President and Chief Commercial Officer

Age 50

Executive Vice President and Chief Commercial Officer since September 2022. Executive Vice President - Energy Supply from July 2021 to September 2022. President and Chief Operating Officer of AEP Energy Supply LLC since July 2021. President of AEP Energy, Inc. since May 2017. President of AEP Energy Partners, Inc. since June 2007.

### **Ann P. Kelly**

Executive Vice President and Chief Financial Officer

Age 52

Executive Vice President and Chief Financial Officer since November 2022. Vice President - Finance and Chief Financial Officer of AmeriGas Propane, Inc., a subsidiary of UGI Corporation since February 2019. Corporate Controller and Chief Accounting Officer of UGI Corporation from March 2018 to February 2019. Assistant Treasurer of UGI Corporation from May 2016 to March 2018.

### **Therace M. Risch**

Executive Vice President and Chief Information & Technology Officer

Age 49

Executive Vice President since July 2021. Chief Information & Technology Officer since May 2020. Senior Vice President from April 2020 to July 2021.

### **Peggy I. Simmons**

Executive Vice President - Utilities

Age 45

Executive Vice President - Utilities since September 2022. President and Chief Operating Officer of PSO from September 2018 to September 2022.



**Raja Sundararajan**

Executive Vice President - External Affairs

Age 48

Executive Vice President - External Affairs since July 2022. Senior Vice President - Regulatory and Customer Solutions from July 2021 to July 2022. President and Chief Operating Officer of AEP Ohio from January 2019 to July 2021. Vice President-Regulatory Services September 2016 to December 2018.

**Phillip R. Ulrich**

Executive Vice President and Chief Human Resources Officer

Age 52

Executive Vice President since January 2023. Chief Human Resources Officer since August 2021. Senior Vice President from August 2021 to December 2022. Chief Human Resources Officer of Flex, LTD from May 2019 to July 2021. Senior Vice President, Human Resources, Electrical Sector of Eaton from August 2016 to May 2019.

**Charles E. Zebula**

Executive Vice President - Portfolio Optimization

Age 62

Executive Vice President - Portfolio Optimization since July 2021. Executive Vice President - Energy Supply from January 2013 to July 2021.

## **ITEM 1A. RISK FACTORS**

### **GENERAL RISKS OF REGULATED OPERATIONS**

***AEP may not be able to recover the costs of substantial planned investment in capital improvements and additions. (Applies to all Registrants)***

AEP's business plan calls for extensive investment in capital improvements and additions, including the construction of additional transmission and renewable generation facilities, modernizing existing infrastructure, installation of environmental upgrades and retrofits as well as other initiatives. AEP's public utility subsidiaries currently provide service at rates approved by one or more regulatory commissions. If these regulatory commissions do not approve adjustments to the rates charged, affected AEP subsidiaries would not be able to recover the costs associated with their investments. This would cause financial results to be diminished.

***Regulated electric revenues and earnings are dependent on federal and state regulation that may limit AEP's ability to recover costs and other amounts. (Applies to all Registrants)***

The rates customers pay to AEP regulated utility businesses are subject to approval by the FERC and the respective state utility commissions of Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia. In certain instances, AEP's applicable regulated utility businesses may agree to negotiated settlements related to various rate matters that are subject to regulatory approval. AEP cannot predict the ultimate outcomes of any settlements or the actions by the FERC or the respective state commissions in establishing rates.

If regulated utility earnings exceed the returns established by the relevant commissions, retail electric rates may be subject to review and possible reduction by the commissions, which may decrease future earnings. Additionally, if regulatory bodies do not allow recovery of costs incurred in providing service on a timely basis, it could reduce future net income and cash flows and negatively impact financial condition. Similarly, if recovery or other rate relief authorized in the past is overturned or reversed on appeal, future earnings could be negatively impacted. Any regulatory action or litigation outcome that triggers a reversal of a regulatory asset or deferred cost generally results in an impairment to the balance sheet and a charge to the income statement of the company involved. See Note 4 – Rate Matters included in the 2022 Annual Report for additional information.

***AEP's transmission investment strategy and execution are dependent on federal and state regulatory policy. (Applies to all Registrants)***

A significant portion of AEP's earnings is derived from transmission investments and activities. FERC policy currently favors the expansion and updating of the transmission infrastructure within its jurisdiction. If the FERC were to adopt a different policy, if states were to limit or restrict such policies, or if transmission needs do not continue or develop as projected, AEP's strategy of investing in transmission could be impacted. Management believes AEP's experience with transmission facilities construction and operation gives AEP an advantage over other competitors in securing authorization to install, construct and operate new transmission lines and facilities. However, there can be no assurance that PJM, SPP, ERCOT or other RTOs will authorize new transmission projects or will award such projects to AEP.

***Certain elements of AEP's transmission formula rates have been challenged, which could result in lowered rates and/or refunds of amounts previously collected and thus have an adverse effect on AEP's business, financial condition, results of operations and cash flows. (Applies to all Registrants other than AEP Texas)***

AEP provides transmission service under rates regulated by the FERC. The FERC has approved the cost-based formula rate templates used by AEP to calculate its respective annual revenue requirements, but it has not expressly approved

the amount of actual capital and operating expenditures to be used in the formula rates. All aspects of AEP's rates accepted or approved by the FERC, including the formula rate templates, the rates of return on the

actual equity portion of its respective capital structures and the approved targeted capital structures, are subject to challenge by interested parties at the FERC, or by the FERC on its own initiative. In addition, interested parties may challenge the annual implementation and calculation by AEP of its projected rates and formula rate true-up pursuant to its approved formula rate templates under AEP's formula rate implementation protocols. If a challenger can establish that any of these aspects are unjust, unreasonable, unduly discriminatory or preferential, then the FERC can make appropriate prospective adjustments to them and/or disallow any of AEP's inclusion of those aspects in the rate setting formula.

Inquiries related to rates of return, as well as challenges to the formula rates of other utilities, are ongoing in other proceedings at the FERC. The results of these proceedings could potentially negatively impact AEP in any future challenges to AEP's formula rates. If the FERC orders revenue reductions, including refunds, in any future cases related to its formula rates, it could reduce future net income and cash flows and impact financial condition.

End-use consumers and entities supplying electricity to end-use consumers may also attempt to influence government and/or regulators to change the rate setting methodologies that apply to AEP, particularly if rates for delivered electricity increase substantially.

***AEP faces risks related to project siting, financing, construction, permitting, governmental approvals and the negotiation of project development agreements that may impede their development and operating activities. (Applies to all Registrants)***

AEP owns, develops, constructs, manages and operates electric generation, transmission and distribution facilities. A key component of AEP's growth is its ability to construct and operate these facilities. As part of these operations AEP must periodically apply for licenses and permits from various local, state, federal and other regulatory authorities and abide by their respective conditions. Should AEP be unsuccessful in obtaining necessary licenses or permits on acceptable terms or resolving third-party challenges to such licenses or permits, should there be a delay in obtaining or renewing necessary licenses or permits or should regulatory authorities initiate any associated investigations or enforcement actions or impose related penalties or disallowances, it could reduce future net income and cash flows and impact financial condition. Any failure to negotiate successful project development agreements for new facilities with third-parties could have similar results.

***Changes in technology and regulatory policies may lower the value of electric utility facilities and franchises. (Applies to all Registrants)***

AEP primarily generates electricity at large central facilities and delivers that electricity to customers over its transmission and distribution facilities to customers usually situated within an exclusive franchise. This method results in economies of scale and generally lower costs than newer technologies such as fuel cells and microturbines, and distributed generation using either new or existing technology. Other technologies, such as light emitting diodes (LEDs), increase the efficiency of electricity and, as a result, lower the demand for it. Changes in regulatory policies and advances in batteries or energy storage, wind turbines and photovoltaic solar cells are reducing costs of new technology to levels that are making them competitive with some central station electricity production and delivery. These developments can challenge AEP's competitive ability to maintain relatively low cost, efficient and reliable operations, to establish fair regulatory mechanisms and to provide cost-effective programs and services to customers. Further, in the event that alternative generation resources are mandated, subsidized or encouraged through legislation or regulation or otherwise are economically competitive and added to the available generation supply, such resources could displace a higher marginal cost generating units, which could reduce the price at which market participants sell their electricity.



***AEP may not recover costs incurred to begin construction on projects that are canceled. (Applies to all Registrants)***

AEP's business plan for the construction of new projects involves a number of risks, including construction delays, non-performance by equipment and other third-party suppliers and increases in equipment and labor costs. To limit the risks of these construction projects, AEP's subsidiaries enter into equipment purchase orders and construction contracts and incur engineering and design service costs in advance of receiving necessary regulatory approvals and/or siting or environmental permits. If any of these projects are canceled for any reason, including failure to receive necessary regulatory approvals and/or siting or environmental permits, significant cancellation penalties under the equipment purchase orders and construction contracts could occur. In addition, if any construction work or investments have been recorded as an asset, an impairment may need to be recorded in the event the project is canceled.

***AEP is exposed to nuclear generation risk. (Applies to AEP and I&M)***

I&M owns the Cook Plant, which consists of two nuclear generating units for a rated capacity of 2,296 MWs, or about a tenth of the regulated generating capacity in the AEP System. AEP and I&M are, therefore, subject to the risks of nuclear generation, which include the following:

- The potential harmful effects on the environment and human health due to an adverse incident/event resulting from the operation of nuclear facilities and the storage, handling and disposal of radioactive materials such as SNF.
- Limitations on the amounts and types of insurance commercially available to cover losses that might arise in connection with nuclear operations.
- Uncertainties with respect to contingencies and assessment amounts triggered by a loss event (federal law requires owners of nuclear units to purchase the maximum available amount of nuclear liability insurance and potentially contribute to the coverage for losses of others).
- Uncertainties with respect to the technological and financial aspects of decommissioning nuclear plants at the end of their licensed lives.

There can be no assurance that I&M's preparations or risk mitigation measures will be adequate if these risks are triggered.

The NRC has broad authority under federal law to impose licensing and safety-related requirements for the operation of nuclear generation facilities. In the event of non-compliance, the NRC has the authority to impose fines or shut down a unit, or both, depending upon its assessment of the severity of the situation, until compliance is achieved. Revised safety requirements promulgated by the NRC could necessitate substantial capital expenditures at nuclear plants. In addition, although management has no reason to anticipate a serious nuclear incident at the Cook Plant, if an incident did occur, it could harm results of operations or financial condition. A major incident at a nuclear facility anywhere in the world could cause the NRC to limit or prohibit the operation or licensing of any domestic nuclear unit. Moreover, a major incident at any nuclear facility in the U.S. could require AEP or I&M to make material contributory payments.

Costs associated with the operation (including fuel), maintenance and retirement of nuclear plants continue to be more significant and less predictable than costs associated with other sources of generation, in large part due to changing regulatory requirements and safety standards, availability of nuclear waste disposal facilities and experience gained in the operation of nuclear facilities. Costs also may include replacement power, any unamortized investment at the end of the useful life of the Cook Plant (whether scheduled or premature), the carrying costs of that investment and retirement costs. The ability to obtain adequate and timely recovery of costs associated with the Cook Plant is not assured.



***AEP subsidiaries are exposed to risks through participation in the market and transmission structures in various regional power markets that are beyond their control. (Applies to all Registrants)***

Results are likely to be affected by differences in the market and transmission structures in various regional power markets. The rules governing the various RTOs, including SPP and PJM, may also change from time to time which could affect costs or revenues. Existing, new or changed rules of these RTOs could result in significant additional fees and increased costs to participate in those structures, including the cost of transmission facilities built by others due to changes in transmission rate design. In addition, these RTOs may assess costs resulting from improved transmission reliability, reduced transmission congestion and firm transmission rights. As members of these RTOs, AEP's subsidiaries are subject to certain additional risks, including the allocation among existing members, of losses caused by unreimbursed defaults of other participants in these markets and resolution of complaint cases that may seek refunds of revenues previously earned by members of these markets.

***AEP could be subject to higher costs and/or penalties related to mandatory reliability standards. (Applies to all Registrants)***

Owners and operators of the bulk power transmission system are subject to mandatory reliability standards promulgated by the NERC and enforced by the FERC. The standards are based on the functions that need to be performed to ensure the bulk power system operates reliably and are guided by reliability and market interface principles. Compliance with new reliability standards may subject AEP to higher operating costs and/or increased capital expenditures. While management expects to recover costs and expenditures from customers through regulated rates, there can be no assurance that the applicable commissions will approve full recovery in a timely manner. If AEP were found not to be in compliance with the mandatory reliability standards, AEP could be subject to sanctions, including substantial monetary penalties, which likely would not be recoverable from customers through regulated rates.

***A substantial portion of the receivables of AEP Texas is concentrated in a small number of REPs, and any delay or default in payment could adversely affect its cash flows, financial condition and results of operations. (Applies to AEP and AEP Texas)***

AEP Texas collects receivables from the distribution of electricity from REPs that supply the electricity it distributes to its customers. As of December 31, 2022, AEP Texas did business with approximately 127 REPs. Adverse economic conditions, structural problems in the market served by ERCOT or financial difficulties of one or more REPs could impair the ability of these REPs to pay for these services or could cause them to delay such payments. AEP Texas depends on these REPs to remit payments on a timely basis. Applicable regulatory provisions require that customers be shifted to another REP or a provider of last resort if a REP cannot make timely payments. Applicable PUCT regulations significantly limit the extent to which AEP Texas can apply normal commercial terms or otherwise seek credit protection from firms desiring to provide retail electric service in its service territory, and AEP Texas thus remains at risk for payments related to services provided prior to the shift to another REP or the provider of last resort. In 2022, AEP Texas' two largest REPs accounted for 45% of its operating revenue. Any delay or default in payment by REPs could adversely affect cash flows, financial condition and results of operations. If a REP were unable to meet its obligations, it could consider, among various options, restructuring under the bankruptcy laws, in which event such REP might seek to avoid honoring its obligations, and claims might be made by creditors involving payments AEP Texas had received from such REP.

***Ohio House Bill 6 (HB 6), which provides for beneficial cost recovery for OPCo and for plants owned by OVEC, has come under public scrutiny. (Applies to AEP and OPCo)***

In 2019, Ohio adopted and implemented HB 6 which benefits OPCo by authorizing rate recovery for certain costs including renewable energy contracts, OVEC's coal-fired generating units and energy efficiency measures. AEP and



OPCo engaged in lobbying efforts and provided testimony during the legislative process in connection with HB 6. In July 2020, an investigation led by the U.S. Attorney's Office resulted in a federal grand jury indictment of an Ohio legislator and associates in connection with an alleged racketeering conspiracy involving the adoption of HB

6. The outcome of the U.S. Attorney's Office investigation and its impact on HB 6 is not known. If certain provisions of HB 6 were to be eliminated, it is unclear whether new legislation addressing similar issues would be adopted. To the extent that OPCo is unable to recover the costs currently authorized by HB 6, it could reduce future net income and cash flows and impact financial condition. In addition, the impact of continued public scrutiny of HB 6 is not known, and may have an adverse impact on AEP and OPCo, including their relationship with regulatory and legislative authorities, customers and other stakeholders. AEP is a defendant in current litigation relating to HB 6 and AEP or OPCo may be involved in future litigation.

## **RISKS RELATED TO MARKET, ECONOMIC OR FINANCIAL VOLATILITY AND OTHER RISKS**

***AEP's financial performance may be adversely affected if AEP is unable to successfully operate facilities or perform certain corporate functions. (Applies to all Registrants)***

Performance is highly dependent on the successful operation of generation, transmission and/or distribution facilities. Operating these facilities involves many risks, including:

- Operator error and breakdown or failure of equipment or processes.
- Operating limitations that may be imposed by environmental or other regulatory requirements.
- Labor disputes.
- Compliance with mandatory reliability standards, including mandatory cyber security standards.
- Information technology failure that impairs AEP's information technology infrastructure or disrupts normal business operations.
- Information technology failure that affects AEP's ability to access customer information or causes loss of confidential or proprietary data that materially and adversely affects AEP's reputation or exposes AEP to legal claims.
- Supply chain disruptions and inflation.
- Fuel or water supply interruptions caused by transportation constraints, adverse weather such as drought, non-performance by suppliers and other factors.
- Catastrophic events such as fires, earthquakes, explosions, hurricanes, tornados, ice storms, terrorism (including cyber-terrorism), floods or other similar occurrences.
- Fuel costs and related requirements triggered by financial stress in the coal industry.

***Physical attacks or hostile cyber intrusions could severely impair operations, lead to the disclosure of confidential information and damage AEP's reputation. (Applies to all Registrants)***

AEP and its regulated utility businesses face physical security and cybersecurity risks as the owner-operators of generation, transmission and/or distribution facilities and as participants in commodities trading. AEP and its regulated utility businesses own assets deemed as critical infrastructure, the operation of which is dependent on information technology systems. Further, the computer systems that run these facilities are not completely isolated from external networks. Parties that wish to disrupt the U.S. bulk power system or AEP operations could view these computer systems, software or networks as targets for cyber-attack. The Federal government has notified the owners and operators of critical infrastructure, such as AEP, that the conflict between Russia and Ukraine has increased the likelihood of a cyber-attack on such systems. In addition, the electric utility business requires the collection of sensitive customer data, as well as confidential employee and shareholder information, which is subject to electronic theft or loss.

A security breach of AEP or its regulated utility businesses' physical assets or information systems, interconnected entities in RTOs, or regulators could impact the operation of the generation fleet and/or reliability of the transmission and distribution system. AEP and its regulated utility businesses could be subject to financial harm associated with ransomware theft or inappropriate release of certain types of information, including sensitive customer, vendor,

employee, trading or other confidential data. A successful cyber-attack on the systems that control generation, transmission, distribution or other assets could severely disrupt business operations, preventing service to customers or collection of revenues. The breach of certain business systems could affect the ability to

correctly record, process and report financial information. A major cyber incident could result in significant expenses to investigate and repair security breaches or system damage and could lead to litigation, fines, other remedial action, heightened regulatory scrutiny and damage to AEP's reputation. In addition, the misappropriation, corruption or loss of personally identifiable information and other confidential data could lead to significant breach notification expenses and mitigation expenses such as credit monitoring. AEP and its third-party vendors have been subject, and will likely continue to be subject, to attempts to gain unauthorized access to their technology systems and confidential data or to attempts to disrupt utility and related business operations. While there have been immaterial incidents of phishing, unauthorized access to technology systems, financial fraud, and disruption of remote access across the AEP System, there has been no material impact on business or operations from these attacks. However, AEP cannot guarantee that security efforts will detect or prevent breaches, operational incidents, or other breakdowns of technology systems and network infrastructure and cannot provide any assurance that such incidents will not have a material adverse effect in the future.

***The amount of taxes imposed on AEP could change. (Applies to all Registrants)***

AEP is subject to income taxation at the federal level and by certain states and municipalities. In determining AEP's income tax liability for these jurisdictions, management monitors changes to the applicable tax laws and related regulations, including tax incentives and credits designed to support the sale of energy from utility scale renewable energy facilities. While management believes AEP complies with current prevailing laws, one or more taxing jurisdictions could seek to impose incremental or new taxes on the company. In addition, any adverse developments in tax laws, incentives, credits or regulations, including legislative changes, judicial holdings or administrative interpretations, could have a material and adverse effect on financial condition and results of operations.

***If AEP is unable to access capital markets or insurance markets on reasonable terms, it could reduce future net income and cash flows and negatively impact financial condition. (Applies to all Registrants)***

AEP relies on access to capital markets as a significant source of liquidity for capital requirements not satisfied by operating cash flows or proceeds from the strategic sale of assets and investments, including subsidiaries such as the planned sale of KPCo and KTCo and AEP Renewables' competitive contracted renewable portfolio, and insurance markets to assist in managing its risk and liability profile. Volatility, increased interest rates and reduced liquidity in the financial markets could affect AEP's ability to raise capital on reasonable terms to fund capital needs, including construction costs and refinancing maturing indebtedness. Certain sources of insurance and debt and equity capital have expressed increasing unwillingness to procure insurance for or to invest in companies, such as AEP, that rely on fossil fuels. The public holds diverse and often conflicting views on the use of fossil fuels. AEP has multiple stakeholders, including our shareholders, customers, associates, federal and state regulatory authorities, and the communities in which AEP operates, and these stakeholders will often have differing priorities and expectations regarding issues related to the use of fossil fuels. Any adverse publicity in connection with AEP's use of fossil fuels could curtail availability from certain sources of capital. If sources of capital for AEP are reduced and/or expected sale proceeds do not become available, capital costs could increase materially. Restricted access to capital or insurance markets and/or increased borrowing costs or insurance premiums could reduce future net income and cash flows and negatively impact financial condition.

***Our financial position may be adversely impacted if announced dispositions do not occur as planned or if assets under strategic evaluation lose value. (Applies to AEP)***

In October 2021, AEP entered into an agreement to sell KPCo and KTCo for approximately a \$2.85 billion enterprise value. In September 2022, the agreement was amended to reduce the purchase price to approximately \$2.646 billion, among other terms. The sale remains subject to regulatory approval and if it is not approved on terms acceptable to AEP or if the sale does not occur for any reason, it could reduce future net income and cash flow and impact financial condition. In February 2023, AEP signed an agreement to sell the AEP Renewables' competitive contracted renewables portfolio to a nonaffiliated party for \$1.5 billion including the assumption of project debt. The sale is subject to

regulatory approval. Any announced sale of assets and investments, including subsidiaries, may not occur for any number of reasons beyond our control, including regulatory approval on terms that are acceptable.

AEP has initiated a strategic evaluation for its ownership in AEP Energy, a wholly-owned retail energy supplier that supplies electricity and/or natural gas to residential, commercial and industrial customers. AEP has not made a decision regarding the potential alternatives and expects to complete the evaluation in the first half of 2023. Certain of these alternatives could result in a loss which could reduce future net income and cash flow and impact financial condition.

***Shareholder activism could cause AEP to incur significant expense, hinder execution of AEP's business strategy and impact AEP's stock price. (Applies to all Registrants)***

Shareholder activism, which can take many forms and arise in a variety of situations, could result in substantial costs and divert management's and AEP's board's attention and resources from AEP's business. Additionally, such shareholder activism could give rise to perceived uncertainties as to AEP's future, adversely affect AEP's relationships with its employees, customers or service providers and make it more difficult to attract and retain qualified personnel. Also, AEP may be required to incur significant fees and other expenses related to activist shareholder matters, including for third-party advisors. AEP's stock price could be subject to significant fluctuation or otherwise be adversely affected by the events, risks and uncertainties of any shareholder activism.

***Downgrades in AEP's credit ratings could negatively affect its ability to access capital. (Applies to all Registrants)***

The credit ratings agencies periodically review AEP's capital structure and the quality and stability of earnings and cash flows. Any negative ratings actions could constrain the capital available to AEP and could limit access to funding for operations. AEP's business is capital intensive, and AEP is dependent upon the ability to access capital at rates and on terms management determines to be attractive. If AEP's ability to access capital becomes significantly constrained, AEP's interest costs will likely increase and could reduce future net income and cash flows and negatively impact financial condition.

***AEP and AEPTCo have no income or cash flow apart from dividends paid or other payments due from their subsidiaries. (Applies to AEP and AEPTCo)***

AEP and AEPTCo are holding companies and have no operations of their own. Their ability to meet their financial obligations associated with their indebtedness and to pay dividends is primarily dependent on the earnings and cash flows of their operating subsidiaries, primarily their regulated utilities, and the ability of their subsidiaries to pay dividends to, or repay loans from them. Their subsidiaries are separate and distinct legal entities that have no obligation (apart from loans from AEP or AEPTCo) to provide them with funds for their payment obligations, whether by dividends, distributions or other payments. Payments to AEP or AEPTCo by their subsidiaries are also contingent upon their earnings and business considerations. AEP and AEPTCo indebtedness and dividends are structurally subordinated to all subsidiary indebtedness.

***AEP's operating results may fluctuate on a seasonal or quarterly basis and with general economic and weather conditions. (Applies to all Registrants)***

Electric power consumption is generally seasonal. In many parts of the country, demand for power peaks during the hot summer months, with market prices also peaking at that time. In other areas, power demand peaks during the winter. As a result, overall operating results in the future may fluctuate substantially on a seasonal basis. In addition, AEP has historically sold less power, and consequently earned less income, when weather conditions are milder. Unusually mild weather in the future could reduce future net income and cash flows and negatively impact financial condition. In addition, unusually extreme weather conditions could impact AEP's results of operations in a manner that would not likely be sustainable.

Further, deteriorating economic conditions triggered by any cause, including international tariffs, generally result in reduced consumption by customers, particularly industrial customers who may curtail operations or cease production

entirely, while an expanding economic environment generally results in increased revenues. As a result, prevailing economic conditions may reduce future net income and cash flows and negatively impact financial condition.

***Volatility in the securities markets, interest rates, and other factors could substantially increase defined benefit pension and other postretirement plan costs and the costs of nuclear decommissioning. (Applies to all Registrants and to AEP and I&M with respect to the costs of nuclear decommissioning)***

The costs of providing pension and other postretirement benefit plans are dependent on a number of factors, such as the rates of return on plan assets, discount rates, the level of interest rates used to measure the required minimum funding levels of the plan, changes in actuarial assumptions, future government regulation, changes in life expectancy and the frequency and amount of AEP's required or voluntary contributions made to the plans. Changes in actuarial assumptions and differences between the assumptions and actual values, as well as a significant decline in the value of investments that fund the pension and other postretirement plans, if not offset or mitigated by a decline in plan liabilities, could increase pension and other postretirement expense, and AEP could be required from time to time to fund the pension plan with significant amounts of cash. Such cash funding obligations could have a material impact on liquidity by reducing cash flows and could negatively affect results of operations.

Additionally, I&M holds a significant amount of assets in its nuclear decommissioning trusts to satisfy obligations to decommission its nuclear plant. The rate of return on assets held in those trusts can significantly impact both the costs of decommissioning and the funding requirements for the trusts.

***Supply chain disruptions and inflation could negatively impact our operations and corporate strategy. (Applies to all Registrants)***

AEP's operations and business plans depend on the global supply chain to procure the equipment, materials and other resources necessary to build and provide services in a safe and reliable manner. The delivery of components, materials, equipment and other resources that are critical to AEP's business operations and corporate strategy has been restricted by domestic and global supply chain upheaval. This has resulted in the shortage of critical items. International tensions, including the ramifications of regional conflict, could further exacerbate the global supply chain upheaval. These disruptions and shortages could adversely impact business operations and corporate strategy. The constraints in the supply chain could restrict the availability and delay the construction, maintenance or repair of items that are needed to support normal operations or are required to execute on AEP's corporate strategy for continued capital investment in utility equipment. These disruptions and constraints could reduce future net income and cash flows and possibly harm AEP's financial condition.

Supply chain disruptions have contributed to higher prices of components, materials, equipment and other needed commodities and these inflationary increases may continue in the future. The economy in the United States has encountered a material level of inflation compared to the recent past and that has contributed to increased uncertainty in the outlook of near-term economic activity, including the level of future inflation and the possibility of a recession. AEP typically recovers increases in capital expenses from customers through rates in regulated jurisdictions. Failure to recover increased capital costs could reduce future net income and cash flows and possibly harm AEP's financial condition. Increases in inflation raises our costs for labor, materials and services, and failure to secure these on reasonable terms may adversely impact our financial condition.

***AEP's results of operations and cash flows may be negatively affected by a lack of growth or slower growth in the number of customers, a decline in customer demand or a recession. (Applies to all Registrants)***

Growth in customer accounts and growth of customer usage each directly influence demand for electricity and the need for additional power generation and delivery facilities. Customer growth and customer usage are affected by a number of factors outside the control of AEP, such as mandated energy efficiency measures, demand-side management goals, distributed generation resources and economic and demographic conditions, such as population changes, job and income growth, housing starts, new business formation and the overall level of economic activity, including changes due to public health considerations.



Certain regulatory and legislative bodies have introduced or are considering requirements and/or incentives to further reduce energy consumption. Additionally, technological advances or other improvements in or applications of technology could lead to declines in per capita energy consumption. Some or all of these factors, could impact the demand for electricity.

***Failure to attract and retain an appropriately qualified workforce could harm results of operations. (Applies to all Registrants)***

Certain events, such as an aging workforce without appropriate replacements, mismatch of skillset or complement to future needs, or unavailability of contract resources may lead to operating challenges and increased costs. The challenges include potential higher rates of existing employee departures, lack of resources, loss of knowledge and a lengthy time period associated with skill development. In this case, costs, including costs for contractors to replace employees, productivity costs and safety costs, may rise. Failure to hire and adequately train replacement employees, including the transfer of significant internal historical knowledge and expertise to the new employees, or the future availability and cost of contract labor may adversely affect the ability to manage and operate the business. If AEP is unable to successfully attract and retain an appropriately qualified workforce, future net income and cash flows may be reduced.

***Changes in the price of purchased power and commodities, the cost of procuring fuel, emission allowances for criteria pollutants and the costs of transport may increase AEP's cost of purchasing and producing power, impacting financial performance. (Applies to all Registrants except AEP Texas, AEPTCo and OPCo)***

AEP is exposed to changes in the price and availability of purchased power and fuel (including the cost to procure coal and gas) and the price and availability to transport fuel. AEP has existing contracts of varying durations for the supply of fuel, but as these contracts end or if they are not honored, AEP may not be able to purchase fuel on terms as favorable as the current contracts. AEP typically recovers increases in fuel expenses and purchased power from customers in regulated jurisdictions. Failure to recover these costs could reduce future net income and cash flows and possibly harm AEP's financial condition. The inability to procure fuel at costs that are economical could cause AEP to retire generating capacity prior to the end of its useful life, and while AEP typically recovers expenditures for undepreciated plant balances, there can be no assurance in the future that AEP will recover such costs. Similarly, AEP is exposed to changes in the price and availability of emission allowances. AEP uses emission allowances based on the amount of fuel used and reductions achieved through emission controls and other measures. Based on current environmental programs remaining in effect, AEP has sufficient emission allowances available through either EPA original issuance or market purchases to cover projected needs for the next two years and beyond. Additional costs may be incurred either to acquire additional allowances or to achieve further reductions in emissions. If AEP needs to obtain allowances, those purchases may not be on as favorable terms as those under the current environmental programs. AEP's risks relative to the price and availability to transport coal include the volatility of the price of diesel which is the primary fuel used in transporting coal by barge.

Prices for coal, natural gas and emission allowances have shown material swings in the past. Changes in the cost of purchased power, fuel or emission allowances and changes in the relationship between such costs and the market prices of power could reduce future net income and cash flows and negatively impact financial condition.

In addition, actual power prices and fuel costs will differ from those assumed in financial projections used to value trading and marketing transactions, and those differences may be material. As a result, as those transactions are marked-to-market, they may impact future results of operations and cash flows and impact financial condition.

***AEP is subject to physical and financial risks associated with climate change. (Applies to all Registrants)***

Climate change creates physical and financial risk. Physical risks from climate change may include an increase in sea level and changes in weather conditions, such as changes in precipitation and extreme weather events, such as fires. Customers' energy needs vary with weather conditions, primarily temperature and humidity. For residential customers, heating and cooling represent their largest energy use. To the extent weather conditions are affected by climate change, customers' energy use could increase or decrease depending on the duration and magnitude of the changes.

Increased energy use due to weather changes may require AEP to invest in additional generating assets, transmission and other infrastructure to serve increased load. Decreased energy use due to weather changes may affect financial condition through decreased revenues. Extreme weather conditions in general require more system

backup, adding to costs, and can contribute to increased system stress, including service interruptions. Weather conditions outside of the AEP service territory could also have an impact on revenues. AEP buys and sells electricity depending upon system needs and market opportunities. Extreme weather conditions creating high energy demand on AEP's own and/or other systems may raise electricity prices as AEP buys short-term energy to serve AEP's own system, which would increase the cost of energy AEP provides to customers.

Severe weather and weather-related events impact AEP's service territories, primarily when thunderstorms, tornadoes, hurricanes, fires, floods and snow or ice storms occur. To the extent the frequency and intensity of extreme weather events and storms increase, AEP's cost of providing service will increase, including the costs and the availability of procuring insurance related to such impacts, and these costs may not be recoverable. Changes in precipitation resulting in droughts, water shortages or floods could adversely affect operations, principally the fossil fuel generating units. A negative impact to water supplies due to long-term drought conditions or severe flooding could adversely impact AEP's ability to provide electricity to customers, as well as increase the price they pay for energy. AEP may not recover all costs related to mitigating these physical and financial risks.

To the extent climate change impacts a region's economic health, it may also impact revenues. AEP's financial performance is tied to the health of the regional economies AEP serves. The price of energy, as a factor in a region's cost of living as well as an important input into the cost of goods and services, has an impact on the economic health of the communities within the AEP System.

***Management cannot predict the outcome of the legal proceedings relating to AEP's business activities. (Applies to all Registrants)***

AEP is involved in legal proceedings, claims and litigation arising out of its business operations, the most significant of which are summarized in Note 6 - Commitments, Guarantees and Contingencies included in the 2022 Annual Report. Adverse outcomes in these proceedings could require significant expenditures that could reduce future net income and cash flows and negatively impact financial condition.

***Disruptions at power generation facilities owned by third-parties could interrupt the sales of transmission and distribution services. (Applies to AEP and AEP Texas)***

AEP Texas transmits and distributes electric power that the REPs obtain from power generation facilities owned by third-parties. If power generation is disrupted or if power generation capacity is inadequate, sales of transmission and distribution services may be diminished or interrupted, and results of operations, financial condition and cash flows could be adversely affected.

***Management is unable to predict the course, results or impact, if any, of current or future litigation or investigations relating to the extreme winter weather in Texas in February 2021. (Applies to AEP and AEP Texas)***

As a result of the February 2021 severe winter weather in Texas which caused a shortage of electric generation, ERCOT instructed AEP Texas and other Texas electric utilities to initiate power outages to avoid a sustained large-scale outage and prevent long-term damage to the electric system. At its peak, approximately 468,000 (44%) AEP Texas customers were without power.

AEP Texas and other AEP entities are named in approximately 100 lawsuits generally alleging the failure to exercise reasonable care in maintaining and updating their generation, transmission and distribution facilities in order to prevent cold weather failures and other related negligence. The complaints seek monetary damages among other forms of relief. In February 2021, AEP Texas received a Civil Investigative Demand from the Office of the Attorney General of Texas requesting, among other data, information about its communications to and from ERCOT, PUCT, retail electric providers, utilities, or power generation companies, concerning power outages related to the February 2021 winter storm. The company responded to the Civil Investigative Demand in March 2021. Management is unable to predict the course or outcome of these or any future litigation or investigations or their impact, if any, on future results of operations, financial condition and cash flows.

***Hazards associated with high-voltage electricity transmission may result in suspension of AEP's operations or the imposition of civil or criminal penalties. (Applies to all Registrants)***

AEP operations are subject to the usual hazards associated with high-voltage electricity transmission, including explosions, fires, inclement weather, natural disasters, mechanical failure, unscheduled downtime, equipment interruptions, remediation, chemical spills, discharges or releases of toxic or hazardous substances or gases and other environmental risks. The hazards can cause personal injury and loss of life, severe damage to or destruction of property and equipment and environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties. AEP maintains property and casualty insurance, but AEP is not fully insured against all potential hazards incident to AEP's business, such as damage to poles, towers and lines or losses caused by outages.

***AEPTCo depends on its affiliates in the AEP System for a substantial portion of its revenues. (Applies to AEPTCo)***

AEPTCo's principal transmission service customers are its affiliates in the AEP System. Management expects that these affiliates will continue to be AEPTCo's principal transmission service customers for the foreseeable future. For the year ended December 31, 2022, its affiliates were responsible for approximately 79% of the consolidated transmission revenues of AEPTCo.

***Most of the real property rights on which the assets of AEPTCo are situated result from affiliate license agreements and are dependent on the terms of the underlying easements and other rights of its affiliates. (Applies to AEPTCo)***

AEPTCo does not hold title to the majority of real property on which its electric transmission assets are located. Instead, under the provisions of certain affiliate contracts, it is permitted to occupy and maintain its facilities upon real property held by the respective AEP System utility affiliate that overlay its operations. The ability of AEPTCo to continue to occupy such real property is dependent upon the terms of such affiliate contracts and upon the underlying real property rights of these utility affiliates, which may be encumbered by easements, mineral rights and other similar encumbrances that may affect the use of such real property. AEP can give no assurance that (a) the relevant AEP System utility affiliates will continue to be affiliates of AEPTCo, (b) suitable replacement arrangements can be obtained in the event that the relevant AEP System utility affiliates are not its affiliates and (c) the underlying easements and other rights are sufficient to permit AEPTCo to operate its assets in a manner free from interruption.



***Compliance with legislative and regulatory requirements may lead to increased costs and result in penalties. (Applies to all Registrants)***

Business activities of electric utilities and related companies are heavily regulated, primarily through national and state laws and regulations of general applicability, including laws and regulations related to working conditions, health and safety, equal employment opportunity, employee benefit and other labor and employment matters, laws and regulations related to competition and antitrust matters. Many agencies employ mandatory civil penalty structures for regulatory violations. Registrants are subject to the jurisdiction of many federal and state agencies, including the FERC, NERC, Commodities Futures Trading Commission, Federal EPA, NRC, Occupational Safety and Health Administration, the SEC and the United States Department of Justice which may impose significant civil and criminal penalties to enforce compliance requirements relative to AEP's business, which could have a material adverse effect on financial operating results including earnings, cash flow and liquidity.

The impact of new laws, regulations and policies and the related interpretations, as well as changes in enforcement practices or regulatory scrutiny generally cannot be predicted, and changes in applicable laws, regulations and policies and the related interpretations and enforcement practices may require extensive system and operational changes, be difficult to implement, increase AEP's operating costs, require significant capital expenditures, or adversely impact the cost or attractiveness of the products or services AEP offers, or result in adverse publicity and harm AEP's reputation.

## **RISKS RELATED TO OWNING AND OPERATING GENERATION ASSETS AND SELLING POWER**

***Costs of compliance with existing and evolving environmental laws are significant. (Applies to all Registrants except AEPTCo)***

Operations are subject to extensive federal, state and local environmental statutes, rules and regulations relating to air quality, water quality, waste management, natural resources and health and safety. A majority of the electricity generated by the AEP System is produced by the combustion of fossil fuels. Emissions of nitrogen and sulfur oxides, mercury and particulates and the discharge and disposal of solid waste (including coal-combustion residuals or CCR) resulting from fossil fueled generation plants are subject to increased regulations, controls and mitigation expenses. Compliance with these legal requirements (including any new and more stringent application of existing CCR regulations) requires AEP to commit significant capital toward environmental monitoring, installation of pollution control equipment, emission fees, disposal, remediation and permits at AEP facilities and could cause AEP to retire generating capacity prior to the end of its estimated useful life. Costs of compliance with environmental statutes and regulations could reduce future net income and negatively impact financial condition, especially if emission limits, CCR waste discharge and/or discharge disposal obligations are tightened, more extensive operating and/or permitting requirements are imposed or additional substances or facilities become regulated. Although AEP typically recovers expenditures for pollution control technologies, replacement generation, undepreciated plant balances and associated operating costs from customers, there can be no assurance in the future that AEP will recover the remaining costs associated with such plants. Failure to recover these costs could reduce future net income and cash flows and possibly harm financial condition.

***Regulation of greenhouse gas emissions could materially increase costs to AEP and its customers or cause some electric generating units to be uneconomical to operate or maintain. (Applies to all Registrants except AEP Texas, AEPTCo and OPCo)***

Federal or state laws or regulations may be adopted that would impose new or additional limits on the emissions of greenhouse gases, including, but not limited to, carbon dioxide and methane, from electric generation units using fossil fuels like coal. The potential effects of greenhouse gas emission limits on AEP's electric generation units are subject to significant uncertainties based on, among other things, the timing of the implementation of any new requirements, the required levels of emission reductions, the nature of any market-based or tax-based mechanisms adopted to facilitate

reductions, the relative availability of greenhouse gas emission reduction offsets, the development of cost-effective, commercial-scale carbon capture and storage technology and supporting regulations and liability mitigation measures, and the range of available compliance alternatives.



AEP's results of operations could be materially adversely affected to the extent that new federal or state laws or regulations impose any new greenhouse gas emission limits. Any future limits on greenhouse gas emissions could create substantial additional costs in the form of taxes or emissions allowances, require significant capital investment in carbon capture and storage technology, fuel switching, or the replacement of high-emitting generation facilities with lower-emitting generation facilities and/or could cause AEP to retire generating capacity prior to the end of its estimated useful life. Although AEP typically recovers environmental expenditures, there can be no assurance in the future that AEP can recover such costs which could reduce future net income and cash flows and possibly harm financial condition.

***Courts adjudicating nuisance and other similar claims in the future may order AEP to pay damages or to limit or reduce emissions. (Applies to all Registrants except AEP Texas and AEPTCo)***

In the past, there have been several cases seeking damages based on allegations of federal and state common law nuisance in which AEP, among others, were defendants. In general, the actions allege that emissions from the defendants' power plants constitute a public nuisance. The plaintiffs in these actions generally seek recovery of damages and other relief. If future actions are resolved against AEP, substantial modifications or retirement of AEP's existing coal-fired power plants could be required, and AEP might be required to purchase power from third-parties to fulfill AEP's commitments to supply power to AEP customers. This could have a material impact on revenues. In addition, AEP could be required to invest significantly in additional emission control equipment, accelerate the timing of capital expenditures, pay damages or penalties and/or halt operations. Unless recovered, those costs could reduce future net income and cash flows and harm financial condition. Moreover, results of operations and financial position could be reduced due to the timing of recovery of these investments and the expense of ongoing litigation.

***Commodity trading and marketing activities are subject to inherent risks which can be reduced and controlled but not eliminated. (Applies to all Registrants except AEP Texas, AEPTCo and OPCo)***

AEP routinely has open trading positions in the market, within guidelines set by AEP, resulting from the management of AEP's trading portfolio. To the extent open trading positions exist, fluctuating commodity prices can improve or diminish financial results and financial position.

AEP's power trading activities also expose AEP to risks of commodity price movements. To the extent that AEP's power trading does not hedge the price risk associated with the generation it owns, or controls, AEP would be exposed to the risk of rising and falling spot market prices.

In connection with these trading activities, AEP routinely enters into financial contracts, including futures and options, OTC options, financially-settled swaps and other derivative contracts. These activities expose AEP to risks from price movements. If the values of the financial contracts change in a manner AEP does not anticipate, it could harm financial position or reduce the financial contribution of trading operations.

***Parties with whom AEP has contracts may fail to perform their obligations, which could harm AEP's results of operations. (Applies to all Registrants)***

AEP sells power from its generation facilities into the spot market and other competitive power markets on a contractual basis. AEP also enters into contracts to purchase and sell electricity, natural gas, emission allowances, renewable energy credits and coal as part of its power marketing and energy trading operations. AEP is exposed to the risk that counterparties that owe AEP money or the delivery of a commodity, including power, could breach their obligations. Should the counterparties to these arrangements fail to perform, AEP may be forced to enter into alternative hedging arrangements or honor underlying commitments at then-current market prices that may exceed AEP's contractual prices, which would cause financial results to be diminished and AEP might incur losses. Although estimates take into account the expected probability of default by a counterparty, actual exposure to a default by a

counterparty may be greater than the estimates predict.

***AEP relies on electric transmission facilities that AEP does not own or control. If these facilities do not provide AEP with adequate transmission capacity, AEP may not be able to deliver wholesale electric power to the purchasers of AEP's power. (Applies to all Registrants)***

AEP depends on transmission facilities owned and operated by other nonaffiliated power companies to deliver the power AEP sells at wholesale. This dependence exposes AEP to a variety of risks. If transmission is disrupted, or transmission capacity is inadequate, AEP may not be able to sell and deliver AEP wholesale power. If a region's power transmission infrastructure is inadequate, AEP's recovery of wholesale costs and profits may be limited. If restrictive transmission price regulation is imposed, the transmission companies may not have sufficient incentive to invest in expansion of transmission infrastructure.

The FERC has issued electric transmission initiatives that require electric transmission services to be offered unbundled from commodity sales. Although these initiatives are designed to encourage wholesale market transactions, access to transmission systems may not be available if transmission capacity is insufficient because of physical constraints or because it is contractually unavailable. Management also cannot predict whether transmission facilities will be expanded in specific markets to accommodate competitive access to those markets.

***OVEC may require additional liquidity and other capital support. (Applies to AEP, APCo, I&M and OPCo)***

AEP and several nonaffiliated utility companies own OVEC. The Inter-Company Power Agreement (ICPA) defines the rights and obligations and sets the power participation ratio of the parties to it. Under the ICPA, parties are entitled to receive and are obligated to pay for all OVEC capacity (approximately 2,400 MWs) in proportion to their respective power participation ratios. The aggregate power participation ratio of APCo, I&M and OPCo is 43.47%. If a party fails to make payments owed by it under the ICPA, OVEC may not have sufficient funds to honor its payment obligations, including its ongoing operating expenses as well as its indebtedness. As of December 31, 2022, OVEC has outstanding indebtedness of approximately \$1.1 billion, of which APCo, I&M, and OPCo are collectively responsible for \$478 million through the ICPA. Although they are not an obligor or guarantor, APCo, I&M, and OPCo are responsible for their respective ratio of OVEC's outstanding debt through the ICPA and if OVEC's indebtedness is accelerated for any reason, there is risk that APCo, I&M and/or OPCo may be required to pay some or all of such accelerated indebtedness in amounts equal to their aggregate power participation ratio of 43.47%.

***New climate disclosure rules proposed by the U.S. Securities and Exchange Commission may increase our costs of compliance and adversely impact our business. (Applies to all Registrants)***

On March 21, 2022, the SEC proposed new rules relating to the disclosure of a range of climate-related risks. AEP is currently assessing the proposed rule, but at this time AEP cannot predict the costs of implementation or any potential adverse impacts resulting from the rule. To the extent this rule is finalized as proposed, AEP could incur increased costs relating to the assessment and disclosure of climate-related risks. AEP may also face increased litigation risks related to disclosures made pursuant to the rule if finalized as proposed. In addition, enhanced climate disclosure requirements could accelerate the trend of certain stakeholders and lenders restricting or seeking more stringent conditions with respect to their investments in certain carbon-intensive sectors.

## **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

## **ITEM 2. PROPERTIES**

### **GENERATION FACILITIES**