

AMERICAN ELECTRIC POWER CO INC

Form 10-Q

November 02, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

For The Quarterly Period Ended September 30, 2016

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

For The Transition Period from \_\_\_\_\_ to \_\_\_\_\_

Commission Registrants; States of Incorporation;

File Number Address and Telephone Number

I.R.S. Employer

Identification Nos.

1-3525	AMERICAN ELECTRIC POWER COMPANY, INC. (A New York Corporation)	13-4922640
1-3457	APPALACHIAN POWER COMPANY (A Virginia Corporation)	54-0124790
1-3570	INDIANA MICHIGAN POWER COMPANY (An Indiana Corporation)	35-0410455
1-6543	OHIO POWER COMPANY (An Ohio Corporation)	31-4271000
0-343	PUBLIC SERVICE COMPANY OF OKLAHOMA (An Oklahoma Corporation)	73-0410895
1-3146	SOUTHWESTERN ELECTRIC POWER COMPANY (A Delaware Corporation)	72-0323455
	1 Riverside Plaza, Columbus, Ohio 43215-2373	
	Telephone (614) 716-1000	

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  
and posted on  
their  
corporate  
websites, if  
any, every  
Interactive  
Data File  
required to be  
submitted and  
posted  
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  
registrants  
were required  
to submit and  
post 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, or a smaller  
reporting company. See the definitions of “large  
accelerated filer,” “accelerated filer” and “smaller reporting  
company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer

Non-accelerated filer      Smaller reporting company  
Indicate by check mark whether 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 or smaller reporting companies. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer      Accelerated filer

Non-accelerated filer    ☒ Smaller reporting company  
Indicate by check mark whether the registrants are shell companies (as defined in Rule 12b-2 of the Exchange Act).

Yes    No ☒

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 H(1)(a) and (b) of Form 10-Q and are therefore filing this Form 10-Q with the reduced disclosure format specified in General Instruction H(2) to Form 10-Q.

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Number of shares  
of common stock  
outstanding of  
the  
Registrants as of  
November 1,  
2016

American Electric Power Company, Inc.	491,711,533 (\$6.50 par value)
Appalachian Power Company	13,499,500 (no par value)
Indiana Michigan Power Company	1,400,000 (no par value)
Ohio Power Company	27,952,473 (no par value)
Public Service Company of Oklahoma	9,013,000 (\$15 par value)
Southwestern Electric Power Company	7,536,640 (\$18 par value)

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AMERICAN ELECTRIC  
POWER COMPANY, INC.  
AND SUBSIDIARY  
COMPANIES  
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REPORTS ON FORM 10-Q  
September 30, 2016

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SIGNATURE 211

This combined Form 10-Q is separately filed by American Electric Power Company, Inc., 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. Each registrant makes no



representation as to information  
relating to the other registrants.

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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 variable interest entity of AEP which securitizes accounts receivable and accrued utility revenues for affiliated electric utility companies.
AEP East Companies	APCo, I&M, KPCo and OPCo.
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 System	American Electric Power System, an electric system, owned and operated by AEP subsidiaries.
AEP Transmission Holdco	AEP Transmission Holding Company, LLC, a wholly-owned subsidiary of AEP.
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 the deregulated Ohio and Texas market.
AEPRO	AEP River Operations, LLC.
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 subsidiary of AEP Transmission Holdco and an intermediate holding company that owns seven wholly-owned transmission companies.
AFUDC	Allowance for Funds Used During Construction.
AGR	AEP Generation Resources Inc., a competitive AEP subsidiary in the Generation & Marketing segment.
AOCI	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 variable interest entity formed for the purpose of issuing and servicing securitization bonds related to the under-recovered ENEC deferral balance.
APSC	Arkansas Public Service Commission.
ASU	Accounting Standards Update.
CAA	Clean Air Act.
CLECO	Central Louisiana Electric Company, a nonaffiliated utility company.
CO <sub>2</sub>	Carbon dioxide and other greenhouse gases.
Cook Plant	Donald C. Cook Nuclear Plant, a two-unit, 2,191 MW nuclear plant owned by I&M.
CRES provider	Competitive Retail Electric Service providers under Ohio law that target retail customers by offering alternative generation service.
CWIP	Construction Work in Progress.
DCC Fuel	DCC Fuel VI LLC, DCC Fuel VII, DCC Fuel VIII and DCC Fuel IX, consolidated variable interest entities formed for the purpose of acquiring, owning and leasing nuclear fuel to I&M.
Desert Sky	Desert Sky Wind Farm, a 160.5 MW wind electricity generation facility located on Indian Mesa in Pecos County, Texas.
DHLC	Dolet Hills Lignite Company, LLC, a wholly-owned lignite mining subsidiary of SWEPCo.
EIS	

Energy Insurance Services, Inc., a nonaffiliated captive insurance company and consolidated variable interest entity of AEP.

Term	Meaning
ENEC	Expanded Net Energy Cost.
Energy Supply	AEP Energy Supply LLC, a nonregulated holding company for AEP's competitive generation, wholesale and retail businesses, and a wholly-owned subsidiary of AEP.
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 Parent and Berkshire Hathaway Energy Company formed to own and operate electric transmission facilities in ERCOT.
FAC	Fuel Adjustment Clause.
FASB	Financial Accounting Standards Board.
Federal EPA	United States Environmental Protection Agency.
FERC	Federal Energy Regulatory Commission.
FGD	Flue Gas Desulfurization or scrubbers.
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.
I&M	Indiana Michigan Power Company, an AEP electric utility subsidiary.
IRS	Internal Revenue Service.
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.
KWh	Kilowatthour.
LPSC	Louisiana Public Service Commission.
MISO	Midwest Independent Transmission System Operator.
MMBtu	Million British Thermal Units.
MPSC	Michigan Public Service Commission.
MTM	Mark-to-Market.
MW	Megawatt.
MWh	Megawatthour.
NO <sub>x</sub>	Nitrogen oxide.
Nonutility Money Pool	Centralized funding mechanism AEP uses to meet the short-term cash requirements of certain nonutility subsidiaries.
NSR	New Source Review.
OCC	Corporation Commission of the State of Oklahoma.
Ohio Phase-in-Recovery Funding	Ohio Phase-in-Recovery Funding LLC, a wholly-owned subsidiary of OPCo and a consolidated variable interest entity formed for the purpose of issuing and servicing securitization bonds related to phase-in recovery property.
OPCo	Ohio Power Company, an AEP electric utility subsidiary.
OPEB	Other Postretirement Benefit Plans.
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.
PIRR	Phase-In Recovery Rider.

PJM	Pennsylvania – New Jersey – Maryland regional transmission organization.
PM	Particulate Matter.
PPA	Power Purchase and Sale Agreement.
Price River	Rights and interests in certain coal reserves located in Carbon County, Utah.
PSO	Public Service Company of Oklahoma, an AEP electric utility subsidiary.
PUCO	Public Utilities Commission of Ohio.

Term	Meaning
PUCT	Public Utility Commission of Texas.
Putnam	Rights and interests in certain coal reserves located in Putnam, Mason and Jackson Counties, West Virginia.
Registrant Subsidiaries	AEP subsidiaries which are SEC registrants: APCo, I&M, OPCo, PSO and SWEPCo.
Registrants	SEC registrants: AEP, APCo, I&M, OPCo, PSO and SWEPCo.
Risk Management Contracts	Trading and nontrading derivatives, including those derivatives designated as cash flow and fair value hedges.
Rockport Plant	A generation plant, consisting of two 1,310 MW coal-fired generating units near Rockport, Indiana. AEGCo and I&M jointly-own Unit 1. In 1989, AEGCo and I&M entered into a sale-and-leaseback transaction with Wilmington Trust Company, an unrelated, unconsolidated trustee for Rockport Plant, Unit 2.
RPM	Reliability Pricing Model.
RSR	Retail Stability Rider.
RTO	Regional Transmission Organization, responsible for moving electricity over large interstate areas.
Sabine	Sabine Mining Company, a lignite mining company that is a consolidated variable interest entity for AEP and SWEPCo.
SEC	U.S. Securities and Exchange Commission.
SEET	Significantly Excessive Earnings Test.
SNF	Spent Nuclear Fuel.
SO <sub>2</sub>	Sulfur dioxide.
SPP	Southwest Power Pool regional transmission organization.
SSO	Standard service offer.
Stall Unit	J. Lamar Stall Unit at Arsenal Hill Plant, a 534 MW natural gas unit owned by SWEPCo.
SWEPCo	Southwestern Electric Power Company, an AEP electric utility subsidiary.
TCC	AEP Texas Central Company, an AEP electric utility subsidiary.
Texas Restructuring Legislation	Legislation enacted in 1999 to restructure the electric utility industry in Texas.
TNC	AEP Texas North Company, an AEP electric utility subsidiary.
TRA	Tennessee Regulatory Authority.
Transition Funding	AEP Texas Central Transition Funding I LLC, AEP Texas Central Transition Funding II LLC and AEP Texas Central Transition Funding III LLC, wholly-owned subsidiaries of TCC and consolidated variable interest entities formed for the purpose of issuing and servicing securitization bonds related to Texas Restructuring Legislation.
Transource Energy	Transource Energy, LLC, a consolidated variable interest entity formed for the purpose of investing in utilities which develop, acquire, construct, own and operate transmission facilities in accordance with FERC-approved rates.
Transource Missouri	A 100% wholly-owned subsidiary of Transource Energy.
Trent	Trent Wind Farm, a 150 MW wind electricity generation facility located between Abilene and Sweetwater in West Texas.
Turk Plant	John W. Turk, Jr. Plant, a 600 MW coal-fired plant in Arkansas that is 73% owned by SWEPCo.
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.

WPCo  
WVPSC

Wheeling Power Company, an AEP electric utility subsidiary.  
Public Service Commission of West Virginia.

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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” of the 2015 Annual Report, but there are others throughout this document which may be identified by words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “will,” “should,” “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:

The economic climate, growth or contraction within and changes in market demand and demographic patterns in AEP service territories.

Inflationary or deflationary interest rate trends.

Volatility in the financial markets, particularly developments affecting the availability or cost of capital to finance new capital projects and refinance existing debt.

The availability and cost of funds to finance working capital and capital needs, particularly during periods when the time lag between incurring costs and recovery is long and the costs are material.

Electric load, customer growth and the impact of competition, including competition for retail customers.

Weather conditions, including storms and drought conditions, and the ability to recover significant storm restoration costs.

The cost of fuel and its transportation and the creditworthiness and performance of fuel suppliers and transporters.

Availability of 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 build transmission lines and facilities (including the ability to obtain any necessary regulatory approvals and permits) when needed at acceptable prices and terms and to recover those costs.

New legislation, litigation and government regulation, including oversight of nuclear generation, energy commodity trading and new or heightened requirements for reduced emissions of sulfur, nitrogen, mercury, carbon, soot or particulate matter and other substances that could impact the continued operation, cost recovery and/or profitability of generation plants and related assets.

Evolving public perception of the risks associated with fuels used before, during and after the generation of electricity, including nuclear fuel.

A reduction in the federal statutory tax rate could result in an accelerated return of deferred federal income taxes to customers.

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.

The ability to develop and execute a strategy based on a view regarding prices of electricity and gas.

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 or market prices 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 capacity and electricity, coal and other energy-related commodities, particularly changes in the price of natural gas and capacity auction returns.

Changes in utility regulation and the allocation of costs within regional transmission organizations, including ERCOT, PJM and SPP.



The market for generation in Ohio and PJM and the ability to recover investments in Ohio generation assets.

The ability to successfully and profitably manage competitive generation assets, including the evaluation and execution of strategic alternatives for these assets as some of the alternatives could result in a loss.

Changes in the creditworthiness of the counterparties with contractual arrangements, including participants in the energy trading market.

Actions of rating agencies, including changes in the ratings of debt.

The impact of volatility in the capital markets on the value of the investments held by the pension, other postretirement benefit plans, captive insurance entity and nuclear decommissioning trust and the impact of such volatility on future funding requirements.

Accounting pronouncements periodically issued by accounting standard-setting bodies.

Other risks and unforeseen events, including wars, the effects of terrorism (including increased security costs), embargoes, cyber security threats and other catastrophic events.

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. For a more detailed discussion of these factors, see “Risk Factors” in Part I of the 2015 Annual Report and in Part II of this report.

Investors should note that the Registrants announce material financial information in SEC filings, press releases and public conference calls. Based on guidance from the SEC, the Registrants may use the Investors section of AEP’s website ([www.aep.com](http://www.aep.com)) to communicate with investors about the Registrants. It is possible that the financial and other information posted there could be deemed to be material information. The information on AEP’s website is not part of this report.

AMERICAN ELECTRIC POWER COMPANY, INC. AND SUBSIDIARY COMPANIES  
MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND  
RESULTS OF OPERATIONS

EXECUTIVE OVERVIEW

Customer Demand

AEP's weather-normalized retail sales volumes for the third quarter of 2016 decreased by 0.5% from the third quarter of 2015. AEP's third quarter 2016 industrial sales decreased 2.6% compared to the third quarter of 2015 primarily due to decreased sales to customers in the manufacturing sector. Weather-normalized residential sales increased by 1.2% and commercial sales decreased by 0.5% in the third quarter of 2016, respectively, from the third quarter of 2015.

AEP's weather-normalized retail sales volumes for the nine months ended September 30, 2016 decreased by 0.4% compared to the nine months ended September 30, 2015. AEP's industrial sales volumes for the nine months ended September 30, 2016 decreased 1.9% compared to the nine months ended September 30, 2015 primarily due to decreased sales to customers in the manufacturing sector. Weather-normalized residential and commercial sales increased by 0.5% and 0.4%, respectively, for the nine months ended September 30, 2016 compared to nine months ended September 30, 2015.

June 2015 - May 2018 ESP Including PPA Application and Proposed ESP Extension through 2024

In March 2016, a contested stipulation agreement related to the PPA rider application was modified and approved by the PUCO. The approved PPA rider is effective April 2016 through May 2024, subject to audit and review by the PUCO. The stipulation agreement, as approved, included (a) an Affiliate PPA between OPCo and AGR to be included in the PPA rider, (b) OPCo's OVEC PPA to be included in the PPA rider, (c) potential additional contingent customer credits of up to \$100 million to be included in the PPA rider over the final four years of the PPA rider and (d) the limitation that OPCo will not flow through any capacity performance penalties or bonuses through the PPA rider. Additionally, subject to cost recovery and PUCO approval, OPCo agreed to develop and implement, by 2021, a solar energy project(s) of at least 400 MW and a wind energy project(s) of at least 500 MW, with 100% of all output to be received by OPCo. AEP affiliates could own up to 50% of these solar and wind projects. OPCo agreed to file a carbon reduction plan with the PUCO by December 2016 that will focus on fuel diversification and carbon emission reductions.

In March 2016, a group of merchant generation owners filed a complaint at the FERC against PJM seeking revisions to the Minimum Offer Price Rule (MOPR) in PJM's tariff. Although the complaint requested the FERC act in advance of the May 2016 Base Residual Auction for the 2019/2020 delivery year, the complaint is still pending without a decision from the FERC. If approved as proposed, the revised MOPR could affect future bidding behavior for units with cost recovery mechanisms.

In April 2016, the FERC issued an order granting a January 2016 complaint filed against AGR and OPCo. The FERC order rescinded the waivers of the FERC's affiliate rules as to the affiliate PPA between AGR and OPCo. As a result, AGR and OPCo cannot implement the affiliate PPA without the FERC review, in accordance with FERC's rules governing affiliate transactions. As a result of the April 2016 FERC order, management does not intend to pursue the affiliate PPA.

In May 2016, OPCo filed an application for rehearing with the PUCO related to certain aspects of the March 2016 PUCO order. The application included a proposed OVEC-only PPA Rider that included an option for the rider to be bypassable. The proposed OVEC-only PPA Rider included (a) the elimination of the PUCO-imposed customer-specific rate impact cap of 5% through May 2018, (b) modifications to proportionately decrease the amount of the potential customer credits and (c) the inclusion of PJM capacity performance penalties within the PPA rider. Also in May 2016, intervenors filed applications for rehearing with the PUCO opposing the modified and approved stipulation agreement.

OPCo has the option to exercise its right to withdraw from the PPA stipulation if the PUCO does not accept the requested modifications.

Consistent with the terms of the modified and approved stipulation agreement, in May 2016, OPCo filed an amended ESP that proposed to extend the ESP through May 2024. The amended ESP included (a) an extension of the PPA rider, which includes only OPCo's entitlements to its ownership percentage of OVEC, (b) a proposed 10.41% return on common equity on capital costs for certain riders, (c) the continuation of riders previously approved in the June 2015 - May 2018 ESP, (d) proposed increases in rate caps related to OPCo's Distribution Investment Rider and (e) the addition of various new riders, including a Generation Resource Rider. Based upon a September 2016 PUCO order, OPCo will refile its ESP extension application and supporting testimony in November 2016.

If OPCo is ultimately not permitted to fully collect all components of its ESP rates, it could reduce future net income and cash flows and impact financial condition. See "Ohio Electric Security Plan Filings" section of Note 4.

#### Ohio Electric Security Plan Filings

##### 2009 - 2011 ESP

In 2012, the PUCO issued an order in a separate proceeding which implemented a PIRR to recover OPCo's deferred fuel costs in rates beginning September 2012. The PUCO ruled that carrying charges should be calculated without an offset for accumulated deferred income taxes and that a long-term debt rate should be applied when collections begin. In November 2012, OPCo appealed that PUCO order to the Supreme Court of Ohio claiming a long-term debt rate modified the previously adjudicated 2009 - 2011 ESP order, which granted a weighted average cost of capital (WACC) rate. In 2015, the Supreme Court of Ohio issued a decision that reversed the PUCO order on the carrying cost rate issue and remanded the matter back to the PUCO for reinstatement of the WACC rate. In June 2016, the PUCO approved OPCo's proposed increase to the PIRR rates, in accordance with the Supreme Court of Ohio ruling. The increase to PIRR rates included \$146 million in additional carrying charges and the recovery of \$40 million in additional under-recovered fuel costs resulting from a decrease in customer demand. The increase is effective July 2016 through December 2018. In July 2016, intervenors filed requests for rehearing with the PUCO, which the PUCO granted in August 2016.

If the PUCO determines after rehearing that the additional PIRR carrying charges are not recoverable, it could reduce future net income and cash flows and impact financial condition.

##### June 2012 - May 2015 ESP Including Capacity Charge

In August 2012, the PUCO issued an order which adopted and modified a new ESP that established base generation rates through May 2015. In 2013, this ruling was generally upheld in PUCO rehearing orders.

In July 2012, the PUCO issued an order in a separate capacity proceeding requiring OPCo to charge CRES providers the RPM price and authorized OPCo to defer a portion of its incurred capacity costs not recovered from CRES providers up to \$188.88/MW day. The OPCo RPM price collected from CRES providers, which included reserve margins, was approximately \$34/MW day through May 2014 and \$150/MW day from June 2014 through May 2015. In April 2016, the Supreme Court of Ohio issued two opinions related to the deferral of OPCo's capacity charges. In one of the opinions, the Supreme Court of Ohio ruled that the PUCO must reconsider an energy credit that was used to determine OPCo's authorized capacity deferral threshold of \$188.88/MW day during the August 2012 through May 2015 period. The PUCO reduced OPCo's authorized capacity deferral threshold to \$188.88/MW day largely due to an offset for an energy credit of \$147.41/MW day. The Supreme Court of Ohio directed the PUCO to substantively address OPCo's arguments that the \$147.41/MW day credit was overstated by approximately \$100/MW day due to various inaccuracies affecting input data and assumptions.

As part of the August 2012 ESP order, the PUCO established a non-bypassable RSR, effective September 2012. The RSR was collected from customers at \$3.50/MWh through May 2014 and at \$4.00/MWh for the period June 2014 through May 2015, with \$1.00/MWh applied to the recovery of deferred capacity costs. In April 2015, the PUCO issued an order that modified and approved OPCo's July 2014 application to collect the unrecovered portion of the deferred capacity costs. As of September 30, 2016, OPCo's net deferred capacity costs balance was \$239 million,

including debt carrying costs. In April 2016, the second Supreme Court of Ohio opinion rejected a portion of OPCo's RSR revenues collected during the period September 2012 through May 2015 and directed the PUCO to reduce OPCo's deferred capacity costs by these previously collected RSR revenues. The Supreme Court of Ohio was not able to determine the amount of the reduction to OPCo's deferred capacity costs and remanded the issue to the PUCO to determine the appropriate reduction. As directed by the PUCO, in May 2016, OPCo submitted revised RSR tariffs that reflect the RSR being collected subject to refund.

In April 2016, the Supreme Court of Ohio also ruled favorably on OPCo's cross-appeal regarding a previously PUCO-imposed SEET threshold under the ESP and remanded this issue to the PUCO. See "Significantly Excessive Earnings Test Filings" section of Note 4.

In 2013, the PUCO issued its Orders on Rehearing for the ESP which generally upheld its August 2012 order. The PUCO clarified that a final reconciliation of revenues and expenses would be permitted for any over- or under-recovery on several riders including fuel. In November 2013, the PUCO issued an order approving OPCo's competitive bid process with modifications. Additionally, the PUCO ordered that intervenor concerns related to the recovery of the fixed fuel costs through potentially both the FAC and the approved capacity charges be addressed in subsequent FAC proceedings.

In January 2014, the PUCO denied all rehearing requests and agreed to issue a supplemental request for an independent auditor in the 2012 - 2013 FAC proceeding to separately examine the recovery of the fixed fuel costs, including OVEC. In March 2014, the PUCO approved OPCo's request to implement riders related to the unbundling of the FAC. In October 2014, the independent auditor, selected by the PUCO, filed its report with the PUCO for the period August 2012 through May 2015. If the PUCO ultimately concludes that a portion of the fixed fuel costs are also recovered through OPCo's \$188.88/MW day capacity charge, the independent auditor has recommended a methodology for calculating a refund of a portion of certain fixed fuel costs. The retail share of these fixed fuel costs is approximately \$90 million annually. Management believes that no over-recovery of costs has occurred and disagrees with the findings in the audit report.

In June 2016, OPCo filed a request with the PUCO that requested a consolidated procedural schedule to resolve interrelated proceedings including (a) OPCo's deferral of capacity costs for the period August 2012 through May 2015, (b) the implementation of OPCo's RSR and (c) the concerns related to the recovery of fixed fuel costs through both the FAC and the approved capacity charges. As part of the filing, OPCo requested that its net deferred capacity costs balance as of May 31, 2015 increase by \$157 million, including carrying charges through September 2016. This net increase consists of a \$327 million decrease due to the non-deferral portion of the RSR collections and an increase of \$484 million for the correction of the energy credit. Recovery of the \$157 million was requested to be effective October 2016 through December 2018. Additionally, OPCo filed testimony supporting the position that double recovery of fixed fuel costs could not have occurred because OPCo was unable to fully recover its capacity costs, which included fixed fuel costs, even with a corrected energy credit.

Due to the interrelated nature of the two Supreme Court of Ohio opinions that directly relate to OPCo's deferred capacity costs, management believes that the PUCO will rule upon these issues together. Further, management believes that the net impact of these issues will not result in a material future reduction of OPCo's net income. The recovery of fixed fuel costs will be addressed in a separate hearing scheduled for January 2017. See "2012 and 2013 Fuel Adjustment Clause Audits" section of Note 4.

If OPCo is ultimately not permitted to fully collect all components of its ESP rates, it could reduce future net income and cash flows and impact financial condition. See "Ohio Electric Security Plan Filings" section of Note 4.





## Merchant Generation Assets

In September 2016, AEP signed an agreement to sell Darby, Gavin, Lawrenceburg and Waterford Plants (“Disposition Plants”) totaling 5,326 MWs of competitive generation for approximately \$2.2 billion to a nonaffiliated party. The sale is subject to regulatory approvals from the FERC, the IURC and federal clearance pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (HSR). In October 2016, the Federal Trade Commission granted the sale early termination of the HSR waiting period thereby satisfying the HSR conditions to close the transaction. As of September 30, 2016, the net book value of these assets, including related materials and supplies inventory and CWIP, was \$1.8 billion. AEP expects to receive net proceeds of approximately \$1.2 billion in cash after taxes, debt retirement and transaction fees. AEP is evaluating options to invest these proceeds, including reinvestment in regulated businesses and renewable energy projects and additional debt retirement. The sale is expected to close in the first quarter of 2017. An after tax gain of approximately \$150 million is expected from the sale subject to inventory true-ups, income tax and other adjustments.

The assets and liabilities included in the sale transaction have been recorded as Assets Held for Sale and Liabilities Held for Sale, respectively, on the balance sheet as of September 30, 2016. See “Assets and Liabilities Held for Sale” section of Note 6 for additional information.

In September 2016, due to AEP’s ongoing evaluation of strategic alternatives for its merchant generation assets, declining forecasts of future energy and capacity prices, and a decreasing likelihood of cost recovery through regulatory proceedings or legislation in the state of Ohio providing for the recovery of AEP’s existing Ohio merchant generation assets, AEP performed an impairment analysis at the unit level on the remaining merchant generation assets in accordance with accounting guidance for impairments of long-lived assets. The evaluation was performed using generating unit specific estimated future cash flows and resulted in a material impairment of certain merchant generation fleet assets. As a result, AEP recorded a pretax impairment of \$2.3 billion (\$1.5 billion, net of tax) in Asset Impairments and Other Related Charges on the statement of operations related to 2,684 MWs of Ohio merchant generation including Cardinal Unit 1, 43.5% ownership interest in Conesville Unit 4, Conesville Units 5-6, 26.0% ownership interest in Stuart Units 1-4, and 25.4% ownership interest in Zimmer Unit 1, as well as Putnam coal and I&M’s Price River coal reserves, Desert Sky and Trent Wind Farms and the merchant generation portion of the Oklaunion Plant. As of September 30, 2016, the remaining net book value of these assets is \$50 million. See “Merchant Generating Assets (Generation & Marketing Segment)” section of Note 6 for additional information.

Management continues to evaluate potential alternatives for the remaining merchant generation assets. These potential alternatives may include, but are not limited to, propose restructuring of Ohio electricity regulations to allow certain of these assets to be acquired by OPCo for the benefit of its customers, transfer or sale of AEP’s ownership interests, or a wind down of merchant coal-fired generation fleet operations. AEP is also continuing a separate strategic review and evaluating alternatives related to the 48 MW Racine Hydroelectric Plant. Management has not set a specific time frame for a decision on these assets. These alternatives could result in additional losses which could reduce future net income and cash flows and impact financial condition.

## Renewable Generation Portfolio

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.

AEP has formed two new subsidiaries within the Generation & Marketing segment to further develop its renewable portfolio. AEP OnSite Partners, LLC works directly with wholesale and large retail customers to provide tailored solutions based upon market knowledge, technology innovations and deal structuring which may include distributed solar, wind, combined heat and power, energy storage, waste heat recovery, energy efficiency, peaking generation and

other forms of cost reducing energy technologies. AEP OnSite Partners, LLC pursues projects where a suitable termed agreement is entered into with a credit-worthy counterparty. AEP Renewables, LLC develops and/or acquires large scale renewable generation projects that are backed with long-term contracts with credit-worthy counterparties. These subsidiaries have approximately 4 MW of renewable generation projects in operation and 56 MW of renewable generation projects under construction with an estimated financial commitment of approximately \$119 million. As of September 30, 2016, \$49 million of costs have been incurred related to these projects.

#### Merchant Portion of Turk Plant

SWEPCo constructed the Turk Plant, a base load 600 MW pulverized coal ultra-supercritical generating unit in Arkansas, which was placed into service in December 2012 and is included in the Vertically Integrated Utilities segment. SWEPCo owns 73% (440 MW) of the Turk Plant and operates the facility.

The APSC granted approval for SWEPCo to build the Turk Plant by issuing a Certificate of Environmental Compatibility and Public Need (CECPN) for the SWEPCo Arkansas jurisdictional share of the Turk Plant (approximately 20%). Following an appeal by certain intervenors, the Arkansas Supreme Court issued a decision that reversed the APSC's grant of the CECPN. In June 2010, in response to an Arkansas Supreme Court decision, the APSC issued an order which reversed and set aside the previously granted CECPN. This share of the Turk Plant output is currently not subject to cost-based rate recovery and is being sold into the wholesale market. Approximately 80% of the Turk Plant investment is recovered under cost-based rate recovery in Texas, Louisiana, and through SWEPCo's wholesale customers under FERC-based rates. As of September 30, 2016, the net book value of Turk Plant was \$1.5 billion, before cost of removal, including materials and supplies inventory and CWIP.

If SWEPCo cannot ultimately recover its investment and expenses related to the Turk Plant, it could reduce future net income and cash flows and impact financial condition.

#### 2012 Louisiana Formula Rate Filing

In 2012, SWEPCo initiated a proceeding to establish new formula base rates in Louisiana, including recovery of the Louisiana jurisdictional share of the Turk Plant. In February 2013, a settlement was approved by the LPSC that increased SWEPCo's Louisiana total rates by approximately \$2 million annually, effective March 2013. The March 2013 base rates are based upon a 10% return on common equity and cost recovery of the Louisiana jurisdictional share of the Turk Plant and Stall Unit, subject to refund. The settlement also provided that the LPSC would review base rates in 2014 and 2015 and that SWEPCo would recover non-fuel Turk Plant costs and a full weighted-average cost of capital return on the prudently incurred Turk Plant investment in jurisdictional rate base, effective January 2013. In December 2014, the LPSC approved a settlement agreement related to the staff review of the cost of service. The settlement agreement reduced the requested revenue increase by \$3 million, primarily due to the timing of both the allowed recovery of certain existing regulatory assets and the establishment of a regulatory asset for certain previously expensed costs. A hearing at the LPSC related to the Turk Plant prudence review is scheduled for March 2017. If the LPSC orders refunds based upon the pending prudence review of the Turk Plant investment, it could reduce future net income and cash flows and impact financial condition. See the "2012 Louisiana Formula Rate Filing" section of Note 4.

#### Welsh Plant - Environmental Impact

Management currently estimates that the investment necessary to meet proposed environmental regulations through 2025 for Welsh Plant, Units 1 and 3 could cost approximately \$850 million, excluding AFUDC. As of September 30, 2016, SWEPCo had incurred costs of \$395 million, including AFUDC, and had remaining contractual construction obligations of \$14 million related to these projects. As part of this investment, in 2016 SWEPCo completed construction of environmental control projects to meet Mercury and Air Toxics Standards for Welsh Plant, Units 1 and 3 at a cost of approximately \$370 million, excluding AFUDC. Management continues to evaluate the impact of environmental rules and related project cost estimates. In March 2016, SWEPCo filed a request with the APSC to recover \$69 million in environmental costs related to the Arkansas retail jurisdictional share of Welsh Plant, Units 1 and 3, which was approved by the APSC in August 2016. SWEPCo began recovering the Arkansas jurisdictional share of these costs in March 2016, subject to review in the next filed base rate proceeding. In September 2016, SWEPCo filed an additional request to increase the Arkansas retail jurisdictional share of the environmental investment by \$10 million, for a total of \$79 million. SWEPCo implemented the increase in September 2016.

SWEPCo will seek recovery of the remaining project costs from customers at the state commissions and the FERC. See “Mercury and Other Hazardous Air Pollutants (HAPs) Regulation” and “Climate Change, ~~CR~~ Regulation and Energy Policy” sections of “Environmental Issues” below.

As of September 30, 2016, the net book value of Welsh Plant, Units 1 and 3 was \$632 million, before cost of removal, including materials and supplies inventory and CWIP. In April 2016, Welsh Plant, Unit 2 was retired. Upon retirement, \$76 million was reclassified as Regulatory Assets on the balance sheet related to the net book value of Welsh Plant, Unit 2 and the related asset retirement obligation costs. Management will seek recovery of the remaining regulatory assets in future rate proceedings.

If any of these costs are not recoverable, including retirement-related costs for Welsh Plant, Unit 2, it could reduce future net income and cash flows and impact financial condition.

#### 2015 Oklahoma Base Rate Case

In July 2015, PSO filed a request with the OCC to increase annual revenues by \$137 million to recover costs associated with its environmental compliance plan for the Federal EPA's Regional Haze Rule and Mercury and Air Toxics Standards, and to recover investments and other costs that have increased since the last base rate case. The annual increase consists of (a) a base rate increase of \$89 million, which includes \$48 million in increased depreciation expense that reflects, among other things, recovery through June 2026 of Northeastern Plant, Units 3 and 4, (b) a rider or base rate increase of \$44 million to recover costs for the environmental controls being installed on Northeastern Plant, Unit 3 and the Comanche Plant and (c) a request to include environmental consumable costs in the FAC, estimated to be \$4 million annually. The rate increase includes a proposed return on common equity of 10.5% effective in January 2016. The proposed \$44 million increase related to environmental investments was effective in March 2016, after the Northeastern Plant, Unit 3 environmental controls were placed in service. The total estimated cost of the environmental controls to be installed at Northeastern Plant, Unit 3 and the Comanche Plant is \$219 million, excluding AFUDC. As of September 30, 2016, PSO had incurred costs of \$180 million and \$43 million, including AFUDC, for Northeastern Plant, Unit 3 and Comanche Plant, respectively.

In addition, the filing also notified the OCC that the incremental replacement capacity and energy costs, including the first year effects of new PPAs, estimated to be \$35 million, will be incurred related to the environmental compliance plan due to the closure of Northeastern Plant, Unit 4, which would be recovered through the FAC. In April 2016, Northeastern Plant, Unit 4 was retired. Upon retirement, \$87 million was reclassified as Regulatory Assets on the balance sheet related to the net book value of Northeastern Plant, Unit 4. These regulatory assets are pending regulatory approval.

In June 2016, an Administrative Law Judge (ALJ) issued a report related to PSO's base rate case filing and subsequently provided an additional supplemental report in August 2016. The ALJ recommended a 9.25% return on common equity. The ALJ found that PSO's environmental compliance plan is prudent and provided for cost recovery of the investment in this case with a recommended investment cap of \$210 million on environmental controls installed at Northeastern Plant, Unit 3. Additionally, the ALJ recommendations included (a) a \$14 million increase in depreciation expense, (b) continued depreciation of Northeastern Plant, Units 3 and 4 through 2040 (no accelerated depreciation), (c) return of, but no return on, the remaining net book value of Northeastern Plant, Unit 4, (d) elimination of the rider to recover advanced metering starting in December 2016, without inclusion in base rates and (e) elimination of the system reliability rider through consolidation in base rates, without addressing a transition for recovery of rider costs, including deferred costs. The estimated annual revenue increase resulting from the ALJ recommendations is approximately \$47 million.

In June and September 2016, PSO, the OCC staff, the Attorney General and intervenors filed exceptions to the ALJ reports. The OCC staff filed exceptions that supported the full recovery of Northeastern Plant, Unit 4, including a return, and recommended a \$32 million increase in annual revenues. An order from the OCC is anticipated in the fourth quarter of 2016.

If any of these costs, including a return on Northeastern Plant, Unit 4, are not recoverable, it could reduce future net income and cash flows and impact financial condition. See the “2015 Oklahoma Base Rate Case” section of Note 4.

#### Indiana Amended PJM Settlement Agreement

In September 2016, I&M and certain intervenors filed an amended settlement agreement with the IURC. This agreement amends a previously approved 2014 settlement agreement that addresses the recovery of 43.5% of certain transmission expenses through the Indiana PJM rider through 2017.

The amended agreement allows I&M to recover 100% of the Indiana jurisdictional share of these transmission expenses not recovered through base rates through the Indiana PJM rider, subject to a \$109 million cap for the period January 2017 through June 2018. Beginning July 2018, I&M will be allowed to recover 100% of the Indiana jurisdictional share of these transmission expenses through the Indiana PJM rider, without a cap, until the issue is addressed by the IURC in a future proceeding, subject to the condition that I&M files a base rate case on or before January 2018. The amended agreement also provides for deferral of incremental vegetation management expenses over the period January 2017 through June 2018. Any vegetation management expenses deferred would reduce the cap for the transmission expenses described above. As part of the amended settlement, I&M agreed that it will not file a base rate case before July 2017 and will not implement new base rates prior to July 2018. A hearing at the IURC was held in October 2016.

#### Rockport Plant, Unit 2 Selective Catalytic Reduction (SCR)

In October 2016, I&M filed an application with the IURC for approval of a Certificate of Public Convenience and Necessity (CPCN) to install SCR technology at Rockport Plant, Unit 2 by December 2019. The equipment will allow I&M to reduce emissions of NO<sub>x</sub> from Rockport Plant, Unit 2 in order for I&M to continue to operate that unit under current environmental requirements. The estimated cost of the SCR project is \$274 million, excluding AFUDC, to be shared equally between I&M and AEGCo. The filing included a request for authorization for I&M to defer its Indiana jurisdictional ownership share of costs including investment carrying costs, depreciation over a 10-year life and other related expenses. I&M proposed recovery of these costs using the existing Clean Coal Technology Rider. The AEGCo ownership share of the proposed SCR project will be billable under the Rockport Unit Power Agreement to affiliates, including I&M, with I&M's share recoverable in its base rates.

#### TCC and TNC Merger

In June 2016, TCC and TNC filed applications with the PUCT and FERC that requested approval to merge TCC and TNC into AEP Utilities, Inc. Upon merger, AEP Utilities, Inc. will change its name to AEP Texas Inc. The proposed merger would be effective December 31, 2016. The applications proposed no changes to current TCC and TNC rates. A hearing at the PUCT was held in August 2016. In September 2016, the FERC issued an order approving the merger application. In October 2016, the ALJ issued a proposal for decision that recommends approval of the merger provided certain post-merger conditions are imposed. The conditions recommended by the ALJ include a) the sharing of certain interest rate savings with customers and b) an annual credit to customers of approximately \$630 thousand for savings resulting from an expected reduction in post-merger debt issuance costs, effective until the next base rate case. Management is evaluating the conditions recommended by the ALJ. A decision from the PUCT is expected in the fourth quarter of 2016.

#### FERC Transmission Complaint

In October 2016, several parties filed a joint complaint with the FERC that states the base return on common equity used by various AEP affiliates in calculating formula transmission rates under the PJM Open Access Transmission Tariff (OATT) is excessive and should be reduced from 10.99% to 8.32%, effective upon the date of the complaint. Management is reviewing the filing and evaluating a response to the complaint. Management is unable to determine a range of potential losses, if any, that is reasonably possible of occurring. If the FERC orders revenue reductions, including refunds from the date of filing, it could reduce future net income and cash flows and impact financial

condition.

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## Kingsport Base Rate Case

In January 2016, KGPCo filed a request with the TRA to increase base rates by \$12 million annually based upon a proposed return on common equity of 10.66%. In August 2016, the TRA approved a settlement agreement that included an \$8 million annual increase in base rates with a 9.85% return on common equity effective September 2016.

## Virginia Legislation Affecting Biennial Reviews

In February 2015, amendments to Virginia law governing the regulation of investor-owned electric utilities were enacted. Under the amended Virginia law, APCo's existing generation and distribution base rates are frozen until after the Virginia SCC rules on APCo's next biennial review, which APCo will file in March 2020 for the 2018 and 2019 test years. These amendments also preclude the Virginia SCC from performing biennial reviews of APCo's earnings for the years 2014 through 2017. APCo's financial statements adequately address the impact of these amendments. The amendments provide that APCo will absorb its Virginia jurisdictional share of incremental generation and distribution costs incurred during 2014 through 2017 that are associated with severe weather events and/or natural disasters and costs associated with potential asset impairments related to new carbon emission guidelines issued by the Federal EPA.

In February 2016, certain APCo industrial customers filed a petition with the Virginia SCC requesting the issuance of a declaratory order that finds the amendments to Virginia law suspending biennial reviews unconstitutional and, accordingly, directs APCo to make biennial review filings beginning in 2016. In July 2016, the Virginia SCC issued an order that denied the petition. In July 2016, intervenors, including certain APCo industrial customers, filed an appeal of the order with the Supreme Court of Virginia. Management is unable to predict the outcome of these challenges to the Virginia legislation. If the biennial review process is reinstated in advance of March 2020, it could reduce future net income and cash flows and impact financial condition.

## PJM Capacity Market

AGR is required to offer all of its available generation capacity in the PJM Reliability Pricing Model (RPM) auction, which is conducted three years in advance of the delivery year.

In June 2015, FERC approved PJM's proposal to create a new Capacity Performance (CP) product, intended to improve generator performance and reliability during emergency events by allowing higher offers into the RPM auction and imposing greater charges for non-performance during emergency events. PJM procured approximately 80% CP and 20% Base Capacity for the June 2018 through May 2019 and June 2019 through May 2020 periods, while transitioning to 100% CP with the June 2020 through May 2021 period. FERC also approved transition incremental auctions to procure CP for the June 2016 through May 2017 and June 2017 through May 2018 periods.

In the third quarter of 2015, PJM conducted the two transition auctions. The transition auctions allowed generators, including AGR, to re-offer cleared capacity that qualifies as CP. Shown below are the results of the two transition auctions:

PJM Auction Period	Capacity Performance Transition
	Incremental Auction Price (dollars per MW day)
June 2016 through May 2017	134.00
June 2017 through May 2018	151.50

AGR cleared 7,169MW at \$134/MW-day for the June 2016 through May 2017 period, replacing the original auction clearing price of \$59.37/MW-day. AGR cleared 6,495MW for the June 2017 through May 2018 period at

\$151.50/MW-day, replacing the original auction clearing price of \$120/MW-day.

In August 2015, PJM held its first base residual auction implementing CP rules for the June 2018 through May 2019 period. AGR cleared 7,209 MW at the CP auction price of \$164.77/MW-day. The base residual auction for the June 2019 through May 2020 period was conducted in May 2016. AGR cleared 7,301 MW at the CP auction price of \$100/MW-day. Shown below are the results for the June 2018 through May 2019 and June 2019 through May 2020 periods:

PJM Auction Period	Capacity Performance	Base Capacity
	Auction Price (dollars per MW day)	Auction Price (dollars per MW day)
June 2018 through May 2019	164.77	150.00
June 2019 through May 2020	100.00	80.00

Once the pending sale of the Darby, Gavin, Lawrenceburg and Waterford Plants is closed, AGR will not be responsible for or receive capacity revenue for the portion of the cleared capacity associated with these plants.

The FERC order exempted Fixed Resource Requirement (FRR) entities, including APCo, I&M, KPCo and WPCo, from the CP rules through the delivery period ending May 2019. Beginning in June 2019, FRR entities are subject to CP rules.

## LITIGATION

In the ordinary course of business, AEP is involved in employment, commercial, environmental and regulatory litigation. Since it is difficult to predict the outcome of these proceedings, management cannot predict the eventual resolution, timing or amount of any loss, fine or penalty. Management assesses the probability of loss for each contingency and accrues a liability for cases that have a probable likelihood of loss if the loss can be estimated. For details on the regulatory proceedings and pending litigation see Note 4 - Rate Matters, Note 6 - Commitments, Guarantees and Contingencies and the "Litigation" section of "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the 2015 Annual Report. Additionally, see Note 4 - Rate Matters and Note 5 - Commitments, Guarantees and Contingencies included herein. Adverse results in these proceedings have the potential to reduce future net income and cash flows and impact financial condition.

### Rockport Plant Litigation

In July 2013, the Wilmington Trust Company filed a complaint in U.S. District Court for the Southern District of New York against AEGCo and I&M alleging that it will be unlawfully burdened by the terms of the modified NSR consent decree after the Rockport Plant, Unit 2 lease expiration in December 2022. The terms of the consent decree allow the installation of environmental emission control equipment, repowering or retirement of the unit. The plaintiff further alleges that the defendants' actions constitute breach of the lease and participation agreement. The plaintiff seeks a judgment declaring that the defendants breached the lease, must satisfy obligations related to installation of emission control equipment and indemnify the plaintiff. The New York court granted a motion to transfer this case to the U.S. District Court for the Southern District of Ohio. In October 2013, a motion to dismiss the case was filed on behalf of AEGCo and I&M. In January 2015, the court issued an opinion and order granting the motion in part and denying the motion in part. The court dismissed certain of the plaintiff's claims. Several claims remained, including the claim for breach of the participation agreement and a claim alleging breach of an implied covenant of good faith and fair dealing. In June 2015, AEGCo and I&M filed a motion for partial judgment on the claims seeking dismissal of the breach of participation agreement claim as well as any claim for indemnification of costs associated with this case. The plaintiff subsequently filed an amended complaint to add another claim under the lease and also filed a motion for partial summary judgment. In November 2015, AEGCo and I&M filed a motion to strike the plaintiff's motion for partial judgment and filed a motion to dismiss the case for failure to state a claim. In March 2016, the court entered an opinion and order in favor of AEGCo and I&M, dismissing certain of the plaintiffs' claims for breach of contract and

dismissing claims for breach of implied covenant of good faith and fair dealing, and further dismissing plaintiffs' claim for indemnification of costs. By the same order, the court permitted plaintiffs to move forward with their claim that AEGCo and I&M failed to exercise prudent utility practices in the maintenance and operation of Rockport Plant, Unit 2. In April 2016, the plaintiffs filed a notice of voluntary dismissal of all remaining claims with prejudice and the court subsequently entered a final judgment. In May 2016, Plaintiffs filed a notice of appeal on whether AEGCo and

I&M are in breach of certain contract provisions that Plaintiffs allege operate to protect the Plaintiffs' residual interests in the unit and whether the trial court erred in dismissing Plaintiffs' claims that AEGCo and I&M breached the covenant of good faith and fair dealing. This matter is currently pending before the U.S. Court of Appeals for the Sixth Circuit. Management is unable to determine a range of potential losses that are reasonably possible of occurring.

## ENVIRONMENTAL ISSUES

AEP is implementing a substantial capital investment program and incurring additional operational costs to comply with environmental control requirements. Additional investments and operational changes will need to be made in response to existing and anticipated requirements such as CAA requirements to reduce emissions of SO<sub>2</sub>, NO<sub>x</sub>, PM, CO<sub>2</sub> and hazardous air pollutants (HAPs) from fossil fuel-fired power plants, rules governing the beneficial use and disposal of coal combustion products, clean water rules and renewal permits for certain water discharges.

AEP is engaged in litigation about environmental issues, was notified of potential responsibility for the clean-up of contaminated sites and incurred costs for disposal of SNF and future decommissioning of the nuclear units. AEP, along with various industry groups, affected states and other parties challenged some of the Federal EPA requirements in court. Management is also engaged in the development of possible future requirements including the items discussed below and state plans to reduce CO<sub>2</sub> emissions to address concerns about global climate change. Management believes that further analysis and better coordination of these environmental requirements would facilitate planning and lower overall compliance costs while achieving the same environmental goals.

See a complete discussion of these matters in the "Environmental Issues" section of "Management's Discussion and Analysis of Financial Condition and Results of Operations" in the 2015 Annual Report. AEP will seek recovery of expenditures for pollution control technologies and associated costs from customers through rates in regulated jurisdictions. Environmental rules could result in accelerated depreciation, impairment of assets or regulatory disallowances. If AEP is unable to recover the costs of environmental compliance, it would reduce future net income and cash flows and impact financial condition.

### Environmental Controls Impact on the Generating Fleet

The rules and proposed environmental controls discussed in the next several sections will have a material impact on the generating units in the AEP System. Management continues to evaluate the impact of these rules, project scope and technology available to achieve compliance. As of September 30, 2016, the AEP System had a total generating capacity of approximately 31,000 MWs, of which approximately 16,000 MWs are coal-fired. Management continues to refine the cost estimates of complying with these rules and other impacts of the environmental proposals on the fossil generating facilities. Based upon management estimates, AEP's investment to meet these proposed requirements ranges from approximately \$2.8 billion to \$3.4 billion through 2025. Management continues to evaluate the impact of the merchant fleet operations on this range. The estimates include investments to convert some of the coal generation to natural gas.

The cost estimates will change depending on the timing of implementation and whether the Federal EPA provides flexibility in the final rules. The cost estimates will also change based on: (a) the states' implementation of these regulatory programs, including the potential for state implementation plans (SIPs) or federal implementation plans (FIPs) that impose more stringent standards, (b) additional rulemaking activities in response to court decisions, (c) the actual performance of the pollution control technologies installed on the units, (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 and (g) other factors. In addition, management is continuing to evaluate the economic feasibility of environmental investments on both regulated and competitive plants.



In May 2015, the following plants or units of plants were retired:

Company	Plant Name and Unit	Generating Capacity (in MWs)
AGR	Kammer Plant	630
AGR	Muskingum River Plant	1,440
AGR	Picway Plant	100
APCo	Clinch River Plant, Unit 3	235
APCo	Glen Lyn Plant	335
APCo	Kanawha River Plant	400
APCo/AGR	Sporn Plant	600
I&M	Tanners Creek Plant	995
KPCo	Big Sandy Plant, Unit 2	800
Total		5,535

As of September 30, 2016, the net book value of the AGR units listed above was zero. The net book value before cost of removal, including related materials and supplies inventory and CWIP balances, of the regulated plants in the table above was approved for recovery, except for \$144 million which management plans to seek regulatory approval.

In April 2016, AEP retired the following units of plants:

Company	Plant Name and Unit	Generating Capacity (in MWs)
PSO	Northeastern Station, Unit 4	470
SWEPCo	Welsh Plant, Unit 2	528
Total		998

As of September 30, 2016, the net book value before cost of removal, including related materials and supplies inventory and CWIP balances, of the PSO and SWEPCo units listed above was \$161 million. For Northeastern Station, Unit 4, PSO is seeking regulatory recovery of remaining net book values. For Welsh Plant, Unit 2, SWEPCo will seek regulatory recovery of remaining net book values.

In October 2015, KPCo obtained permits following the KPSC's approval to convert its 278 MW Big Sandy Plant, Unit 1 to natural gas. Big Sandy Plant, Unit 1 began operations as a natural gas unit in May 2016.

APCo obtained permits following the Virginia SCC's and WVPSC's approval to convert its 470 MW Clinch River Plant, Units 1 and 2 to natural gas. In the third and fourth quarters of 2015, APCo retired the coal-related assets of Clinch River Plant, Units 1 and 2. Of the retired coal related assets for Clinch River Plant, Units 1 and 2, management plans to seek regulatory approval for \$24 million. Clinch River Plant, Unit 1 and Unit 2 began operations as natural gas units in February 2016 and April 2016, respectively.

To the extent existing generation assets and the cost of new equipment and converted facilities are not recoverable, it could materially reduce future net income and cash flows and impact financial condition.

#### Clean Air Act Requirements

The CAA establishes a comprehensive program to protect and improve the nation's air quality and control sources of air emissions. The states implement and administer many of these programs and could impose additional or more

stringent requirements.



The Federal EPA issued the Clean Air Interstate Rule (CAIR) in 2005 requiring specific reductions in SO<sub>2</sub> and NO<sub>x</sub> emissions from power plants. The Federal EPA issued the Cross-State Air Pollution Rule (CSAPR) in August 2011 to replace CAIR. The CSAPR was challenged in the courts. In 2012, a panel of the U.S. Court of Appeals for the District of Columbia Circuit issued a decision vacating and remanding CSAPR to the Federal EPA with instructions to continue implementing CAIR until a replacement rule is finalized. That decision was appealed to the U.S. Supreme Court, which reversed the decision and remanded the case to the U.S. Court of Appeals for the District of Columbia Circuit. The U.S. Court of Appeals for the District of Columbia Circuit ordered CSAPR to take effect on January 1, 2015 while the remand proceeding was still pending. In July 2015, the U.S. Court of Appeals for the District of Columbia Circuit remanded the rule to the Federal EPA. In September 2016, the Federal EPA finalized its response to the remand for ozone season NO<sub>x</sub> budgets. All of the states in which AEP's power plants are located are covered by CSAPR. See "Cross-State Air Pollution Rule" section below.

The Federal EPA issued the final maximum achievable control technology (MACT) standards for coal and oil-fired power plants in 2012, but the rule was remanded to the Federal EPA upon further review. The Federal EPA issued a supplemental finding, received comments and affirmed its decision on the MACT standards for power plants. That decision has been challenged in the courts but the rule remains in effect. See "Mercury and Other Hazardous Air Pollutants (HAPs) Regulation" section below.

The Federal EPA issued a Clean Air Visibility Rule (CAVR), detailing how the CAA's requirement that certain facilities install best available retrofit technology (BART) will address regional haze in federal parks and other protected areas. BART requirements apply 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. CAVR will be implemented through SIPs or, if SIPs are not adequate or are not developed on schedule, through FIPs. The Federal EPA proposed disapproval of SIPs in a few states, including Arkansas. In March 2012, the Federal EPA disapproved certain portions of the Arkansas regional haze SIP. In April 2015, the Federal EPA published a proposed FIP to replace the disapproved portions, including revised BART determinations for the Flint Creek Plant that were consistent with the environmental controls currently under construction. In September 2016, the Federal EPA published a final FIP that retains its BART determinations, but accelerates the schedule for implementation of certain required controls. In June 2012, the Federal EPA published revisions to the regional haze rules to allow states participating in the CSAPR trading programs to use those programs in place of source-specific BART for SO<sub>2</sub> and NO<sub>x</sub> emissions based on its determination that CSAPR results in greater visibility improvements than source-specific BART in the CSAPR states. This rule is being challenged in the U.S. Court of Appeals for the District of Columbia Circuit. Management supports compliance with CSAPR programs as satisfaction of the BART requirements. The Federal EPA also proposed revisions to the requirements for submission of visibility SIPs by the states for future planning periods.

The Federal EPA issued rules for CO<sub>2</sub> emissions that apply to new and existing electric utility units. See "Climate Change, CO<sub>2</sub> Regulation and Energy Policy" section below.

The Federal EPA also issued new, more stringent national ambient air quality standards (NAAQS) for PM, SO<sub>2</sub> and ozone. In October 2015, the Federal EPA announced a lower final NAAQS for ozone of 70 parts per billion. States are in the process of evaluating the attainment status and need for additional control measures in order to attain and maintain the new NAAQS and may develop additional requirements for facilities as a result of those evaluations. Management cannot currently predict the nature, stringency or timing of those requirements.

Notable developments in significant CAA regulatory requirements affecting AEP's operations are discussed in the following sections.

#### Cross-State Air Pollution Rule

In 2011, the Federal EPA issued CSAPR. Certain revisions to the rule were finalized in 2012. CSAPR relies on newly-created SO<sub>2</sub> and NO<sub>x</sub> allowances and individual state budgets to compel further emission reductions from electric utility generating units in 28 states. Interstate trading of allowances is allowed on a restricted sub-regional basis. Arkansas and Louisiana are subject only to the seasonal NO<sub>x</sub> program in the rule. Texas is subject to the annual programs for SO<sub>2</sub> and NO<sub>x</sub> in addition to the seasonal NO<sub>x</sub> program. The annual SO<sub>2</sub> allowance budgets in Indiana, Ohio and West Virginia were reduced significantly in the rule. A supplemental rule includes Oklahoma in the seasonal

NO<sub>x</sub> program. The supplemental rule was finalized in December 2011 with an increased NO<sub>x</sub> emission budget for the 2012 compliance year. The Federal EPA issued a final Error Corrections Rule and further CSAPR revisions in 2012 to make corrections to state budgets and unit allocations and to remove the restrictions on interstate trading in the first phase of CSAPR.

Numerous affected entities, states and other parties filed petitions to review the CSAPR in the U.S. Court of Appeals for the District of Columbia Circuit. In 2012, the court issued a decision vacating and remanding CSAPR to the Federal EPA with instructions to continue implementing CAIR until a replacement rule is finalized. The majority determined that the CAA does not allow the Federal EPA to “overcontrol” emissions in an upwind state and that the Federal EPA exceeded its statutory authority by failing to allow states an opportunity to develop their own implementation plans before issuing a FIP. A petition for review filed by the Federal EPA and other parties in the U.S. Supreme Court was granted in June 2013. In April 2014, the U.S. Supreme Court issued a decision reversing in part the decision of the U.S. Court of Appeals for the District of Columbia Circuit and remanding the case for further proceedings consistent with the opinion. The Federal EPA filed a motion to lift the stay and allow Phase I of CSAPR to take effect on January 1, 2015 and Phase II to take effect on January 1, 2017. The court granted the Federal EPA’s motion. The parties filed briefs and presented oral arguments. In July 2015, the U.S. Court of Appeals for the District of Columbia Circuit found that the Federal EPA over-controlled the SO<sub>2</sub> and/or NO<sub>x</sub> budgets of 14 states. The U.S. Court of Appeals for the District of Columbia Circuit remanded the rule to the Federal EPA to timely revise the rule consistent with the court’s opinion while CSAPR remains in place.

In December 2015, the Federal EPA issued a proposal to revise the ozone season NO<sub>x</sub> budgets in 23 states beginning in 2017 to address transport issues associated with the 2008 ozone standard and the budget errors identified in the U.S. Court of Appeals for the District of Columbia Circuit’s July 2015 decision. The proposal was open for public comment through February 1, 2016. A final rule has been signed that addressed some of the concerns raised in comments, but will significantly reduce ozone season budgets in many states and discounts the value of banked CSAPR ozone season allowances. Management believes that there are flaws in the underlying analysis of and justification for this rule. Management is evaluating compliance options for the 2017 ozone season, including any opportunity to further optimize NO<sub>x</sub> emissions and availability of allowances.

#### Mercury and Other Hazardous Air Pollutants (HAPs) Regulation

In 2012, the Federal EPA issued a rule addressing a broad range of HAPs from coal and oil-fired power plants. The rule establishes unit-specific emission rates for units burning coal on a 30-day rolling average basis for mercury, PM (as a surrogate for particles of nonmercury metals) and hydrogen chloride (as a surrogate for acid gases). In addition, the rule proposes work practice standards, such as boiler tune-ups, for controlling emissions of organic HAPs and dioxin/furans. The effective date of the final rule was April 16, 2012 and compliance was required within three years. Management obtained a one-year administrative extension at several units to facilitate the installation of controls or to avoid a serious reliability problem. In addition, the Federal EPA issued an enforcement policy describing the circumstances under which an administrative consent order might be issued to provide a fifth year for the installation of controls or completion of reliability upgrades.

In April 2014, the U.S. Court of Appeals for the District of Columbia Circuit denied all of the petitions for review of the April 2012 final rule. Industry trade groups and several states filed petitions for further review in the U.S. Supreme Court and the court granted those petitions in November 2014.

In June 2015, the U.S. Supreme Court reversed the decision of the U.S. Court of Appeals for the District of Columbia Circuit. The U.S. Court of Appeals for the District of Columbia Circuit remanded the Mercury and Air Toxics Standards (MATS) rule for further proceedings consistent with the U.S. Supreme Court’s decision that the Federal EPA was unreasonable in refusing to consider costs in its determination whether to regulate emissions of HAPs from

power plants. The Federal EPA issued notice of a supplemental finding concluding that it is appropriate and necessary to regulate HAP emissions from coal-fired and oil-fired units. Management submitted comments on the proposal. In April 2016, the Federal EPA affirmed its determination that regulation of HAPs from electric generating units is necessary and appropriate. Petitions for review of the Federal EPA's April 2016 determination have been filed in the U.S. Court of Appeals for the District of Columbia Circuit. The rule remains in effect.

## Climate Change, CO<sub>2</sub> Regulation and Energy Policy

The majority of the states where AEP has generating facilities passed legislation establishing renewable energy, alternative energy and/or energy efficiency requirements that can assist in reducing carbon emissions. Management is taking steps to comply with these requirements, including increasing wind power purchases and broadening the AEP System's portfolio of energy efficiency programs.

In October 2015, the Federal EPA published the final standards for new, modified and reconstructed fossil fired steam generating units and combustion turbines, and final guidelines for the development of state plans to regulate CO<sub>2</sub> emissions from existing sources. The final standard for new combustion turbines is 1,000 pounds of CO<sub>2</sub> per MWh and the final standard for new fossil steam units is 1,400 pounds of CO<sub>2</sub> per MWh. Reconstructed turbines are subject to the same standard as new units and no standard for modified combustion turbines was issued. Reconstructed fossil steam units are subject to a standard of 1,800 pounds of CO<sub>2</sub> per MWh for larger units and 2,000 pounds of CO<sub>2</sub> per MWh for smaller units. Modified fossil steam units will be subject to a site specific standard no lower than the standards that would be applied if the units were reconstructed.

The final emissions guidelines for existing sources, known as the Clean Power Plan (CPP), are based on a series of declining emission rates that are implemented beginning in 2022 through 2029. The final emission rate is 771 pounds of CO<sub>2</sub> per MWh for existing natural gas combined cycle units and 1,305 pounds of CO<sub>2</sub> per MWh for existing fossil steam units in 2030 and thereafter. The Federal EPA also developed a set of rate-based and mass-based state goals.

The Federal EPA also published proposed "model" rules that can be adopted by the states that would allow sources within "trading ready" state programs to trade, bank or sell allowances or credits issued by the states. These rules would also be the basis for any federal plan issued by the Federal EPA in a state that fails to submit or receive approval for a state plan. The Federal EPA intends to finalize either a rate-based or mass-based trading program that can be enforced in states that fail to submit approved plans by the deadlines established in the final guidelines. The Federal EPA established a 90-day public comment period on the proposed rules and management submitted comments. In June 2016, the Federal EPA issued a separate proposal for the Clean Energy Incentive Program (CEIP) that was included in the model rules. The Federal EPA will accept comments on the proposed rules through November 1, 2016. Through the CEIP, states could issue allowances or credits for eligible actions prior to the first compliance period under the CPP. Management is evaluating the potential impacts of the final CPP and the proposed CEIP, as well as the anticipated actions by states where assets are located. The final rules are being challenged in the courts. In February 2016, the U.S. Supreme Court issued a stay on the final Clean Power Plan, including all of the deadlines for submission of initial or final state plans. The stay will remain in effect until a final decision is issued by the U.S. Court of Appeals for the District of Columbia Circuit and the U.S. Supreme Court considers any petition for review.

Federal and state legislation or regulations that mandate limits on the emission of CO<sub>2</sub> could result in significant increases in capital expenditures and operating costs, which in turn, could lead to increased liquidity needs and higher financing costs. Excessive costs to comply with future legislation or regulations might force AEP to close some coal-fired facilities and could lead to possible impairment of assets.

## Coal Combustion Residual Rule

In April 2015, the Federal EPA published a final rule to regulate the disposal and beneficial re-use of coal combustion residuals (CCR), including fly ash and bottom ash generated at coal-fired electric generating units and also FGD gypsum generated at some coal-fired plants.

The final rule became effective in October 2015. The Federal EPA regulates CCR as a non-hazardous solid waste by its issuance of new minimum federal solid waste management standards. The rule applies to new and existing active

CCR landfills and CCR surface impoundments at operating electric utility or independent power production facilities. The rule imposes new and additional construction and operating obligations, including location restrictions, liner criteria, structural integrity requirements for impoundments, operating criteria and additional groundwater monitoring requirements. The rule does not apply to inactive CCR landfills, surface impoundments at retired generating stations

or the beneficial use of CCR. The rule is self-implementing so state action is not required. Because of this self-implementing feature, the rule contains extensive record keeping, notice and internet posting requirements. The CCR rule requirements contain a compliance schedule spanning an approximate four year implementation period. If CCR units do not meet these standards within the timeframes provided, they will be required to close. Extensions of time for closure are available provided there is no alternative disposal capacity or the owner can certify cessation of a boiler by a certain date. Challenges to the rule by industry associations of which AEP is a member are proceeding. In April 2016, the parties entered into a settlement agreement that would require the Federal EPA to reconsider certain aspects of the rule. In June 2016, the U.S. Court of Appeals for the District of Columbia issued an order granting the voluntary remand of certain provisions including the Federal EPA's issuance of a rule vacating the provision creating specific closure requirements for inactive surface impoundments that complete closure by April 17, 2018. In August 2016, the Federal EPA proposed a direct final rule to extend the deadlines for these facilities to comply with the CCR standards. The proposed rule received no adverse comments and became effective 60 days following publication. Management does not believe the direct final rule will have a significant impact on its planned pond closures. The Federal EPA will also use its best efforts to complete reconsideration of all of the affected provisions within three years.

Because AEP currently uses surface impoundments and landfills to manage CCR materials at generating facilities, significant costs will be incurred to upgrade or close and replace these existing facilities at some point in the future as the new rule is implemented. Management recorded a \$95 million increase in asset retirement obligations in the second quarter of 2015 primarily due to the publication of the final rule. Management will continue to evaluate the rule's impact on operations.

In February 2014, the Federal EPA completed a risk evaluation of the beneficial uses of coal fly ash in concrete and FGD gypsum in wallboard and concluded that the Federal EPA supports these beneficial uses. Currently, approximately 40% of the coal ash and other residual products from AEP's generating facilities are re-used in the production of cement and wallboard, as structural fill or soil amendments, as abrasives or road treatment materials and for other beneficial uses. Encapsulated beneficial uses are not materially impacted by the new rule but additional demonstrations may be required to continue land applications in significant amounts except in road construction projects.

#### Clean Water Act (CWA) Regulations

In 2014, the Federal EPA issued a final rule setting forth standards for 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. Entrainment is when small fish, eggs or larvae are drawn into the cooling water system and affected by heat, chemicals or physical stress. The final rule affects all plants withdrawing more than two million gallons of cooling water per day. The rule offers seven technology options to comply with the impingement standard and requires site-specific studies to determine appropriate entrainment compliance measures at facilities withdrawing more than 125 million gallons per day. Additional requirements may be imposed as a result of consultation with other federal agencies to protect threatened and endangered species and their habitats. Facilities with existing closed cycle recirculating cooling systems, as defined in the rule, are not expected to require any technology changes. Facilities subject to both the impingement standard and site-specific entrainment studies will typically be given at least three years to conduct and submit the results of those studies to the permit agency. Compliance timeframes will then be established by the permit agency through each facility's National Pollutant Discharge Elimination System (NPDES) permit for installation of any required technology changes, as those permits are renewed over the next five to eight years. Petitions for review of the final rule were filed by industry and environmental groups and are currently pending in the U.S. Court of Appeals for the Second Circuit. Briefs by the various parties are due during the fourth quarter of 2016.

In addition, the Federal EPA developed revised effluent limitation guidelines for electricity generating facilities. A final rule was issued in November 2015. The rule has been challenged in the U.S. Court of Appeals for the Fifth Circuit. Industry petitioners, including SWEPCo, have filed a joint motion for reconsideration of the single judge order denying the motion to complete the administrative record. In addition to other requirements, the final rule establishes limits on flue gas desulfurization wastewater, zero discharge for fly ash and bottom ash transport water and flue gas mercury control wastewater. The applicability of these requirements is as soon as possible after November 2018 and no later than December 2023. These new requirements will be implemented through each facility's wastewater discharge permit. Management continues to assess technology additions and retrofits.



In June 2015, the Federal EPA and the U.S. Army Corps of Engineers jointly issued a final rule to clarify the scope of the regulatory definition of “waters of the United States” in light of recent U.S. Supreme Court cases. The CWA provides for federal jurisdiction over “navigable waters” defined as “the waters of the United States.” This jurisdictional definition applies to all CWA programs, potentially impacting generation, transmission and distribution permitting and compliance requirements. Among those programs are: permits for wastewater and storm water discharges, permits for impacts to wetlands and water bodies and oil spill prevention planning. The final definition continues to recognize traditional navigable waters of the U.S. as jurisdictional as well as certain exclusions. The rule also contains a number of new specific definitions and criteria for determining whether certain other waters are jurisdictional because of a “significant nexus.” Management believes that clarity and efficiency in the permitting process is needed. Management remains concerned that the rule introduces new concepts and could subject more of AEP’s operations to CWA jurisdiction, thereby increasing the time and complexity of permitting. The final rule is being challenged in both courts of appeal and district courts. Challengers include industry associations of which AEP is a member. The U.S. Court of Appeals for the Sixth Circuit granted a nationwide stay of the rule pending jurisdictional determinations. In February 2016, the U.S. Court of Appeals for the Sixth Circuit issued a decision holding that it has exclusive jurisdiction to decide the challenges to the “waters of the United States” rule. Industry, state and related associations have filed petitions for a rehearing of the jurisdictional decision. In April 2016, the U.S. Court of Appeals for the Sixth Circuit denied the petitions and proceeded to issue a case management order for the merits of the case. In September 2016, the case management order was held in abeyance pending the court’s ruling on the outstanding motions to complete the administrative record. In October 2016, the U.S. Court of Appeals for the Sixth Circuit issued an order granting in part and denying in part the motions to complete the record. Following this order, a revised case management order was issued scheduling briefing to be completed by March 2017. No date for oral argument has been set.

## RESULTS OF OPERATIONS

### 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 and their related business activities are outlined below:

#### Vertically Integrated Utilities

• 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.

#### Transmission and Distribution Utilities

• Transmission and distribution of electricity for sale to retail and wholesale customers through assets owned and operated by OPCo, TCC and TNC.

• OPCo purchases energy and capacity to serve SSO customers and provides transmission and distribution services for all connected load.

#### AEP Transmission Holdco

Development, construction and operation of transmission facilities through investments in AEP's wholly-owned transmission-only subsidiaries and transmission-only joint ventures. These investments have PUCT-approved or FERC-approved returns on equity.

#### Generation & Marketing

• Competitive generation in ERCOT and PJM.

• Marketing, risk management and retail activities in ERCOT, PJM, SPP and MISO.

The remainder of AEP's activities is presented as Corporate and Other. While not considered a reportable segment, Corporate and Other primarily includes the purchasing of receivables from certain AEP utility subsidiaries, Parent's guarantee revenue received from affiliates, investment income, interest income and interest expense and other nonallocated costs. With the sale of AEPRO in November 2015, the activities related to the AEP River Operations segment have been moved to Corporate and Other for the periods presented. See "AEPRO (Corporate and Other Segment)" section of Note 6 for additional information.

The following discussion of AEP's results of operations by operating segment includes an analysis of gross margin, which is a non-GAAP financial measure. Gross margin includes Total Revenues less the costs of Fuel and Other Consumables Used for Electric Generation as well as Purchased Electricity for Resale, as presented in AEP's statements of operations. These expenses are generally collected from customers through cost recovery mechanisms. As such, management uses gross margin for internal reporting analysis as it excludes the fluctuations in revenue caused by changes in these expenses. Operating income, which is presented in accordance with GAAP in AEP's statements of operations, is the most directly comparable GAAP financial measure to the presentation of gross margin. AEP's definition of gross margin may not be directly comparable to similarly titled financial measures used by other

companies.

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The table below presents Earnings (Loss) Attributable to AEP Common Shareholders by segment for the three and nine months ended September 30, 2016 and 2015.

	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2016	
	2015	2016	2015	2016
	(in millions)			
Vertically Integrated Utilities	\$273.5	\$342.3	\$779.7	\$829.3
Transmission and Distribution Utilities	113.0	155.5	287.8	388.1
AEP Transmission Holdco	45.6	69.0	146.6	207.5
Generation & Marketing	91.6	(1,369.2)	360.3	(1,248.8)
Corporate and Other	(5.4)	36.6	3.1	61.4
Earnings (Loss) Attributable to AEP Common Shareholders	\$518.3	\$(765.8)	\$1,577.5	\$237.5

## AEP CONSOLIDATED

### Third Quarter of 2016 Compared to Third Quarter of 2015

Earnings (Loss) Attributable to AEP Common Shareholders decreased from income of \$518 million in 2015 to a loss of \$766 million in 2016 primarily due to:

- An impairment of certain merchant generation assets.
- A decrease in weather-normalized sales.

These decreases were partially offset by:

A decrease in system income taxes primarily due to reduced pretax book income as a result of the impairment of certain merchant generation assets as well as the reversal of valuation allowances related to the pending sale of certain merchant generation assets, as well as favorable 2015 income tax return adjustments related to AEP's commercial barging operations.

- An increase in weather-related usage.
- Favorable rate proceedings in AEP's various jurisdictions.
- An increase due to increased revenues from Ohio transmission and distribution riders.
- An increase in income at AEP Transmission Holdco as a result of increased transmission investment and related increases in recoverable operating expenses.

### Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2015

Earnings (Loss) Attributable to AEP Common Shareholders decreased from income of \$1.6 billion in 2015 to income of \$238 million in 2016 primarily due to:

- An impairment of certain merchant generation assets.
- A decrease in generation revenues due to lower capacity revenue and a decrease in wholesale energy prices.
- A decrease in weather-related usage.

These decreases were partially offset by:

- A decrease in system income taxes primarily due to reduced pretax book income as a result of the impairment of certain merchant generation assets as well as the reversal of valuation allowances related to the pending sale of certain

merchant generation assets and the settlement of a 2011 audit issue with the IRS, as well as favorable 2015 income tax return adjustments related to AEP's commercial bargaining operations.

• An increase due to increased revenues from Ohio transmission and distribution riders.

• An increase in income at AEP Transmission Holdco as a result of increased transmission investment as well as an increase due to annual formula rate true-up adjustments.

AEP's results of operations by operating segment are discussed below.

## VERTICALLY INTEGRATED UTILITIES

	Three Months Ended September 30,		Nine Months Ended September 30,	
Vertically Integrated Utilities	2016	2015	2016	2015
	(in millions)			
Revenues	\$2,556.3	\$2,471.5	\$6,927.8	\$7,159.1
Fuel and Purchased Electricity	858.3	931.0	2,299.8	2,694.8
Gross Margin	1,698.0	1,540.5	4,628.0	4,464.3
Other Operation and Maintenance	673.0	652.8	1,926.9	1,843.4
Asset Impairments and Other Related Charges	10.5	—	10.5	—
Depreciation and Amortization	277.7	264.0	815.5	802.4
Taxes Other Than Income Taxes	99.0	97.6	295.0	288.2
Operating Income	637.8	526.1	1,580.1	1,530.3
Interest and Investment Income	0.8	0.7	2.4	3.9
Carrying Costs Income	0.8	3.4	8.1	8.5
Allowance for Equity Funds Used During Construction	10.0	15.4	35.4	45.5
Interest Expense	(136.7)	(129.1)	(399.9)	(391.5)
Income Before Income Tax Expense and Equity Earnings	512.7	416.5	1,226.1	1,196.7
Income Tax Expense	172.0	142.4	398.4	416.1
Equity Earnings of Unconsolidated Subsidiaries	2.7	0.4	4.9	2.1
Net Income	343.4	274.5	832.6	782.7
Net Income Attributable to Noncontrolling Interests	1.1	1.0	3.3	3.0
Earnings Attributable to AEP Common Shareholders	\$342.3	\$273.5	\$829.3	\$779.7

## Summary of KWh Energy Sales for Vertically Integrated Utilities

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions of KWhs)			
Retail:				
Residential	9,575	9,019	25,373	26,070
Commercial	7,137	7,008	19,207	19,315
Industrial	8,655	8,882	25,576	26,178
Miscellaneous	634	616	1,740	1,739
Total Retail	26,001	25,525	71,896	73,302

Wholesale (a) 6,765 6,577 17,253 20,748

Total KWhs 32,766 32,102 89,149 94,050

(a) Includes off-system sales, municipalities and cooperatives, unit power and other wholesale customers.

Heating degree days and cooling degree days are metrics commonly used in the utility industry as a measure of the impact of weather on revenues. In general, degree day changes in the eastern region have a larger effect on revenues than changes in the western region due to the relative size of the two regions and the number of customers within each region.

Summary of Heating and Cooling Degree Days for Vertically Integrated Utilities

	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2015	
	2016	2015	2016	2015
(in degree days)				
Eastern Region				
Actual – Heating (a)	—	—	1,684	2,138
Normal – Heating (b)	5	5	1,775	1,748
Actual – Cooling (c)	954	702	1,306	1,104
Normal – Cooling (b)	726	728	1,058	1,057
Western Region				
Actual – Heating (a)	—	—	685	1,049
Normal – Heating (b)	1	1	927	912
Actual – Cooling (c)	1,519	1,472	2,262	2,190
Normal – Cooling (b)	1,400	1,398	2,116	2,114

(a) Heating degree days are calculated on a 55 degree temperature base.

(b) Normal Heating/Cooling represents the thirty-year average of degree days.

(c) Cooling degree days are calculated on a 65 degree temperature base.

Third Quarter of 2016 Compared to Third Quarter of 2015  
Reconciliation of Third Quarter of 2015 to Third Quarter of 2016  
Earnings Attributable to AEP Common Shareholders from  
Vertically Integrated Utilities  
(in millions)

Third Quarter of 2015	\$273.5
Changes in Gross Margin:	
Retail Margins	136.2
Off-system Sales	3.5
Transmission Revenues	13.4
Other Revenues	4.4
Total Change in Gross Margin	157.5
Changes in Expenses and Other:	
Other Operation and Maintenance	(20.2 )
Asset Impairments and Other Related Charges	(10.5 )
Depreciation and Amortization	(13.7 )
Taxes Other Than Income Taxes	(1.4 )
Interest and Investment Income	0.1
Carrying Costs Income	(2.6 )
Allowance for Equity Funds Used During Construction	(5.4 )
Interest Expense	(7.6 )
Total Change in Expenses and Other	(61.3 )
Income Tax Expense	(29.6 )
Equity Earnings	2.3
Net Income Attributable to Noncontrolling Interests	(0.1 )
Third Quarter of 2016	\$342.3

The major components of the increase in Gross Margin, defined as revenues less the related direct cost of fuel, including consumption of chemicals and emissions allowances, and purchased electricity were as follows:

Retail Margins increased \$136 million primarily due to the following:

• The effect of rate proceedings in AEP's service territories which included:

• A \$35 million increase due to increases in rates in West Virginia and Virginia.

• A \$24 million increase for PSO due to interim base rate increases.

• A \$17 million increase for I&M due to increases in riders in the Indiana service territory.

• A \$16 million increase for KPCo primarily due to increases in base rates and riders.

• A \$6 million increase for SWEPCo due to revenue increases from rate riders in Texas and Arkansas.

For the increases described above, \$55 million relate to riders/trackers which have corresponding increases in expense items below.

• A \$53 million increase in weather-related usage.

• A \$3 million increase for SWEPCo in municipal and cooperative revenues due to formula rate adjustments.

These increases were partially offset by:

• A \$27 million decrease primarily due to lower weather-normalized margins.



• Margins from Off-system Sales increased \$4 million primarily due to increased sales volumes.

• Transmission Revenues increased \$13 million primarily due to the following:

• A \$5 million accrual for SPP sponsor-funded transmission upgrades. This increase was offset by a corresponding increase in Other Operation and Maintenance expenses below.

- A \$5 million increase due to higher Network Integration Transmission Service revenues associated with increased transmission investments.

• A \$4 million increase in SPP Non-Affiliated Base Plan Funding associated with increased transmission investments. This increase was offset by a corresponding increase in Other Operation and Maintenance expenses below.  
 • Other Revenues increased \$4 million primarily due to increased revenues from Demand Side Management (DSM) programs in Kentucky.

Expenses and Other and Income Tax Expense changed between years as follows:

• Other Operation and Maintenance expenses increased \$20 million primarily due to the following:

• A \$51 million increase in recoverable expenses, primarily including PJM, Big Sandy Unit 1 operation rider, energy efficiency and vegetation management expenses fully recovered in rate recovery riders/trackers.

• A \$17 million increase associated with amortization of deferred transmission costs in accordance with the Virginia Transmission Rate Adjustment Clause effective January 2016. This increase in expense is offset within Retail Margins above.

• A \$12 million accrual for SPP sponsor-funded transmission upgrades. This increase was partially offset by a corresponding increase in Transmission Revenues above.

These increases were partially offset by:

• A \$33 million decrease in employee and AEPSC related expenses.

• An \$18 million decrease in plant outages and maintenance primarily in the eastern region.

• A \$6 million decrease in vegetation management expenses.

• Asset Impairments and Other Related Charges increased \$11 million due to the impairment of I&M's Price River Coal reserves.

• Depreciation and Amortization expenses increased \$14 million primarily due to:

• A \$12 million increase due to a higher depreciable base.

• A \$9 million increase in depreciation primarily related to interim rate increases in Oklahoma.

These increases were partially offset by:

• A \$3 million decrease in amortization related to the advanced metering infrastructure projects in Oklahoma.

• A \$3 million decrease in the amortization of capitalized software due to prior year retirements.

• Allowance for Equity Funds Used During Construction decreased \$5 million primarily due to the completion of environmental projects at SWEPCo.

• Interest Expense increased \$8 million primarily due to the following:

• A \$4 million increase due to higher long-term debt balances at I&M.

• A \$4 million increase due to a decrease in the debt component of AFUDC as a result of decreased environmental projects at SWEPCo.

• Income Tax Expense increased \$30 million primarily due to an increase in pretax book income.

Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2015  
Reconciliation of Nine Months Ended September 30, 2015 to  
Nine Months Ended September 30, 2016  
Earnings Attributable to AEP Common Shareholders from  
Vertically Integrated Utilities  
(in millions)

Nine Months Ended September 30, 2015	\$779.7
Changes in Gross Margin:	
Retail Margins	191.9
Off-system Sales	(19.7 )
Transmission Revenues	(14.3 )
Other Revenues	5.8
Total Change in Gross Margin	163.7
Changes in Expenses and Other:	
Other Operation and Maintenance	(83.5 )
Asset Impairments and Other Related Charges	(10.5 )
Depreciation and Amortization	(13.1 )
Taxes Other Than Income Taxes	(6.8 )
Interest and Investment Income	(1.5 )
Carrying Costs Income	(0.4 )
Allowance for Equity Funds Used During Construction	(10.1 )
Interest Expense	(8.4 )
Total Change in Expenses and Other	(134.3 )
Income Tax Expense	17.7
Equity Earnings	2.8
Net Income Attributable to Noncontrolling Interests	(0.3 )
Nine Months Ended September 30, 2016	\$829.3

The major components of the increase in Gross Margin, defined as revenues less the related direct cost of fuel, including consumption of chemicals and emissions allowances, and purchased electricity were as follows:

Retail Margins increased \$192 million primarily due to the following:

• The effect of rate proceedings in AEP's service territories which include:

• A \$120 million increase primarily due to increases in rates in West Virginia and Virginia, which includes recognition of deferred billing in West Virginia as approved by the WVPSC in June 2016. This increase is partially offset by a prior year adjustment affected by the amended Virginia law that has an impact on biennial reviews.

• A \$45 million increase for KPCo primarily due to increases in base rates and riders.

• A \$43 million increase for PSO due to interim base rate increases.

• A \$29 million increase for I&M due to increases in riders in the Indiana service territory.

• A \$16 million increase for SWEPCo due to revenue increases from rate riders in Arkansas and Texas.

For the increases described above, \$139 million relate to riders/trackers which have corresponding increases in expense items below.

These increases were partially offset by:

▲ \$29 million decrease in weather-related usage.

▲ \$14 million decrease in weather-normalized margins primarily in the eastern region.

▲ \$22 million decrease for SWEPCo in municipal and cooperative revenues due to a true-up of formula rates in 2015.

▲ \$12 million decrease for I&M in FERC municipal and cooperative revenues due to annual formula rate adjustments offset by increased formula rate changes.

• Margins from Off-system Sales decreased \$20 million primarily due to lower market prices and decreased sales volumes.

• Transmission Revenues decreased \$14 million primarily due to the following:

• A \$26 million decrease due to lower Network Integration Transmission Service revenues.

This decrease was partially offset by:

• A \$9 million increase in SPP Non-Affiliated Base Plan Funding associated with increased transmission investments.

This increase was offset by a corresponding increase in Other Operation and Maintenance expenses below.

• A \$5 million accrual for SPP sponsor-funded transmission upgrades. This increase was offset by a corresponding increase in Other Operation and Maintenance expenses below.

• Other Revenues increased \$6 million primarily due to increased revenues from DSM programs in Kentucky.

Expenses and Other and Income Tax Expense changed between years as follows:

• Other Operation and Maintenance expenses increased \$84 million primarily due to the following:

• A \$72 million increase in recoverable expenses, primarily including PJM, vegetation management, energy efficiency and storm expenses fully recovered in rate recovery riders/trackers.

• A \$41 million increase associated with amortization of deferred transmission costs in accordance with the Virginia

• Transmission Rate Adjustment Clause effective January 2016. This increase in expense is offset within Retail Margins above.

• A \$27 million increase in SPP and PJM transmission services expense.

• A \$12 million accrual for SPP sponsor-funded transmission upgrades. This increase was partially offset by a corresponding increase in Transmission Revenues above.

• A \$9 million increase in distribution expenses primarily due to increased asset inspections.

• A \$6 million increase due to the reduction of an environmental liability in 2015 at I&M.

• A \$6 million increase in storm expenses, primarily in the APCo region.

These increases were partially offset by:

• A \$60 million decrease in plant outages, primarily planned outages in the eastern region.

• A \$13 million decrease in vegetation management expenses.

• A \$6 million decrease due to a gain on the sale of property in the current year in the APCo region.

• Asset Impairments and Other Related Charges increased \$11 million due to the impairment of I&M's Price River Coal reserves.

• Depreciation and Amortization expenses increased \$13 million primarily due to:

• A \$25 million increase in depreciation primarily related to interim rate increases in Oklahoma.

• A \$12 million increase due to a higher depreciable base.

These increases were partially offset by the following:

• An \$11 million decrease in the amortization of capitalized software due to prior year retirements.

• A \$6 million decrease in amortization related to the advanced metering infrastructure projects in Oklahoma.

• A \$5 million revision in I&M's nuclear asset retirement obligation (ARO) estimate, which has a corresponding increase in Other Operation and Maintenance expenses above.

• A \$4 million decrease in the ARO expense due to steam plant retirements in 2015.

• Taxes Other Than Income Taxes increased \$7 million primarily due to an increase in property taxes as a result of increased property investment.

• Allowance for Equity Funds Used During Construction decreased \$10 million primarily due to the completion of environmental projects at SWEPCo.

• Interest Expense increased \$8 million primarily due to higher long-term debt balances in I&M.

Income Tax Expense decreased \$18 million primarily due to the recording of federal and state income tax adjustments and other book/tax differences which are accounted for on a flow-through basis, partially offset by an increase in pretax book income.



## TRANSMISSION AND DISTRIBUTION UTILITIES

	Three Months Ended September 30,		Nine Months Ended September 30,	
Transmission and Distribution Utilities	2016	2015	2016	2015
	(in millions)			
Revenues	\$1,275.6	\$1,188.6	\$3,468.5	\$3,519.4
Purchased Electricity	253.6	228.2	662.2	919.5
Amortization of Generation Deferrals	66.1	55.4	173.0	122.2
Gross Margin	955.9	905.0	2,633.3	2,477.7
Other Operation and Maintenance	357.9	347.9	1,008.2	955.5
Depreciation and Amortization	181.4	197.6	505.0	535.7
Taxes Other Than Income Taxes	132.0	122.3	373.0	362.2
Operating Income	284.6	237.2	747.1	624.3
Interest and Investment Income	1.0	1.4	4.3	4.7
Carrying Costs Income (Expense)	0.9	(1.6)	4.0	10.0
Allowance for Equity Funds Used During Construction	2.2	3.6	10.6	11.3
Interest Expense	(63.2)	(68.7)	(195.8)	(206.3)
Income Before Income Tax Expense	225.5	171.9	570.2	444.0
Income Tax Expense	70.0	58.9	182.1	156.2
Net Income	155.5	113.0	388.1	287.8
Net Income Attributable to Noncontrolling Interests	—	—	—	—
Earnings Attributable to AEP Common Shareholders	\$155.5	\$113.0	\$388.1	\$287.8

## Summary of KWh Energy Sales for Transmission and Distribution Utilities

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions of KWhs)			
Retail:				
Residential	8,325	7,590	20,575	20,486
Commercial	7,287	7,033	19,676	19,320
Industrial	5,518	5,665	16,522	16,754
Miscellaneous	187	194	528	532
Total Retail (a)	21,317	20,482	57,301	57,092
Wholesale (b)	654	497	1,389	1,460
Total KWhs	21,971	20,979	58,690	58,552

(a) Represents energy delivered to distribution customers.

(b) Primarily Ohio's contractually obligated purchases of OVEC power sold into PJM.

Heating degree days and cooling degree days are metrics commonly used in the utility industry as a measure of the impact of weather on revenues. In general, degree day changes in the eastern region have a larger effect on revenues than changes in the western region due to the relative size of the two regions and the number of customers within each region.

Summary of Heating and Cooling Degree Days for Transmission and Distribution Utilities

	Three Months Ended September 30, 2016		Nine Months Ended September 30, 2015	
	2016	2015	2016	2015
(in degree days)				
Eastern Region				
Actual – Heating (a)	—	—	1,929	2,575
Normal – Heating (b)	7	6	2,110	2,073
Actual – Cooling (c)	900	620	1,209	970
Normal – Cooling (b)	664	666	956	956
Western Region				
Actual – Heating (a)	—	—	123	320
Normal – Heating (b)	—	—	198	192
Actual – Cooling (d)	1,534	1,476	2,619	2,380
Normal – Cooling (b)	1,358	1,355	2,384	2,381

(a) Heating degree days are calculated on a 55 degree temperature base.

(b) Normal Heating/Cooling represents the thirty-year average of degree days.

(c) Eastern Region cooling degree days are calculated on a 65 degree temperature base.

(d) Western Region cooling degree days are calculated on a 70 degree temperature base.



Third Quarter of 2016 Compared to Third Quarter of 2015  
Reconciliation of Third Quarter of 2015 to Third Quarter of 2016  
Earnings Attributable to AEP Common Shareholders from  
Transmission and Distribution Utilities  
(in millions)

Third Quarter of 2015	\$113.0
Changes in Gross Margin:	
Retail Margins	54.3
Off-system Sales	8.6
Transmission Revenues	12.4
Other Revenues	(24.4 )
Total Change in Gross Margin	50.9
Changes in Expenses and Other:	
Other Operation and Maintenance	(10.0 )
Depreciation and Amortization	16.2
Taxes Other Than Income Taxes	(9.7 )
Interest and Investment Income	(0.4 )
Carrying Costs Income	2.5
Allowance for Equity Funds Used During Construction	(1.4 )
Interest Expense	5.5
Total Change in Expenses and Other	2.7
Income Tax Expense	(11.1 )
Third Quarter of 2016	\$155.5

The major components of the increase in Gross Margin, defined as revenues less the related direct cost of purchased electricity and amortization of generation deferrals were as follows:

Retail Margins increased \$54 million primarily due to the following:

• An \$18 million increase in collections of the Ohio PIRR as a result of the June 2016 PUCO order.

• A \$4 million increase in revenues associated with the Ohio Distribution Investment Rider (DIR).

• A \$10 million increase in Ohio transmission and PJM revenues, partially offset by a corresponding decrease in other expense items below.

• A \$9 million increase in the Universal Service Fund (USF) rider in Ohio. This increase in Retail Margins is primarily offset by an increase in Other Operation and Maintenance expenses below.

• A \$4 million increase in TCC and TNC revenues primarily due to the recovery of ERCOT transmission expenses, offset in Other Operation and Maintenance expenses below.

• A \$4 million increase in TCC and TNC revenues primarily due to the recovery of distribution expenses.

• A \$3 million increase in Texas weather-normalized margins in the residential class.

• Margins from Off-system Sales increased \$9 million primarily due to prior year losses from a power contract with OVEC.

• Transmission Revenues increased \$12 million primarily due to the following:

• A \$9 million increase primarily due to increased transmission investment in ERCOT.

• A \$4 million increase in Ohio primarily due to increased investment in the transmission system.

• Other Revenues decreased \$24 million primarily due to the following:

A \$29 million decrease due to a decrease in Texas securitization revenue due to the final maturity of the first Texas securitization bond, offset in Depreciation and Amortization and other expense items below.

Expenses and Other and Income Tax Expense changed between years as follows:

Other Operation and Maintenance expenses increased \$10 million primarily due to the following:

- A \$22 million increase in recoverable expenses, primarily including gridSMART®, ERCOT and PJM expenses, currently fully recovered in rate recovery riders/trackers.

- A \$9 million increase in remitted USF surcharge payments to the Ohio Department of Development to fund an energy assistance program for qualified Ohio customers. This increase was offset by a corresponding increase in Retail Margins above.

These increases were partially offset by:

- A \$14 million decrease in employee and AEPSC related expenses.

- A \$4 million decrease in vegetation management expenses.

Depreciation and Amortization expenses decreased \$16 million primarily due to the following:

- A \$25 million decrease in TCC's securitization transition asset due to the final maturity of TCC's first securitization bond, which is offset in Other Revenues above.

- A \$5 million decrease in recoverable gridSMART® depreciation expenses in Ohio.

These decreases were partially offset by:

- A \$6 million increase in Ohio DIR recoveries.

- A \$6 million increase in depreciation expense primarily due to an increase in depreciable base of transmission and distribution assets.

Taxes Other Than Income Taxes increased \$10 million primarily due to the following:

- A \$5 million increase in property taxes due to additional investments in transmission and distribution assets and higher tax rates.

- A \$4 million increase in state excise taxes in Ohio due to an increase in metered KWh.

Interest Expense decreased \$6 million due to maturities of debt in Ohio and Texas.

Income Tax Expense increased \$11 million primarily due to an increase in pretax book income partially offset by the recording of federal income tax adjustments and other book/tax differences which are accounted for on a flow-through basis.

Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2015  
 Reconciliation of Nine Months Ended September 30, 2015 to  
 Nine Months Ended September 30, 2016  
 Earnings Attributable to AEP Common Shareholders from  
 Transmission and Distribution Utilities  
 (in millions)

Nine Months Ended September 30, 2015	\$287.8
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Changes in Gross Margin:

Retail Margins	235.6
Off-system Sales	(9.1 )
Transmission Revenues	(10.8 )
Other Revenues	(60.1 )
Total Change in Gross Margin	155.6

Changes in Expenses and Other:

Other Operation and Maintenance	(52.7 )
Depreciation and Amortization	30.7
Taxes Other Than Income Taxes	(10.8 )
Interest and Investment Income	(0.4 )
Carrying Costs Income	(6.0 )
Allowance for Equity Funds Used During Construction	(0.7 )
Interest Expense	10.5
Total Change in Expenses and Other	(29.4 )

Income Tax Expense	(25.9 )
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Nine Months Ended September 30, 2016	\$388.1
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The major components of the increase in Gross Margin, defined as revenues less the related direct cost of purchased electricity and amortization of generation deferrals were as follows:

Retail Margins increased \$236 million primarily due to the following:

A \$128 million increase in Ohio transmission and PJM revenues primarily due to the energy supplied as a result of the Ohio auction and a regulatory change which resulted in revenues collected through a non-bypassable transmission rider, partially offset by a corresponding decrease in Transmission Revenues below.

A \$31 million increase in Ohio riders such as Universal Service Fund (USF) and gridSMART®. This increase in Retail Margins is primarily offset by an increase in Other Operation and Maintenance expenses below.

A \$21 million increase due to a reversal of a regulatory provision resulting from a favorable court decision in Ohio.

An \$18 million increase in collections of the Ohio PIRR as a result of the June 2016 PUCO order.

A \$16 million increase in revenues associated with the Ohio DIR.

An \$18 million increase in Texas weather-normalized margins primarily in the residential class.

A \$13 million increase in TCC and TNC revenues primarily due to the recovery of ERCOT transmission expenses, offset in Other Operation and Maintenance expenses below.

A \$10 million increase in carrying charges due to the collection of carrying costs on Ohio deferred capacity charges beginning June 2015.

A \$4 million increase in TCC and TNC revenues primarily due to the recovery of distribution expenses.

These increases were partially offset by:

A \$16 million decrease in revenues associated with the recovery of 2012 storm costs under the Ohio Storm Damage Recovery Rider which ended in April 2015. This decrease in Retail Margins is primarily offset by a decrease in Other Operation and Maintenance expenses below.

▲ \$6 million decrease in weather-related usage in Texas.

Margins from Off-system Sales decreased \$9 million primarily due to increased losses from a power contract with OVEC.

Transmission Revenues decreased \$11 million primarily due to the following:

A \$55 million decrease in NITS revenue primarily due to OPCo assuming the responsibility for items determined to be cost-based transmission-related charges that were the responsibility of the CRES providers prior to June 2015, partially offset by a corresponding increase in Retail Margins above.

This decrease was partially offset by:

A \$27 million increase primarily due to increased transmission investment in ERCOT.

A \$19 million increase in Ohio due to a settlement recorded in 2015, a decrease in amortization of the formula rate true-up and the recording of the current year formula rate true-up in 2016.

Other Revenues decreased \$60 million primarily due to a decrease in Texas securitization revenue as a result of the final maturity of the first Texas securitization bond, offset in Depreciation and Amortization and other expense items below.

Expenses and Other and Income Tax Expense changed between years as follows:

Other Operation and Maintenance expenses increased \$53 million primarily due to the following:

- An \$88 million increase in recoverable expenses, primarily including PJM expenses and gridSMART® expenses, currently fully recovered in rate recovery riders/trackers.

- A \$15 million increase in remitted USF surcharge payments to the Ohio Department of Development to fund an energy assistance program for qualified Ohio customers. This increase was offset by a corresponding increase in Retail Margins above.

These increases were partially offset by:

- A \$14 million decrease due to the completion of the Ohio amortization of 2012 deferred storm expenses. This decrease was offset by a corresponding decrease in Retail Margins above.

- A \$13 million decrease in distribution expenses primarily related to prior year asset inspections.

- A \$9 million decrease in vegetation management expenses.

- A \$6 million decrease due to a PUCO ordered contribution to the Ohio Growth Fund recorded in 2015.

Depreciation and Amortization expenses decreased \$31 million primarily due to the following:

- A \$49 million decrease in TCC's securitization transition asset due to the final maturity of TCC's first securitization bond, which is offset in Other Revenues above.

- An \$11 million decrease in recoverable gridSMART® depreciation expenses in Ohio.

These decreases were partially offset by:

- A \$17 million increase in depreciation expense primarily due to an increase in depreciable base of transmission and distribution assets.

- An \$8 million increase due to recoveries of Ohio transmission cost rider carrying costs. This increase was offset by a corresponding increase in Retail Margins above.

- A \$6 million increase in amortization expenses for the collection of carrying costs on Ohio deferred capacity charges beginning June 2015. This increase was offset by a corresponding increase in Retail Margins above.

- Taxes Other Than Income Taxes increased \$11 million primarily due to increased property taxes resulting from additional investments in transmission and distribution assets and higher tax rates.

Carrying Costs Income decreased \$6 million primarily due to the following:

- A \$10 million decrease due to the collection of carrying costs on Ohio deferred capacity charges beginning June 2015.

This decrease was partially offset by:

- A \$4 million increase primarily due to an unfavorable prior period adjustment related to gridSMART® capital carrying charges in Ohio.

Interest Expense decreased \$11 million primarily due to:

- An \$11 million decrease in TCC's securitization transition assets due to the final maturity of the first Texas securitization bond. This decrease was offset by a corresponding decrease in Other Revenues above.

- A \$7 million decrease due to the maturity of an OPCo senior unsecured note in June 2016.

- A \$3 million decrease in recoverable gridSMART® interest expenses in Ohio.

These decreases were partially offset by the following:

- An \$11 million increase due to issuances of senior unsecured notes by TCC and TNC.

Income Tax Expense increased \$26 million primarily due to an increase in pretax book income partially offset by the recording of state and federal income tax adjustments and other book/tax differences which are accounted for on a flow-through basis.

## AEP TRANSMISSION HOLDCO

	Three Months Ended September 30,		Nine Months Ended September 30,	
AEP Transmission Holdco	2016	2015	2016	2015
	(in millions)			
Transmission Revenues	\$132.4	\$87.5	\$382.7	\$244.9
Other Operation and Maintenance	12.2	11.0	32.7	26.8
Depreciation and Amortization	17.1	11.7	48.4	30.3
Taxes Other Than Income Taxes	22.7	16.4	65.7	49.2
Operating Income	80.4	48.4	235.9	138.6
Carrying Costs Expense	—	—	(0.2)	(0.1)
Allowance for Equity Funds Used During Construction	13.5	13.6	39.8	39.6
Interest Expense	(12.2)	(9.9)	(35.4)	(27.0)
Income Before Income Tax Expense and Equity Earnings	81.7	52.1	240.1	151.1
Income Tax Expense	35.2	23.4	103.2	66.2
Equity Earnings of Unconsolidated Subsidiaries	23.0	17.2	72.6	62.8
Net Income	69.5	45.9	209.5	147.7
Net Income Attributable to Noncontrolling Interests	0.5	0.3	2.0	1.1
Earnings Attributable to AEP Common Shareholders	\$69.0	\$45.6	\$207.5	\$146.6

## Summary of Net Plant in Service and CWIP for AEP Transmission Holdco

	September 30,	
	2016	2015
	(in millions)	
Net Plant in Service	\$3,242.4	\$2,252.6
CWIP	1,565.8	1,298.5



Third Quarter of 2016 Compared to Third Quarter of 2015

Reconciliation of Third Quarter of 2015 to Third Quarter of 2016

Earnings Attributable to AEP Common Shareholders from AEP Transmission Holdco  
(in millions)

Third Quarter of 2015	\$45.6
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Changes in Transmission Revenues:

Transmission Revenues	44.9
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Total Change in Transmission Revenues	44.9
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Changes in Expenses and Other:

Other Operation and Maintenance	(1.2 )
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Depreciation and Amortization	(5.4 )
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Taxes Other Than Income Taxes	(6.3 )
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Allowance for Equity Funds Used During Construction	(0.1 )
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Interest Expense	(2.3 )
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Total Change in Expenses and Other	(15.3 )
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Income Tax Expense	(11.8 )
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Equity Earnings	5.8
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Net Income Attributable to Noncontrolling Interests	(0.2 )
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Third Quarter of 2016	\$69.0
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The major components of the increase in transmission revenues, which consists of wholesale sales to affiliates and non-affiliates, were as follows:

Transmission Revenues increased \$45 million due to formula rate increases driven by continued investment in transmission assets and the related increases in recoverable operating expenses.

Expenses and Other, Income Tax Expense and Equity Earnings changed between years as follows:

Depreciation and Amortization expenses increased \$5 million primarily due to higher depreciable base.

Taxes Other Than Income Taxes increased \$6 million primarily due to increased property taxes as a result of additional transmission investment.

Income Tax Expense increased \$12 million primarily due to an increase in pretax book income.

Equity Earnings increased \$6 million primarily due to increased transmission investment by ETT.

Nine Months Ended September 30, 2016 Compared to Nine Months Ended September 30, 2015

Reconciliation of Nine Months Ended September 30, 2015 to Nine Months Ended September 30, 2016  
Earnings Attributable to AEP Common Shareholders from AEP Transmission Holdco  
(in millions)

Nine Months Ended September 30, 2015	\$ 146.6
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Changes in Transmission Revenues:

Transmission Revenues	137.8
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Total Change in Transmission Revenues	137.8
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Changes in Expenses and Other:

Other Operation and Maintenance	(5.9 )
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Depreciation and Amortization	(18.1 )
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Taxes Other Than Income Taxes	(16.5 )
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Carrying Costs Expense	(0.1 )
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Allowance for Equity Funds Used During Construction	0.2
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Interest Expense	(8.4 )
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Total Change in Expenses and Other	(48.8 )
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Income Tax Expense	(37.0 )
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Equity Earnings	9.8
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Net Income Attributable to Noncontrolling Interests	(0.9 )
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Nine Months Ended September 30, 2016	\$ 207.5
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The major components of the increase in transmission revenues, which consists of wholesale sales to affiliates and non-affiliates, were as follows:

Transmission Revenues increased \$138 million primarily due to the following:

• A \$110 million increase due to formula rate increases driven by continued investment in transmission assets and the related increases in recoverable operating expenses.

• A \$28 million increase due to AEPTCo annual formula rate true-up adjustments.

Expenses and Other, Income Tax Expense and Equity Earnings changed between years as follows:

• Other Operation and Maintenance expenses increased \$6 million primarily due to increased transmission investment.

• Depreciation and Amortization expenses increased \$18 million primarily due to higher depreciable base.

• Taxes Other Than Income Taxes increased \$17 million primarily due to increased property taxes as a result of additional transmission investment.

• Interest Expense increased \$8 million primarily due to higher outstanding long-term debt balances.

• Income Tax Expense increased \$37 million primarily due to an increase in pretax book income.

• Equity Earnings increased \$10 million primarily due to increased transmission investment by ETT.

## GENERATION &amp; MARKETING

	Three Months Ended September 30,		Nine Months Ended September 30,	
Generation & Marketing	2016	2015	2016	2015
	(in millions)			
Revenues	\$859.4	\$836.0	\$2,291.2	\$2,806.7
Fuel, Purchased Electricity and Other	567.4	564.4	1,490.6	1,771.3
Gross Margin	292.0	271.6	800.6	1,035.4
Other Operation and Maintenance	95.8	60.2	290.2	276.6
Asset Impairments and Other Related Charges	2,254.4	—	2,254.4	—
Depreciation and Amortization	50.5	50.9	149.8	151.8
Taxes Other Than Income Taxes	8.7	10.5	29.0	30.4
Operating Income (Loss)	(2,117.4)	150.0	(1,922.8 )	576.6
Other Income	0.3	0.6	1.2	2.2